106TH CONGRESS
1st Session
HOUSE OF REPRESENTATIVES
REPT. 106–106
PART 1

WATER RESOURCES DEVELOPMENT ACT OF 1999

APRIL 26, 1999.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. SHUSTER, from the Committee on Transportation and Infrastructure, submitted the following

R E P O R T

together with

MINORITY VIEWS

[To accompany H.R. 1480]

[Including cost estimate of the Congressional Budget Office]

The Committee on Transportation and Infrastructure, to whom was referred the bill (H.R. 1480) to provide for the conservation and development of water and related resources, to authorize the United States Army Corps of Engineers to construct various projects for improvements to rivers and harbors of the United States, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment is as follows:

Strike out all after the enacting clause and insert in lieu thereof the following:

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the "Water Resources Development Act of 1999".

(b) TABLE OF CONTENTS.—

TITLE II—GENERAL PROVISIONS

TITLE III—PROJECT-RELATED PROVISIONS

SEC. 2. SECRETARY DEFINED.

In this Act, the term "Secretary" means the Secretary of the Army.

TITLE I—WATER RESOURCES PROJECTS

SEC. 101. PROJECT AUTHORIZATIONS.

(a) PROJECTS WITH CHIEF'S REPORTS.—The following projects for water resources development and conservation and other purposes are authorized to be carried out by the Secretary substantially in accordance with the plans, and subject to the conditions, described in the respective reports designated in this subsection:

(1) SAND POINT HARBOR, ALASKA.—The project for navigation, Sand Point Harbor, Alaska: Report of the Chief of Engineers dated October 13, 1998, at a total cost of $11,760,000, with an estimated Federal cost of $6,964,000 and an estimated non-Federal cost of $4,796,000.

(2) RIO SALADO, SALT RIVER, PHOENIX AND TEMPE, ARIZONA.—The project for flood control and environmental restoration, Rio Salado, Salt River, Phoenix and Tempe, Arizona: Report of the Chief of Engineers dated August 20, 1998, at a total cost of $88,048,000, with an estimated Federal cost of $56,355,000 and an estimated non-Federal cost of $31,693,000.

(3) TUCSON DRAINAGE AREA, ARIZONA.—The project for flood control, Tucson drainage area, Arizona: Report of the Chief of Engineers, dated May 20, 1998, at a total cost of $29,900,000, with an estimated Federal cost of $16,768,000 and an estimated non-Federal cost of $13,132,000.

(4) AMERICAN RIVER WATERSHED, CALIFORNIA.—

(A) IN GENERAL.—The Folsom Dam Modification portion of the Folsom Modification Plan described in the United States Army Corps of Engineers Supplemental Information Report for the American River Watershed Project, California, dated March 1996, as modified by the report entitled "Folsom Dam Modification Report, New Outlets Plan," dated March 1998, prepared by the Sacramento Area Flood Control Agency, at an estimated cost of $150,000,000, with an estimated Federal cost of $97,500,000 and an estimated non-Federal cost of $52,500,000. The Secretary shall coordinate with the Secretary of the Interior with respect to the design and construction of modifications at Folsom Dam authorized by this paragraph.

(B) REOPERATION MEASURES.—Upon completion of the improvements to Folsom Dam authorized by subparagraph (A), the variable space allocated to flood control within the Reservoir shall be reduced from the current operating range of 400,000-670,000 acre-feet to 400,000-600,000 acre-feet.

(C) COST OF FOLSOM RESERVOIR REOPERATION MEASURES.—Section 101(a)(1)(D)(ii) of the Water Resources Development Act of 1996 (110 Stat.

3662–3663) is amended by striking "during" and all that follows through "thereafter".

(D) MAKEUP OF WATER SHORTAGES CAUSED BY FLOOD CONTROL OPERATION.—

(i) IN GENERAL.—The Secretary of the Interior shall enter into, or modify, such agreements with the Sacramento Area Flood Control Agency regarding the operation of Folsom Dam and Reservoir as may be necessary in order that, notwithstanding any prior agreement or provision of law, 100 percent of the water needed to make up for any water shortage caused by variable flood control operation during any year at Folsom Dam and resulting in a significant impact on recreation at Folsom Reservoir shall be replaced, to the extent the water is available for purchase, by the Secretary of the Interior.

(ii) COST SHARING.—Seventy-five percent of the costs of the replacement water provided under clause (i) shall be paid for on a non-reimbursable basis by the Secretary of the Interior at Federal expense. The remaining 25 percent of such costs shall be provided by the Sacramento Area Flood Control Agency.

(iii) LIMITATION.—To the extent that any funds in excess of the non-Federal share are provided by the Sacramento Area Flood Control Agency, the Secretary shall reimburse such non-Federal interests for such excess funds. Costs for replacement water may not exceed 125 percent of the current average market price for raw water, as determined by the Secretary of the Interior.

(E) SIGNIFICANT IMPACT ON RECREATION.—For the purposes of this paragraph, a significant impact on recreation is defined as any impact that results in a lake elevation at Folsom Reservoir below 435 feet above sea level starting on May 15 and ending on September 15 of any given year.

(F) EVALUATION.—For purposes of this paragraph, in evaluating the impacts on recreation at Folsom Reservoir caused by the variable flood control operation of Folsom Dam, the Secretary shall take into consideration the effect of measures authorized by section 581(b) of this Act.

(5) SOUTH SACRAMENTO COUNTY STREAMS, CALIFORNIA.—The project for flood control, environmental restoration and recreation, South Sacramento County streams, California: Report of the Chief of Engineers dated October 6, 1998, at a total cost of $65,500,000, with an estimated Federal cost of $41,200,000 and an estimated non-Federal cost of $24,300,000.

(6) UPPER GUADALUPE RIVER, CALIFORNIA.—The project for flood control and recreation, Upper Guadalupe River, California: Locally Preferred Plan (known as the "Bypass Channel Plan"), Report of the Chief of Engineers dated August 19, 1998, at a total cost of $140,285,000, with an estimated Federal cost of $44,000,000 and an estimated non-Federal cost of $96,285,000.

(7) YUBA RIVER BASIN, CALIFORNIA.—The project for flood control, Yuba River Basin, California: Report of the Chief of Engineers dated November 25, 1998, at a total cost of $26,600,000, with an estimated Federal cost of $17,350,000 and an estimated non-Federal cost of $9,250,000.

(8) DELAWARE BAY COASTLINE, DELAWARE AND NEW JERSEY-BROADKILL BEACH, DELAWARE.—The project for hurricane and storm damage reduction, Delaware Bay coastline, Delaware and New Jersey-Broadkill Beach, Delaware: Report of the Chief of Engineers dated August 17, 1998, at a total cost of $9,049,000, with an estimated Federal cost of $5,674,000 and an estimated non-Federal cost of $3,375,000, and at an estimated average annual cost of $538,200 for periodic nourishment over the 50-year life of the project, with an estimated annual Federal cost of $349,800 and an estimated annual non-Federal cost of $188,400.

(9) DELAWARE BAY COASTLINE, DELAWARE AND NEW JERSEY-PORT MAHON, DELAWARE.—The project for ecosystem restoration, Delaware Bay coastline, Delaware and New Jersey-Port Mahon, Delaware: Report of the Chief of Engineers dated September 28, 1998, at a total cost of $7,644,000, with an estimated Federal cost of $4,969,000 and an estimated non-Federal cost of $2,675,000, and at an estimated average annual cost of $234,000 for periodic nourishment over the 50-year life of the project, with an estimated annual Federal cost of $152,000 and an estimated annual non-Federal cost of $82,000.

(10) DELAWARE BAY COASTLINE, DELAWARE AND NEW JERSEY-ROOSEVELT INLET-LEWES BEACH, DELAWARE.—The project for navigation mitigation and hurricane and storm damage reduction, Delaware Bay coastline, Delaware and New Jersey-Roosevelt Inlet-Lewes Beach, Delaware: Report of the Chief of Engineers dated February 3, 1999, at a total cost of $3,393,000, with an estimated Federal cost of $2,620,000 and an estimated non-Federal cost of $773,000, and at an es-

timated average annual cost of $196,000 for periodic nourishment over the 50-year life of the project, with an estimated annual Federal cost of $152,000 and an estimated annual non-Federal cost of $44,000.

(11) JACKSONVILLE HARBOR, FLORIDA.—

(A) IN GENERAL.—The project for navigation, Jacksonville Harbor, Florida: Report of the Chief of Engineers April 21, 1999, at a total cost of $26,116,000, with an estimated Federal cost of $9,129,000 and an estimated non-Federal cost of $16,987,000.

(B) SPECIAL RULE.—Notwithstanding subparagraph (A), the Secretary may construct the project to a depth of 40 feet if the non-Federal interest agrees to pay any additional costs above those for the recommended plan.

(12) TAMPA HARBOR-BIG BEND CHANNEL, FLORIDA.—The project for navigation, Tampa Harbor-Big Bend Channel, Florida: Report of the Chief of Engineers dated October 13, 1998, at a total cost of $9,356,000, with an estimated Federal cost of $6,235,000 and an estimated non-Federal cost of $3,121,000.

(13) BRUNSWICK HARBOR, GEORGIA.—The project for navigation, Brunswick Harbor, Georgia: Report of the Chief of Engineers dated October 6, 1998, at a total cost of $50,717,000, with an estimate Federal cost of $32,966,000 and an estimated non-Federal cost of $17,751,000.

(14) BEARGRASS CREEK, KENTUCKY.—The project for flood control, Beargrass Creek, Kentucky: Report of the Chief of Engineers, dated May 12, 1998, at a total cost of $11,171,300, with an estimated Federal cost of $7,261,500 and an estimated non-Federal cost of $3,909,800.

(15) AMITE RIVER AND TRIBUTARIES, LOUISIANA.—The project for flood control, Amite River and tributaries, Louisiana: Report of the Chief of Engineers dated December 23, 1996, at a total cost of $112,900,000, with an estimated Federal cost of $84,675,000 and an estimated non-Federal cost of $28,225,000. Cost sharing for the project shall be determined in accordance with section 103(a) of the Water Resources Development Act of 1986 (33 U.S.C. 2213), as in effect on October 11, 1996.

(16) BALTIMORE HARBOR ANCHORAGES AND CHANNELS, MARYLAND AND VIRGINIA.—The project for navigation, Baltimore harbor anchorages and channels, Maryland and Virginia: Report of the Chief of Engineers, dated June 8, 1998, at a total cost of $28,430,000, with an estimated Federal cost of $19,000,000 and an estimated non-Federal cost of $9,430,000.

(17) RED RIVER LAKE AT CROOKSTON, MINNESOTA.—The project for flood control, Red River Lake at Crookston, Minnesota: Report of the Chief of Engineers, dated April 20, 1998, at a total cost of $8,950,000, with an estimated Federal cost of $5,720,000 and an estimated non-Federal cost of $3,230,000.

(18) LOWER CAPE MAY MEADOWS, CAPE MAY POINT, NEW JERSEY.—The project for navigation mitigation, ecosystem restoration, and hurricane and storm damage reduction, Lower Cape May Meadows, Cape May Point, New Jersey: Report of the Chief of Engineers dated April 5, 1999, at a total cost of $15,952,000, with an estimated Federal cost of $12,118,000 and an estimated non-Federal cost of $3,834,000, and at an estimated average annual cost of $1,114,000 for periodic nourishment over the 50-year life of the project, with an estimated annual Federal cost of $897,000 and an estimated annual non-Federal cost of $217,000.

(19) NEW JERSEY SHORE PROTECTION: TOWNSENDS INLET TO CAPE MAY INLET, NEW JERSEY.—The project for hurricane and storm damage reduction and ecosystem restoration, New Jersey Shore Protection: Townsends Inlet to Cape May Inlet, New Jersey: Report of the Chief of Engineers dated September 28, 1998, at a total cost of $56,503,000, with an estimated Federal cost of $36,727,000 and an estimated non-Federal cost of $19,776,000, and at an estimated average annual cost of $2,000,000 for periodic nourishment over the 50-year life of the project, with an estimated annual Federal cost of $1,300,000 and an estimated annual non-Federal cost of $700,000.

(20) GUANAJIBO RIVER, PUERTO RICO.—The project for flood control, Guanajibo River, Puerto Rico: Report of the Chief of Engineers, dated February 27, 1996, at a total cost of $27,031,000, with an estimated Federal cost of $20,273,250 and an estimated non-Federal cost of $6,757,750. Cost sharing for the project shall be determined in accordance with section 103(a) of the Water Resources Development Act 1986 (33 U.S.C. 2213) as in effect on October 11, 1986.

(21) RIO GRANDE DE MANATI, BARCELONETA, PUERTO RICO.—The project for flood control, Rio Grande De Manati, Barceloneta, Puerto Rico: Report of the Chief of Engineers, dated January 22, 1999, at a total cost of $13,491,000, with an estimated Federal cost of $8,785,000 and an estimated non-Federal cost of $4,706,000.

(22) RIO NIGUA AT SALINAS, PUERTO RICO.—The project for flood control, Rio Nigua at Salinas, Puerto Rico: Report of the Chief of Engineers, dated April 15, 1997, at a total cost of $13,702,000, with an estimated Federal cost of $7,645,000 and an estimated non-Federal cost of $6,057,000.

(23) SALT CREEK, GRAHAM, TEXAS.—The project for flood control, environmental restoration and recreation, Salt Creek, Graham, Texas: Report of the Chief of Engineers dated October 6, 1998, at a total cost of $10,080,000, with an estimated Federal cost of $6,560,000 and an estimated non-Federal cost of $3,520,000.

(b) PROJECTS SUBJECT TO REPORT.—The following projects for water resources development and conservation and other purposes are authorized to be carried out by the Secretary substantially in accordance with the plans, and subject to the conditions, recommended in a final report of the Corps of Engineers, if the report is completed not later than September 30, 1999.

(1) NOME, ALASKA.—The project for navigation, Nome, Alaska, at a total cost of $24,608,000, with an estimated Federal cost of $19,660,000 and an estimated non-Federal cost of $4,948,000.

(2) SEWARD HARBOR, ALASKA.—The project for navigation, Seward Harbor, Alaska, at a total cost of $12,240,000, with an estimated Federal cost of $4,364,000 and an estimated non-Federal cost of $7,876,000.

(3) HAMILTON AIRFIELD, CALIFORNIA.—The project for wetlands restoration, Hamilton Airfield, California, at a total cost of $55,200,000, with an estimated Federal cost of $41,400,000 and an estimated non-Federal cost of $13,800,000.

(4) OAKLAND HARBOR, CALIFORNIA.—The project for navigation, Oakland Harbor, California, at a total cost of $256,650,000, with an estimated Federal cost of $143,450,000 and an estimated non-Federal cost of $113,200,000.

(5) DELAWARE BAY COASTLINE, DELAWARE AND NEW JERSEY: REEDS BEACH AND PIERCES POINT, NEW JERSEY.—The project for shore protection and ecosystem restoration, Delaware Bay Coastline, Delaware and New Jersey: Reeds Beach and Pierces Point, New Jersey, at a total cost of $4,057,000, with an estimated Federal cost of $2,637,000 and an estimated non-Federal cost of $1,420,000.

(6) DELAWARE BAY COASTLINE, DELAWARE AND NEW JERSEY: VILLAS AND VICINITY, NEW JERSEY.—The project for shore protection and ecosystem restoration, Delaware Bay Coastline, Delaware and New Jersey: Villas and Vicinity, New Jersey, at a total cost of $7,520,000, with an estimated Federal cost of $4,888,000 and an estimated non-Federal cost of $2,632,000.

(7) DELAWARE COAST FROM CAPE HENELOPEN TO FENWICK ISLAND, BETHANY BEACH/SOUTH BETHANY BEACH, DELAWARE.—The project for hurricane and storm damage reduction, Delaware Coast from Cape Henelopen to Fenwick Island, Bethany Beach/South Bethany Beach, Delaware, at a total cost of $22,205,000, with an estimated Federal cost of $14,433,000 and an estimated non-Federal cost of $7,772,000, and at an estimated average annual cost of $1,584,000 for periodic nourishment over the 50-year life of the project, with an estimated annual Federal cost of $1,030,000 and an estimated annual non-Federal cost of $554,000.

(8) LITTLE TALBOT ISLAND, DUVAL COUNTY, FLORIDA.—The project for hurricane and storm damage prevention, Little Talbot Island, Duval County, Florida, at a total cost of $5,915,000, with an estimated Federal cost of $3,839,000 and an estimated non-Federal cost of $2,076,000.

(9) PONCE DE LEON INLET, FLORIDA.—The project for navigation and related purposes, Ponce de Leon Inlet, Volusia County, Florida, at a total cost of $5,454,000, with an estimated Federal cost of $2,988,000 and an estimated non-Federal cost of $2,466,000.

(10) SAVANNAH HARBOR EXPANSION, GEORGIA.—

(A) IN GENERAL.—Subject to subparagraph (B), the project for navigation, Savannah Harbor expansion, Georgia, including implementation of the mitigation plan, with such modifications as the Secretary deems appropriate, at a total cost of $230,174,000 (of which amount a portion is authorized for implementation of the mitigation plan), with an estimated Federal cost of $145,160,000 and an estimated non-Federal cost of $85,014,000.

(B) CONDITIONS.—The project authorized by subparagraph (A) may be carried out only after—

(i) the Secretary, in consultation with affected Federal, State of Georgia, State of South Carolina, regional, and local entities, has reviewed and approved an environmental impact statement for the project that includes—

(I) an analysis of the impacts of project depth alternatives ranging from 42 feet through 48 feet; and

(II) a selected plan for navigation and an associated mitigation plan as required by section 906(a) of the Water Resources Development Act of 1986 (33 U.S.C. 2283); and

(ii) the Secretary of the Interior, the Secretary of Commerce, the Administrator of the Environmental Protection Agency, and the Secretary have approved the selected plan and have determined that the mitigation plan adequately addresses the potential environmental impacts of the project.

(C) MITIGATION REQUIREMENTS.—The mitigation plan shall be implemented in advance of or concurrently with construction of the project.

(11) DES PLAINES RIVER, ILLINOIS.—The project for flood control, Des Plaines River, Illinois, at a total cost of $44,300,000 with an estimated Federal cost of $28,800,000 and an estimated non-Federal cost of $15,500,000.

(12) NEW JERSEY SHORE PROTECTION, BRIGANTINE INLET TO GREAT EGG HARBOR, BRIGANTINE ISLAND, NEW JERSEY.—The project for hurricane and storm damage reduction, New Jersey shore protection, Brigantine Inlet to Great Egg Harbor, Brigantine Island, New Jersey, at a total cost of $4,970,000, with an estimated Federal cost of $3,230,000 and an estimated non-Federal cost of $1,740,000, and at an estimated average annual cost of $465,000 for periodic nourishment over the 50-year life of the project, with an estimated annual Federal cost of $302,000 and an estimated annual non-Federal cost of $163,000.

(13) COLUMBIA RIVER CHANNEL, OREGON AND WASHINGTON.—The project for navigation, Columbia River Channel, Oregon and Washington, at a total cost of $183,623,000 with an estimated Federal cost $106,132,000 and an estimated non-Federal cost of $77,491,000.

(14) JOHNSON CREEK, ARLINGTON, TEXAS.—The locally preferred project for flood control, Johnson Creek, Arlington, Texas, at a total cost of $20,300,000, with an estimated Federal cost of $12,000,000 and an estimated non-Federal cost of $8,300,000.

(15) HOWARD HANSON DAM, WASHINGTON.—The project for water supply and ecosystem restoration, Howard Hanson Dam, Washington, at a total cost of $75,600,000, with an estimated Federal cost of $36,900,000 and an estimated non-Federal cost of $38,700,000.

SEC. 102. SMALL FLOOD CONTROL PROJECTS.

(a) IN GENERAL.—The Secretary shall conduct a study for each of the following projects and, after completion of such study, shall carry out the project under section 205 of the Flood Control Act of 1948 (33 U.S.C. 701s):

(1) LANCASTER, CALIFORNIA.—Project for flood control, Lancaster, California, westside stormwater retention facility.

(2) GATEWAY TRIANGLE AREA, FLORIDA.—Project for flood control, Gateway Triangle area, Collier County, Florida.

(3) PLANT CITY, FLORIDA.—Project for flood control, Plant City, Florida.

(4) STONE ISLAND, LAKE MONROE, FLORIDA.—Project for flood control, Stone Island, Lake Monroe, Florida.

(5) OHIO RIVER, ILLINOIS.—Project for flood control, Ohio River, Illinois.

(6) REPAUPO CREEK, NEW JERSEY.—Project for flood control, Repaupo Creek, New Jersey.

(7) OWASCO LAKE SEAWALL, NEW YORK.—Project for flood control, Owasco Lake seawall, New York.

(8) PORT CLINTON, OHIO.—Project for flood control, Port Clinton, Ohio.

(9) NORTH CANADIAN RIVER, OKLAHOMA.—Project for flood control, North Canadian River, Oklahoma.

(10) ABINGTON TOWNSHIP, PENNSYLVANIA.—Project for flood control, Baeder and Wanamaker Roads, Abington Township, Pennsylvania.

(11) PORT INDIAN, WEST NORRITON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA.—Project for flood control, Port Indian, West Norriton Township, Montgomery County, Pennsylvania.

(12) PORT PROVIDENCE, UPPER PROVIDENCE TOWNSHIP, PENNSYLVANIA.—Project for flood control, Port Providence, Upper Providence Township, Pennsylvania.

(13) SPRINGFIELD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA.—Project for flood control, Springfield Township, Montgomery County, Pennsylvania.

(14) FIRST CREEK, KNOXVILLE, TENNESSEE.—Project for flood control, First Creek, Knoxville, Tennessee.

(15) METRO CENTER LEVEE, CUMBERLAND RIVER, NASHVILLE, TENNESSEE.—Project for flood control, Metro Center Levee, Cumberland River, Nashville, Tennessee.

(b) FESTUS AND CRYSTAL CITY, MISSOURI.—

(1) MAXIMUM FEDERAL EXPENDITURE.—The maximum amount of Federal funds that may be expended for the project for flood control, Festus and Crystal City, Missouri, shall be $10,000,000.

(2) REVISION OF PROJECT COOPERATION AGREEMENT.—The Secretary shall revise the project cooperation agreement for the project referred to in paragraph (1) to take into account the change in the Federal participation in such project pursuant to paragraph (1).

(3) COST SHARING.—Nothing in this section shall be construed to affect any cost-sharing requirement applicable to the project referred to in paragraph (1) under the Water Resources Development Act of 1986.

SEC. 103. SMALL BANK STABILIZATION PROJECTS.

The Secretary shall conduct a study for each of the following projects and, after completion of such study, shall carry out the project under section 14 of the Flood Control Act of 1946 (33 U.S.C. 701r):

(1) SAINT JOSEPH RIVER, INDIANA.—Project for streambank erosion control, Saint Joseph River, Indiana.

(2) SAGINAW RIVER, BAY CITY, MICHIGAN.—Project for streambank erosion control, Saginaw River, Bay City, Michigan.

(3) BIG TIMBER CREEK, NEW JERSEY.—Project for streambank erosion control, Big Timber Creek, New Jersey.

(4) LAKE SHORE ROAD, ATHOL SPRINGS, NEW YORK.—Project for streambank erosion control, Lake Shore Road, Athol Springs, New York.

(5) MARIST COLLEGE, POUGHKEEPSIE, NEW YORK.—Project for streambank erosion control, Marist College, Poughkeepsie, New York.

(6) MONROE COUNTY, OHIO.—Project for streambank erosion control, Monroe County, Ohio.

(7) GREEN VALLEY, WEST VIRGINIA.—Project for streambank erosion control, Green Valley, West Virginia.

SEC. 104. SMALL NAVIGATION PROJECTS.

The Secretary shall conduct a study for each of the following projects and, after completion of such study, shall carry out the project under section 107 of the River and Harbor Act of 1960 (33 U.S.C. 577):

(1) GRAND MARAIS, ARKANSAS.—Project for navigation, Grand Marais, Arkansas.

(2) FIELDS LANDING CHANNEL, HUMBOLDT HARBOR, CALIFORNIA.—Project for navigation, Fields Landing Channel, Humboldt Harbor, California.

(3) SAN MATEO (PILLAR POINT HARBOR), CALIFORNIA.—Project for navigation San Mateo (Pillar Point Harbor), California.

(4) AGANA MARINA, GUAM.—Project for navigation, Agana Marina, Guam.

(5) AGAT MARINA, GUAM.—Project for navigation, Agat Marina, Guam.

(6) APRA HARBOR FUEL PIERS, GUAM.—Project for navigation, Apra Harbor Fuel Piers, Guam.

(7) APRA HARBOR PIER F–6, GUAM.—Project for navigation, Apra Harbor Pier F–6, Guam.

(8) APRA HARBOR SEAWALL, GUAM.—Project for navigation including a seawall, Apra Harbor, Guam.

(9) GUAM HARBOR, GUAM.—Project for navigation, Guam Harbor, Guam.

(10) ILLINOIS RIVER NEAR CHAUTAUQUA PARK, ILLINOIS.—Project for navigation, Illinois River near Chautauqua Park, Illinois.

(11) WHITING SHORELINE WATERFRONT, WHITING, INDIANA.—Project for navigation, Whiting Shoreline Waterfront, Whiting, Indiana.

(12) NARAGUAGUS RIVER, MACHIAS, MAINE.—Project for navigation, Naraguagus River, Machias, Maine.

(13) UNION RIVER, ELLSWORTH, MAINE.—Project for navigation, Union River, Ellsworth, Maine.

(14) DETROIT WATERFRONT, MICHIGAN.—Project for navigation, Detroit River, Michigan, including dredging and removal of a reef.

(15) FORTESCUE INLET, DELAWARE BAY, NEW JERSEY.—Project for navigation for Fortescue Inlet, Delaware Bay, New Jersey.

(16) BUFFALO AND LASALLE PARK, NEW YORK.—Project for navigation, Buffalo and LaSalle Park, New York.

(17) STURGEON POINT, NEW YORK.—Project for navigation, Sturgeon Point, New York.

SEC. 105. SMALL PROJECTS FOR IMPROVEMENT OF THE ENVIRONMENT.

(a) IN GENERAL.—The Secretary shall conduct a study for each of the following projects and, after completion of such study, shall carry out the project under section 1135 of the Water Resources Development Act of 1986 (33 U.S.C. 2309a):

(1) ILLINOIS RIVER IN THE VICINITY OF HAVANA, ILLINOIS.—Project for the improvement of the environment, Illinois River in the vicinity of Havana, Illinois.

(2) KNITTING MILL CREEK, VIRGINIA.—Project for the improvement of the environment, Knitting Mill Creek, Virginia.

(b) PINE FLAT DAM, KINGS RIVER, CALIFORNIA.—The Secretary shall carry out under section 1135(a) of the Water Resources Development Act of 1986 (33 U.S.C. 2309a(a)) a project to construct a turbine bypass at Pine Flat Dam, Kings River, California, in accordance with the Project Modification Report and Environmental Assessment dated September 1996.

SEC. 106. SMALL AQUATIC ECOSYSTEM RESTORATION PROJECTS.

The Secretary shall conduct a study for each of the following projects and, after completion of such study, shall carry out the project under section 206 of the Water Resources Development Act of 1996 (33 U.S.C. 2330):

(1) CONTRA COSTA COUNTY, BAY DELTA, CALIFORNIA.—Project for aquatic ecosystem restoration, Contra Costa County, Bay Delta, California.

(2) INDIAN RIVER, FLORIDA.—Project for aquatic ecosystem restoration and lagoon restoration, Indian River, Florida.

(3) LITTLE WEKIVA RIVER, FLORIDA.—Project for aquatic ecosystem restoration and erosion control, Little Wekiva River, Florida.

(4) COOK COUNTY, ILLINOIS.—Project for aquatic ecosystem restoration and lagoon restoration and protection, Cook County, Illinois.

(5) GRAND BATTURE ISLAND, MISSISSIPPI.—Project for aquatic ecosystem restoration, Grand Batture Island, Mississippi.

(6) HANCOCK, HARRISON, AND JACKSON COUNTIES, MISSISSIPPI.—Project for aquatic ecosystem restoration and reef restoration along the Gulf Coast, Hancock, Harrison, and Jackson Counties, Mississippi.

(7) MISSISSIPPI RIVER AND RIVER DES PERES, ST. LOUIS, MISSOURI.—Project for aquatic ecosystem restoration and recreation, Mississippi River and River Des Peres, St. Louis, Missouri.

(8) HUDSON RIVER, NEW YORK.—Project for aquatic ecosystem restoration, Hudson River, New York.

(9) ONEIDA LAKE, NEW YORK.—Project for aquatic ecosystem restoration, Oneida Lake, Oneida County, New York.

(10) OTSEGO LAKE, NEW YORK.—Project for aquatic ecosystem restoration, Otsego Lake, Otsego County, New York.

(11) NORTH FORK OF YELLOW CREEK, OHIO.—Project for aquatic ecosystem restoration, North Fork of Yellow Creek, Ohio.

(12) WHEELING CREEK WATERSHED, OHIO.—Project for aquatic ecosystem restoration, Wheeling Creek watershed, Ohio.

(13) SPRINGFIELD MILLRACE, OREGON.—Project for aquatic ecosystem restoration, Springfield Millrace, Oregon.

(14) UPPER AMAZON CREEK, OREGON.—Project for aquatic ecosystem restoration, Upper Amazon Creek, Oregon.

(15) LAKE ONTELAUNEE RESERVOIR, BERKS COUNTY, PENNSYLVANIA.—Project for aquatic ecosystem restoration and distilling pond facilities, Lake Ontelaunee Reservoir, Berks County, Pennsylvania.

(16) BLACKSTONE RIVER BASIN, RHODE ISLAND AND MASSACHUSETTS.—Project for aquatic ecosystem restoration and fish passage facilities, Blackstone River Basin, Rhode Island and Massachusetts.

TITLE II—GENERAL PROVISIONS

SEC. 201. SMALL FLOOD CONTROL AUTHORITY.

Section 205 of the Flood Control Act of 1948 (33 U.S.C. 701s) is amended—

(1) by striking "construction of small projects" and inserting "implementation of small structural and nonstructural projects"; and

(2) by striking "$5,000,000" and inserting "$7,000,000".

SEC. 202. USE OF NON-FEDERAL FUNDS FOR COMPILING AND DISSEMINATING INFORMATION ON FLOODS AND FLOOD DAMAGES.

The last sentence of section 206(b) of the Flood Control Act of 1960 (33 U.S.C. 709a(b)) is amended by inserting before the period the following: "; except that this

limitation on fees shall not apply to funds voluntarily contributed by such entities for the purpose of expanding the scope of the services requested by such entities".

SEC. 203. CONTRIBUTIONS BY STATES AND POLITICAL SUBDIVISIONS.

Section 5 of the Flood Control Act of June 22, 1936 (33 U.S.C. 701h), is amended by inserting "or environmental restoration" after "flood control".

SEC. 204. SEDIMENT DECONTAMINATION TECHNOLOGY.

Section 405 of the Water Resources Development Act of 1992 (33 U.S.C. 2239 note; 106 Stat. 4863) is amended—

(1) by adding at the end of subsection (a) the following:

"(4) PRACTICAL END-USE PRODUCTS.—Technologies selected for demonstration at the pilot scale shall be intended to result in practical end-use products.

"(5) ASSISTANCE BY THE SECRETARY.—The Secretary shall assist the project to ensure expeditious completion by providing sufficient quantities of contaminated dredged material to conduct the full-scale demonstrations to stated capacity.";

(2) in subsection (c) by striking the first sentence and inserting the following: "There is authorized to be appropriated to carry out this section $22,000,000 to complete technology testing, technology commercialization, and the development of full scale processing facilities within the New York/New Jersey Harbor."; and

(3) by adding at the end the following:

"(e) SUPPORT.—In carrying out the program under this section, the Secretary is encouraged to utilize contracts, cooperative agreements, and grants with colleges and universities and other non-Federal entities.".

SEC. 205. CONTROL OF AQUATIC PLANTS.

Section 104 of the River and Harbor Act of 1958 (33 U.S.C. 610) is amended—

(1) in subsection (a) by inserting "arundo," after "milfoil,";

(2) in subsection (b) by striking "$12,000,000" and inserting "$15,000,000."; and

(3) by adding at the end the following:

"(c) SUPPORT.—In carrying out this program, the Secretary is encouraged to utilize contracts, cooperative agreements, and grants with colleges and universities and other non-Federal entities.".

SEC. 206. USE OF CONTINUING CONTRACTS REQUIRED FOR CONSTRUCTION OF CERTAIN PROJECTS.

(a) IN GENERAL.—Notwithstanding any other provision of law, the Secretary shall not implement a fully allocated funding policy with respect to a water resources project if initiation of construction has occurred but sufficient funds are not available to complete the project. The Secretary shall enter into continuing contracts for such project.

(b) INITIATION OF CONSTRUCTION CLARIFIED.—For the purposes of this section, initiation of construction for a project occurs on the date of enactment of an Act that appropriates funds for the project from 1 of the following appropriation accounts:

(1) Construction, General.

(2) Operation and Maintenance, General.

(3) Flood Control, Mississippi River and Tributaries.

SEC. 207. SUPPORT OF ARMY CIVIL WORKS PROGRAM.

The requirements of section 2361 of title 10, United States Code, shall not apply to any contract, cooperative research and development agreement, cooperative agreement, or grant entered into under section 229 of the Water Resources Development Act of 1996 (110 Stat. 3703) between the Secretary and Marshall University or entered into under section 350 of this Act between the Secretary and Juniata College.

SEC. 208. WATER RESOURCES DEVELOPMENT STUDIES FOR THE PACIFIC REGION.

Section 444 of the Water Resources Development Act of 1996 (110 Stat. 3747) is amended by striking "interest of navigation" and inserting "interests of water resources development, including navigation, flood damage reduction, and environmental restoration".

SEC. 209. EVERGLADES AND SOUTH FLORIDA ECOSYSTEM RESTORATION.

(a) PROGRAM EXTENSION.—Section 528(b)(3) of the Water Resources Development Act of 1996 (110 Stat. 3769) is amended—

(1) in subparagraph (B) by striking "1999" and inserting "2000"; and

(2) in subparagraph (C)(i) by striking "1999" and inserting "2003".

(b) CREDIT.—Section 528(b)(3) of such Act is amended by adding at the end the following:

"(D) CREDIT OF PAST AND FUTURE ACTIVITIES.—The Secretary may provide a credit to the non-Federal interests toward the non-Federal share of a project implemented under subparagraph (A). The credit shall be for reasonable costs of work performed by the non-Federal interests if the Secretary determines that the work substantially expedited completion of the project and is compatible with and an integral part of the project, and the credit is provided pursuant to a specific project cooperation agreement.".

(c) CALOOSAHATCHEE RIVER BASIN, FLORIDA.—Section 528(e)(4) of such Act is amended by inserting before the period at the end of the first sentence the following: "if the Secretary determines that such land acquisition is compatible with and an integral component of the Everglades and South Florida ecosystem restoration, including potential land acquisition in the Caloosahatchee River basin or other areas".

SEC. 210. BENEFICIAL USES OF DREDGED MATERIAL.

Section 204 of the Water Resources Development Act of 1992 (106 Stat. 4826–4827) is amended—

(1) in subsection (c) by striking "cooperative agreement in accordance with the requirements of section 221 of the Flood Control Act of 1970" and inserting "binding agreement with the Secretary"; and

(2) by adding at the end the following:

"(g) NON-FEDERAL INTERESTS.—Notwithstanding section 221(b) of the Flood Control Act of 1968 (42 U.S.C. 1962d–5b(b)), the Secretary, after coordination with the appropriate State and local government officials having jurisdiction over an area in which a project under this section will be carried out, may allow a nonprofit entity to serve as the non-Federal interest for the project.".

SEC. 211. HARBOR COST SHARING.

(a) IN GENERAL.—Sections 101 and 214 of the Water Resources Development Act of 1986 (33 U.S.C. 2211 and 2241; P.L. 99–662) are amended by striking "45 feet" each place it appears and inserting "53 feet".

(b) APPLICABILITY.—The amendments made by subsection (a) shall only apply to a project, or separable element thereof, on which a contract for physical construction has not been awarded before the date of enactment of this Act.

SEC. 212. AQUATIC ECOSYSTEM RESTORATION.

Section 206 of the Water Resources Development Act of 1996 (110 Stat. 3679–3680) is amended—

(1) by adding at the end of subsection (b) the following: "Before October 1, 2003, the Federal share may be provided in the form of grants or reimbursements of project costs."; and

(2) by adding at the end of subsection (c) the following: "Notwithstanding section 221(b) of the Flood Control Act of 1970 (42 U.S.C. 1962d–5b(b)), the Secretary, after coordination with the appropriate State and local government officials having jurisdiction over an area in which a project under this section will be carried out, may allow a nonprofit entity to serve as the non-Federal interest for the project.".

SEC. 213. WATERSHED MANAGEMENT, RESTORATION, AND DEVELOPMENT.

(a) NONPROFIT ENTITY AS NON-FEDERAL INTEREST.—Section 503(a) of the Water Resources Development Act of 1996 (110 Stat. 3756) is amended by adding at the end the following: "Notwithstanding section 221(b) of the Flood Control Act of 1970 (42 U.S.C. 1962d–5b(b)), the Secretary, after coordination with the appropriate State and local government officials having jurisdiction over an area in which a project under this section will be carried out, may allow a nonprofit entity to serve as the non-Federal interest for the project.".

(b) PROJECT LOCATIONS.—Section 503(d) of such Act is amended—

(1) in paragraph (7) by inserting before the period at the end ", including Clear Lake"; and

(2) by adding at the end the following:

"(14) Fresno Slough watershed, California.

"(15) Hayward Marsh, Southern San Francisco Bay watershed, California.

"(16) Kaweah River watershed, California.

"(17) Malibu Creek watershed, California.

"(18) Illinois River watershed, Illinois.

"(19) Catawba River watershed, North Carolina.

"(20) Cabin Creek basin, West Virginia.

"(21) Lower St. Johns River basin, Florida.".

SEC. 214. FLOOD MITIGATION AND RIVERINE RESTORATION PILOT PROGRAM.

(a) IN GENERAL.—The Secretary may undertake a program for the purpose of conducting projects that reduce flood hazards and restore the natural functions and values of rivers throughout the United States.

(b) STUDIES AND PROJECTS.—

(1) AUTHORITY.—In carrying out the program, the Secretary may conduct studies to identify appropriate flood damage reduction, conservation, and restoration measures and may design and implement projects described in subsection (a).

(2) CONSULTATION AND COORDINATION.—The studies and projects carried out under this section shall be conducted, to the maximum extent practicable, in consultation and coordination with the Federal Emergency Management Agency and other appropriate Federal agencies, and in consultation and coordination with appropriate State, tribal, and local agencies.

(3) NONSTRUCTURAL APPROACHES.—The studies and projects shall emphasize, to the maximum extent practicable and appropriate, nonstructural approaches to preventing or reducing flood damages.

(4) USE OF STATE, TRIBAL, AND LOCAL STUDIES AND PROJECTS.—The studies and projects shall include consideration of and coordination with any State, tribal, and local flood damage reduction or riverine and wetland restoration studies and projects that conserve, restore, and manage hydrologic and hydraulic regimes and restore the natural functions and values of floodplains.

(c) COST-SHARING REQUIREMENTS.—

(1) STUDIES.—Studies conducted under this section shall be subject to cost sharing in accordance with section 105 of the Water Resources Development Act of 1986 (33 U.S.C. 2215).

(2) ENVIRONMENTAL RESTORATION AND NONSTRUCTURAL FLOOD CONTROL PROJECTS.—The non-Federal interests shall pay 35 percent of the cost of any environmental restoration or nonstructural flood control project carried out under this section. The non-Federal interests shall provide all land, easements, rights-of-way, dredged material disposal areas, and relocations necessary for such projects. The value of such land, easements, rights-of-way, dredged material disposal areas, and relocations shall be credited toward the payment required under this paragraph.

(3) STRUCTURAL FLOOD CONTROL PROJECTS.—Any structural flood control measures carried out under this section shall be subject to cost sharing in accordance with section 103(a) of the Water Resources Development Act of 1986 (33 U.S.C. 2213(a)).

(4) OPERATION AND MAINTENANCE.—The non-Federal interests shall be responsible for all costs associated with operating, maintaining, replacing, repairing, and rehabilitating all projects carried out under this section.

(d) PROJECT JUSTIFICATION.—

(1) IN GENERAL.—Notwithstanding any other provision of law or requirement for economic justification established pursuant to section 209 of the Flood Control Act of 1970 (42 U.S.C. 1962–2), the Secretary may implement a project under this section if the Secretary determines that the project—

(A) will significantly reduce potential flood damages;

(B) will improve the quality of the environment; and

(C) is justified considering all costs and beneficial outputs of the project.

(2) ESTABLISHMENT OF SELECTION AND RATING CRITERIA AND POLICIES.—Not later than 180 days after the date of enactment of this section, the Secretary, in cooperation with State, tribal, and local agencies, shall develop, and transmit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate, criteria for selecting and rating projects to be carried out under this section and shall establish policies and procedures for carrying out the studies and projects undertaken under this section. Such criteria shall include, as a priority, the extent to which the appropriate State government supports the project.

(e) PRIORITY AREAS.—In carrying out this section, the Secretary shall examine the potential for flood damage reductions at appropriate locations, including the following:

(1) Upper Delaware River, New York.

(2) Willamette River floodplain, Oregon.

(3) Pima County, Arizona, at Paseo De Las Iglesias and Rillito River.

(4) Los Angeles and San Gabriel Rivers, California.

(5) Murrieta Creek, California.

(6) Napa County, California, at Yountville, St. Helena, Calistoga, and American Canyon.

(7) Santa Clara basin, California, at Upper Guadalupe River and tributaries, San Francisquito Creek, and Upper Penitencia Creek.

(8) Pine Mount Creek, New Jersey.

(9) Chagrin River, Ohio.

(10) Blair County, Pennsylvania, at Altoona and Frankstown Township.

(11) Lincoln Creek, Wisconsin.

(f) PROGRAM REVIEW.—

(1) IN GENERAL.—The program established under this section shall be subject to an independent review to evaluate the efficacy of the program in achieving the dual goals of flood hazard mitigation and riverine restoration.

(2) REPORT.—Not later than April 15, 2003, the Secretary shall transmit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report on the findings of the review conducted under this subsection with any recommendations concerning continuation of the program.

(g) COST LIMITATIONS.—

(1) MAXIMUM FEDERAL COST PER PROJECT.—No more than $30,000,000 may be expended by the United States on any single project under this section.

(2) COMMITTEE RESOLUTION PROCEDURE.—

(A) LIMITATION ON APPROPRIATIONS.—No appropriation shall be made to construct any project under this section the total Federal cost of construction of which exceeds $15,000,000 if the project has not been approved by resolutions adopted by the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate.

(B) REPORT.—For the purpose of securing consideration of approval under this paragraph, the Secretary shall transmit a report on the proposed project, including all relevant data and information on all costs.

(h) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section—

(1) $25,000,000 for fiscal year 2000;

(2) $25,000,000 for fiscal year 2001 if $12,500,000 or more is appropriated to carry out subsection (e) for fiscal year 2000;

(3) $25,000,000 for fiscal year 2002 if $12,500,000 or more is appropriated to carry out subsection (e) for fiscal year 2001; and

(4) $25,000,000 for fiscal year 2003 if $12,500,000 or more is appropriated to carry out subsection (e) for fiscal year 2002.

SEC. 215. SHORELINE MANAGEMENT PROGRAM.

(a) REVIEW.—The Secretary shall review the implementation of the Corps of Engineers' shoreline management program, with particular attention to inconsistencies in implementation among the divisions and districts of the Corps of Engineers and complaints by or potential inequities regarding property owners in the Savannah District including an accounting of the number and disposition of complaints over the last 5 years in the District.

(b) REPORT.—As expeditiously as practicable after the date of enactment of this Act, the Secretary shall transmit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report describing the results of the review conducted under subsection (a).

SEC. 216. ASSISTANCE FOR REMEDIATION, RESTORATION, AND REUSE.

(a) IN GENERAL.—The Secretary may provide to State and local governments assessment, planning, and design assistance for remediation, environmental restoration, or reuse of areas located within the boundaries of such State or local governments where such remediation, environmental restoration, or reuse will contribute to the conservation of water and related resources of drainage basins and watersheds within the United States.

(b) BENEFICIAL USE OF DREDGED MATERIAL.—In providing assistance under subsection (a), the Secretary shall encourage the beneficial use of dredged material, consistent with the findings of the Secretary under section 204 of the Water Resources Development Act of 1992 (33 U.S.C. 2326).

(c) NON-FEDERAL SHARE.—The non-Federal share of the cost of assistance provided under subsection (a) shall be 50 percent.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $3,000,000 for each of fiscal years 2000 through 2004.

SEC. 217. SHORE DAMAGE MITIGATION.

(a) IN GENERAL.—Section 111 of the River and Harbor Act of 1968 (33 U.S.C. 426i; 100 Stat. 4199) is amended by inserting after "navigation works" the following: "and shore damages attributable to the Atlantic Intracoastal Waterway and the Gulf Intracoastal Waterway".

(b) PALM BEACH COUNTY, FLORIDA.—The project for navigation, Palm Beach County, Florida, authorized by section 2 of the River and Harbor Act of March 2, 1945 (59 Stat. 11), is modified to authorize the Secretary to undertake beach nourishment as a dredged material disposal option under the project.

(c) GALVESTON COUNTY, TEXAS.—The Secretary may place dredged material from the Gulf Intracoastal Waterway on the beaches along Rollover Pass, Galveston County, Texas, to stabilize beach erosion.

SEC. 218. SHORE PROTECTION.

(a) NON-FEDERAL SHARE OF PERIODIC NOURISHMENT.—Section 103(d) of the Water Resources Development Act of 1986 (100 Stat. 4085–5086) is amended—

(1) by inserting "(1) CONSTRUCTION.—" before "Costs of constructing";

(2) by inserting at the end the following:

"(2) PERIODIC NOURISHMENT.—

"(A) IN GENERAL.—Subject to subparagraph (B), the non-Federal share of costs of periodic nourishment measures for shore protection or beach erosion control that are carried out—

"(i) after January 1, 2001, shall be 40 percent;

"(ii) after January 1, 2002, shall be 45 percent; and

"(iii) after January 1, 2003, shall be 50 percent;

"(B) BENEFITS TO PRIVATELY OWNED SHORES.—All costs assigned to benefits of periodic nourishment measures to privately owned shores (where use of such shores is limited to private interests) or to prevention of losses of private lands shall be borne by the non-Federal interest and all costs assigned to the protection of federally owned shores for such measures shall be borne by the United States."; and

(C) by indenting paragraph (1) (as designated by subparagraph (A) of this paragraph) and aligning such paragraph with paragraph (2) (as added by subparagraph (B) of this paragraph).

(b) UTILIZATION OF SAND FROM OUTER CONTINENTAL SHELF.—Section 8(k)(2)(B) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(k)(2)(B)) is amended by striking "an agency of the Federal Government" and inserting "a Federal, State, or local government agency".

(c) REPORT ON NATION'S SHORELINES.—

(1) IN GENERAL.—Not later than 3 years after the date of enactment of this Act, the Secretary shall report to Congress on the state of the Nation's shorelines.

(2) CONTENTS.—The report shall include—

(A) a description of the extent of, and economic and environmental effects caused by, erosion and accretion along the Nation's shores and the causes thereof;

(B) a description of resources committed by local, State, and Federal governments to restore and renourish shorelines;

(C) a description of the systematic movement of sand along the Nation's shores; and

(D) recommendations regarding (i) appropriate levels of Federal and non-Federal participation in shoreline protection, and (ii) utilization of a systems approach to sand management.

(3) UTILIZATION OF SPECIFIC LOCATION DATA.—In developing the report, the Secretary shall utilize data from specific locations on the Atlantic, Pacific, Great Lakes, and Gulf of Mexico coasts.

(d) NATIONAL COASTAL DATA BANK.—

(1) ESTABLISHMENT OF DATA BANK.—Not later than 2 years after the date of enactment of this Act, the Secretary shall establish a national coastal data bank containing data on the geophysical and climatological characteristics of the Nation's shorelines.

(2) CONTENT.—To the extent practical, the national coastal data bank shall include data regarding current and predicted shoreline positions, information on federally-authorized shore protection projects, and data on the movement of sand along the Nation's shores, including impediments to such movement caused by natural and manmade features.

(3) ACCESS.—The national coastal data bank shall be made readily accessible to the public.

SEC. 219. FLOOD PREVENTION COORDINATION.

Section 206 of the Flood Control Act of 1960 (33 U.S.C. 709a) is amended—

(1) by redesignating subsections (b) and (c) as subsections (c) and (d), respectively; and

(2) by inserting after subsection (a) the following:

"(b) FLOOD PREVENTION COORDINATION.—The Secretary shall coordinate with the Director of the Federal Emergency Management Agency and the heads of other Federal agencies to ensure that flood control projects and plans are complementary and integrated to the extent practicable and appropriate.".

SEC. 220. ANNUAL PASSES FOR RECREATION.

Section 208(c)(4) of the Water Resources Development Act of 1996 (16 U.S.C. 460d note; 110 Stat. 3680) is amended by striking "1999, or the date of transmittal of the report under paragraph (3)" and inserting "2003".

SEC. 221. COOPERATIVE AGREEMENTS FOR ENVIRONMENTAL AND RECREATIONAL MEASURES.

(a) IN GENERAL.—The Secretary is authorized to enter into cooperative agreements with non-Federal public bodies and non-profit entities for the purpose of facilitating collaborative efforts involving environmental protection and restoration, natural resources conservation, and recreation in connection with the development, operation, and management of water resources projects under the jurisdiction of the Department of the Army.

(b) REPORT.—Not later than 18 months after the date of enactment of this Act, the Secretary shall transmit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report that includes—

(1) a listing and general description of the cooperative agreements entered into by the Secretary with non-Federal public bodies and entities under subsection (a);

(2) a determination of whether such agreements are facilitating collaborative efforts; and

(3) a recommendation on whether such agreements should be further encouraged.

SEC. 222. NONSTRUCTURAL FLOOD CONTROL PROJECTS.

(a) ANALYSIS OF BENEFITS.—Section 308 of the Water Resources Development Act of 1990 (33 U.S.C. 2318; 104 Stat. 4638) is amended—

(1) in the heading to subsection (a) by inserting "ELEMENTS EXCLUDED FROM" before "BENEFIT-COST";

(2) by redesignating subsections (b) through (e) as subsections (c) through (f), respectively; and

(3) by inserting after subsection (a) the following:

"(b) FLOOD DAMAGE REDUCTION BENEFITS.—In calculating the benefits of a proposed project for nonstructural flood damage reduction, the Secretary shall calculate benefits of nonstructural projects using methods similar to structural projects, including similar treatment in calculating the benefits from losses avoided from both structural and nonstructural alternatives. In carrying out this subsection, the Secretary should avoid double counting of benefits.".

(b) REEVALUATION OF FLOOD CONTROL PROJECTS.—At the request of a non-Federal interest for a flood control project, the Secretary shall conduct a reevaluation of a previously authorized project to consider nonstructural alternatives in light of the amendments made by subsection (a).

(c) COST SHARING.—Section 103(b) of the Water Resources Development Act of 1986 (33 U.S.C. 2213(b)) is amended by adding at the end the following: "At any time during construction of the project, where the Secretary determines that the costs of lands, easements, rights-of-way, dredged material disposal areas, and relocations in combination with other costs contributed by the non-Federal interests will exceed 35 percent, any additional costs for the project, but not to exceed 65 percent of the total costs of the project, shall be a Federal responsibility and shall be contributed during construction as part of the Federal share.".

SEC. 223. LAKES PROGRAM.

Section 602(a) of the Water Resources Development Act of 1986 (110 Stat. 3758) is amended—

(1) by striking "and" at the end of paragraph (15);

(2) by striking the period at the end of paragraph (16) and inserting a semicolon; and

(3) by adding at the end the following:

"(17) Clear Lake, Lake County, California, removal of silt and aquatic growth and measures to address excessive sedimentation and high nutrient concentration; and

"(18) Osgood Pond, Milford, Hillsborough County, New Hampshire, removal of silt and aquatic growth and measures to address excessive sedimentation.

"(19) Flints Pond, Hollis, Hillsborough County, New Hampshire, removal of silt and aquatic growth and measures to address excessive sedimentation.".

SEC. 224. CONSTRUCTION OF FLOOD CONTROL PROJECTS BY NON-FEDERAL INTERESTS.

(a) CONSTRUCTION BY NON-FEDERAL INTERESTS.—Section 211(d)(1) of the Water Resources Development Act of 1996 (33 U.S.C. 701b–13(d)(1)) is amended—

(1) by striking "(b) or";

(2) by striking "Any non-Federal" and inserting the following:

"(A) STUDIES AND DESIGN ACTIVITIES UNDER SUBSECTION (b).—A non-Federal interest may only carry out construction for which studies and design documents are prepared under subsection (b) if the Secretary approves such construction. The Secretary shall approve such construction unless the Secretary determines, in writing, that the design documents do not meet standard practices for design methodologies or that the project is not economically justified or environmentally acceptable or does not meet the requirements for obtaining the appropriate permits required under the Secretary's authority. The Secretary shall not unreasonably withhold approval. Nothing in this subparagraph may be construed to affect any regulatory authority of the Secretary.

"(B) STUDIES AND DESIGN ACTIVITIES UNDER SUBSECTION (c).—Any non-Federal"; and

(3) by aligning the remainder of subparagraph (B) (as designated by paragraph (2) of this subsection) with subparagraph (A) (as inserted by paragraph (2) of this subsection).

(b) CONFORMING AMENDMENT.—Section 211(d)(2) of such Act is amended by inserting "(other than paragraph (1)(A))" after "this subsection".

(c) REIMBURSEMENT.—

(1) IN GENERAL.—Section 211(e)(1) of such Act is amended—

(A) in the matter preceding subparagraph (1) by inserting after "constructed pursuant to this section" the following: "and provide credit for the non-Federal share of the project";

(B) by striking "and" at the end of subparagraph (A);

(C) by striking the period at the end of subparagraph (B) and inserting "; and"; and

(D) by adding at the end the following:

"(C) if the construction work is reasonably equivalent to Federal construction work.".

(2) SPECIAL RULES.—Section 211(e)(2)(A) of such Act is amended—

(A) by striking "subject to amounts being made available in advance in appropriations Acts" and inserting "subject to appropriations"; and

(B) by inserting after "the cost of such work" the following: ", or provide credit (depending on the request of the non-Federal interest) for the non-Federal share of such work,".

(3) SCHEDULE AND MANNER OF REIMBURSEMENTS.—Section 211(e) of such Act (33 U.S.C. 701b–13(e)) is amended by adding at the end the following:

"(6) SCHEDULE AND MANNER OF REIMBURSEMENT.—

"(A) BUDGETING.—The Secretary shall budget and request appropriations for reimbursements under this section on a schedule that is consistent with a Federal construction schedule.

"(B) COMMENCEMENT OF REIMBURSEMENTS.—Reimbursements under this section may commence upon approval of a project by the Secretary.

"(C) CREDIT.—At the request of a non-Federal interest, the Secretary may reimburse the non-Federal interest by providing credit toward future non-Federal costs of the project.

"(D) SCHEDULING.—Nothing in this paragraph shall affect the President's discretion to schedule new construction starts.".

SEC. 225. ENHANCEMENT OF FISH AND WILDLIFE RESOURCES.

Section 906(e) of the Water Resources Development Act of 1986 (33 U.S.C. 2283(e)) is amended by inserting after the second sentence the following: "Not more than 80 percent of the non-Federal share of such first costs may be satisfied through in-kind contributions, including facilities, supplies, and services that are necessary to carry out the enhancement project.".

SEC. 226. SENSE OF CONGRESS; REQUIREMENT REGARDING NOTICE.

(a) PURCHASE OF AMERICAN-MADE EQUIPMENT AND PRODUCTS.—It is the sense of Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under this Act should be American made.

(b) NOTICE TO RECIPIENTS OF ASSISTANCE.—In providing financial assistance under this Act, the Secretary, to the greatest extent practicable, shall provide to each recipient of the assistance a notice describing the statement made in subsection (a).

SEC. 227. PERIODIC BEACH NOURISHMENT.

(a) IN GENERAL.—Section 506(a) of the Water Resources Development Act of 1996 (110 Stat. 3757) is amended by adding at the end the following:

"(5) LEE COUNTY, FLORIDA.—Project for shoreline protection, Lee County, Captiva Island segment, Florida.".

(b) PROJECTS.—Section 506(b)(3) of such Act (110 Stat. 3758) is amended by striking subparagraph (A) and redesignating subparagraphs (B) through (D) as subparagraphs (A) through (C), respectively.

SEC. 228. ENVIRONMENTAL DREDGING.

Section 312 of the Water Resources Development Act of 1990 (104 Stat. 4639–4640) is amended—

(1) in subsection (b)(1) by striking "50" and inserting "35"; and

(2) in subsection (d) by striking "non-Federal responsibility" and inserting "shared as a cost of construction".

TITLE III—PROJECT-RELATED PROVISIONS

SEC. 301. MISSOURI RIVER LEVEE SYSTEM.

The project for flood control, Missouri River Levee System, authorized by section 10 of the Act entitled "An Act authorizing the construction of certain public works on rivers and harbors for flood control, and other purposes", approved December 22, 1944 (58 Stat. 897), is modified to provide that project costs totaling $2,616,000 expended on Units L–15, L–246, and L–385 out of the Construction, General account of the Corps of Engineers before the date of enactment of the Water Resources Development Act of 1986 (33 U.S.C. 2201 note) shall not be treated as part of total project costs.

SEC. 302. OUZINKIE HARBOR, ALASKA.

(a) MAXIMUM FEDERAL EXPENDITURE.—The maximum amount of Federal funds that may be expended for the project for navigation, Ouzinkie Harbor, Alaska, shall be $8,500,000.

(b) REVISION OF PROJECT COOPERATION AGREEMENT.—The Secretary shall revise the project cooperation agreement for the project referred to in subsection (a) to take into account the change in the Federal participation in such project pursuant to subsection (a).

(c) COST SHARING.—Nothing in this section shall be construed to affect any cost-sharing requirement applicable to the project referred to in subsection (a) under the Water Resources Development Act of 1986.

SEC. 303. GREERS FERRY LAKE, ARKANSAS.

The project for flood control, Greers Ferry Lake, Arkansas, authorized by the Act entitled "An Act authorizing the construction of certain public works on rivers and harbors for flood control, and other purposes", approved June 28, 1938 (52 Stat. 1218), is modified to authorize the Secretary to construct water intake facilities for the benefit of Lonoke and White Counties, Arkansas.

SEC. 304. TEN- AND FIFTEEN-MILE BAYOUS, ARKANSAS.

The project for flood control, St. Francis River Basin, Missouri and Arkansas, authorized by section 204 of the Flood Control Act of 1950 (64 Stat. 172), is modified to expand the project boundaries to include Ten- and Fifteen-Mile Bayous near West Memphis, Arkansas. Notwithstanding section 103(f) of the Water Resources Development Act of 1986 (100 Stat. 4086), the flood control work at Ten- and Fifteen-Mile Bayous shall not be considered separable elements of the St. Francis Basin project.

SEC. 305. LOGGY BAYOU, RED RIVER BELOW DENISON DAM, ARKANSAS, LOUISIANA, OKLAHOMA, AND TEXAS.

The project for flood control on the Red River Below Denison Dam, Arkansas, Louisiana, Oklahoma, and Texas, authorized by section 10 of the Flood Control Act of

1946 (60 Stat. 647), is modified to direct the Secretary to conduct a study to determine the feasibility of expanding the project to include mile 0.0 to mile 7.8 of Loggy Bayou between the Red River and Flat River. If the Secretary determines as a result of the study that the project should be expanded, the Secretary may assume responsibility for operation and maintenance of the expanded project.

SEC. 306. SACRAMENTO RIVER, GLENN-COLUSA, CALIFORNIA.

(a) IN GENERAL.—The project for flood control, Sacramento River, California, authorized by section 2 of the Act entitled "An Act to provide for the control of the floods of the Mississippi River and of the Sacramento River, California, and for other purposes", approved March 1, 1917 (39 Stat. 949), and modified by section 102 of the Energy and Water Development Appropriations Act, 1990 (103 Stat. 649), section 301(b)(3) of the Water Resources Development Act of 1996 (110 Stat. 3110), and title I of the Energy and Water Development Appropriations Act, 1999 (112 Stat. 1841), is further modified to authorize the Secretary—

(1) to carry out the portion of the project at Glenn-Colusa, California, at a total cost of $26,000,000, with an estimated Federal cost of $20,000,000 and an estimated non-Federal cost of $6,000,000; and

(2) to carry out bank stabilization work in the vicinity of the riverbed gradient facility, particularly in the vicinity of River Mile 208.

(b) CREDIT.—The Secretary shall provide the non-Federal interests for the project referred to in subsection (a) a credit of up to $4,000,000 toward the non-Federal share of the project costs for the direct and indirect costs incurred by the non-Federal sponsor in carrying out activities associated with environmental compliance for the project. Such credit may be in the form of reimbursements for costs which were incurred by the non-Federal interests prior to an agreement with the Corps of Engineers, to include the value of lands, easements, rights-of-way, relocations, or dredged material disposal areas.

SEC. 307. SAN LORENZO RIVER, CALIFORNIA.

The project for flood control and habitat restoration, San Lorenzo River, California, authorized by section 101(a)(5) of the Water Resources Development Act of 1996 (110 Stat. 3663), is modified to authorize the Secretary to expand the boundaries of the project to include bank stabilization for a 1,000-foot portion of the San Lorenzo River.

SEC. 308. TERMINUS DAM, KAWEAH RIVER, CALIFORNIA.

(a) TRANSFER OF TITLE TO ADDITIONAL LAND.—If the non-Federal interests for the project for flood control and water supply, Terminus Dam, Kaweah River, California, authorized by section 101(b)(5) of the Water Resources Development Act of 1996 (110 Stat. 3667), transfers to the Secretary without consideration title to perimeter lands acquired for the project by the non-Federal interests, the Secretary may accept the transfer of such title.

(b) LANDS, EASEMENT, AND RIGHTS-OF-WAY.—Nothing in this section shall be construed to change, modify, or otherwise affect the responsibility of the non-Federal interests to provide lands, easements, rights-of-way, relocations, and dredged material disposal areas necessary for the Terminus Dam project and to perform operation and maintenance for the project.

(c) OPERATION AND MAINTENANCE.—Upon request by the non-Federal interests, the Secretary shall carry out operation, maintenance, repair, replacement, and rehabilitation of the project if the non-Federal interests enter into a binding agreement with the Secretary to reimburse the Secretary for 100 percent of the costs of such operation, maintenance, repair, replacement, and rehabilitation.

(d) HOLD HARMLESS.—The non-Federal interests shall hold the United States harmless for ownership, operation, and maintenance of lands and facilities of the Terminus Dam project title to which is transferred to the Secretary under this section.

SEC. 309. DELAWARE RIVER MAINSTEM AND CHANNEL DEEPENING, DELAWARE, NEW JERSEY, AND PENNSYLVANIA.

The project for navigation, Delaware River Mainstem and Channel Deepening, Delaware, New Jersey and Pennsylvania, authorized by section 101(6) of the Water Resources Development Act of 1992 (106 Stat. 4802), is modified as follows:

(1) The Secretary is authorized to provide non-Federal interests credit toward cash contributions required for construction and subsequent to construction for engineering and design and construction management work that is performed by non-Federal interests and that the Secretary determines is necessary to implement the project. Any such credits extended shall reduce the Philadelphia

District's private sector performance goals for engineering work by a like amount.

(2) The Secretary is authorized to provide to non-Federal interests credit toward cash contributions required during construction and subsequent to construction for the costs of construction carried out by the non-Federal interest on behalf of the Secretary and that the Secretary determines is necessary to implement the project.

(3) The Secretary is authorized to enter into an agreement with a non-Federal interest for the payment of disposal or tipping fees for dredged material from a Federal project other than for the construction or operation and maintenance of the new deepening project as described in the Limited Reevaluation Report of May 1997, where the non-Federal interest has supplied the corresponding disposal capacity.

(4) The Secretary is authorized to enter into an agreement with a non-Federal interest that will provide that the non-Federal interest may carry out or cause to have carried out, on behalf of the Secretary, a disposal area management program for dredged material disposal areas necessary to construct, operate, and maintain the project and to authorize the Secretary to reimburse the non-Federal interest for the costs of the disposal area management program activities carried out by the non-Federal interest.

SEC. 310. POTOMAC RIVER, WASHINGTON, DISTRICT OF COLUMBIA.

The project for flood control authorized by section 5 of the Flood Control Act of June 22, 1936 (69 Stat. 1574), as modified by section 301(a)(4) of the Water Resources Development Act of 1996 (110 Stat. 3707), is further modified to authorize the Secretary to construct the project at a Federal cost of $5,965,000.

SEC. 311. BREVARD COUNTY, FLORIDA.

(a) STUDY.—The Secretary, in cooperation with the non-Federal interest, shall conduct a study of any damage to the project for shoreline protection, Brevard County, Florida, authorized by section 101(b)(7) of the Water Resources Development Act of 1996 (110 Stat. 3667), to determine whether the damage is the result of a Federal navigation project.

(b) CONDITIONS.—In conducting the study, the Secretary shall utilize the services of an independent coastal expert who shall consider all relevant studies completed by the Corps of Engineers and the project's local sponsor. The study shall be completed within 120 days of the date of enactment of this Act.

(c) MITIGATION OF DAMAGES.—After completion of the study, the Secretary shall mitigate any damage to the shoreline protection project that is the result of a Federal navigation project. The costs of the mitigation shall be allocated to the Federal navigation project as operation and maintenance.

SEC. 312. BROWARD COUNTY AND HILLSBORO INLET, FLORIDA.

The project for shoreline protection, Broward County and Hillsboro Inlet, Florida, authorized by section 301 of the River and Harbor Act of 1965 (79 Stat. 1090), is modified to authorize the Secretary to reimburse the non-Federal interest for the Federal share of the cost of preconstruction planning and design for the project upon execution of a contract to construct the project if the Secretary determines such work is compatible with and integral to the project.

SEC. 313. FORT PIERCE, FLORIDA.

(a) IN GENERAL.—The project for shore protection and harbor mitigation, Fort Pierce, Florida, authorized by section 301 of the River and Harbor Act of 1965 (79 Stat. 1092) and section 506(a)(2) of the Water Resources Development Act of 1996 (110 Stat. 3757), is modified to incorporate an additional 1 mile into the project in accordance with a final approved General Reevaluation Report, at a total cost for initial nourishment for the entire project of $9,128,000, with an estimated Federal cost of $7,073,500 and an estimated non-Federal cost of $2,054,500.

(b) PERIOD NOURISHMENT.—Periodic nourishment is authorized for the project in accordance with section 506(a)(2) of Water Resources Development Act of 1996 (110 Stat. 3757).

(c) REVISION OF THE PROJECT COOPERATION AGREEMENT.—The Secretary shall revise the project cooperation agreement for the project referred to in subsection (a) to take into account the change in Federal participation in the project pursuant to subsection (a).

SEC. 314. NASSAU COUNTY, FLORIDA.

The project for beach erosion control, Nassau County (Amelia Island), Florida, authorized by section 3(a)(3) of the Water Resources Development Act of 1988 (102 Stat. 4013), is modified to authorize the Secretary to construct the project at a total

cost of $17,000,000, with an estimated Federal cost of $13,300,000 and an estimated non-Federal cost of $3,700,000.

SEC. 315. MIAMI HARBOR CHANNEL, FLORIDA.

The project for navigation, Miami Harbor Channel, Florida, authorized by section 101(a)(9) of the Water Resources Development Act of 1990 (104 Stat. 4606), is modified to include construction of artificial reefs and related environmental mitigation required by Federal, State, and local environmental permitting agencies for the project.

SEC. 316. LAKE MICHIGAN, ILLINOIS.

The project for storm damage reduction and shoreline erosion protection, Lake Michigan, Illinois, from Wilmette, Illinois, to the Illinois-Indiana State line, authorized by section 101(a)(12) of the Water Resources Development Act of 1996 (110 Stat. 3664), is modified to authorize the Secretary to provide a credit against the non-Federal share of the cost of the project for costs incurred by the non-Federal interest—

(1) in constructing Reach 2D and Segment 8 of Reach 4 of the project; and

(2) in reconstructing Solidarity Drive in Chicago, Illinois, prior to entry into a project cooperation agreement with the Secretary.

SEC. 317. SPRINGFIELD, ILLINOIS.

Section 417 of the Water Resources Development Act of 1996 (110 Stat. 3743) is amended—

(1) by inserting "(a) IN GENERAL.—" before "The Secretary"; and

(2) by adding at the end the following:

"(b) COST SHARING.—The non-Federal share of assistance provided under this section before, on, or after the date of enactment of this subsection shall be 50 percent.".

SEC. 318. LITTLE CALUMET RIVER, INDIANA.

The project for flood control, Little Calumet River, Indiana, authorized by section 401(a) of the Water Resources Development Act of 1986 (100 Stat. 4115), is modified to authorize the Secretary to construct the project substantially in accordance with the report of the Corps of Engineers, at a total cost of $167,000,000, with an estimated Federal cost of $122,000,000 and an estimated non-Federal cost of $45,000,000.

SEC. 319. OGDEN DUNES, INDIANA.

(a) STUDY.—The Secretary shall conduct a study of beach erosion in and around the town of Ogden Dunes, Indiana, to determine whether the damage is the result of a Federal navigation project.

(b) MITIGATION OF DAMAGES.—After completion of the study, the Secretary shall mitigate any damage to the beach and shoreline that is the result of a Federal navigation project. The cost of the mitigation shall be allocated to the Federal navigation project as operation and maintenance.

SEC. 320. SAINT JOSEPH RIVER, SOUTH BEND, INDIANA.

(a) MAXIMUM TOTAL EXPENDITURE.—The maximum total expenditure for the project for streambank erosion, recreation, and pedestrian access features, Saint Joseph River, South Bend, Indiana, shall be $7,800,000.

(b) REVISION OF PROJECT COOPERATION AGREEMENT.—The Secretary shall revise the project cooperation agreement for the project referred to in subsection (a) to take into account the change in the Federal participation in such project pursuant to subsection (a).

(c) COST SHARING.—Nothing in this section shall be construed to affect any cost-sharing requirement applicable to the project referred to in subsection (a) under title I of the Water Resources Development Act of 1986 (33 U.S.C. 2211 et seq.).

SEC. 321. WHITE RIVER, INDIANA.

The project for flood control, Indianapolis on West Fork of the White River, Indiana, authorized by section 5 of the Act entitled "An Act authorizing the construction of certain public works on rivers and harbors for flood control, and other purposes", approved June 22, 1936 (49 Stat. 1586), and modified by section 323 of the Water Resources Development Act of 1996 (110 Stat. 3716), is further modified to authorize the Secretary to undertake riverfront alterations as described in the Central Indianapolis Waterfront Concept Master Plan, dated February 1994, at a total cost of $110,975,000, with an estimated Federal cost of $52,475,000 and an estimated non-Federal cost of $58,500,000.

SEC. 322. LAKE PONTCHARTRAIN, LOUISIANA.

The project for hurricane-flood protection, Lake Pontchartrain, Louisiana, authorized by section 204 of the Flood Control Act of 1965 (79 Stat. 1077), is modified—

(1) to direct the Secretary to conduct a study to determine the feasibility of constructing a pump adjacent to each of the 4 proposed drainage structures for the Saint Charles Parish feature of the project; and

(2) to authorize the Secretary to construct such pumps upon completion of the study.

SEC. 323. LAROSE TO GOLDEN MEADOW, LOUISIANA.

The project for hurricane protection Larose to Golden Meadow, Louisiana, authorized by section 204 of the Flood Control Act of 1965 (79 Stat. 1077), is modified to direct the Secretary to convert the Golden Meadow floodgate into a navigation lock if the Secretary determines that the conversion is feasible.

SEC. 324. LOUISIANA STATE PENITENTIARY LEVEE, LOUISIANA.

The Louisiana State Penitentiary Levee project, Louisiana, authorized by section 401(a) of the Water Resources Development Act of 1986 (100 Stat. 4117), is modified to direct the Secretary to provide credit to the non-Federal interest toward the non-Federal share of the cost of the project. The credit shall be for cost of work performed by the non-Federal interest prior to the execution of a project cooperation agreement as determined by the Secretary to be compatible with and an integral part of the project.

SEC. 325. TWELVE-MILE BAYOU, CADDO PARISH, LOUISIANA.

The Secretary shall be responsible for maintenance of the levee along Twelve-Mile Bayou from its junction with the existing Red River Below Denison Dam Levee approximately 26 miles upstream to its terminus at high ground in the vicinity of Black Bayou, Caddo Parish, Louisiana, if the Secretary determines that such maintenance is economically justified and environmentally acceptable and that the levee was constructed in accordance with appropriate design and engineering standards.

SEC. 326. WEST BANK OF THE MISSISSIPPI RIVER (EAST OF HARVEY CANAL), LOUISIANA.

(a) IN GENERAL.—The project for flood control and storm damage reduction, West Bank of the Mississippi River (East of Harvey Canal), Louisiana, authorized by section 401(b) of the Water Resources Development Act of 1986 (100 Stat. 4128) and section 101(a)(17) of the Water Resources Development Act of 1996 (110 Stat. 3665), is modified—

(1) to provide that any liability under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.) from the construction of the project is a Federal responsibility; and

(2) to authorize the Secretary to carry out operation and maintenance of that portion of the project included in the report of the Chief of Engineers, dated May 1, 1995, referred to as "Algiers Channel", if the non-Federal sponsor reimburses the Secretary for the amount of such operation and maintenance included in the report of the Chief of Engineers.

(b) COMBINATION OF PROJECTS.—The Secretary shall carry out work authorized as part of the Westwego to Harvey Canal project, the East of Harvey cannal project, and the Lake Cataouatche modifications as a single project, to be known as the West Bank and vicinity, New Orleans, Louisiana, hurricane protection project, with a combined total cost of $280,300,000.

SEC. 327. TOLCHESTER CHANNEL, BALTIMORE HARBOR AND CHANNELS, CHESAPEAKE BAY, KENT COUNTY, MARYLAND.

The project for navigation, Tolchester Channel, Baltimore Harbor and Channels, Chesapeake Bay, Kent County, Maryland, authorized by section 101 of the River and Harbor Act of 1958 (72 Stat. 297), is modified to authorize the Secretary to straighten the navigation channel in accordance with the District Engineer's Navigation Assessment Report and Environmental Assessment, dated April 30, 1997. This modification shall be carried out in order to improve navigation safety.

SEC. 328. SAULT SAINTE MARIE, CHIPPEWA COUNTY, MICHIGAN.

The project for navigation Sault Sainte Marie, Chippewa County, Michigan, authorized by section 1149 of the Water Resources Development Act of 1986 (100 Stat. 4254–4255) and modified by section 330 of the Water Resources Development Act of 1996 (110 Stat. 3717–3718), is further modified to provide that the amount to be paid by non-Federal interests pursuant to section 101(a) of the Water Resources Development Act of 1986 (33 U.S.C. 2211(a)) and subsection (a) of such section 330 shall not include any interest payments.

SEC. 329. JACKSON COUNTY, MISSISSIPPI.

The project for environmental infrastructure, Jackson County, Mississippi, authorized by section 219(c)(5) of the Water Resources Development Act of 1992 (106 Stat. 4835) and modified by section 504 of the Water Resources Development Act of 1996 (110 Stat. 3757), is further modified to direct the Secretary to provide a credit, not to exceed $5,000,000, against the non-Federal share of the cost of the project for the costs incurred by the Jackson County Board of Supervisors since February 8, 1994, in constructing the project if the Secretary determines that such costs are for work that the Secretary determines is compatible with and integral to the project.

SEC. 330. TUNICA LAKE, MISSISSIPPI.

The project for flood control, Mississippi River Channel Improvement Project, Tunica Lake, Mississippi, authorized by the Act entitled: "An Act for the control of floods on the Mississippi River and its tributaries, and for other purposes", approved May 15, 1928 (45 Stat. 534–538), is modified to include construction of a weir at the Tunica Cutoff, Mississippi.

SEC. 331. BOIS BRULE DRAINAGE AND LEVEE DISTRICT, MISSOURI.

(a) MAXIMUM FEDERAL EXPENDITURE.—The maximum amount of Federal funds that may be allocated for the project for flood control, Bois Brule Drainage and Levee District, Missouri, authorized pursuant to section 205 of the Flood Control Act of 1948 (33 U.S.C. 701s), shall be $15,000,000.

(b) REVISION OF THE PROJECT COOPERATION AGREEMENT.—The Secretary shall revise the project cooperation agreement for the project referred to in subsection (a) to take into account the change in Federal participation in the project pursuant to subsection (a).

(c) COST SHARING.—Nothing in this section shall be construed to affect any cost-sharing requirement applicable to the project referred to in subsection (a) under title I of the Water Resources Development Act of 1986 (33 U.S.C. 2211 et seq.).

SEC. 332. MERAMEC RIVER BASIN, VALLEY PARK LEVEE, MISSOURI.

The project for flood control, Meramec River Basin, Valley Park Levee, Missouri, authorized by section 2(h) of an Act entitled "An Act to deauthorize several projects within the jurisdiction of the Army Corps of Engineers" (95 Stat. 1682–1683) and modified by section 1128 of the Water Resources Development Act of 1986, (100 Stat. 4246), is further modified to authorize the Secretary to construct the project at a maximum Federal expenditure of $35,000,000.

SEC. 333. MISSOURI RIVER MITIGATION PROJECT, MISSOURI, KANSAS, IOWA, AND NEBRASKA.

(a) IN GENERAL.—The project for mitigation of fish and wildlife losses, Missouri River Bank Stabilization and Navigation Project, Missouri, Kansas, Iowa, and Nebraska, authorized by section 601 of the Water Resources Development Act of 1986 (100 Stat. 4143), is modified to increase by 118,650 acres the lands and interests in lands to be acquired for the project.

(b) STUDY.—

(1) IN GENERAL.—The Secretary, in conjunction with the States of Nebraska, Iowa, Kansas, and Missouri, shall conduct a study to determine the cost of restoring, under the authority of the Missouri River fish and wildlife mitigation project, a total of 118,650 acres of lost Missouri River habitat.

(2) REPORT.—The Secretary shall report to Congress on the results of the study not later than 6 months after the date of enactment of this Act.

SEC. 334. WOOD RIVER, GRAND ISLAND, NEBRASKA.

The project for flood control, Wood River, Grand Island, Nebraska, authorized by section 101(a)(19) of the Water Resources Development Act of 1996 (110 Stat. 3665), is modified to authorize the Secretary to construct the project substantially in accordance with the report of the Corps of Engineers dated June 29, 1998, at a total cost of $17,039,000, with an estimated Federal cost of $9,730,000 and an estimated non-Federal cost of $7,309,000.

SEC. 335. ABSECON ISLAND, NEW JERSEY.

The project for storm damage reduction and shoreline protection, Brigantine Inlet to Great Egg Harbor Inlet, Absecon Island, New Jersey, authorized by section 101(b)(13) of the Water Resources Development Act of 1996 (110 Stat. 3668), is modified to provide that, if, after October 12, 1996, the non-Federal interests carry out any work associated with the project that is later recommended by the Chief of Engineers and approved by the Secretary, the Secretary may credit the non-Federal interests toward the non-Federal share of the cost of the project an amount equal to the Federal share of the cost of such work, without interest.

SEC. 336. NEW YORK HARBOR AND ADJACENT CHANNELS, PORT JERSEY, NEW JERSEY

The project for navigation, New York Harbor and Adjacent Channels, New York and New Jersey, authorized by section 202(b) of the Water Resources Development Act of 1986 (100 Stat. 4098), is modified to authorize the Secretary to construct that portion of the project that is located between Military Ocean Terminal Bayonne and Global Terminal in Bayonne, New Jersey, substantially in accordance with the report of the Corps of Engineers, at a total cost of $103,267,000, with an estimated Federal cost of $76,909,000 and an estimated non-Federal cost of $26,358,000.

SEC. 337. PASSAIC RIVER, NEW JERSEY.

Section 101(a)(18)(B) of the Water Resources Development Act of 1990 (104 Stat. 4608–4609) is amended by inserting ", including an esplanade for safe pedestrian access with an overall width of 600 feet" after "public access to Route 21".

SEC. 338. SANDY HOOK TO BARNEGAT INLET, NEW JERSEY.

The project for shoreline protection, Sandy Hook to Barnegat Inlet, New Jersey, authorized by section 101 of the River and Harbor Act of 1958 (72 Stat. 299), is modified—

(1) to include the demolition of Long Branch pier and extension of Ocean Grove pier; and

(2) to authorize the Secretary to reimburse the non-Federal sponsor for the Federal share of costs associated with the demolition of Long Branch pier and the construction of the Ocean Grove pier.

SEC. 339. ARTHUR KILL, NEW YORK AND NEW JERSEY.

The project for navigation, Arthur Kill, New York and New Jersey, authorized by section 202(b) of the Water Resources Development Act of 1986 (100 Stat. 4098) and modified by section 301(b)(11) of the Water Resources Development Act of 1996 (110 Stat. 3711), is further modified to authorize the Secretary to construct the portion of the project at Howland Hook Marine Terminal substantially in accordance with the report of the Corps of Engineers, dated September 30, 1998, at a total cost of $315,700,000, with an estimated Federal cost of $183,200,000 and an estimated non-Federal cost of $132,500,000.

SEC. 340. NEW YORK CITY WATERSHED.

Section 552(i) of the Water Resources Development Act of 1996 (110 Stat. 3781) is amended by striking "$22,500,000" and inserting "$42,500,000".

SEC. 341. NEW YORK STATE CANAL SYSTEM.

Section 553(e) of the Water Resources Development Act of 1996 (110 Stat. 3781) is amended by striking "$8,000,000" and inserting "$18,000,000".

SEC. 342. FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK.

The project for combined beach erosion control and hurricane protection, Fire Island Inlet to Montauk Point, Long Island, New York, authorized by the River and Harbor Act of 1960 (74 Stat. 483) and modified by the River and Harbor Act of 1962, the Water Resources Development Act of 1974, and the Water Resources Development Act of 1986, is further modified to direct the Secretary, in coordination with the heads of other Federal departments and agencies, to complete all procedures and reviews expeditiously and to adopt and transmit to Congress not later than June 30, 1999, a mutually acceptable shore erosion plan for the Fire Island Inlet to Moriches Inlet reach of the project.

SEC. 343. BROKEN BOW LAKE, RED RIVER BASIN, OKLAHOMA.

The project for flood control and water supply, Broken Bow Lake, Red River Basin, Oklahoma, authorized by section 203 of the Flood Control Act of 1958 (72 Stat. 309) and modified by section 203 of the Flood Control Act of 1962 (76 Stat. 1187), section 102(v) of the Water Resources Development Act of 1992 (106 Stat. 4808), and section 338 of the Water Resources Development Act of 1996 (110 Stat. 3720), is further modified to require the Secretary to make seasonal adjustments to the top of the conservation pool at the project as follows (if the Secretary determines that the adjustments will be undertaken at no cost to the United States and will adequately protect impacted water and related resources):

(1) Maintain an elevation of 599.5 from November 1 through March 31.

(2) Increase elevation gradually from 599.5 to 602.5 during April and May.

(3) Maintain an elevation of 602.5 from June 1 to September 30.

(4) Decrease elevation gradually from 602.5 to 599.5 during October.

SEC. 344. WILLAMETTE RIVER TEMPERATURE CONTROL, MCKENZIE SUBBASIN, OREGON.

(a) IN GENERAL.—The project for environmental restoration, Willamette River Temperature Control, McKenzie Subbasin, Oregon, authorized by section 101(a)(25)

of the Water Resources Development Act of 1996 (110 Stat. 3665), is modified to authorize the Secretary to construct the project substantially in accordance with the Feature Memorandum dated July 31, 1998, at a total cost of $64,741,000.

(b) REPORT.—Not later than 90 days after the date of enactment of this Act, the Secretary shall report to Congress on the reasons for the cost growth of the Willamette River project and outline the steps the Corps of Engineers is taking to control project costs, including the application of value engineering and other appropriate measures. In the report, the Secretary shall also include a cost estimate for, and recommendations on the advisability of, adding fish screens to the project.

SEC. 345. AYLESWORTH CREEK RESERVOIR, PENNSYLVANIA.

The project for flood control, Aylesworth Creek Reservoir, Pennsylvania, authorized by section 203 of the Flood Control Act of 1962 (76 Stat. 1182), is modified to authorize the Secretary to transfer, in each of fiscal years 1999 and 2000, $50,000 to the Aylesworth Creek Reservoir Park Authority for recreational facilities.

SEC. 346. CURWENSVILLE LAKE, PENNSYLVANIA.

Section 562 of the Water Resources Development Act of 1996 (110 Stat. 3784) is amended by adding at the end the following: "The Secretary shall provide design and construction assistance for recreational facilities at Curwensville Lake and, when appropriate, may require the non-Federal interest to provide not more than 25 percent of the cost of designing and constructing such facilities. The Secretary may transfer, in each of fiscal years 1999 through 2003, $100,000 to the Clearfield County Municipal Services and Recreation Authority for recreational facilities.".

SEC. 347. DELAWARE RIVER, PENNSYLVANIA AND DELAWARE.

The project for navigation, Delaware River, Philadelphia to Wilmington, Pennsylvania and Delaware, authorized by section 3(a)(12) of the Water Resources Development Act of 1988 (102 Stat. 4014), is modified to authorize the Secretary to extend the channel of the Delaware River at Camden, New Jersey, to within 150 feet of the existing bulkhead and to relocate the 40-foot deep Federal navigation channel, eastward within Philadelphia Harbor, from the Ben Franklin Bridge to the Walt Whitman Bridge, into deep water.

SEC. 348. MUSSERS DAM, PENNSYLVANIA.

Section 209 of the Water Resources Development Act of 1992 (106 Stat. 4830) is amended by striking subsection (e) and redesignating subsection (f) as subsection (e).

SEC. 349. NINE-MILE RUN, ALLEGHENY COUNTY, PENNSYLVANIA.

The Nine-Mile Run project, Allegheny County, Pennsylvania, carried out pursuant to section 206 of the Water Resources Development Act of 1996 (33 U.S.C. 2330; 110 Stat. 3679–3680), is modified to authorize the Secretary to provide a credit toward the non-Federal share of the project for costs incurred by the non-Federal interest in preparing environmental and feasibility documentation for the project before entering into an agreement with the Corps of Engineers with respect to the project if the Secretary determines such costs are for work that is compatible with and integral to the project.

SEC. 350. RAYSTOWN LAKE, PENNSYLVANIA.

(a) RECREATION PARTNERSHIP INITIATIVE.—Section 519(b) of the Water Resources Development Act of 1996 (110 Stat. 3765) is amended—

(1) by redesignating paragraph (3) as paragraph (4); and

(2) by inserting after paragraph (2) the following:

"(3) ENGINEERING AND DESIGN SERVICES.—The Secretary may perform, at full Federal expense, engineering and design services for project infrastructure expected to be associated with the development of the site at Raystown Lake, Hesston, Pennsylvania.".

(b) CONSTRUCTION ASSISTANCE.—

(1) IN GENERAL.—Consistent with the master plan described in section 318 of the Water Resources Development Act of 1992 (106 Stat. 4848), the Secretary may provide a grant to Juniata College for the construction of facilities and structures at Raystown Lake, Pennsylvania, to interpret and understand environmental conditions and trends. As a condition of the receipt of such financial assistance, officials at Juniata College shall coordinate with the Baltimore District of the Army Corps of Engineers.

(2) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated $5,000,000 for fiscal years beginning after September 30, 1998, to carry out this subsection.

SEC. 351. SOUTH CENTRAL PENNSYLVANIA.

Section 313(g)(1) of the Water Resources Development Act of 1992 (106 Stat. 4846) is amended by striking "$80,000,000" and inserting "$180,000,000".

SEC. 352. COOPER RIVER, CHARLESTON HARBOR, SOUTH CAROLINA.

The project for rediversion, Cooper River, Charleston Harbor, South Carolina, authorized by section 101 of the River and Harbor Act of 1968 (82 Stat. 731) and modified by title I of the Energy and Water Development Appropriations Act, 1992 (105 Stat. 516), is further modified to authorize the Secretary to pay to the State of South Carolina not more than $3,750,000 if the Secretary and the State enter into a binding agreement for the State to perform all future operation of, including associated studies to assess the efficacy of, the St. Stephen, South Carolina, fish lift. The agreement must specify the terms and conditions under which payment will be made and the rights of, and remedies available to, the Federal Government to recover all or a portion of such payment in the event the State suspends or terminates operation of the fish lift or fails to operate the fish lift in a manner satisfactory to the Secretary. Maintenance of the fish lift shall remain a Federal responsibility.

SEC. 353. BOWIE COUNTY LEVEE, TEXAS.

The project for flood control, Red River Below Denison Dam, Texas and Oklahoma, authorized by section 10 of the Flood Control Act of 1946 (60 Stat. 647), is modified to direct the Secretary to implement the Bowie County Levee feature of the project in accordance with the plan defined as Alternative B in the draft document entitled "Bowie County Local Flood Protection, Red River, Texas Project Design Memorandum No. 1, Bowie County Levee", dated April 1997. In evaluating and implementing this modification, the Secretary shall allow the non-Federal interest to participate in the financing of the project in accordance with section 903(c) of the Water Resources Development Act of 1986 (100 Stat. 4184) to the extent that the Secretary's evaluation indicates that applying such section is necessary to implement the project.

SEC. 354. CLEAR CREEK, TEXAS.

Section 575 of the Water Resources Development Act of 1996 (110 Stat. 3789) is amended by adding at the end the following:

"(c) CLEAR CREEK, TEXAS.—In any evaluation of economic benefits and costs for the project for flood control, Clear Creek, Texas, authorized by section 203 of the Flood Control Act of 1968 (82 Stat. 742) that occurs after the date of enactment of this subsection, the Secretary shall include the costs and benefits of nonstructural measures undertaken, including any buyout or relocation actions, of non-Federal interests within the drainage area of such project before the date of the evaluation in the determination of conditions existing before the construction of the project.".

SEC. 355. CYPRESS CREEK, TEXAS.

(a) IN GENERAL.—The project for flood control, Cypress Creek, Texas, authorized by section 3(a)(13) of the Water Resources Development Act of 1988 (102 Stat. 4014), is modified to authorize the Secretary to carry out a nonstructural flood control project at a total cost of $5,000,000.

(b) REIMBURSEMENT FOR WORK.—The Secretary may reimburse the non-Federal interest for the Cypress Creek project for work done by the non-Federal interest on the nonstructural flood control project in an amount equal to the estimate of the Federal share, without interest, of the cost of such work—

(1) if, after authorization and before initiation of construction of such nonstructural project, the Secretary approves the plans for construction of such nonstructural project by the non-Federal interest; and

(2) if the Secretary finds, after a review of studies and design documents prepared to carry out such nonstructural project, that construction of such nonstructural project is economically justified and environmentally acceptable.

SEC. 356. DALLAS FLOODWAY EXTENSION, DALLAS, TEXAS.

The project for flood control, Dallas Floodway Extension, Dallas, Texas, authorized by section 301 of the River and Harbor Act of 1965 (79 Stat. 1091) and modified by section 351 of the Water Resources Development Act of 1996 (110 Stat. 3724), is further modified—

(1) to add environmental restoration and recreation as project purposes; and

(2) to authorize the Secretary to construct the project substantially in accordance with the Chain of Wetlands Plan in the report of the Corps of Engineers at a total cost of $123,200,000, with an estimated Federal cost of $80,000,000 and an estimated non-Federal cost of $43,200,000.

SEC. 357. UPPER JORDAN RIVER, UTAH.

The project for flood control, Upper Jordan River, Utah, authorized by section 101(a)(23) of the Water Resources Development Act of 1990 (104 Stat. 4610) and modified by section 301(a)(14) of the Water Resources Development Act of 1996 (110 Stat. 3709), is further modified to direct the Secretary to carry out the locally preferred project, entitled "Upper Jordan River Flood Control Project, Salt Lake County, Utah—Supplemental Information" and identified in the document of Salt Lake County, Utah, dated July 30, 1998, at a total cost of $12,870,000, with an estimated Federal cost of $8,580,000 and an estimated non-Federal cost of $4,290,000.

SEC. 358. ELIZABETH RIVER, CHESAPEAKE, VIRGINIA.

Notwithstanding any other provision of law, after the date of enactment of this Act, the city of Chesapeake, Virginia, shall not be obligated to make the annual cash contribution required under paragraph 1(9) of the Local Cooperation Agreement dated December 12, 1978, between the Government and the city for the project for navigation, southern branch of Elizabeth River, Chesapeake, Virginia.

SEC. 359. BLUESTONE LAKE, OHIO RIVER BASIN, WEST VIRGINIA.

Section 102(ff) of the Water Resources Development Act of 1992 (106 Stat. 4810) is amended by striking "take such measures as are technologically feasible" and inserting "implement Plan C/G, as defined in the Evaluation Report of the District Engineer, dated December 1996,".

SEC. 360. GREENBRIER BASIN, WEST VIRGINIA.

Section 579(c) of the Water Resources Development Act of 1996 (110 Stat. 3790) is amended by striking "$12,000,000" and inserting "$73,000,000."

SEC. 361. MOOREFIELD, WEST VIRGINIA.

The project for flood control, Moorefield, West Virginia, authorized by section 101(a)(25) of the Water Resources Development Act of 1990 (104 Stat. 4610-4611), is modified to provide that the non-Federal interest shall not be required to pay the unpaid balance, including interest, of the non-Federal share of the cost of the project.

SEC. 362. WEST VIRGINIA AND PENNSYLVANIA FLOOD CONTROL.

Section 581(a) of the Water Resources Development Act of 1996 (110 Stat. 3790) is amended to read as follows:

"(a) IN GENERAL.—The Secretary may design and construct—

"(1) flood control measures in the Cheat and Tygart River basins, West Virginia, at a level of protection that is sufficient to prevent any future losses to these communities from flooding such as occurred in January 1996 but no less than a 100-year level of protection; and

"(2) structural and nonstructural flood control, streambank protection, stormwater management, and channel clearing and modification measures in the Lower Allegheny, Lower Monongahela, West Branch Susquehanna, and Juniata River basins, Pennsylvania, at a level of protection that is sufficient to prevent any future losses to communities in these basins from flooding such as occurred in January 1996, but no less than a 100-year level of flood protection with respect to those measures that incorporate levees or floodwalls.".

SEC. 363. PROJECT REAUTHORIZATIONS.

(a) LEE CREEK, ARKANSAS AND OKLAHOMA.—The project for flood protection on Lee Creek, Arkansas and Oklahoma, authorized by section 204 of the Flood Control Act of 1965 (79 Stat. 1078) and deauthorized pursuant to section 1001(b)(1) of the Water Resources Development Act of 1986 (33 U.S.C. 579a(b)(1)), is authorized to be carried out by the Secretary.

(b) INDIAN RIVER COUNTY, FLORIDA.—The project for shore protection, Indian River County, Florida, authorized by section 501 of the Water Resources and Development Act of 1986 (100 Stat. 4134) and deauthorized pursuant to section 1001(b)(1) of the Water Resources Development Act of 1986 (33 U.S.C. 579a(b)(1)), is authorized to be carried out by the Secretary.

(c) LIDO KEY, FLORIDA.—The project for shore protection, Lido Key, Florida, authorized by section 101 of the River and Harbor Act of 1970 (84 Stat. 1819) and deauthorized pursuant to section 1001(b)(2) of the Water Resources Development Act of 1986 (33 U.S.C 579a(b)(2)), is authorized to be carried out by the Secretary.

(d) ST. AUGUSTINE, ST. JOHNS COUNTY, FLORIDA.—

(1) IN GENERAL.—The project for shore protection and storm damage reduction, St. Augustine, St. Johns County, Florida, authorized by section 501 of the Water Resources Development Act of 1986 and deauthorized pursuant to section 1001(a) of such Act (33 U.S.C. 579a(a)), is authorized to include navigation miti-

gation as a project purpose and to be carried out by the Secretary substantially in accordance with the General Reevaluation Report dated November 18, 1998, at a total cost of $16,086,000, with an estimated Federal cost of $12,949,000 and an estimated non-Federal cost of $3,137,000.

(2) PERIODIC NOURISHMENT.—The Secretary is authorized to carry out periodic nourishment for the project for a 50-year period at an estimated average annual cost of $1,251,000, with an estimated annual Federal cost of $1,007,000 and an estimated annual non-Federal cost of $244,000.

(e) CASS RIVER, MICHIGAN (VASSAR).—The project for flood protection, Cass River, Michigan (Vassar), authorized by section 203 of the Flood Control Act of 1958 (72 Stat. 311) and deauthorized pursuant to section 1001(b)(2) of the Water Resources Development Act of 1986 (33 U.S.C. 579a(b)(2)), is authorized to be carried out by the Secretary.

(f) SAGINAW RIVER, MICHIGAN (SHIAWASSEE FLATS).—The project for flood control, Saginaw River, Michigan (Shiawassee Flats), authorized by section 203 of the Flood Control Act of 1958 (72 Stat. 311) and deauthorized pursuant to section 1001(b)(2) of the Water Resources Development Act of 1986 (33 U.S.C. 579a(b)(2)), is authorized to be carried out by the Secretary.

(g) PARK RIVER, GRAFTON, NORTH DAKOTA.—The project for flood control, Park River, Grafton, North Dakota, authorized by section 401(a) of the Water Resources Development Act of 1986 (100 Stat. 4121) and deauthorized pursuant to section 1001(a) of such Act (33 U.S.C. 579a(a)), is authorized to be carried out by the Secretary.

(h) MEMPHIS HARBOR, MEMPHIS, TENNESSEE.—The project for navigation, Memphis Harbor, Memphis, Tennessee, authorized by section 601(a) of the Water Resources Development Act of 1986 (100 Stat. 4145) and deauthorized pursuant to 1001(a) of such Act (33 U.S.C 579a(a)), is authorized to be carried out by the Secretary.

SEC. 364. PROJECT DEAUTHORIZATIONS.

(a) IN GENERAL.—The following projects or portions of projects are not authorized after the date of enactment of this Act:

(1) BRIDGEPORT HARBOR, CONNECTICUT.—That portion of the project for navigation, Bridgeport Harbor, Connecticut, authorized by section 101 of the River and Harbor Act of 1958 (72 Stat. 297), consisting of a 2.4-acre anchorage area, 9 feet deep, and an adjacent 0.6-acre anchorage, 6 feet deep, located on the west side of Johnsons River.

(2) CLINTON HARBOR, CONNECTICUT.—That portion of the project for navigation, Clinton Harbor, Connecticut, authorized by the Rivers and Harbors Act of 1945, House Document 240, 76th Congress, 1st Session, lying upstream of a line designated by the 2 points N158,592.12, E660,193.92 and N158,444.58, E660,220.95.

(3) BASS HARBOR, MAINE.—The following portions of the project for navigation, Bass Harbor, Maine, authorized on May 7, 1962, under section 107 of the River and Harbor Act of 1960 (33 U.S.C. 577):

(A) Beginning at a bend in the project, N149040.00, E538505.00, thence running easterly about 50.00 feet along the northern limit of the project to a point N149061.55, E538550.11, thence running southerly about 642.08 feet to a point, N14877.64, E538817.18, thence running southwesterly about 156.27 feet to a point on the westerly limit of the project, N148348.50, E538737.02, thence running northerly about 149.00 feet along the westerly limit of the project to a bend in the project, N148489.22, E538768.09, thence running northwesterly about 610.39 feet along the westerly limit of the project to the point of origin.

(B) Beginning at a point on the westerly limit of the project, N148118.55, E538689.05, thence running southeasterly about 91.92 feet to a point, N148041.43, E538739.07, thence running southerly about 65.00 feet to a point, N147977.86, E538725.51, thence running southwesterly about 91.92 feet to a point on the westerly limit of the project, N147927.84, E538648.39, thence running northerly about 195.00 feet along the westerly limit of the project to the point of origin.

(4) BOOTHBAY HARBOR, MAINE.—The project for navigation, Boothbay Harbor, Maine, authorized by the River and Harbor Act of 1912 (37 Stat. 201).

(5) BUCKSPORT HARBOR, MAINE.—That portion of the project for navigation, Bucksport Harbor, Maine, authorized by the River and Harbor Act of 1902, consisting of a 16-foot deep channel beginning at a point N268.748.16, E423.390.76, thence running north 47 degrees 02 minutes 23 seconds east 51.76 feet to a point N268.783.44, E423.428.64, thence running north 67 degrees 54 minutes

32 seconds west 1513.94 feet to a point N269.352.81, E422.025.84, thence running south 47 degrees 02 minutes 23 seconds west 126.15 feet to a point N269.266.84, E421.933.52, thence running south 70 degrees 24 minutes 28 seconds east 1546.79 feet to the point of origin.

(6) EAST BOOTHBAY HARBOR, MAINE.—The project for navigation, East Boothbay Harbor, Maine, authorized by the first section of the Act entitled, "An Act making appropriations for the construction, repair, and preservation of certain public works on rivers and harbors, and for other purposes", approved June 25, 1910 (36 Stat. 631).

(7) WELLS HARBOR, MAINE.—The following portions of the project for navigation, Wells Harbor, Maine, authorized by section 101 of the River and Harbor Act of 1960 (74 Stat. 480):

(A) The portion of the 6-foot channel the boundaries of which begin at a point with coordinates N177,992.00, E394,831.00, thence running south 83 degrees 58 minutes 14.8 seconds west 10.38 feet to a point N177,990.91, E394,820.68, thence running south 11 degrees 46 minutes 47.7 seconds west 991.76 feet to a point N177,020.04, E394,618.21, thence running south 78 degrees 13 minutes 45.7 seconds east 10.00 feet to a point N177,018.00, E394,628.00, thence running north 11 degrees 46 minutes 22.8 seconds east 994.93 feet to the point of origin.

(B) The portion of the 6-foot anchorage the boundaries of which begin at a point with coordinates N177,778.07, E394,336.96, thence running south 51 degrees 58 minutes 32.7 seconds west 15.49 feet to a point N177,768.53, E394,324.76, thence running south 11 degrees 46 minutes 26.5 seconds west 672.87 feet to a point N177,109.82, E394,187.46, thence running south 78 degrees 13 minutes 45.7 seconds east 10.00 feet to a point N177,107.78, E394,197.25, thence running north 11 degrees 46 minutes 25.4 seconds east 684.70 feet to the point of origin.

(C) The portion of the 10-foot settling basin the boundaries of which begin at a point with coordinates N177,107.78, E394,197.25, thence running north 78 degrees 13 minutes 45.7 seconds west 10.00 feet to a point N177,109.82, E394,187.46, thence running south 11 degrees 46 minutes 15.7 seconds west 300.00 feet to a point N176,816.13, E394,126.26, thence running south 78 degrees 12 minutes 21.4 seconds east 9.98 feet to a point N176,814.09, E394,136.03, thence running north 11 degrees 46 minutes 29.1 seconds east 300.00 feet to the point of origin.

(D) The portion of the 10-foot settling basin the boundaries of which begin at a point with coordinates N177,018.00, E394,628.00, thence running north 78 degrees 13 minutes 45.7 seconds west 10.00 feet to a point N177,020.04, E394,618.21, thence running south 11 degrees 46 minutes 44.0 seconds west 300.00 feet to a point N176,726.36, E394,556.97, thence running south 78 degrees 12 minutes 30.3 seconds east 10.03 feet to a point N176,724.31, E394,566.79, thence running north 11 degrees 46 minutes 22.4 seconds east 300.00 feet to the point of origin.

(8) FALMOUTH HARBOR, MASSACHUSETTS.—That portion of the project for navigation, Falmouth Harbor, Massachusetts, authorized by section 101 of the River and Harbor Act of 1948 lying southeasterly of a line commencing at a point N199,286.41, E844,394.91, thence running north 66 degrees 52 minutes 3.31 seconds east 472.95 feet to a point N199,472.21, E844,829.83, thence running north 43 degrees 9 minutes 28.3 seconds east 262.64 feet to a point N199,633.80, E845,009.48, thence running north 21 degrees 40 minutes 11.26 seconds east 808.38 feet to a point N200,415.05, E845,307.98, thence running north 32 degrees 25 minutes 29.01 seconds east 160.76 feet to a point N200,550.75, E845,394.18, thence running north 24 degrees 56 minutes 42.29 seconds east 1,410.29 feet to a point N201,829.48, E845,988.97.

(9) GREEN HARBOR, MASSACHUSETTS.—That portion of the project for navigation, Green Harbor, Massachusetts, undertaken pursuant to section 107 of the River and Harbor Act of 1960 (33 U.S.C. 577), consisting of the 6-foot deep channel beginning at a point along the west limit of the existing project, North 395990.43, East 831079.16, thence running northwesterly about 752.85 feet to a point, North 396722.80, East 830904.76, thence running northwesterly about 222.79 feet to a point along the west limit of the existing project, North 396844.34, East 830718.04, thence running southwesterly about 33.72 feet along the west limit of the existing project to a point, North 396810.80, East 830714.57, thence running southeasterly about 195.42 feet along the west limit of the existing project to a point, North 396704.19, East 830878.35, thence running about 544.66 feet along the west limit of the existing project to a point,

North 396174.35, East 831004.52, thence running southeasterly about 198.49 feet along the west limit of the existing project to the point of beginning.

(10) NEW BEDFORD AND FAIRHAVEN HARBOR, MASSACHUSETTS.—The following portions of the project for navigation, New Bedford and Fairhaven Harbor, Massachusetts:

(A) A portion of the 25-foot spur channel leading to the west of Fish Island, authorized by the River and Harbor Act of 3 March 1909, beginning at a point with coordinates N232,173.77, E758,791.32, thence running south 27 degrees 36 minutes 52.8 seconds west 38.2 feet to a point N232,139.91, E758,773.61, thence running south 87 degrees 35 minutes 31.6 seconds west 196.84 feet to a point N232,131.64, E758,576.94, thence running north 47 degrees 47 minutes 48.4 seconds west 502.72 feet to a point N232,469.35, E758,204.54, thence running north 10 degrees 10 minutes 20.3 seconds west 438.88 feet to a point N232,901.33, E758,127.03, thence running north 79 degrees 49 minutes 43.1 seconds east 121.69 feet to a point N232,922.82, E758,246.81, thence running south 04 degrees 29 minutes 17.6 seconds east 52.52 feet to a point N232,870.46, E758,250.92, thence running south 23 degrees 56 minutes 11.2 seconds east 49.15 feet to a point N323,825.54, E758,270.86, thence running south 79 degrees 49 minutes 27.0 seconds west 88.19 feet to a point N232,809.96, E758,184.06, thence running south 10 degrees 10 minutes 25.7 seconds east 314.83 feet to a point N232,500.08, E758,239.67, thence running south 56 degrees 33 minutes 56.1 seconds east 583.07 feet to a point N232,178.82, E758,726.25, thence running south 85 degrees 33 minutes 16.0 seconds east to the point of origin.

(B) A portion of the 30-foot west maneuvering basin, authorized by the River and Harbor Act of 3 July 1930, beginning at a point with coordinates N232,139.91, E758,773.61, thence running north 81 degrees 49 minutes 30.1 seconds east 160.76 feet to a point N232,162.77, E758.932.74, thence running north 85 degrees 33 minutes 16.0 seconds west 141.85 feet to a point N232,173.77, E758,791.32, thence running south 27 degrees 36 minutes 52.8 seconds west to the point of origin.

(b) ANCHORAGE AREA, CLINTON HARBOR, CONNECTICUT.—That portion of the Clinton Harbor, Connecticut, navigation project referred to in subsection (a)(2) beginning at a point beginning: N158,444.58, E660,220.95, thence running north 79 degrees 37 minutes 14 seconds east 833.31 feet to a point N158,594.72, E661,040.67, thence running south 80 degrees 51 minutes 53 seconds east 181.21 feet to a point N158,565.95, E661,219.58, thence running north 57 degrees 38 minutes 04 seconds west 126.02 feet to a point N158,633.41, E660,113.14, thence running south 79 degrees 37 minutes 14 seconds west 911.61 feet to a point N158,469.17, E660,216.44, thence running south 10 degrees 22 minutes 46 seconds east 25 feet returning to a point N158,444.58, E660,220.95 is redesignated as an anchorage area.

(c) WELLS HARBOR, MAINE.—

(1) PROJECT MODIFICATION.—The project for navigation, Wells Harbor, Maine, navigation project referred to in subsection (a)(7) is modified to authorize the Secretary to realign the channel and anchorage areas based on a harbor design capacity of 150 craft.

(2) REDESIGNATIONS.—

(A) 6-FOOT ANCHORAGE.—The following portions of the project for navigation, Wells Harbor, Maine, navigation project referred to in subsection (a)(7) shall be redesignated as part of the 6-foot anchorage:

(i) The portion of the 6-foot channel the boundaries of which begin at a point with coordinates N177,990.91, E394,820.68, thence running south 83 degrees 58 minutes 40.8 seconds west 94.65 feet to a point N177,980.98, E394,726.55, thence running south 11 degrees 46 minutes 22.4 seconds west 962.83 feet to a point N177,038.40, E394,530.10, thence running south 78 degrees 13 minutes 45.7 seconds east 90.00 feet to a point N177,020.04, E394,618.21, thence running north 11 degrees 46 minutes 47.7 seconds east 991.76 feet to the point of origin.

(ii) The portion of the 10-foot inner harbor settling basin the boundaries of which begin at a point with coordinates N177,020.04, E394,618.21, thence running north 78 degrees 13 minutes 30.5 seconds west 160.00 feet to a point N177,052.69, E394,461.58, thence running south 11 degrees 46 minutes 45.4 seconds west 299.99 feet to a point N176,759.02, E394,400.34, thence running south 78 degrees 13 minutes 17.9 seconds east 160 feet to a point N176,726.36, E394,556.97, thence running north 11 degrees 46 minutes 44.0 seconds east 300.00 feet to the point of origin.

(B) 6-FOOT CHANNEL.—The following portion of the project for navigation, Wells Harbor, Maine, navigation project referred to in subsection (a)(7) shall be redesignated as part of the 6-foot channel: the portion of the 6-foot anchorage the boundaries of which begin at a point with coordinates N178,102.26, E394,751.83, thence running south 51 degrees 59 minutes 42.1 seconds west 526.51 feet to a point N177,778.07, E394,336.96, thence running south 11 degrees 46 minutes 26.6 seconds west 511.83 feet to a point N177,277.01, E394,232.52, thence running south 78 degrees 13 minutes 17.9 seconds east 80.00 feet to a point N177,260.68, E394,310.84, thence running north 11 degrees 46 minutes 24.8 seconds east 482.54 feet to a point N177,733.07, E394,409.30, thence running north 51 degrees 59 minutes 41.0 seconds east 402.63 feet to a point N177,980.98, E394,726.55, thence running north 11 degrees 46 minutes 27.6 seconds east 123.89 feet to the point of origin.

(3) REALIGNMENT.—The 6-foot anchorage area described in paragraph (2)(B) shall be realigned to include the area located south of the inner harbor settling basin in existence on the date of enactment of this Act beginning at a point with coordinates N176,726.36, E394,556.97, thence running north 78 degrees 13 minutes 17.9 seconds west 160.00 feet to a point N176,759.02, E394,400.34, thence running south 11 degrees 47 minutes 03.8 seconds west 45 feet to a point N176,714.97, E394,391.15, thence running south 78 degrees 13 minutes 17.9 seconds 160.00 feet to a point N176,682.31, E394,547.78, thence running north 11 degrees 47 minutes 03.8 seconds east 45 feet to the point of origin.

(4) RELOCATION.—The Secretary may relocate the settling basin feature of the project for navigation, Wells Harbor, Maine, navigation project referred to in subsection (a)(7) to the outer harbor between the jetties.

(d) ANCHORAGE AREA, GREEN HARBOR, MASSACHUSETTS.—The portion of the Green Harbor, Massachusetts, navigation project referred to in subsection (a)(9) consisting of a 6-foot deep channel that lies northerly of a line whose coordinates are North 394825.00, East 831660.00 and North 394779.28, East 831570.64 is redesignated as an anchorage area.

SEC. 365. AMERICAN AND SACRAMENTO RIVERS, CALIFORNIA.

(a) IN GENERAL.—The project for flood damage reduction, American and Sacramento Rivers, California, authorized by section 101(a)(1) of the Water Resources Development Act of 1996 (110 Stat. 3662–3663), is modified to direct the Secretary to include the following improvements as part of the overall project:

(1) Raising the left bank of the non-Federal levee upstream of the Mayhew Drain for a distance of 4,500 feet by an average of 2.5 feet.

(2) Raising the right bank of the American River levee from 1,500 feet upstream to 4,000 feet downstream of the Howe Avenue bridge by an average of 1 feet.

(3) Modifying the south levee of the Natomas Cross Canal for a distance of 5 miles to ensure that the south levee is consistent with the level of protection provided by the authorized levee along the east bank of the Sacramento River.

(4) Modifying the north levee of the Natomas Cross Canal for a distance of 5 miles to ensure that the height of the levee is equivalent to the height of the south levee as authorized by paragraph (3).

(5) Installing gates to the existing Mayhew Drain culvert and pumps to prevent backup of floodwater on the Folsom Boulevard side of the gates.

(6) Installation of a slurry wall in the north levee of the American River from the east levee of the Natomas east Main Drain upstream for a distance of approximately 1.2 miles.

(7) Installation of a slurry wall in the north levee of the American River from 300 feet west of Jacob Lane north for a distance of approximately 1 mile to the end of the existing levee.

(b) COST LIMITATIONS.—Section 101(a)(1)(A) of the Water Resources Development Act of 1996 (110 Stat. 3662) is amended by striking "at a total cost of" and all that follows through "$14,225,000," and inserting the following: "at a total cost of $91,900,000, with an estimated Federal cost of $68,925,000 and an estimated non-Federal cost of $22,975,000,".

(c) COST SHARING.—For purposes of section 103 of the Water Resources Development Act of 1986 (33 U.S.C. 2213), the modifications authorized by this section shall be subject to the same cost sharing in effect for the project for flood damage reduction, American and Sacramento Rivers, California, authorized by section 101(a)(1) of the Water Resources Development Act of 1996 (110 Stat. 3662).

SEC. 366. MARTIN, KENTUCKY.

The project for flood control, Martin, Kentucky, authorized by section 202(a) of the Energy and Water Development Appropriations Act, 1981 (94 Stat. 1339) is modified to authorize the Secretary to take all necessary measures to prevent future losses that would occur from a flood equal in magnitude to a 100-year frequency event.

TITLE IV—STUDIES

SEC. 401. UPPER MISSISSIPPI AND ILLINOIS RIVERS LEVEES AND STREAMBANKS PROTECTION.

The Secretary shall conduct a study of erosion damage to levees and infrastructure on the upper Mississippi and Illinois Rivers and the impact of increased barge and pleasure craft traffic on deterioration of levees and other flood control structures on such rivers.

SEC. 402. UPPER MISSISSIPPI RIVER COMPREHENSIVE PLAN.

(a) DEVELOPMENT.—The Secretary shall develop a plan to address water and related land resources problems and opportunities in the Upper Mississippi and Illinois River Basins, extending from Cairo, Illinois, to the headwaters of the Mississippi River, in the interest of systemic flood damage reduction by means of a mixture of structural and nonstructural flood control and floodplain management strategies, continued maintenance of the navigation project, management of bank caving and erosion, watershed nutrient and sediment management, habitat management, recreation needs, and other related purposes.

(b) CONTENTS.—The plan shall contain recommendations on future management plans and actions to be carried out by the responsible Federal and non-Federal entities and shall specifically address recommendations to authorize construction of a systemic flood control project in accordance with a plan for the Upper Mississippi River. The plan shall include recommendations for Federal action where appropriate and recommendations for follow-on studies for problem areas for which data or current technology does not allow immediate solutions.

(c) CONSULTATION AND USE OF EXISTING DATA.—The Secretary shall consult with appropriate State and Federal agencies and shall make maximum use of existing data and ongoing programs and efforts of States and Federal agencies in developing the plan.

(d) COST SHARING.—Development of the plan under this section shall be at Federal expense. Feasibility studies resulting from development of such plan shall be subject to cost sharing under section 105 of the Water Resources Development Act of 1986 (33 U.S.C. 2215).

(e) REPORT.—The Secretary shall submit a report that includes the comprehensive plan to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate not later than 3 years after the date of enactment of this Act.

SEC. 403. EL DORADO, UNION COUNTY, ARKANSAS.

The Secretary shall conduct a study to determine the feasibility of improvements to regional water supplies for El Dorado, Union County, Arkansas.

SEC. 404. SWEETWATER RESERVOIR, SAN DIEGO COUNTY, CALIFORNIA.

The Secretary shall conduct a study of the potential water quality problems and pollution abatement measures in the watershed in and around Sweetwater Reservoir, San Diego County, California.

SEC. 405. WHITEWATER RIVER BASIN, CALIFORNIA.

The Secretary shall undertake and complete a feasibility study for flood damage reduction in the Whitewater River basin, California, and, based upon the results of such study, give priority consideration to including the recommended project, including the Salton Sea wetlands restoration project, in the flood mitigation and riverine restoration pilot program authorized in section 214 of this Act.

SEC. 406. LITTLE ECONLACKHATCHEE RIVER BASIN, FLORIDA.

The Secretary shall conduct a study of pollution abatement measures in the Little Econlackhatchee River basin, Florida.

SEC. 407. PORT EVERGLADES INLET, FLORIDA.

The Secretary shall conduct a study to determine the feasibility of carrying out a sand bypass project at Port Everglades Inlet, Florida.

SEC. 408. UPPER DES PLAINES RIVER AND TRIBUTARIES, ILLINOIS AND WISCONSIN.

(a) IN GENERAL.—The Secretary is directed to conduct a study of the upper Des Plaines River and tributaries, Illinois and Wisconsin, upstream of the confluence with Salt Creek at Riverside, Illinois, to determine the feasibility of improvements in the interests of flood damage reduction, environmental restoration and protection, water quality, recreation, and related purposes.

(b) SPECIAL RULE.—In conducting the study, the Secretary may not exclude from consideration and evaluation flood damage reduction measures based on restrictive policies regarding the frequency of flooding, drainage area, and amount of runoff.

SEC. 409. CAMERON PARISH WEST OF CALCASIEU RIVER, LOUISIANA.

The Secretary shall conduct a study to determine the feasibility of carrying out a project for storm damage reduction and environmental restoration, Cameron Parish west of Calcasieu River, Louisiana.

SEC. 410. GRAND ISLE AND VICINITY, LOUISIANA.

In carrying out a study of the storm damage reduction benefits to Grand Isle and vicinity, Louisiana, the Secretary shall include benefits that a storm damage reduction project for Grand Isle and vicinity, Louisiana, may have on the mainland coast of Louisiana as project benefits attributable to the Grand Isle project.

SEC. 411. LAKE PONTCHARTRAIN SEAWALL, LOUISIANA.

(a) IN GENERAL.—The Secretary shall complete a post-authorization change report on the project for hurricane-flood protection, Lake Pontchartrain, Louisiana, and vicinity, authorized by section 204 of the Flood Control Act of 1965 (79 Stat. 1077), to incorporate and accomplish structural modifications to the seawall fronting protection along the south shore of Lake Pontchartrain from the New Basin Canal on the west to the Inner harbor Navigation Canal on the east.

(b) REPORT.—The Secretary shall ensure expeditious completion of the post-authorization change report required by subsection (a) not later than 180 days after the date of enactment of this section.

SEC. 412. WESTPORT, MASSACHUSETTS.

The Secretary shall conduct a study to determine the feasibility of carrying out a navigation project for the town of Westport, Massachusetts, and the possible beneficial uses of dredged material for shoreline protection and storm damage reduction in the area. In determining the benefits of the project, the Secretary shall include the benefits derived from using dredged material for shoreline protection and storm damage reduction.

SEC. 413. SOUTHWEST VALLEY, ALBUQUERQUE, NEW MEXICO.

The Secretary shall undertake and complete a feasibility study for flood damage reduction in the Southwest Valley, Albuquerque, New Mexico, and, based upon the results of such study, give priority consideration to including the recommended project in the flood mitigation and riverine restoration pilot program authorized in section 214 of this Act.

SEC. 414. CAYUGA CREEK, NEW YORK.

The Secretary shall conduct a study to determine the feasibility of carrying out a project for flood control for Cayuga Creek, New York.

SEC. 415. ARCOLA CREEK WATERSHED, MADISON, OHIO.

The Secretary shall conduct a study to determine the feasibility of a project to provide environmental restoration and protection for the Arcola Creek watershed, Madison, Ohio.

SEC. 416. WESTERN LAKE ERIE BASIN, OHIO, INDIANA, AND MICHIGAN.

(a) IN GENERAL.—The Secretary shall conduct a study to develop measures to improve flood control, navigation, water quality, recreation, and fish and wildlife habitat in a comprehensive manner in the western Lake Erie basin, Ohio, Indiana, and Michigan, including watersheds of the Maumee, Ottawa, and Portage Rivers.

(b) COOPERATION.—In carrying out the study, the Secretary shall cooperate with interested Federal, State, and local agencies and nongovernmental organizations and consider all relevant programs of such agencies.

(c) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report on the results of the study, including findings and recommendations.

SEC. 417. SCHUYLKILL RIVER, NORRISTOWN, PENNSYLVANIA.

The Secretary shall conduct a study to determine the feasibility of carrying out a project for flood control for Schuylkill River, Norristown, Pennsylvania, including improvement to existing stormwater drainage systems.

SEC. 418. LAKES MARION AND MOULTRIE, SOUTH CAROLINA.

The Secretary shall conduct a study to determine the feasibility of carrying out a project for Lakes Marion and Moultrie to provide water supply, treatment, and distribution to Calhoun, Clarendon, Colleton, Dorchester, Orangeburg, and Sumter Counties, South Carolina.

SEC. 419. DAY COUNTY, SOUTH DAKOTA.

The Secretary shall conduct an investigation of flooding and other water resources problems between the James River and Big Sioux watersheds in South Dakota and an assessment of flood damage reduction needs of the area.

SEC. 420. CORPUS CHRISTI, TEXAS.

The Secretary shall include, as part of the study authorized in a resolution of the Committee on Public Works and Transportation of the House of Representatives, dated August 1, 1990, a review of two 175-foot-wide barge shelves on either side of the navigation channel at the Port of Corpus Christi, Texas.

SEC. 421. MITCHELL'S CUT CHANNEL (CANEY FORK CUT), TEXAS.

The Secretary shall conduct a study to determine the feasibility of carrying out a project for navigation, Mitchell's Cut Channel (Caney Fork Cut), Texas.

SEC. 422. MOUTH OF COLORADO RIVER, TEXAS.

The Secretary shall conduct a study to determine the feasibility of carrying out a project for navigation at the mouth of the Colorado River, Texas, to provide a minimum draft navigation channel extending from the Colorado River through Parkers Cut (also known as "Tiger Island Cut"), or an acceptable alternative, to Matagorda Bay.

SEC. 423. KANAWHA RIVER, FAYETTE COUNTY, WEST VIRGINIA.

The Secretary shall conduct a study to determine the feasibility of developing a public port along the Kanawha River in Fayette County, West Virginia, at a site known as "Longacre".

SEC. 424. WEST VIRGINIA PORTS.

The Secretary shall conduct a study to determine the feasibility of expanding public port development in West Virginia along the Ohio River and navigable portion of the Kanawha River from its mouth to river mile 91.0

SEC. 425. GREAT LAKES REGION COMPREHENSIVE STUDY.

(a) STUDY.—The Secretary shall conduct a comprehensive study of the Great Lakes region to ensure the future use, management, and protection of water and related resources of the Great Lakes basin. Such study shall include a comprehensive management plan specifically for St. Clair River and Lake St. Clair.

(b) REPORT.—Not later than 4 years after the date of enactment of this Act, the Secretary shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report that includes the strategic plan for Corps of Engineers programs in the Great Lakes basin and details of proposed Corps of Engineers environmental, navigation, and flood damage reduction projects in the region.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $1,400,000 for fiscal years 2000 through 2003.

SEC. 426. NUTRIENT LOADING RESULTING FROM DREDGED MATERIAL DISPOSAL.

(a) STUDY.—The Secretary shall conduct a study of nutrient loading that occurs as a result of discharges of dredged material into open-water sites in the Chesapeake Bay.

(b) REPORT.—Not later than 18 months after the date of enactment of this Act, the Secretary shall transmit to Congress a report on the results of the study.

SEC. 427. SANTEE DELTA FOCUS AREA, SOUTH CAROLINA.

The Secretary shall conduct a study of the Santee Delta focus area, South Carolina, to determine the feasibility of carrying out a project for enhancing wetlands values and public recreational opportunities in the area.

TITLE V—MISCELLANEOUS PROVISIONS

SEC. 501. CORPS ASSUMPTION OF NRCS PROJECTS.

(a) LLAGAS CREEK, CALIFORNIA.—The Secretary is authorized to complete the remaining reaches of the Natural Resources Conservation Service's flood control project at Llagas Creek, California, undertaken pursuant to section 5 of the Watershed Protection and Flood Prevention Act (16 U.S.C. 1005), substantially in accordance with the Natural Resources Conservation Service watershed plan for Llagas Creek, Department of Agriculture, and in accordance with the requirements of local cooperation as specified in section 4 of such Act, at a total cost of $45,000,000, with an estimated Federal cost of $21,800,000 and an estimated non-Federal cost of $23,200,000.

(b) THORNTON RESERVOIR, COOK COUNTY, ILLINOIS.—

(1) IN GENERAL.—The Thornton Reservoir project, an element of the project for flood control, Chicagoland Underflow Plan, Illinois, authorized by section 3(a)(5) of the Water Resources Development Act of 1988 (102 Stat. 4013), is modified to authorize the Secretary to include additional permanent flood control storage attributable to the Natural Resources Conservation Service Thornton Reservoir (Structure 84), Little Calumet River Watershed, Illinois, approved under the Watershed Protection and Flood Prevention Act (16 U.S.C. 1001 et seq.).

(2) COST SHARING.—Costs for the Thornton Reservoir project shall be shared in accordance with section 103 of the Water Resources Development Act of 1986 (33 U.S.C. 2213).

(3) TRANSITIONAL STORAGE.—The Secretary of Agriculture may cooperate with non-Federal interests to provide, on a transitional basis, flood control storage for the Natural Resources Conservation Service Thornton Reservoir (Structure 84) in the west lobe of the Thornton quarry in advance of Corps' construction.

(4) CREDITING.—The Secretary may credit against the non-Federal share of the Thornton Reservoir project all design, lands, easements, rights-of-way (as of the date of authorization), and construction costs incurred by the non-Federal interests before the signing of the project cooperation agreement.

(5) REEVALUATION REPORT.—The Secretary shall determine the credits authorized by paragraph (4) that are integral to the Thornton Reservoir project and the current total project costs based on a limited reevaluation report.

SEC. 502. CONSTRUCTION ASSISTANCE.

Section 219(e) of the Water Resources Development Act of 1992 (106 Stat. 4836–4837) is amended by striking paragraphs (5) and (6) and inserting the following:

"(5) $25,000,000 for the project described in subsection (c)(2);
"(6) $20,000,000 for the project described in subsection (c)(9);
"(7) $30,000,000 for the project described in subsection (c)(16); and
"(8) $30,000,000 for the project described in subsection (c)(17).".

SEC. 503. CONTAMINATED SEDIMENT DREDGING TECHNOLOGY.

(a) CONTAMINATED SEDIMENT DREDGING PROJECT.—

(1) REVIEW.—The Secretary shall conduct a review of innovative dredging technologies designed to minimize or eliminate contamination of a water column upon removal of contaminated sediments. The Secretary shall complete such review by June 1, 2001.

(2) TESTING.—After completion of the review under paragraph (1), the Secretary shall select the technology of those reviewed that the Secretary determines will increase the effectiveness of removing contaminated sediments and significantly reduce contamination of the water column. Not later than December 31, 2001, the Secretary shall enter into an agreement with a public or private entity to test such technology in the vicinity of Peoria Lakes, Illinois.

(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $2,000,000.

SEC. 504. DAM SAFETY.

(a) ASSISTANCE.—The Secretary is authorized to provide assistance to enhance dam safety at the following locations:

(1) Healdsburg Veteran's Memorial Dam, California
(2) Felix Dam, Pennsylvania
(3) Kehly Run Dam, Pennsylvania
(4) Owl Creek Reservoir, Pennsylvania
(5) Sweet Arrow Lake Dam, Pennsylvania

(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated $6,000,000 to carry out this section.

SEC. 505. GREAT LAKES REMEDIAL ACTION PLANS.

Section 401(a)(2) of the Water Resources Development Act of 1990 (110 Stat. 3763) is amended by adding at the end the following: "Nonprofit public or private entities may contribute all or a portion of the non-Federal share.".

SEC. 506. SEA LAMPREY CONTROL MEASURES IN THE GREAT LAKES.

(a) IN GENERAL.—In conjunction with the Great Lakes Fishery Commission, the Secretary is authorized to undertake a program for the control of sea lampreys in and around waters of the Great Lakes. The program undertaken pursuant to this section may include projects which consist of either structural or nonstructural measures or a combination thereof.

(b) COST SHARING.—Projects carried out under this section on lands owned by the United States shall be carried out at full Federal expense. The non-Federal share of the cost of any such project undertaken on lands not in Federal ownership shall be 35 percent.

(c) NON-FEDERAL INTERESTS.—Notwithstanding section 221(b) of the Flood Control Act of 1970 (42 U.S.C. 1962d–5b(b)), the Secretary, after coordination with the appropriate State and local government officials having jurisdiction over an area in which a project under this section will be carried out, may allow a nonprofit entity to serve as the non-Federal interest for the project.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $2,000,000 for each of fiscal years 2000 through 2005.

SEC. 507. MAINTENANCE OF NAVIGATION CHANNELS.

Section 509(a) of the Water Resources Development Act of 1996 (110 Stat. 3759) is amended by adding at the end the following:

"(12) Acadiana Navigation Channel, Louisiana.

"(13) Contraband Bayou, Louisiana, as part of the Calcasieu River and Pass Ship Channel.

"(14) Lake Wallula Navigation Channel, Washington.

"(15) Wadley Pass (also known as McGriff Pass), Suwanee River, Florida.".

SEC. 508. MEASUREMENT OF LAKE MICHIGAN DIVERSIONS.

Section 1142(b) of the Water Resources Development Act of 1986 (42 U.S.C. 1962d–20 note; 100 Stat. 4253) is amended by striking "$250,000" and inserting "$1,250,000".

SEC. 509. UPPER MISSISSIPPI RIVER ENVIRONMENTAL MANAGEMENT PROGRAM.

(a) AUTHORIZED ACTIVITIES.—Section 1103(e)(1) of the Water Resources Development Act of 1986 (33 U.S.C. 652(e)(1)) is amended—

(1) by inserting "and" at the end of subparagraph (A);

(2) in subparagraph (B) by striking "long-term resource monitoring program; and" and inserting "long-term resource monitoring, computerized data inventory and analysis, and applied research program."; and

(3) by striking subparagraph (C) and inserting the following:

"In carrying out subparagraph (A), the Secretary shall establish an independent technical advisory committee to review projects, monitoring plans, and habitat and natural resource needs assessments.".

(b) REPORTS.—Section 1103(e)(2) of such Act (33 U.S.C. 652(e)(2)) is amended to read as follows:

"(2) REPORTS.—Not later than December 31, 2004, and not later than December 31st of every sixth year thereafter, the Secretary, in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, shall transmit to Congress a report that—

"(A) contains an evaluation of the programs described in paragraph (1);

"(B) describes the accomplishments of each of such programs;

"(C) provides updates of a systemic habitat needs assessment; and

"(D) identifies any needed adjustments in the authorization.".

(c) AUTHORIZATION OF APPROPRIATIONS.—Section 1103(e) of such Act (33 U.S.C. 652(e)) is amended—

(1) in paragraph (3) by striking "not to exceed" and all that follows before the period at the end and inserting "$22,750,000 for fiscal year 1999 and each fiscal year thereafter";

(2) in paragraph (4) by striking "not to exceed" and all that follows before the period at the end and inserting "$10,420,000 for fiscal year 1999 and each fiscal year thereafter"; and

(3) by striking paragraph (5) and inserting the following:

"(5) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out paragraph (1)(A) $350,000 for each of fiscal years 1999 through 2009.".

(d) TRANSFER OF AMOUNTS.—Section 1103(e)(6) of such Act is amended to read as follows:

"(6) TRANSFER OF AMOUNTS.—For fiscal year 1999, and each fiscal year thereafter, the Secretary, in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, may transfer not to exceed 20 percent of the amounts appropriated to carry out subparagraph (A) or (B) of paragraph (1) to the amounts appropriated to carry out the other of such subparagraphs.".

(e) HABITAT NEEDS ASSESSMENT.—Section 1103(h)(2) of such Act (33 U.S.C. 652(h)(2)) is amended by adding at the end the following: "The Secretary shall complete the on-going habitat needs assessment conducted under this paragraph not later than September 30, 2000, and shall include in each report required by subsection (e)(2) the most recent habitat needs assessment conducted under this paragraph.".

(f) CONFORMING AMENDMENTS.—Section 1103 of such Act (33 U.S.C. 652) is amended—

(1) in subsection (e)(7) by striking "paragraphs (1)(B) and (1)(C)" and inserting "paragraph (1)(B)"; and

(2) in subsection (f)(2)—

(A) by striking "(2)(A)" and inserting "(2)"; and

(B) by striking subparagraph (B).

SEC. 510. ATLANTIC COAST OF NEW YORK MONITORING.

Section 404(c) of the Water Resources Development Act of 1992 (106 Stat. 4863) is amended by striking "1993, 1994, 1995, 1996, and 1997" and inserting "1993 through 2003".

SEC. 511. WATER CONTROL MANAGEMENT.

(a) IN GENERAL.—In evaluating potential improvements for water control management activities and consolidation of water control management centers, the Secretary may consider a regionalized water control management plan but may not implement such a plan until the date on which a report is transmitted under subsection (b).

(b) REPORT.—Not later than 180 days after the date of enactment of this Act, the Secretary shall transmit to the Committee on Transportation and Infrastructure and the Committee on Appropriations of the House of Representatives and the Committee on Environment and Public Works and the Committee on Appropriations of the Senate a report containing the following:

(1) A description of the primary objectives of streamlining water control management activities.

(2) A description of the benefits provided by streamlining water control management activities through consolidation of centers for such activities.

(3) A determination of whether or not benefits to users of regional water control management centers will be retained in each district office of the Corps of Engineers that does not have a regional center.

(4) A determination of whether or not users of such regional centers will receive a higher level of benefits from streamlining water management control management activities.

(5) A list of the Members of Congress who represent a district that currently includes a water control management center that is to be eliminated under a proposed regionalized plan.

SEC. 512. BENEFICIAL USE OF DREDGED MATERIAL.

The Secretary is authorized to carry out the following projects under section 204 of the Water Resources Development Act of 1992 (33 U.S.C. 2326):

(1) BODEGA BAY, CALIFORNIA.—A project to make beneficial use of dredged materials from a Federal navigation project in Bodega Bay, California.

(2) SABINE REFUGE, LOUISIANA.—A project to make beneficial use of dredged materials from Federal navigation projects in the vicinity of Sabine Refuge, Louisiana.

(3) HANCOCK, HARRISON, AND JACKSON COUNTIES, MISSISSIPPI.—A project to make beneficial use of dredged material from a Federal navigation project in Hancock, Harrison, and Jackson Counties, Mississippi.

(4) ROSE CITY MARSH, ORANGE COUNTY, TEXAS.—A project to make beneficial use of dredged material from a Federal navigation project in Rose City Marsh, Orange County, Texas.

(5) BESSIE HEIGHTS MARSH, ORANGE COUNTY, TEXAS.—A project to make beneficial use of dredged material from a Federal navigation project in Bessie Heights Marsh, Orange County, Texas.

SEC. 513. DESIGN AND CONSTRUCTION ASSISTANCE.

Section 507(2) of the Water Resources Development Act of 1996 (110 Stat. 3758) is amended to read as follows:

"(2) Expansion and improvement of Long Pine Run Dam and associated water infrastructure in accordance with the requirements of subsections (b) through (e) of section 313 of the Water Resources Development Act of 1992 (106 Stat. 4845) at a total cost of $20,000,000.".

SEC. 514. LOWER MISSOURI RIVER AQUATIC RESTORATION PROJECTS.

(a) IN GENERAL.—Not later than 1 year after funds are made available for such purposes, the Secretary shall complete a comprehensive report—

(1) identifying a general implementation strategy and overall plan for environmental restoration and protection along the Lower Missouri River between Gavins Point Dam and the confluence of the Missouri and Mississippi Rivers; and

(2) recommending individual environmental restoration projects that can be considered by the Secretary for implementation under section 206 of the Water Resources Development Act of 1996 (33 U.S.C. 2330; 110 Stat. 3679–3680).

(b) SCOPE OF PROJECTS.—Any environmental restoration projects recommended under subsection (a) shall provide for such activities and measures as the Secretary determines to be necessary to protect and restore fish and wildlife habitat without adversely affecting private property rights or water related needs of the region surrounding the Missouri River, including flood control, navigation, and enhancement of water supply, and shall include some or all of the following components:

(1) Modification and improvement of navigation training structures to protect and restore fish and wildlife habitat.

(2) Modification and creation of side channels to protect and restore fish and wildlife habitat.

(3) Restoration and creation of fish and wildlife habitat.

(4) Physical and biological monitoring for evaluating the success of the projects.

(c) COORDINATION.—To the maximum extent practicable, the Secretary shall integrate projects carried out in accordance with this section with other Federal, tribal, and State restoration activities.

(d) COST SHARING.—The report under subsection (a) shall be undertaken at full Federal expense.

SEC. 515. AQUATIC RESOURCES RESTORATION IN THE NORTHWEST.

(a) IN GENERAL.—In cooperation with other Federal agencies, the Secretary is authorized to develop and implement projects for fish screens, fish passage devices, and other similar measures agreed to by non-Federal interests and relevant Federal agencies to mitigate adverse impacts associated with irrigation system water diversions by local governmental entities in the States of Oregon, Washington, Montana, and Idaho.

(b) PROCEDURE AND PARTICIPATION.—

(1) CONSULTATION REQUIREMENT; USE OF EXISTING DATA.—In providing assistance under subsection (a), the Secretary shall consult with other Federal, State, and local agencies and make maximum use of data and studies in existence on the date of enactment of this Act.

(2) PARTICIPATION BY NON-FEDERAL INTERESTS.—Participation by non-Federal interests in projects under this section shall be voluntary. The Secretary shall not take any action under this section that will result in a non-Federal interest being held financially responsible for an action under a project unless the non-Federal interest has voluntarily agreed to participate in the project.

(c) COST SHARING.—Projects carried out under this section on lands owned by the United States shall be carried out at full Federal expense. The non-Federal share of the cost of any such project undertaken on lands not in Federal ownership shall be 35 percent.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $10,000,000 for fiscal years beginning after September 30, 1999.

SEC. 516. INNOVATIVE TECHNOLOGIES FOR WATERSHED RESTORATION.

The Secretary shall use, and encourage the use of, innovative treatment technologies, including membrane technologies, for watershed and environmental restoration and protection projects involving water quality.

SEC. 517. ENVIRONMENTAL RESTORATION.

(a) ATLANTA, GEORGIA.—Section 219(c)(2) of the Water Resources Development Act of 1992 (106 Stat. 4835) is amended by inserting before the period "and watershed restoration and development in the regional Atlanta watershed, including Big Creek and Rock Creek".

(b) PATERSON AND PASSAIC VALLEY, NEW JERSEY.—Section 219(c)(9) of such Act (106 Stat. 4836) is amended to read as follows:

"(9) PATERSON, PASSAIC COUNTY, AND PASSAIC VALLEY, NEW JERSEY.—Drainage facilities to alleviate flooding problems on Getty Avenue in the vicinity of St. Joseph's Hospital for the City of Paterson, New Jersey, and Passaic County, New Jersey, and innovative facilities to manage and treat additional flows in the Passaic Valley, Passaic River basin, New Jersey.".

SEC. 518. EXPEDITED CONSIDERATION OF CERTAIN PROJECTS.

The Secretary shall expedite completion of the reports for the following projects and proceed directly to project planning, engineering, and design:

(1) Arroyo Pasajero, San Joaquin River basin, California, project for flood control.

(2) Success Dam, Tule River, California, project for flood control and water supply.

(3) Alafia Channel, Tampa Harbor, Florida, project for navigation.

SEC. 519. DOG RIVER, ALABAMA.

(a) IN GENERAL.—The Secretary is authorized to establish, in cooperation with non-Federal interests, a pilot project to restore natural water depths in the Dog River, Alabama, between its mouth and the Interstate Route 10 crossing, and in the downstream portion of its principal tributaries.

(b) FORM OF ASSISTANCE.—Assistance provided under subsection (a) shall be in the form of design and construction of water-related resource protection and development projects affecting the Dog River, including environmental restoration and recreational navigation.

(c) NON-FEDERAL SHARE.—The non-Federal share of the cost of the project carried out with assistance under this section shall be 90 percent.

(d) LANDS, EASEMENTS, AND RIGHTS-OF-WAY.—The non-Federal sponsor provide all lands, easements, rights of way, relocations, and dredged material disposal areas including retaining dikes required for the project.

(e) OPERATION MAINTENANCE.—The non-Federal share of the cost of operation, maintenance, repair, replacement, or rehabilitation of the project carried out with assistance under this section shall be 100 percent.

(f) CREDIT TOWARD NON-FEDERAL SHARE.—The value of the lands, easements, rights of way, relocations, and dredged material disposal areas, including retaining dikes, provided by the non-Federal sponsor shall be credited toward the non-Federal share.

SEC. 520. ELBA, ALABAMA.

The Secretary is authorized to repair and rehabilitate a levee in the city of Elba, Alabama at a total cost of $12,900,000.

SEC. 521. GENEVA, ALABAMA.

The Secretary is authorized to repair and rehabilitate a levee in the city of Geneva, Alabama at a total cost of $16,600,000.

SEC. 522. NAVAJO RESERVATION, ARIZONA, NEW MEXICO, AND UTAH.

(a) IN GENERAL.—In cooperation with other appropriate Federal and local agencies, the Secretary shall undertake a survey of, and provide technical, planning, and design assistance for, watershed management, restoration, and development on the Navajo Indian Reservation, Arizona, New Mexico, and Utah.

(b) COST SHARING.—The Federal share of the cost of activities carried out under this section shall be 75 percent. Funds made available under the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450 et seq.) may be used by the Navajo Nation in meeting the non-Federal share of the cost of such activities.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $12,000,000 for fiscal years beginning after September 30, 1999.

SEC. 523. AUGUSTA AND DEVALLS BLUFF, ARKANSAS.

(a) IN GENERAL.—The Secretary is authorized to perform operations, maintenance, and rehabilitation on 37 miles of levees in and around Augusta and Devalls Bluff, Arkansas.

(b) REIMBURSEMENT.—After performing the operations, maintenance, and rehabilitation under subsection (a), the Secretary shall seek reimbursement from the Secretary of the Interior of an amount equal to the costs allocated to benefits to a Federal wildlife refuge of such operations, maintenance, and rehabilitation.

SEC. 524. BEAVER LAKE, ARKANSAS.

(a) WATER SUPPLY STORAGE REALLOCATION.—The Secretary shall reallocate approximately 31,000 additional acre-feet at Beaver Lake, Arkansas, to water supply storage at no additional cost to the Beaver Water District or the Carroll-Boone Water District above the amount that has already been contracted for. At no time may the bottom of the conservation pool be at an elevation that is less than 1,076 feet NGVD.

(b) CONTRACT PRICING.—The contract price for additional storage for the Carroll-Boone Water District beyond that which is provided for in subsection (a) shall be based on the original construction cost of Beaver Lake and adjusted to the 1998 price level net of inflation between the date of initiation of construction and the date of enactment of this Act.

SEC. 525. BEAVER LAKE TROUT PRODUCTION FACILITY, ARKANSAS.

(a) EXPEDITED CONSTRUCTION.—The Secretary shall construct, under the authority of section 105 of the Water Resources Development Act of 1976 (90 Stat. 2921) and section 1135 of the Water Resources Development Act of 1986 (100 Stat. 4251–4252), the Beaver Lake trout hatchery as expeditiously as possible, but in no event later than September 30, 2002.

(b) MITIGATION PLAN.—Not later than 2 years after the date of enactment of this Act, the Secretary, in conjunction with the State of Arkansas, shall prepare a plan for the mitigation of effects of the Beaver Dam project on Beaver Lake. Such plan shall provide for construction of the Beaver Lake trout production facility and related facilities.

SEC. 526. CHINO DAIRY PRESERVE, CALIFORNIA.

(a) TECHNICAL ASSISTANCE.—The Secretary, in coordination with the heads of other Federal agencies, shall provide technical assistance to State and local agencies in the study, design, and implementation of measures for flood damage reduction and environmental restoration and protection in the Santa Ana River watershed, California, with particular emphasis on structural and nonstructural measures in the vicinity of the Chino Dairy Preserve.

(b) COMPREHENSIVE STUDY.—The Secretary shall conduct a feasibility study to determine the most cost-effective plan for flood damage reduction and environmental restoration and protection in the vicinity of the Chino Dairy Preserve, Santa Ana River watershed, Orange County and San Bernardino County, California.

SEC. 527. NOVATO, CALIFORNIA.

The Secretary shall carry out a project for flood control under section 205 of the Flood Control Act of 1948 (33 U.S.C. 701s) at Rush Creek, Novato, California.

SEC. 528. ORANGE AND SAN DIEGO COUNTIES, CALIFORNIA.

The Secretary, in cooperation with local governments, may prepare special area management plans in Orange and San Diego Counties, California, to demonstrate the effectiveness of using such plans to provide information regarding aquatic resources. The Secretary may use such plans in making regulatory decisions and issue permits consistent with such plans.

SEC. 529. SALTON SEA, CALIFORNIA.

(a) TECHNICAL ASSISTANCE.—The Secretary, in coordination with other Federal agencies, shall provide technical assistance to Federal, State, and local agencies in the study, design, and implementation of measures for the environmental restoration and protection of the Salton Sea, California.

(b) STUDY.—The Secretary, in coordination with other Federal, State, and local agencies, shall conduct a study to determine the most effective plan for the Corps of Engineers to assist in the environmental restoration and protection of the Salton Sea, California.

SEC. 530. SANTA CRUZ HARBOR, CALIFORNIA.

The Secretary is authorized to modify the cooperative agreement with the Santa Cruz Port District, California, to reflect unanticipated additional dredging effort and to extend such agreement for 10 years.

SEC. 531. POINT BEACH, MILFORD, CONNECTICUT.

(a) MAXIMUM FEDERAL EXPENDITURE.—The maximum amount of Federal funds that may be expended for the project for hurricane and storm damage reduction, Point Beach, Milford, Connecticut, shall be $3,000,000.

(b) REVISION OF PROJECT COOPERATION AGREEMENT.—The Secretary shall revise the project cooperation agreement for the project referred to in subsection (a) to take into account the change in the Federal participation in such project.

(c) COST SHARING.—Nothing in this section shall be construed to affect any cost-sharing requirement applicable to the project referred to in subsection (a) under section 101 of the Water Resources Development Act of 1986 (31 U.S.C. 2211).

SEC. 532. LOWER ST. JOHNS RIVER BASIN, FLORIDA.

(a) COMPUTER MODEL.—

(1) IN GENERAL.—The Secretary may apply the computer model developed under the St. Johns River basin feasibility study to assist non-Federal interests in developing strategies for improving water quality in the Lower St. Johns River basin, Florida.

(2) COST SHARING.—The non-Federal share of the cost of assistance provided under this subsection shall be 50 percent.

(b) TOPOGRAPHIC SURVEY.—The Secretary is authorized to provide 1-foot contour topographic survey maps of the Lower St. Johns River basin, Florida, to non-Federal interests for analyzing environmental data and establishing benchmarks for sub-basins.

SEC. 533. SHORELINE PROTECTION AND ENVIRONMENTAL RESTORATION, LAKE ALLATOONA, GEORGIA.

(a) IN GENERAL.—The Secretary, in cooperation with the Administrator of the Environmental Protection Agency, is authorized to carry out the following water-related environmental restoration and resource protection activities to restore Lake Allatoona and the Etowah River in Georgia:

(1) LAKE ALLATOONA/ETOWAH RIVER SHORELINE RESTORATION DESIGN.—Develop pre-construction design measures to alleviate shoreline erosion and sedimentation problems.

(2) LITTLE RIVER ENVIRONMENTAL RESTORATION.—Conduct a feasibility study to evaluate environmental problems and recommend environmental infrastructure restoration measures for the Little River within Lake Allatoona, Georgia.

(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated for fiscal years beginning after September 30, 1999—

(1) $850,000 to carry out subsection (a)(1); and

(2) $250,000 to carry out subsection (a)(2).

SEC. 534. MAYO'S BAR LOCK AND DAM, COOSA RIVER, ROME, GEORGIA.

The Secretary is authorized to provide technical assistance, including planning, engineering, and design assistance, for the reconstruction of the Mayo's Bar Lock and Dam, Coosa River, Rome, Georgia. The non-Federal share of assistance under this section shall be 50 percent.

SEC. 535. COMPREHENSIVE FLOOD IMPACT RESPONSE MODELING SYSTEM, CORALVILLE RESERVOIR AND IOWA RIVER WATERSHED, IOWA.

(a) IN GENERAL.—The Secretary, in cooperation with the University of Iowa, shall conduct a study and develop a Comprehensive Flood Impact Response Modeling System for Coralville Reservoir and the Iowa River watershed, Iowa.

(b) CONTENTS OF STUDY.—The study shall include—

(1) an evaluation of the combined hydrologic, geomorphic, environmental, economic, social, and recreational impacts of operating strategies within the Iowa River watershed;

(2) development of an integrated, dynamic flood impact model; and

(3) development of a rapid response system to be used during flood and other emergency situations.

(c) REPORT TO CONGRESS.—Not later than 5 years after the date of enactment of this Act, the Secretary shall transmit to Congress a report containing the results of the study and modeling system together with such recommendations as the Secretary determines to be appropriate.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $900,000 for each of fiscal years 2000 through 2004.

SEC. 536. ADDITIONAL CONSTRUCTION ASSISTANCE IN ILLINOIS.

The Secretary may carry out the project for Georgetown, Illinois, and the project for Olney, Illinois, referred to in House Report Number 104–741, accompanying Public Law 104–182.

SEC. 537. KANOPOLIS LAKE, KANSAS.

(a) WATER STORAGE.—The Secretary shall offer to the State of Kansas the right to purchase water storage in Kanopolis Lake, Kansas, at a price calculated in accordance with and in a manner consistent with the terms of the memorandum of understanding entitled "Memorandum of Understanding Between the State of Kansas and the U.S. Department of the Army Concerning the Purchase of Municipal and Industrial Water Supply Storage", dated December 11, 1985.

(b) EFFECTIVE DATE.—For the purposes of this section, the effective date of that memorandum of understanding shall be deemed to be the date of enactment of this Act.

SEC. 538. SOUTHERN AND EASTERN KENTUCKY.

Section 531(h) of the Water Resources Development Act of 1996 (110 Stat. 3774) is amended by striking "$10,000,000" and inserting "$25,000,000".

SEC. 539. SOUTHEAST LOUISIANA.

Section 533(c) of the Water Resources Development Act of 1996 (110 Stat. 3775) is amended by striking "$100,000,000" and inserting "$200,000,000".

SEC. 540. SNUG HARBOR, MARYLAND.

(a) IN GENERAL.—The Secretary, in coordination with the Director of the Federal Emergency Management Agency, is authorized—

(1) to provide technical assistance to the residents of Snug Harbor, in the vicinity of Berlin, Maryland, for purposes of flood damage reduction;

(2) to conduct a study of a project for nonstructural measures for flood damage reduction in the vicinity of Snug Harbor, Maryland, taking into account the relationship of both the Ocean City Inlet and Assateague Island to the flooding; and

(3) after completion of the study, to carry out the project under the authority of section 205 of the Flood Control Act of 1948 (33 U.S.C. 701s).

(b) FEMA ASSISTANCE.—The Director, in coordination with the Secretary and under the authorities of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 note), may provide technical assistance and nonstructural measures for flood damage mitigation in the vicinity of Snug Harbor, Maryland.

(c) FEDERAL SHARE.—The Federal share of the cost of assistance under this section shall not exceed $3,000,000. The non-Federal share of such cost shall be determined in accordance with the Water Resources Development Act of 1986 or the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as appropriate.

SEC. 541. WELCH POINT, ELK RIVER, CECIL COUNTY, AND CHESAPEAKE CITY, MARYLAND.

(a) SPILLAGE OF DREDGED MATERIALS.—The Secretary shall carry out a study to determine if the spillage of dredged materials that were removed as part of the project for navigation, Inland Waterway from Delaware River to Chesapeake Bay, Delaware and Maryland, authorized by the first section of the Act of August 30, 1935 (49 Stat. 1030), is a significant impediment to vessels transiting the Elk River near Welch Point, Maryland. If the Secretary determines that the spillage is an impediment to navigation, the Secretary may conduct such dredging as may be required to permit navigation on the river.

(b) DAMAGE TO WATER SUPPLY.—The Secretary shall carry out a study to determine if additional compensation is required to fully compensate the city of Chesapeake, Maryland, for damage to the city's water supply resulting from dredging of the Chesapeake and Delaware Canal project. If the Secretary determines that such additional compensation is required, the Secretary may provide the compensation to the city of Chesapeake.

SEC. 542. WEST VIEW SHORES, CECIL COUNTY, MARYLAND.

Not later than 1 year after the date of enactment of this Act, the Secretary shall carry out an investigation of the contamination of the well system in West View Shores, Cecil County, Maryland. If the Secretary determines that the disposal site from any Federal navigation project has contributed to the contamination of the wells, the Secretary may provide alternative water supplies, including replacement of wells, at full Federal expense.

SEC. 543. RESTORATION PROJECTS FOR MARYLAND, PENNSYLVANIA, AND WEST VIRGINIA.

Section 539 of the Water Resources Development Act of 1996 (110 Stat. 3776–3777) is amended—

(1) in subsection (a)(1) by striking "technical";

(2) in subsection (a)(1) by inserting "(or in the case of projects located on lands owned by the United States, to Federal interests)" after "interests";

(3) in subsection (a)(3) by inserting "or in conjunction" after "consultation"; and

(4) by inserting at the end of subsection (d) the following: "Funds authorized to be appropriated to carry out section 340 of the Water Resources Development Act of 1992 (106 Stat. 4856) are authorized for projects undertaken under subsection (a)(1)(B).".

SEC. 544. CAPE COD CANAL RAILROAD BRIDGE, BUZZARDS BAY, MASSACHUSETTS.

(a) ALTERNATIVE TRANSPORTATION.—The Secretary is authorized to provide up to $300,000 for alternative transportation that may arise as a result of the operation, maintenance, repair, and rehabilitation of the Cape Cod Canal Railroad Bridge.

(b) OPERATION AND MAINTENANCE CONTRACT RENEGOTIATION.—Not later than 60 days after the date of enactment of this Act, the Secretary shall enter into negotiation with the owner of the railroad right-of-way for the Cape Cod Canal Railroad Bridge for the purpose of establishing the rights and responsibities for the operation and maintenance of the Bridge. The Secretary is authorized to include in any new contract the termination of the prior contract numbered ER–W175–ENG–1.

SEC. 545. ST. LOUIS, MISSOURI.

(a) DEMONSTRATION PROJECT.—The Secretary, in consultation with local officials, shall conduct a demonstration project to improve water quality in the vicinity of St. Louis, Missouri.

(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated $1,700,000 to carry out this section.

SEC. 546. BEAVER BRANCH OF BIG TIMBER CREEK, NEW JERSEY.

Upon request of the State of New Jersey or a political subdivision thereof, the Secretary may compile and disseminate information on floods and flood damages, including identification of areas subject to inundation by floods, and provide technical assistance regarding floodplain management for Beaver Branch of Big Timber Creek, New Jersey.

SEC. 547. LAKE ONTARIO AND ST. LAWRENCE RIVER WATER LEVELS, NEW YORK.

Upon request, the Secretary shall provide technical assistance to the International Joint Commission and the St. Lawrence River Board of Control in undertaking studies on the effects of fluctuating water levels on the natural environment, recreational boating, property flooding, and erosion along the shorelines of Lake Ontario and the St. Lawrence River in New York. The Commission and Board are encouraged to conduct such studies in a comprehensive and thorough manner before implementing any change to water regulation Plan 1958–D.

SEC. 548. NEW YORK-NEW JERSEY HARBOR, NEW YORK AND NEW JERSEY.

The Secretary may enter into cooperative agreements with non-Federal interests to investigate, develop, and support measures for sediment management and reduction of contaminant sources which affect navigation in the Port of New York-New Jersey and the environmental conditions of the New York-New Jersey Harbor estuary. Such investigation shall include an analysis of the economic and environmental benefits and costs of potential sediment management and contaminant reduction measures.

SEC. 549. SEA GATE REACH, CONEY ISLAND, NEW YORK, NEW YORK.

The Secretary is authorized to construct a project for shoreline protection which includes a beachfill with revetment and T-groin for the Sea Gate Reach on Coney Island, New York, as identified in the March 1998 report prepared for the Corps of Engineers, New York District, entitled "Field Data Gathering, Project Performance Analysis and Design Alternative Solutions to Improve Sandfill Retention", at a total cost of $9,000,000, with an estimated Federal cost of $5,850,000 and an estimated non-Federal cost of $3,150,000.

SEC. 550. WOODLAWN, NEW YORK.

(a) IN GENERAL.—The Secretary shall provide planning, design, and other technical assistance to non-Federal interests for identifying and mitigating sources of contamination at Woodlawn Beach in Woodlawn, New York.

(b) COST SHARING.—The non-Federal share of the cost of assistance provided under this section shall be 50 percent.

SEC. 551. FLOODPLAIN MAPPING, NEW YORK.

(a) IN GENERAL.—The Secretary shall provide assistance for a project to develop maps identifying 100- and 500-year flood inundation areas in the State of New York.

(b) REQUIREMENTS.—Maps developed under the project shall include hydrologic and hydraulic information and shall accurately show the flood inundation of each property by flood risk in the floodplain. The maps shall be produced in a high resolution format and shall be made available to all flood prone areas in the State of New York in an electronic format.

(c) PARTICIPATION OF FEMA.—The Secretary and the non-Federal sponsor of the project shall work with the Director of the Federal Emergency Management Agency to ensure the validity of the maps developed under the project for flood insurance purposes.

(d) FORMS OF ASSISTANCE.—In carrying out the project, the Secretary may enter into contracts or cooperative agreements with the non-Federal sponsor or provide reimbursements of project costs.

(e) FEDERAL SHARE.—The Federal share of the cost of the project shall be 75 percent.

(f) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $12,000,000 for fiscal years beginning after September 30, 1998.

SEC. 552. WHITE OAK RIVER, NORTH CAROLINA.

The Secretary shall conduct a study to determine if water quality deterioration and sedimentation of the White Oak River, North Carolina, are the result of the Atlantic Intracoastal Waterway navigation project. If the Secretary determines that the water quality deterioration and sedimentation are the result of the project, the Secretary shall take appropriate measures to mitigate the deterioration and sedimentation.

SEC. 553. TOUSSAINT RIVER, CARROLL TOWNSHIP, OTTAWA COUNTY, OHIO.

The Secretary is authorized to provide technical assistance for the removal of military ordnance from the Toussaint River, Carroll Township, Ottawa County, Ohio.

SEC. 554. SARDIS RESERVOIR, OKLAHOMA.

(a) IN GENERAL.—The Secretary shall accept from the State of Oklahoma or an agent of the State an amount, as determined under subsection (b), as prepayment of 100 percent of the water supply cost obligation of the State under Contract No. DACW56–74–JC–0314 for water supply storage at Sardis Reservoir, Oklahoma.

(b) DETERMINATION OF AMOUNT.—The amount to be paid by the State of Oklahoma under subsection (a) shall be subject to adjustment in accordance with accepted discount purchase methods for Federal Government properties as determined by an independent accounting firm designated by the Director of the Office of Management and Budget. The cost of such determination shall be paid for by the State of Oklahoma or an agent of the State.

(c) EFFECT.—Nothing in this section affects any of the rights or obligations of the parties to the contract referred to in subsection (a).

SEC. 555. WAURIKA LAKE, OKLAHOMA, WATER CONVEYANCE FACILITIES.

For the project for construction of the water conveyances authorized by the first section of Public Law 88–253 (77 Stat. 841), the requirement for the Waurika Project Master Conservancy District to repay the $2,900,000 in costs (including interest) resulting from the October 1991 settlement of the claim before the United States Claims Court, and the payment of $1,190,451 of the final cost representing the difference between the 1978 estimate of cost and the actual cost determined after completion of such project in 1991, are waived.

SEC. 556. SKINNER BUTTE PARK, EUGENE, OREGON.

(a) STUDY.—The Secretary shall conduct a study of the south bank of the Willamette River, in the area of Skinner Butte Park from Ferry Street Bridge to the Valley River footbridge, to determine the feasibility of carrying out a project to stabilize the river bank, and to restore and enhance riverine habitat, using a combination of structural and bioengineering techniques.

(b) CONSTRUCTION.—If, upon completion of the study, the Secretary determines that the project is feasible, the Secretary shall participate with non-Federal interests in the construction of the project.

(c) COST SHARE.—The non-Federal share of the cost of the project shall be 35 percent.

(d) LANDS, EASEMENTS, AND RIGHTS-OF-WAY.—The non-Federal interest shall provide lands, easements, rights-of-way, relocations, and dredged material disposal areas necessary for construction of the project. The value of such items shall be credited toward the non-Federal share of the cost of the project.

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $1,000,000 for fiscal years beginning after September 30, 1999.

SEC. 557. WILLAMETTE RIVER BASIN, OREGON.

The Secretary, Director of the Federal Emergency Management Agency, Administrator of the Environmental Protection Agency, and heads of other appropriate Federal agencies shall, using existing authorities, assist the State of Oregon in developing and implementing a comprehensive basin-wide strategy in the Willamette River basin of Oregon for coordinated and integrated management of land and water resources to improve water quality, reduce flood hazards, ensure sustainable economic activity, and restore habitat for native fish and wildlife. The heads of such Federal agencies may provide technical assistance, staff and financial support for development of the basin-wide management strategy. The heads of Federal agencies shall seek to exercise flexibility in administrative actions and allocation of funding to reduce barriers to efficient and effective implementing of the strategy.

SEC. 558. BRADFORD AND SULLIVAN COUNTIES, PENNSYLVANIA.

The Secretary is authorized to provide assistance for water-related environmental infrastructure and resource protection and development projects in Bradford and Sullivan Counties, Pennsylvania, using the funds and authorities provided in title I of the Energy and Water Development Appropriations Act, 1999 (Public Law 105–245) under the heading "CONSTRUCTION, GENERAL" (112 Stat. 1840) for similar projects in Lackawanna, Lycoming, Susquehanna, Wyoming, Pike, and Monroe Counties, Pennsylvania.

SEC. 559. ERIE HARBOR, PENNSYLVANIA.

The Secretary may reimburse the appropriate non-Federal interest not more than $78,366 for architect and engineering costs incurred in connection with the Erie Harbor basin navigation project, Pennsylvania.

SEC. 560. POINT MARION LOCK AND DAM, PENNSYLVANIA.

The project for navigation, Point Marion Lock and Dam, Borough of Point Marion, Pennsylvania, as authorized by section 301(a) of the Water Resources Development Act of 1986 (100 Stat. 4110), is modified to direct the Secretary, in the operation and maintenance of the project, to mitigate damages to the shoreline, at a total cost of $2,000,000. The cost of the mitigation shall be allocated as an operation and maintenance cost of a Federal navigation project.

SEC. 561. SEVEN POINTS' HARBOR, PENNSYLVANIA.

(a) IN GENERAL.—The Secretary is authorized, at full Federal expense, to construct a breakwater-dock combination at the entrance to Seven Points' Harbor, Pennsylvania.

(b) OPERATION AND MAINTENANCE COSTS.—All operation and maintenance costs associated with the facility constructed under this section shall be the responsibility of the lessee of the marina complex at Seven Points' Harbor.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated $850,000 to carry out this section.

SEC. 562. SOUTHEASTERN PENNSYLVANIA.

Section 566(b) of the Water Resources Development Act of 1996 (110 Stat. 3786) is amended by inserting "environmental restoration," after "water supply and related facilities,".

SEC. 563. UPPER SUSQUEHANNA-LACKAWANNA WATERSHED RESTORATION INITIATIVE.

(a) IN GENERAL.—The Secretary, in cooperation with appropriate Federal, State, and local agencies and nongovernmental institutions, is authorized to prepare a watershed plan for the Upper Susquehanna-Lackawanna Watershed (USGS Cataloguing Unit 02050107). The plan shall utilize geographic information system and shall include a comprehensive environmental assessment of the watershed's ecosystem, a comprehensive flood plain management plan, a flood plain protection plan, water resource and environmental restoration projects, water quality improvement, and other appropriate infrastructure and measures.

(b) NON-FEDERAL SHARE.—The non-Federal share of the cost of preparation of the plan under this section shall be 50 percent. Services and materials instead of cash may be credited toward the non-Federal share of the cost of the plan.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $5,000,000 for fiscal years beginning after September 30, 1999.

SEC. 564. AGUADILLA HARBOR, PUERTO RICO.

The Secretary shall conduct a study to determine if erosion and additional storm damage risks that exist in the vicinity of Aguadilla Harbor, Puerto Rico, are the result of a Federal navigation project. If the Secretary determines that such erosion and additional storm damage risks are the result of the project, the Secretary shall take appropriate measures to mitigate the erosion and storm damage.

SEC. 565. OAHE DAM TO LAKE SHARPE, SOUTH DAKOTA, STUDY.

Section 441 of the Water Resources Development Act of 1996 (110 Stat. 3747) is amended—

(1) by inserting "(a) INVESTIGATION.—" before "The Secretary"; and

(2) by adding at the end the following:

"(b) REPORT.—Not later than September 30, 1999, the Secretary shall transmit to Congress a report on the results of the investigation under this section. The report shall include the examination of financing options for regular maintenance and preservation of the lake. The report shall be prepared in coordination and cooperation with the Natural Resources Conservation Service, other Federal agencies, and State and local officials.".

SEC. 566. INTEGRATED WATER MANAGEMENT PLANNING, TEXAS.

(a) IN GENERAL.—The Secretary, in cooperation with other Federal agencies and the State of Texas, shall provide technical, planning, and design assistance to non-Federal interests in developing integrated water management plans and projects that will serve the cities, counties, water agencies, and participating planning regions under the jurisdiction of the State of Texas.

(b) PURPOSES OF ASSISTANCE.—Assistance provided under subsection (a) shall be in support of non-Federal planning and projects for the following purposes:

(1) Plan and develop integrated, near- and long-term water management plans that address the planning region's water supply, water conservation, and water quality needs.

(2) Study and develop strategies and plans that restore, preserve, and protect the State's and planning region's natural ecosystems.

(3) Facilitate public communication and participation.

(4) Integrate such activities with other ongoing Federal and State projects and activities associated with the State of Texas water plan and the State of Texas legislation.

(c) COST SHARING.—The non-Federal share of the cost of assistance provided under subsection (a) shall be 50 percent, of which up to ½ of the non-Federal share may be provided as in kind services.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section, $10,000,000 for the fiscal years beginning after September 30, 1999.

SEC. 567. BOLIVAR PENINSULA, JEFFERSON, CHAMBERS, AND GALVESTON COUNTIES, TEXAS.

(a) SHORE PROTECTION PROJECT.—The Secretary is authorized to design and construct a shore protection project between the south jetty of the Sabine Pass Channel and the north jetty of the Galveston Harbor Entrance Channel in Jefferson, Chambers, and Galveston Counties, Texas, including beneficial use of dredged material from Federal navigation projects.

(b) APPLICABILITY OF BENEFIT-COST RATIO WAIVER AUTHORITY.—In evaluating and implementing the project, the Secretary shall allow the non-Federal interest to participate in the financing of the project in accordance with section 903(c) of the Water Resources Development Act of 1986 (100 Stat. 4184), notwithstanding any limitation on the purpose of projects to which such section applies, to the extent that the Secretary's evaluation indicates that applying such section is necessary to implement the project.

SEC. 568. GALVESTON BEACH, GALVESTON COUNTY, TEXAS.

The Secretary is authorized to design and construct a shore protection project between the Galveston South Jetty and San Luis Pass, Galveston County, Texas, using innovative nourishment techniques, including beneficial use of dredged material from Federal navigation projects.

SEC. 569. PACKERY CHANNEL, CORPUS CHRISTI, TEXAS.

(a) IN GENERAL.—The Secretary shall construct a navigation and storm protection project at Packery Channel, Mustang Island, Texas, consisting of construction of a channel and a channel jetty and placement of sand along the length of the seawall.

(b) ECOLOGICAL AND RECREATIONAL BENEFITS.—In evaluating the project, the Secretary shall include the ecological and recreational benefits of reopening the Packery Channel.

(c) APPLICABILITY OF BENEFIT-COST RATIO WAIVER AUTHORITY.—In evaluating and implementing the project, the Secretary shall allow the non-Federal interest to participate in the financing of the project in accordance with section 903(c) of the Water Resources Development Act of 1986 (100 Stat. 4184), notwithstanding any limitation on the purpose of projects to which such section applies, to the extent that the Secretary's evaluation indicates that applying such section is necessary to implement the project.

SEC. 570. NORTHERN WEST VIRGINIA.

The projects described in the following reports are authorized to be carried out by the Secretary substantially in accordance with the plans, and subject to the conditions, recommended in such reports:

(1) PARKERSBURG, WEST VIRGINIA.—Report of the Corps of Engineers entitled "Parkersburg/Vienna Riverfront Park Feasibility Study", dated June 1998, at a total cost of $8,400,000, with an estimated Federal cost of $4,200,000, and an estimated non-Federal cost of $4,200,000.

(2) WEIRTON, WEST VIRGINIA.—Report of the Corps of Engineers entitled "Feasibility Master Plan for Weirton Port and Industrial Center, West Virginia Public Port Authority", dated December 1997, at a total cost of $18,000,000, with an estimated Federal cost of $9,000,000, and an estimated non-Federal cost of $9,000,000.

(3) ERICKSON/WOOD COUNTY, WEST VIRGINIA.—Report of the Corps of Engineers entitled "Feasibility Master Plan for Erickson/Wood County Port District, West Virginia Public Port Authority", dated July 7, 1997, at a total cost of $28,000,000, with an estimated Federal cost of $14,000,000, and an estimated non-Federal cost of $14,000,000.

(4) MONONGAHELA RIVER, WEST VIRGINIA.—Monongahela River, West Virginia, Comprehensive Study Reconnaissance Report, dated September 1995, consisting of the following elements:

(A) Morgantown Riverfront Park, Morgantown, West Virginia, at a total cost of $1,600,000, with an estimated Federal cost of $800,000 and an estimated non-Federal cost of $800,000.

(B) Caperton Rail to Trail, Monongahela County, West Virginia, at a total cost of $4,425,000, with an estimated Federal cost of $2,212,500 and an estimated non-Federal cost of $2,212,500.

(C) Palatine Park, Fairmont, West Virginia, at a total cost of $1,750,000, with an estimated Federal cost of $875,000 and an estimated non-Federal cost of $875,000.

SEC. 571. URBANIZED PEAK FLOOD MANAGEMENT RESEARCH.

(a) IN GENERAL.—The Secretary shall develop and implement a research program to evaluate opportunities to manage peak flood flows in urbanized watersheds located in the State of New Jersey.

(b) SCOPE OF RESEARCH.—The research program authorized by subsection (a) shall be accomplished through the New York District. The research shall specifically include the following:

(1) Identification of key factors in urbanized watersheds that are under development and impact peak flows in the watersheds and downsteam of the watersheds.

(2) Development of peak flow management models for 4 to 6 watersheds in urbanized areas located with widely differing geology, areas, shapes, and soil types that can be used to determine optimal flow reduction factors for individual watersheds.

(3) Utilization of such management models to determine relationships between flow and reduction factors and change in imperviousness, soil types, shape of the drainage basin, and other pertinent parameters from existing to ultimate conditions in watersheds under consideration for development.

(4) Development and validation of an inexpensive accurate model to establish flood reduction factors based on runoff curve numbers, change in imperviousness, the shape of the basin, and other pertinent factors.

(c) REPORT TO CONGRESS.—The Secretary shall evaluate policy changes in the planning process for flood control projects based on the results of the research au-

thorized by this section and transmit to Congress a report not later than 3 years after the date of enactment of this Act.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carryout this section $3,000,000 for fiscal years beginning after September 30, 1999.

(e) FLOW REDUCTION FACTORS DEFINED.—In this section, the term "flow reduction factors" means the ratio of estimated allowable peak flows of stormwater after projected development when compared to pre-existing conditions.

SEC. 572. MISSISSIPPI RIVER COMMISSION.

Section 8 of the Flood Control Act of May 15, 1928 (Public Law 391, 70th Congress), is amended by striking "$7,500" and inserting "$21,500."

SEC. 573. COASTAL AQUATIC HABITAT MANAGEMENT.

(a) IN GENERAL.—The Secretary may cooperate with the Secretaries of Agriculture and the Interior, the Administrators of the Environmental Protection Agency and the National Oceanic and Atmospheric Administration, other appropriate Federal, State, and local agencies, and affected private entities, in the development of a management strategy to address problems associated with toxic microorganisms and the resulting degradation of ecosystems in the tidal and nontidal wetlands and waters of the United States for the States along the Atlantic Ocean. As part of such management strategy, the Secretary may provide planning, design, and other technical assistance to each participating State in the development and implementation of nonregulatory measures to mitigate environmental problems and restore aquatic resources.

(b) COST SHARING.—The Federal share of the cost of measures undertaken under this section shall not exceed 65 percent.

(c) OPERATION AND MAINTENANCE.—The non-Federal share of operation and maintenance costs for projects constructed with assistance provided under this section shall be 100 percent.

(d) AUTHORIZATION OF APPROPRIATION.—There is authorized to be appropriated to carry out this section $7,000,000 for fiscal years beginning after September 30, 1999.

SEC. 574. RECREATION USER FEES INITIATIVE.

(a) IN GENERAL.—During fiscal years 2000 through 2003, the Secretary may withhold from the special account established pursuant to section 4(i)(1)(A) of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 460l–6a(i)(1)(A)), 100 percent of the amount of receipts from fees collected at selected recreation sites under the administrative jurisdiction of the Department of the Army pursuant to section 4(b) of such Act (16 U.S.C. 460l–6a(b)). The amounts withheld shall be retained by the Secretary and shall be available for expenditure by the Secretary in accordance with the provisions of this section.

(b) USE OF FUNDS.—In order to increase the quality of the visitor experience at public recreational areas and to enhance the protection of resources, the amounts withheld pursuant to subsection (a) and available for expenditure may only be used for backlogged repair and maintenance projects (including projects relating to public health and safety) and for interpretation, signage, habitat or facility enhancement, resource preservation, annual operation and maintenance, and law enforcement related to public use.

(c) APPLICABILITY.—The Secretary shall implement the authority under this section and evaluate the feasibility of retaining recreation fees at projects and facilities under the Secretary's jurisdiction at not more than 5 projects and facilities. In selecting projects and facilities under this section, the Secretary should seek to achieve geographic diversity. One of the projects and facilities selected shall be the Mississippi River Headwaters Recreation Areas, Minnesota.

(d) REPORT.—Not later than December 31, 2003, the Secretary shall transmit to Congress a report on the results of implementing this section, together with recommendations concerning whether the authority under this section should be offered on a nationwide basis.

SEC. 575. ABANDONED AND INACTIVE NONCOAL MINE RESTORATION.

(a) IN GENERAL.—The Secretary is authorized to provide technical, planning, and design assistance to Federal and non-Federal interests for carrying out projects to address water quality problems caused by drainage and related activities from abandoned and inactive noncoal mines.

(b) SPECIFIC MEASURES.—Assistance provided under subsection (a) may be in support of projects for the following purposes:

(1) Management of drainage from abandoned and inactive noncoal mines.

(2) Restoration and protection of streams, rivers, wetlands, other waterbodies, and riparian areas degraded by drainage from abandoned and inactive noncoal mines.

(3) Demonstration of management practices and innovative and alternative treatment technologies to minimize or eliminate adverse environmental effects associated with drainage from abandoned and inactive noncoal mines.

(c) NON-FEDERAL SHARE.—The non-Federal share of the cost of assistance under subsection (a) shall be 50 percent; except that the Federal share with respect to projects located on lands owned by the United States shall be 100 percent.

(d) EFFECT ON AUTHORITY OF THE SECRETARY OF THE INTERIOR.—Nothing in this section shall be construed as affecting the authority of the Secretary of the Interior under title IV of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1231 et seq.).

(e) TECHNOLOGY DATABASE FOR RECLAMATION OF ABANDONED MINES.—The Secretary is authorized to provide assistance to non-Federal and non-profit entities to develop, manage, and maintain a database of conventional and innovative, cost-effective technologies for reclamation of abandoned and inactive noncoal mine sites. Such assistance shall be provided through the rehabilitation of abandoned mine sites program, managed by the Sacramento District Office of the Corps of Engineers.

(f) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $5,000,000.

SEC. 576. BENEFICIAL USE OF WASTE TIRE RUBBER.

(a) IN GENERAL.—The Secretary is authorized to conduct pilot projects to encourage the beneficial use of waste tire rubber, including crumb rubber, recycled from tires. Such beneficial use may include marine pilings, underwater framing, floating docks with built-in flotation, utility poles, and other uses associated with transportation and infrastructure projects receiving Federal funds. The Secretary shall, when appropriate, encourage the use of waste tire rubber, including crumb rubber, in such federally funded projects.

(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $5,000,000 for fiscal years beginning after September 30, 1998.

SEC. 577. SITE DESIGNATION.

Section 102(c)(4) of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1412(c)(4)) is amended by striking "January 1, 2000" and inserting "January 1, 2005".

SEC. 578. LAND CONVEYANCES.

(a) EXCHANGE OF LAND IN PIKE COUNTY, MISSOURI.—

(1) EXCHANGE OF LAND.—Subject to paragraphs (3) and (4), at such time as Holnam Inc. conveys all right, title, and interest in and to the land described in paragraph (2)(A) to the United States, the Secretary shall convey all right, title, and interest in the land described in paragraph (2)(B) to Holnam Inc.

(2) DESCRIPTION OF LANDS.—The lands referred to in paragraph (1) are the following:

(A) NON-FEDERAL LAND.—152.45 acres with existing flowage easements situated in Pike County, Missouri, described a portion of Government Tract Number FM–9 and all of Government Tract Numbers FM–11, FM–10, FM–12, FM–13, and FM–16, owned and administered by the Holnam Inc.

(B) FEDERAL LAND.—152.61 acres situated in Pike County, Missouri, known as Government Tract Numbers FM–17 and a portion of FM–18, administered by the Corps of Engineers.

(3) CONDITIONS OF EXCHANGE.—The exchange of land authorized by paragraph (1) shall be subject to the following conditions:

(A) DEEDS.—

(i) FEDERAL LAND.—The instrument of conveyance used to convey the land described in paragraph (2)(B) to Holnam Inc. shall contain such reservations, terms, and conditions as the Secretary considers necessary to allow the United States to operate and maintain the Mississippi River 9-Foot Navigation Project.

(ii) NON-FEDERAL LAND.—The conveyance of the land described in paragraph (2)(A) to the Secretary shall be by a warranty deed acceptable to the Secretary.

(B) REMOVAL OF IMPROVEMENTS.—Holnam Inc. may remove any improvements on the land described in paragraph (2)(A). The Secretary may require Holnam Inc. to remove any improvements on the land described in paragraph (2)(A). In either case, Holnam Inc. shall hold the United States harm-

less from liability, and the United States shall not incur cost associated with the removal or relocation of any such improvements.

(C) TIME LIMIT FOR EXCHANGE.—The land exchange authorized by paragraph (1) shall be completed not later than 2 years after the date of enactment of this Act.

(D) LEGAL DESCRIPTION.—The Secretary shall provide the legal description of the land described in paragraph (2). The legal description shall be used in the instruments of conveyance of the land.

(E) ADMINISTRATIVE COSTS.—The Secretary shall require Holnam Inc. to pay reasonable administrative costs associated with the exchange.

(4) VALUE OF PROPERTIES.—If the appraised fair market value, as determined by the Secretary, of the land conveyed to Holnam Inc. by the Secretary under paragraph (1) exceeds the appraised fair market value, as determined by the Secretary, of the land conveyed to the United States by Holnam Inc. under paragraph (1), Holnam Inc. shall make a payment equal to the excess in cash or a cash equivalent to the United States.

(b) CANDY LAKE PROJECT, OSAGE COUNTY, OKLAHOMA.—

(1) DEFINITIONS.—In this subsection, the following definitions apply:

(A) FAIR MARKET VALUE.—The term "fair market value" means the amount for which a willing buyer would purchase and a willing seller would sell a parcel of land, as determined by a qualified, independent land appraiser.

(B) PREVIOUS OWNER OF LAND.—The term "previous owner of land" means a person (including a corporation) that conveyed, or a descendant of a deceased individual who conveyed, land to the Corps of Engineers for use in the Candy Lake project in Osage County, Oklahoma.

(2) LAND CONVEYANCES.—

(A) IN GENERAL.—The Secretary shall convey, in accordance with this subsection, all right, title, and interest of the United States in and to the land acquired by the United States for the Candy Lake project in Osage County, Oklahoma.

(B) PREVIOUS OWNERS OF LAND.—

(i) IN GENERAL.—The Secretary shall give a previous owner of land the first option to purchase the land described in subparagraph (A).

(ii) APPLICATION.—

(I) IN GENERAL.—A previous owner of land that desires to purchase the land described in subparagraph (A) that was owned by the previous owner of land, or by the individual from whom the previous owner of land is descended, shall file an application to purchase the land with the Secretary not later than 180 days after the official date of notice to the previous owner of land under paragraph (3).

(II) FIRST TO FILE HAS FIRST OPTION.—If more than 1 application is filed to purchase a parcel of land described in subparagraph (A), the first option to purchase the parcel of land shall be determined in the order in which applications for the parcel of land were filed.

(iii) IDENTIFICATION OF PREVIOUS OWNERS OF LAND.—As soon as practicable after the date of enactment of this Act, the Secretary shall, to the extent practicable, identify each previous owner of land.

(iv) CONSIDERATION.—Consideration for land conveyed under this paragraph shall be the fair market value of the land.

(C) DISPOSAL.—Any land described in subparagraph (A) for which an application to purchase the land has not been filed under subparagraph (B)(ii) within the applicable time period shall be disposed of in accordance with law.

(D) EXTINGUISHMENT OF EASEMENTS.—All flowage easements acquired by the United States for use in the Candy Lake project in Osage County, Oklahoma, are extinguished.

(3) NOTICE.—

(A) IN GENERAL.—The Secretary shall notify—

(i) each person identified as a previous owner of land under paragraph (2)(B)(iii), not later than 90 days after identification, by United States mail; and

(ii) the general public, not later than 90 days after the date of enactment of this Act, by publication in the Federal Register.

(B) CONTENTS OF NOTICE.—Notice under this paragraph shall include—

(i) a copy of this subsection;

(ii) information sufficient to separately identify each parcel of land subject to this subsection; and

(iii) specification of the fair market value of each parcel of land subject to this subsection.

(C) OFFICIAL DATE OF NOTICE.—The official date of notice under this paragraph shall be the later of—

(i) the date on which actual notice is mailed; or

(ii) the date of publication of the notice in the Federal Register.

(c) LAKE HUGO, OKLAHOMA, AREA LAND CONVEYANCE.—

(1) IN GENERAL.—As soon as practicable after the date of enactment of this Act, the Secretary shall convey at fair market value to Choctaw County Industrial Authority, Oklahoma, the property described in paragraph (2).

(2) DESCRIPTION.—The property to be conveyed under paragraph (1) is—

(A) that portion of land at Lake Hugo, Oklahoma, above elevation 445.2 located in the N½ of the NW¼ of Section 24, R 18 E, T 6 S, and the S½ of the SW¼ of Section 13, R 18 E, T 6 S bounded to the south by a line 50 north on the centerline of Road B of Sawyer Bluff Public Use Area and to the north by the ½ quarter section line forming the south boundary of Wilson Point Public Use Area; and

(B) a parcel of property at Lake Hugo, Oklahoma, commencing at the NE corner of the SE¼ SW¼ of Section 13, R 18 E, T 6 S, 100 feet north, then east approximately ½ mile to the county line road between Section 13, R 18 E, T 6 S, and Section 18, R 19 E, T 6 S.

(3) TERMS AND CONDITIONS.—The conveyances under this subsection shall be subject to such terms and conditions, including payment of reasonable administrative costs and compliance with applicable Federal floodplain management and flood insurance programs, as the Secretary considers necessary and appropriate to protect the interests of the United States.

(d) CONVEYANCE OF PROPERTY IN MARSHALL COUNTY, OKLAHOMA.—

(1) IN GENERAL.—The Secretary shall convey to the State of Oklahoma all right, title, and interest of the United States to real property located in Marshall County, Oklahoma, and included in the Lake Texoma (Denison Dam), Oklahoma and Texas, project consisting of approximately 1,580 acres and leased to the State of Oklahoma for public park and recreation purposes.

(2) CONSIDERATION.—Consideration for the conveyance under paragraph (1) shall be the fair market value of the real property, as determined by the Secretary. All costs associated with the conveyance under paragraph (1) shall be paid by the State of Oklahoma.

(3) DESCRIPTION.—The exact acreage and legal description of the real property to be conveyed under paragraph (1) shall be determined by a survey satisfactory to the Secretary. The cost of the survey shall be paid by the State of Oklahoma.

(4) ENVIRONMENTAL COMPLIANCE.—Before making the conveyance under paragraph (1), the Secretary shall—

(A) conduct an environmental baseline survey to determine if there are levels of contamination for which the United States would be responsible under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.); and

(B) ensure that the conveyance complies with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

(5) OTHER TERMS AND CONDITIONS.—The conveyance under paragraph (1) shall be subject to such other terms and conditions as the Secretary considers necessary and appropriate to protect the interests of the United States, including reservation by the United States of a flowage easement over all portions of the real property to be conveyed that are at or below elevation 645.0 NGVD.

(e) SUMMERFIELD CEMETERY ASSOCIATION, OKLAHOMA, LAND CONVEYANCE.—

(1) IN GENERAL.—As soon as practicable after the date of enactment of this Act, the Secretary shall transfer to the Summerfield Cemetery Association, Oklahoma, all right, title, and interest of the United State in and to the land described in paragraph (3) for use as a cemetery.

(2) REVERSION.—If the land to be transferred under this subsection ever cease to be used as a not-for-profit cemetery or for other public purposes the land shall revert to the United States.

(3) DESCRIPTION.—The land to be conveyed under this subsection is the approximately 10 acres of land located in Leflore County, Oklahoma, and described as follows:

INDIAN BASIN MERIDIAN

Section 23, Township 5 North, Range 23 East

SW SE SW NW
NW NE NW SW
N½ SW SW NW.

(4) CONSIDERATION.—The conveyance under this subsection shall be without consideration. All costs associated with the conveyance shall be paid by the Summerfield Cemetery Association, Oklahoma.

(5) OTHER TERMS AND CONDITIONS.—The conveyance under this subsection shall be subject to such other terms and conditions as the Secretary considers necessary and appropriate to protect the interests of the United States.

(f) DEXTER, OREGON.—

(1) IN GENERAL.—The Secretary shall convey to the Dexter Sanitary District all right, title, and interest of the United States in and to a parcel of land consisting of approximately 5 acres located at Dexter Lake, Oregon, under lease to the Dexter Sanitary District.

(2) CONSIDERATION.—Land to be conveyed under this section shall be conveyed without consideration. If the land is no longer held in public ownership or no longer used for wastewater treatment purposes, title to the land shall revert to the Secretary.

(3) TERMS AND CONDITIONS.—The conveyance by the United States shall be subject to such terms and conditions as the Secretary considers appropriate to protect the interests of the United States.

(4) DESCRIPTION.—The exact acreage and description of the land to be conveyed under paragraph (1) shall be determined by such surveys as the Secretary considers necessary. The cost of the surveys shall be borne by the Dexter Sanitary District.

(g) RICHARD B. RUSSELL DAM AND LAKE, SOUTH CAROLINA.—

(1) IN GENERAL.—Upon execution of an agreement under paragraph (4) and subject to the requirements of this subsection, the Secretary shall convey, without consideration, to the State of South Carolina all right, title, and interest of the United States to the lands described in paragraph (2) that are managed, as of the date of enactment of this Act, by the South Carolina Department of Natural Resources for fish and wildlife mitigation purposes in connection with the Richard B. Russell Dam and Lake, South Carolina, project.

(2) DESCRIPTION.—

(A) IN GENERAL.—Subject to subparagraph (B), the lands to be conveyed under paragraph (1) are described in Exhibits A, F, and H of Army Lease Number DACW21–1–93–0910 and associated Supplemental Agreements or are designated in red in Exhibit A of Army License Number DACW21–3–85–1904; except that all designated lands in the license that are below elevation 346 feet mean sea level or that are less than 300 feet measured horizontally from the top of the power pool are excluded from the conveyance. Management of the excluded lands shall continue in accordance with the terms of Army License Number DACW21–3–85–1904 until the Secretary and the State enter into an agreement under paragraph (4).

(B) SURVEY.—The exact acreage and legal description of the lands to be conveyed under paragraph (1) shall be determined by a survey satisfactory to the Secretary, with the cost of the survey to be paid by the State. The State shall be responsible for all other costs, including real estate transaction and environmental compliance costs, associated with the conveyance.

(3) TERMS AND CONDITIONS.—

(A) MANAGEMENT OF LANDS.—All lands that are conveyed under paragraph (1) shall be retained in public ownership and shall be managed in perpetuity for fish and wildlife mitigation purposes in accordance with a plan approved by the Secretary. If the lands are not managed for such purposes in accordance with the plan, title to the lands shall revert to the United States. If the lands revert to the United States under this subparagraph, the Secretary shall manage the lands for such purposes.

(B) TERMS AND CONDITIONS.—The Secretary may require such additional terms and conditions in connection with the conveyance as the Secretary considers appropriate to protect the interests of the United States.

(4) PAYMENTS.—

(A) AGREEMENTS.—The Secretary is authorized to pay to the State of South Carolina not more than $4,850,000 if the Secretary and the State enter into a binding agreement for the State to manage for fish and wildlife

mitigation purposes, in perpetuity, the lands conveyed under this subsection and the lands not covered by the conveyance that are designated in red in Exhibit A of Army License Number DACW21–3–85–1904.

(B) TERMS AND CONDITIONS.—The agreement shall specify the terms and conditions under which the payment will be made and the rights of, and remedies available to, the Federal Government to recover all or a portion of the payment in the event the State fails to manage the lands in a manner satisfactory to the Secretary.

(h) CHARLESTON, SOUTH CAROLINA.—The Secretary is authorized to convey the property of the Corps of Engineers known as the "Equipment and Storage Yard", located on Meeting Street in Charleston, South Carolina, in as-is condition for fair-market value with all proceeds from the conveyance to be applied by the Corps of Engineers, Charleston District, to offset a portion of the costs of moving or leasing (or both) an office facility in the city of Charleston.

(i) CLARKSTON, WASHINGTON.—

(1) IN GENERAL.—The Secretary shall convey to the Port of Clarkston, Washington, all right, title, and interest of the United States in and to a portion of the land described in Army Lease Number DACW68–1–97–22, consisting of approximately 31 acres, the exact boundaries of which shall be determined by the Secretary and the Port of Clarkston.

(2) ADDITIONAL LAND.—The Secretary may convey to the Port of Clarkston, Washington, at fair market value as determined by the Secretary, such additional land located in the vicinity of Clarkston, Washington, as the Secretary determines to be excess to the needs of the Columbia River Project and appropriate for conveyance.

(3) TERMS AND CONDITIONS.—The conveyances made under paragraphs (1) and (2) shall be subject to such terms and conditions as the Secretary determines to be necessary to protect the interests of the United States, including a requirement that the Port of Clarkston pay all administrative costs associated with the conveyances (including the cost of land surveys and appraisals and costs associated with compliance with applicable environmental laws, including regulations).

(4) USE OF LAND.—The Port of Clarkston shall be required to pay the fair market value, as determined by the Secretary, of any land conveyed pursuant to paragraph (1) that is not retained in public ownership or is used for other than public park or recreation purposes, except that the Secretary shall have a right of reverter to reclaim possession and title to any such land.

(j) LAND CONVEYANCE TO MATEWAN, WEST VIRGINIA.—

(1) IN GENERAL.—The United States shall convey by quit claim deed to the Town of Matewan, West Virginia, all right, title, and interest of the United States in and to four parcels of land deemed excess by the Secretary of the Army, acting through the Chief of the U.S. Army Corps of Engineers, to the structural project for flood control constructed by the Corps of Engineers along the Tug Fork River pursuant to section 202 of Public Law 96–367.

(2) PROPERTY DESCRIPTION.—The parcels of land referred to in paragraph (1) are as follows:

(A) A certain parcel of land in the State of West Virginia, Mingo County, Town of Matewan, and being more particularly bounded and described as follows:

Beginning at a point on the southerly right-of-way line of a 40-foot-wide street right-of-way (known as McCoy Alley), having an approximate coordinate value of N228,695, E1,662,397, in the line common to the land designated as U.S.A. Tract No. 834, and the land designated as U.S.A. Tract No. 837, said point being South 51°52′ East 81.8 feet from an iron pin and cap marked M–12 on the boundary of the Matewan Area Structural Project, on the north right-of-way line of said street, at a corner common to designated U.S.A. Tracts Nos. 834 and 836; thence, leaving the right-of-way of said street, with the line common to the land of said Tract No. 834, and the land of said Tract No. 837.

South 14°37′ West 46 feet to the corner common to the land of said Tract No. 834, and the land of said Tract No. 837; thence, leaving the land of said Tract No. 837, severing the lands of said Project.

South 14°37′ West 46 feet.

South 68°07′ East 239 feet.

North 26°05′ East 95 feet to a point on the southerly right-of-way line of said street; thence, with the right-of-way of said street, continuing to sever the lands of said Project.

South 63°55′ East 206 feet; thence, leaving the right-of-way of said street, continuing to sever the lands of said Project.

South 26°16′ West 63 feet; thence, with a curve to the left having a radius of 70 feet, a delta of 33°58′, an arc length of 41 feet, the chord bearing.

South 09°17′ West 41 feet; thence, leaving said curve, continuing to sever the lands of said Project.

South 07°42′ East 31 feet to a point on the right-of-way line of the floodwall; thence, with the right-of-way of said floodwall, continuing to sever the lands of said Project.

South 77°04′ West 71 feet.

North 77°10′ West 46 feet.

North 67°07′ West 254 feet.

North 67°54′ West 507 feet.

North 57°49′ West 66 feet to the intersection of the right-of-way line of said floodwall with the southerly right-of-way line of said street; thence, leaving the right-of-way of said floodwall and with the southerly right-of-way of said street, continuing to sever the lands of said Project.

North 83°01′ East 171 feet.

North 89°42′ East 74 feet.

South 83°39′ East 168 feet.

South 83°38′ East 41 feet.

South 77°26′ East 28 feet to the point of beginning, containing 2.59 acres, more or less. The bearings and coordinate used herein are referenced to the West Virginia State Plane Coordinate System, South Zone.

(B) A certain parcel of land in the State of West Virginia, Mingo County, Town of Matewan, and being more particularly bounded and described as follows:

Beginning at an iron pin and cap designated Corner No. M2–2 on the southerly right-of-way line of the Norfolk and Western Railroad, having an approximate coordinate value of N228,755 E1,661,242, and being at the intersection of the right-of-way line of the floodwall with the boundary of the Matewan Area Structural Project; thence, leaving the right-of-way of said floodwall and with said Project boundary, and the southerly right-of-way of said Railroad.

North 59°45′ East 34 feet.

North 69°50′ East 44 feet.

North 58°11′ East 79 feet.

North 66°13′ East 102 feet.

North 69°43′ East 98 feet.

North 77°39′ East 18 feet.

North 72°39′ East 13 feet to a point at the intersection of said Project boundary, and the southerly right-of-way of said Railroad, with the westerly right-of-way line of State Route 49/10; thence, leaving said Project boundary, and the southerly right-of-way of said Railroad, and with the westerly right-of-way of said road.

South 03°21′ East 100 feet to a point at the intersection of the westerly right-of-way of said road with the right-of-way of said floodwall; thence, leaving the right-of-way of said road, and with the right-of-way line of said floodwall.

South 79°30′ West 69 feet.

South 78°28′ West 222 feet.

South 80°11′ West 65 feet.

North 38°40′ West 14 feet to the point of beginning, containing 0.53 acre, more or less. The bearings and coordinate used herein are referenced to the West Virginia State Plane Coordinate System, South Zone.

(C) A certain parcel of land in the State of West Virginia, Mingo County, Town of Matewan, and being more particularly bounded and described as follows:

Beginning at a point on the southerly right-of-way line of the Norfolk and Western Railroad, having an approximate coordinate value of N228,936 E1,661,672, and being at the intersection of the easterly right-of-way line of State Route 49/10 with the boundary of the Matewan Area Structural Project; thence, leaving the right-of-way of

said road, and with said Project boundary, and the southerly right-of-way of said Railroad.

North 77°49′ East 89 feet to an iron pin and cap designated as U.S.A. Corner No. M–4.

North 79°30′ East 74 feet to an iron pin and cap designated as U.S.A. Corner No. M–5–1; thence, leaving the southerly right-of-way of said Railroad, and continuing with the boundary of said Project.

South 06°33′ East 102 to an iron pipe and cap designated U.S.A. Corner No. M–6–1 on the northerly right-of-way line of State Route 49/28; thence, leaving the boundary of said Project, and with the right-of-way of said road, severing the lands of said Project.

North 80°59′ West 171 feet to a point at the intersection of the Northerly right-of-way line of said State Route 49/28 with the easterly right-of-way line of said State Route 49/10; thence, leaving the right-of-way of said State Route 49/28 and with the right-of-way of said State Route 49/10.

North 03°21′ West 42 feet to the point of beginning, containing 0.27 acre, more or less. The bearings and coordinate used herein are referenced to the West Virginia State Plane Coordinate System, South Zone.

(D) A certain parcel of land in the State of West Virginia, Mingo County, Town of Matewan, and being more particularly bounded and described as follows:

Beginning at a point at the intersection of the easterly right-of-way line of State Route 49/10 with the right-of-way line of the floodwall, having an approximate coordinate value of N228,826 E1,661,679; thence, leaving the right-of-way of said floodwall, and with the right-of-way of said State Route 49/10.

North 03°21′ West 23 feet to a point at the intersection of the easterly right-of-way line of said State Route 49/10 with the southerly right-of-way line of State Route 49/28; thence, leaving the right-of-way of said State Route 49/10 and with the right-of-way of said State Route 49/28.

South 80°59′ East 168 feet.

North 82°28′ East 45 feet to an iron pin and cap designated as U.S.A. Corner No. M–8–1 on the boundary of the Western Area Structural Project; thence, leaving the right-of-way of said State Route 49/28, and with said Project boundary.

South 08°28′ East 88 feet to an iron pin and cap designated as U.S.A. Corner No. M–9–1 point on the northerly right-of-way line of a street (known as McCoy Alley); thence, leaving said Project boundary and with the northerly right-of-way of said street.

South 83°01′ West 38 feet to a point on the right-of-way line of said floodwall; thence, leaving the right-of-way of said street, and with the right-of-way of said floodwall.

North 57°49′ West 180 feet.

South 79°30′ West 34 feet to a point of beginning, containing 0.24 acre, more or less. The bearings and coordinate used herein are referenced to the West Virginia State Plane Coordinate System, South Zone.

SEC. 579. NAMINGS.

(a) FRANCIS BLAND FLOODWAY DITCH, ARKANSAS.—

(1) DESIGNATION.—8-Mile Creek in Paragould, Arkansas, shall be known and designated as the "Francis Bland Floodway Ditch".

(2) LEGAL REFERENCE.—Any reference in a law, map, regulation, document, paper, or other record of the United States to the creek referred to in paragraph (1) shall be deemed to be a reference to the "Francis Bland Floodway Ditch".

(b) LAWRENCE BLACKWELL MEMORIAL BRIDGE, ARKANSAS.—

(1) DESIGNATION.—The bridge over lock and dam numbered 4 on the Arkansas River, Arkansas, constructed as part of the project for navigation on the Arkansas River and tributaries, shall be known and designated as the "Lawrence Blackwell Memorial Bridge".

(2) LEGAL REFERENCE.—Any reference in a law, map, regulation, document, paper, or other record of the United States to the bridge referred to in paragraph (1) shall be deemed to be a reference to the "Lawrence Blackwell Memorial Bridge".

SEC. 580. FOLSOM DAM AND RESERVOIR ADDITIONAL STORAGE AND WATER SUPPLY STUDIES.

(a) FOLSOM FLOOD CONTROL STUDIES.—

(1) IN GENERAL.—The Secretary, in consultation with the State of California and local water resources agencies, shall undertake a study of increasing surcharge flood control storage at the Folsom Dam and Reservoir by replacing the 8 spillway gates and raising the dam and embankment by 6.5 feet or the amount needed to achieve a 140-year level of flood protection, whichever provides the greater level of flood protection.

(2) DETERMINATION OF 140-YEAR LEVEL OF FLOOD PROTECTION.—For the purposes of paragraph (1), the 140-year level of flood protection shall be determined in accordance with the hydrology approved by the Sacramento District of the United States Army Corps of Engineers in its February 3, 1998, report entitled "American River, California, Rain Flood Flow Frequency Analysis".

(3) LIMITATIONS.—The modifications to the Folsom Dam and Reservoir under this section may not increase the conservation storage of the Folsom Reservoir.

(4) REPORT.—Not later than April 15, 2001, the Secretary shall transmit to Congress a report on the results of the study under this subsection.

(b) FOLSOM WATER SUPPLY STUDIES.—

(1) IN GENERAL.—Following the completion of the study under subsection (a), the Secretary of the Interior, in consultation with the Secretary of the Army, the State of California, local water resources agencies, local elected officials and interested organizations, shall undertake a study of the opportunities to increase the available water supply storage at Folsom Dam and Reservoir resulting from any flood control modifications to Folsom Dam recommended under subsection (a).

(2) FOCUS OF STUDY.—The study shall focus on opportunities to increase water supply storage that can be accomplished while at the same time protecting private property and recreational values at Folsom Reservoir.

(c) IMPLEMENTATION.—Upon completion of the study undertaken pursuant to subsection (a), the Secretary shall proceed with the implementation of the maximum amount of surcharge flood control storage which meets the criteria identified in subsection (a) if the Secretary determines that the project—

(1) is technically feasible, environmentally acceptable, and economically justified and in accordance with the economic and environmental principles and guidelines for water and land resources; and

(2) includes measures which, to the maximum extent practicable, mitigate any adverse impacts to private property and recreation at Folsom Reservoir.

(d) ROAD RELOCATIONS.—

(1) PLANNING AND DESIGN.—Upon enactment of this Act, the Secretary shall undertake detailed planning and design of alternative transportation improvements, including a bridge downstream of Folsom Dam, that comply with current transportation design criteria to replace the Folsom Dam Road, which is currently on top of the embankment at Folsom Dam.

(2) CONSTRUCTION.—Subsequent to the Secretary's determination to proceed with implementation of additional storage at Folsom Dam under subsection (a) and prior to construction of improvements to Folsom Dam needed for such implementation, the Secretary, in consultation with the city of Folsom and the Bureau of Reclamation, shall construct the transportation improvements designed under paragraph (1).

(3) COST SHARING.—The cost of planning, design, and construction of transportation improvements under this subsection shall be treated as safety modifications and shall be subject to cost sharing in accordance with section 1203 of the Water Resources Development Act of 1986 (33 U.S.C. 467n). All costs attributed to water and power users of the Central Valley Project for such planning, design, and construction shall be a Federal responsibility and shall be nonreimbursable.

(4) SPECIAL RULE FOR COST-BENEFIT ANALYSIS.—For purposes of evaluating the costs and benefits of the transportation improvements authorized by this subsection, the benefits of such improvements shall be allocated to ensuring adequate safety at Folsom Dam and shall be deemed to equal the cost of such improvements.

(e) LEVEE STUDY.—

(1) IN GENERAL.—The Secretary shall undertake a study of all levees on the American River and on the Sacramento River downstream and immediately upstream of the confluence of such Rivers to access opportunities to increase potential flood protection through levee modifications.

(2) DEADLINE FOR COMPLETION.—The Secretary shall complete the study not later than 2 years after the date of enactment of this Act.

(3) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection $2,000,000.

SEC. 581. WATER RESOURCES DEVELOPMENT.

(a) PLACER COUNTY WATER AGENCY.—

(1) SACRAMENTO RIVER DIVERSION INFRASTRUCTURE.—

(A) DESIGN AND CONSTRUCTION.—The Secretary shall design and construct facilities, including fish screens, for—

(i) the diversion and transportation of up to the amount of Central Valley Project, California, water set forth in Contract No. 14–06–200–5082A from a location suitable to the Placer County Water Agency on the Sacramento River between the mouths of the Feather and the American Rivers to a point in western Placer County, California, not less than one mile east of the western boundary of Placer County, at a continuous rate of not less than 100 cubic feet per second;

(ii) the treatment of not less than 65 million gallons of water per day for domestic use; and

(iii) the storage of not less than 20 million gallons of water.

(B) CONVEYANCE.—Upon completion of construction of facilities under this paragraph, ownership of the facilities shall be conveyed to the Placer County Water Agency, together with an easement over any related Federal property that provides the Agency the right to access all such facilities and appurtenances for the purposes of operation, maintenance, repair, reconstruction or replacement or enlargement, in perpetuity.

(2) AMERICAN RIVER PUMP STATION.—

(A) DESIGN AND CONSTRUCTION.—The Secretary shall design, construct, and expand existing facilities or install new facilities to provide for a permanent diversion intake, pumping station, electric facilities, electric transmission lines, water conveyance facilities access roads, and all ancillary facilities necessary to allow the Placer County Water Agency to divert and pump a total flow of not less than 200 cubic feet per second from the American River into that Agency's Auburn Ravine Tunnel on a year-round basis.

(B) CONVEYANCE.—Upon completion of construction of facilities under this paragraph, ownership of the facilities shall be conveyed to the Placer County Water Agency, together with an easement over any related Federal property that provides the Agency, the right to access all of its pump station and tunnel facilities and appurtenances for the purposes of operation, maintenance, repair, reconstruction or replacement enlargement and relocation, in perpetuity.

(3) MODIFICATIONS TO HELL HOLE DAM.—The Secretary shall design and construct gates and other facilities at Hell Hole Dam and Reservoir of the Placer County Water Agency in Placer County, California, sufficient to enable the Agency to operate this dam and reservoir to assist in the provision of flood protection for the lands and inhabitants adjacent to the American River downstream of Folsom Dam.

(4) COSTS.—The total costs of design and construction under this subsection is $133,000,000, with an estimated Federal cost of $86,450,000 and an estimated non-Federal cost of $46,550,000.

(b) EL DORADO IRRIGATION DISTRICT.—

(1) IMPROVEMENTS TO FOLSOM LAKE DIVERSION INFRASTRUCTURE.—The Secretary shall design and construct facilities needed to retrofit the El Dorado County Irrigation District's current Folsom Lake diversion infrastructure in order to provide for the diversion, treatment, pumping and conveyance of not to exceed 50,000 acre-feet of water annually.

(2) COSTS.—The total costs of design and construction under this subsection is $21,561,500, with an estimated Federal cost of $14,014,975 and an estimated non-Federal cost of $7,546,525.

(c) GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT.—

(1) AMERICAN RIVER DIVERSION PROJECT.—The Secretary shall design and construct facilities necessary to provide for the diversion, transportation, treatment, and storage of not less than 25 cubic feet per second and 7,500 acre-feet annually from the American River for the Georgetown Divide Public Utility District to obtain benefit of the Energy and Water Development Appropriations Act, 1991. Such facilities shall be provided through an expansion of the capacity of the Placer County Water Agency American River Pump Station facilities identified in subsection (a)(2) of this section.

(2) LAND TRANSFER.—The Secretary shall grant to the Georgetown Divide Pubic Utility District real property rights sufficient to enable the Utility District to implement paragraph (1).

(3) COSTS.—The total costs of design and construction under this subsection is $10,000,000, with an estimated Federal cost of $6,500,000 and an estimated non-Federal cost of $3,500,000.

(d) SAN JUAN WATER DISTRICT.—The Secretary shall provide, subject to advance appropriations, $1,950,000 to the San Juan Water District to fund 65 percent of the costs to study and identify alternatives that would optimize conjunctive use opportunities within Placer and Sacramento Counties, California, and to implement a pilot project necessary to analyze the technical and administrative processes identified through such a study.

(e) FOLSOM RESERVOIR DIVERSIONS.—

(1) IMPROVEMENTS TO FOLSOM LAKE DIVERSION INFRASTRUCTURE.—The Secretary shall design and construct improvements to facilities at Folsom Dam needed to divert, pump, and transport additional water from Folsom Reservoir to the city of Roseville, the San Juan Water District, the city of Folsom, and the Placer County Water Agency, including expansion of the Industrial Pump Station.

(2) COSTS.—The total costs of design and construction under this subsection is $5,000,000, with an estimated Federal cost of $3,250,000 and an estimated non-Federal cost of $1,750,000.

(f) SAN JOAQUIN COUNTY.—

(1) AUTHORIZATION OF IMPROVEMENTS.—In consultation with local officials, the Secretary shall design and construct improvements required to complete the project known as the East San Joaquin County Recharge Project, at a total cost of $100,000,000, with an estimated Federal cost of $65,000,000 and an estimated non-Federal cost of $35,000,000.

(2) LIMITATION.—No money authorized to be appropriated to carry out this subsection shall be made available until such time as San Joaquin County, California, shall have perfected water rights permits or licenses from the California State Water Resources Control Board sufficient to carry out the purposes of the East San Joaquin County Recharge Project.

(g) WATER RESOURCE GRANTS.—

(1) MITIGATION FOR DIVERSIONS.—The Secretary shall provide, through grants or other cooperative agreements to one or more of the Placer County Water Agency, El Dorado Irrigation District, El Dorado County Water Agency, Georgetown Divide Public Utility District, city of Roseville, city of Folsom, San Juan Water District and its wholesale suppliers, the County of Sacramento, and other agencies located north of the confluence of the American and Sacramento Rivers that divert or use water from the Sacramento River and its tributaries, funds for the purpose of implementing projects on the American River and tributaries (or, where appropriate, on other rivers that are or can be operationally integrated with the American River) which will provide water supply benefits to municipal jurisdictions and operational and management flexibility within these areas of origin.

(2) FEDERAL SHARE.—The Federal share of the costs of any activity carried out under a grant or agreement made under this subsection shall be 65 percent.

(3) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection $10,000,000.

(h) GRANTS AND REIMBURSEMENTS.—

(1) GRANTS.—The Federal share of the costs of any activity under this section may be provided in the form of grants to the non-Federal interest or direct reimbursements to the non-Federal interest of such costs.

(2) ADVANCE CONSTRUCTION REIMBURSEMENT.—Subject to the availability of appropriations, the Secretary may reimburse any non-Federal interest an amount equal to the estimate of the Federal share, without interest, of the cost of any work (including work associated with studies, planning, design, and construction) carried out by a non-Federal interest otherwise made eligible for non-Federal assistance under this section. Reimbursements for construction work by a non-Federal interest on an eligible project in this section may be made only—

(A) if, before initiation of construction of the project, the Secretary approves the plans for construction of such project by the non-Federal interest; and

(B) if the Secretary determines that the work for which reimbursement is requested has been performed in accordance with applicable permits and approved plans.

(i) OTHER WATER SUPPLY STUDIES.—

(1) INCREASED WATER SUPPLY THROUGH ALTERATION OF RESERVOIR OPERATION.—

(A) IN GENERAL.—The Secretary, in consultation with the Secretary of the Interior, shall contract with the State of California to undertake a study to determine opportunities to increase the available water supply by altering the operation of the reservoirs and related facilities located on rivers that drain into the Sacramento and San Joaquin Valleys owned by the Federal Government, the State of California, local governments, and private parties.

(B) PROTECTION OF PROPERTY RIGHTS.—The study shall be based on the protection of existing property rights, recreational values, environmental values, and operational and contractual constraints and obligations.

(C) ASSUMPTION.—The study shall assume only voluntary reoperation of the facilities.

(D) LIMITATION.—The completion of the study shall not be a basis to delay or impact the operation, relicensing, or transfer of ownership of any reservoir, water project, or hydroelectric facility.

(E) FUNDING.—There is authorized to be appropriated to carry out this paragraph $3,000,000.

(2) INCREASED WATER SUPPLY STORAGE AT RESERVOIRS DRAINING INTO CALIFORNIA CENTRAL VALLEY.—

(A) IN GENERAL.—The Secretary, in consultation with the Secretary of the Interior, shall undertake a study of the opportunities to increase available water supply storage at the Sites/Colusa Reservoir Project area, Cottonwood Creek Reservoir Complex area, Yuba River Dam area, and other potential reservoir sites that drain into the California Central Valley.

(B) PROTECTION OF PROPERTY RIGHTS.—The study shall be based on the protection of existing property rights and recreational values.

(C) COOPERATION.—The study shall be completed in cooperation with other related studies.

(D) FUNDING.—There is authorized to be appropriated to carry out this paragraph $3,000,000.

(j) PROTECTION OF WATER RIGHTS.—Nothing in this section shall be construed to affect any water rights in the State of California.

SEC. 582. ALLOCATION OF APPROPRIATIONS.

(a) EIS AND PLANNING STAGE.—Except as provided in subsection (e), funds appropriated to carry out sections 580 and 581 of this Act for each of fiscal years 2000, 2001, 2002, and 2003 shall be allocated according to the ratio of 60 percent for section 580 and 40 percent for section 581.

(b) INTENSE FLOOD CONTROL CONSTRUCTION PHASE.—Except as provided in subsection (e), funds appropriated to carry out sections 580 and 581 of this Act for each of fiscal years 2004, 2005, and 2006 shall be allocated according to the ratio of 90 percent for section 580 and 10 percent for section 581.

(c) FLOOD CONTROL/WATER SUPPLY TRANSITIONAL PHASE.—Except as provided in subsection (e), funds appropriated to carry out sections 580 and 581 of this Act for each of fiscal years 2007, 2008, 2009, and 2010 shall be allocated according to the ratio of 75 percent for section 580 and 25 percent for section 581.

(d) PROJECT COMPLETION PHASE.—For each fiscal year following fiscal year 2010, funds appropriated to carry out sections 580 and 581 of this Act shall be allocated according to a ratio of 25 percent for section 580 and 75 percent for section 581. In the event that design and construction activities under section 580 or 581 have been completed, all funds appropriated to carry out such sections shall be allocated to the remaining design and construction activities authorized under such section.

(e) LIMITATION.—The allocation of appropriations required under subsections (a) through (d) shall not take effect for any fiscal year during which funds appropriated to carry out section 580 or 581 may not be obligated due to the failure to successfully complete any required feasibility studies or environmental reviews or the refusal or inability of a non-Federal interest to enter into a binding local agreement to carry out the items of local cooperation required pursuant to such section.

SEC. 583. WALLOPS ISLAND, VIRGINIA.

(a) EMERGENCY ACTION.—The Secretary shall take emergency action to protect Wallops Island, Virginia, from damaging coastal storms, by improving and extending the existing seawall, replenishing and renourishing the beach, and constructing protective dunes.

(b) REIMBURSEMENT.—The Secretary shall seek reimbursement from other Federal agencies whose resources are protected by the emergency action taken under subsection (a).

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $8,000,000.

SEC. 584. DETROIT RIVER, DETROIT, MICHIGAN.

(a) IN GENERAL.—The Secretary is authorized to repair and rehabilitate the seawalls on the Detroit River in Detroit, Michigan.

(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated for fiscal years beginning after September 30, 1999, $1,000,000 to carry out this section.

PURPOSE AND SUMMARY

The Water Resources Development Act of 1999 (WRDA 99) includes project authorizations, modifications, deauthorizations, studies and policy initiatives for the Army Corps of Engineers' Civil Works Program—the nation's largest water resources program. Throughout its five titles, the bill authorizes and directs the Corps to carry out various studies, projects, and programs relating to navigation, flood control, shoreline protection, hydropower production, dam safety, water supply, recreation, environmental restoration and protection.

BACKGROUND AND NEED FOR LEGISLATION

WRDA 99, which is largely "unfinished business" from the 105th Congress, demonstrates the continuing commitment of the Committee on Transportation and Infrastructure to the Nation's water infrastructure, the aquatic environment, and a regular authorization schedule for the Civil Works Program of the Department of the Army. Unfortunately, Congress did not enact a WRDA in 1998 and, as a result, departed from the previously-established two-year cycle for authorizations re-instituted by WRDA 86. The Committee believes that passage of WRDA 99 is vitally important to fulfill commitments to non-Federal sponsors, to be responsive to new and emerging water resources needs, to fine-tune the Corps' missions and responsibilities, and to accommodate the Administration's policy initiatives.

WRDA 99 is based on the Water Resources Development Act of 1998 (WRDA 98), which received considerable attention by Subcommittee and Committee Members. The comprehensive legislation would have authorized, modified, reauthorized and deauthorized various Corps of Engineers' water resources projects and authorized studies involving, among other things, navigation, flood control, environmental restoration, shore protection, hydropower, water supply, and recreation. The legislation also would have included various policy initiatives, regional programs, and other revisions to the Corps' existing water resources program.

The Subcommittee held hearings on March 31, April 22 and April 28, 1998, on proposals for a WRDA 98. Testimony was received from Members of Congress, the Administration, and national organizations addressing funding and legislative proposals, including, among other things, the Administration's budget request for fiscal year 1999 for the Corps of Engineers, the recently-invalidated harbor maintenance tax, the Administration's legislative proposal for WRDA, and H.R. 3243, the Alternative Water Source Development Act.

On May 11, 1998, the Administration transmitted to Congress its proposed WRDA 98. On May 14, 1998, the bipartisan leadership of the House Transportation and Infrastructure Committee introduced H.R. 3866, the Administration's bill, by request and on June 4, 1998, the bipartisan leadership of the Senate Environment and Public Works Committee introduced S. 2131, the Administration's bill, by request. S. 2131 was passed by the Senate Committee on July 29, 1998 and the Senate on October 9, 1998, and referred to the Transportation and Infrastructure Committee on October 21, 1998.

Throughout October 1998, the leadership of both Committees and their staff and other Members met to resolve differences among the Senate-passed S. 2131, H.R. 3866, and a draft House bill circulated by the Transportation and Infrastructure Committee. However, no final action was taken on the legislation before the end of the Second Session.

The failure to enact a WRDA 98 makes enactment of a WRDA 99 more important than ever before. Early enactment of H.R. 1480 will help restore the biennial authorization process and provide a timely response to pressing project- and program-related needs.

DISCUSSION OF COMMITTEE BILL AND SECTION-BY-SECTION ANALYSIS

Section 1: Short Title; Table of Contents

(a) Short Title.—This Act may be cited to as the "Water Resources Development Act of 1999."

(b) Table of Contents.—[To be supplied.]

Section 2: Secretary Defined

This section defines the term "Secretary," which is used throughout the bill, as the Secretary of the Army.

TITLE I—WATER RESOURCES PROJECTS

Sec: 101: Project authorizations

(a) This subsection authorizes 23 projects for water resources development and conservation to be carried out substantially in accordance with the reports of the Chief of Engineers cited for each project.

(1) Sand Point Harbor, Alaska.—

Location of Study Area: This report focuses on Humboldt Harbor in Sand Point, Alaska. The city of Sand Point is located on the northwest portion of Popof Island, in the Shumagin Island group that lies south of the Alaska Peninsula.

Problems, Needs, and Opportunities Identified: Sand Point, located on the Pacific coast of the southwestern Alaska peninsula, is one of the State's most productive fishing areas. The harbor currently provides no permanent protected moorage for vessels larger than 80 feet. In recent years, the fleet operating in the Bering Sea/Aleutian Island area, made up primarily of vessels ranging from 80 to 160 feet, has grown significantly. Vessels fishing in the Sand Point area currently travel long distances to secure protected moorage.

Alternative Plans Considered: The alternatives considered for harbor improvements included two sites north of the existing harbor, expanding the existing harbor itself, a site adjacent to the south of the existing harbor, and a site farther south along the shoreline. All but the sites adjacent to the south of the existing harbor were eventually eliminated for environmental and/or economic reasons. The selected site captures the most NED benefits and maximizes net NED benefits, providing moorage for 37 vessels 80 feet and larger.

Description of Recommended Plan: In the NED plan, a mooring basin would be constructed adjacent to the south of the existing harbor. It incorporates the existing southern breakwater and the causeway to the city dock by extending the existing breakwater to form a basin for the design fleet. A second breakwater, 730 feet long, will be constructed from shore. Harbor optimization led to moorage space for 37 vessels between 80 and 150 feet in length.

Physical Data on Project Features: The proposed harbor improvements at Sand Point consist of construction of a 570-foot breakwater from the existing south breakwater of Humboldt Harbor and a 730-foot breakwater from shore to form the basin and entrance channel of the new harbor. The crest height of the rubble mound breakwaters would be +16 ft MLLW. The breakwaters would be designed to withstand the forces of a 6.6-foot wave. The entrance channel would be dredged to −18 ft MLLW. It would be 120 feet wide to allow one-way traffic of vessels 150 feet in length with a 34-foot beam and 10.5-foot draft. The mooring basin would be dredged to a depth of −17 ft MLLW and would provide room for 37 vessels.

New Policy Direction Recommended: None

Views of State and Non-Federal Interests: The non-Federal sponsor for the Sand Point Project is the Aleutians East Borough. The locally preferred plan is also the NED plan selected. There are no known significant issues at this time.

Views of Federal and Regional Agencies: The U.S. Fish and Wildlife Service recommended that mitigation measures be incorporated into the project, including post-construction followup studies. The District's position is that followup studies would not benefit the resources at the project site and are not warranted. Mitigation measures through avoidance and minimization are sufficient. Compensatory mitigation is not warranted or practicable for this project. There are no other issues.

Status of Final Environmental Assessment: The environmental assessment, along with the required review period, has been completed. A Consistency Finding and Certificate of Reasonable Assurance have been received from the State of Alaska to verify that State requirements have been met. During the project review, the Alaska District received several comments, most notably from the U.S. Fish and Wildlife Service, that requested additional mitigation measures. The Corps believes the proposed mitigation fully compensates for the project related impacts. The U.S. Fish and Wildlife Service staff does not concur with the Corps' conclusion and has stated that more mitigation is required. The finding of no significant impact was signed on 24 April 1998.

Estimated Implementation Costs: (Oct 98 Price Level):

	Cost Sharing
Federal (Navigation):	
COE/Federal Channel	$6,956,000
Coast Guard/Federal Channel	8,000
Total Federal	$6,964,000
Non-Federal (Navigation):	
Aleutians East Borough/Federal Channel	$1,631,000
Aleutians East Borough/Mooring Basin, Float System, LERRD, Utility Relocations	3,165,000
Total Non-Federal	$4,796,000
Total	$11,760,000

Description of Non-Federal Implementation Costs: The non-Federal share of the project cost is $4,796,000. This includes 10 percent of the cost of the general navigation features ($851,500), which includes channel dredging and replacement or modification of any structures affected by the dredging operations; $3,165,000 for dredging of mooring basin and construction of inner harbor float system; and $779,500 for long-term repayments, which is 10 percent of the general navigation features minus credits for LERR ($72,000 for land acquisition).

Estimated O&M Costs: (October 98 price level)

	Cost sharing
Federal (Navigation):	
Corps of Engineers/Federal Channel	$5,370
Coast Guard/Federal Channel	630
Total Federal	6,200
Non-Federal (Navigation):	
Aleutians East Borough/Floats, Stalls and Piles	22,600
Total	28,800

Description of Non-Federal O&M Costs: Approximately $22,000 per year in non-federal sponsor O&M costs for moorage basin dredging. Indications are that littoral transport of sediments along the beach outside the harbor will be minimal.

Estimated Effects:

Account	Average annual equivalent beneficial effects ($1000)	Average annual adverse effects ($1000)
Purposes: NED, Commercial Navigation	$1,739	$895

Benefit-to-Cost Ratio: 1.9 (Current Discount Rate: 6⅞%)

(2) Rio Salado, Salt River, Phoenix and Tempe, Arizona.—

Location: The study area consist of 5 miles of the Salt River in the city of Phoenix, and approximately 1 mile of the Salt River and 1.3 miles of Indian Bend Wash in the city of Tempe, Maricopa County, Arizona.

Problems and Opportunities Identified in Study: The optimal historical conditions that once supported high quality riparian habitat in the study area have been severely impacted by man made changes resulting in a degraded river bed devoid of native vegetation and species diversity. Overall, riparian habitats have declined by about 90 percent in the southwestern United States. In addition,

approximately 90 percent of all species in Arizona depend on riparian habitat for their survival. The opportunity exists to restore this linear corridor along the Salt River to reestablish scarce, valuable and rare native riparian plant communities, establish cover and habitat structure, and provide the opportunity for wildlife to migrate and utilize this area once again.

Alternative Plans Considered: The final array of alternatives have considered variations in the mix of native plant and habitat types. The alternatives evaluated native plant communities including mesquite bosque, cottonwood and willow dominant habitat, wetland-marsh habitat, and aquatic strand/scrub habitat. Methods to simulate natural riverine riparian areas were studied including alternatives with differing water demand and associated cost requirements.

Description of Recommended Plan: The recommended plan will restore 675 acres of riparian habitat. The plan includes water supply and infrastructure features to support the habitat, drop structures and low flow channels to contain moderate streamflow events; monitoring and adaptive management plans; and, a recreational plan consisting of trails, shelters, rest rooms, signage, parking, and associated features.

Physical Data on Project Features:

Phoenix Reach—The proposed project would restore approximately 525 acres of riparian habitat along a 5–mile reach of the Salt River within Phoenix, Arizona, from the I–10 bridge downstream to 19th Avenue. The project includes construction of a 200 foot wide low flow channel with four drop structures to contain moderate streamflow events; plantings to restore 130 acres of mesquite habitat, 99 acres of cottonwood/willow habitat and 58 acres of wetland marsh; and construction of 6 water wells and water distribution/irrigation system. Recreational features include trails, shelters, rest rooms, signage, parking, and associated features.

Tempe Reach—The proposed project would restore approximately 150 acres of riparian habitat along approximately 1.3 miles of the Indian Bend Wash from McKellips Road Bridge and the confluence of the Salt River, about 1800-feet of the Salt River upstream of Tempe Town lake, and about 2000-feet downstream of Tempe Town Lake. The project includes plantings to restore 30 acres of mesquite habitat, 20 acres of cottonwood/willow habitat and 16 acres of wetland marsh; and construction of a water well and water distribution/irrigation system. Recreational features include trails, shelters, rest rooms, signage, and parking.

New Policy Directions Recommended: The proposed plan includes a recommendation to include a monitoring and adaptive management plan which will allow the Corps to perform minor modifications to the plan after the project has been turned over to the non-Federal sponsors.

Views of States, Non-Federal Interests and Other Countries: The cities of Tempe and Phoenix fully support the recommendations in the feasibility report. They have indicated their support for the project and a willingness to assume cost-shared financial obligations for implementation of the project.

Views of Federal and Regional Agencies: The proposed project is heavily supported by resource agencies including the U.S. Fish and

Wildlife service and the Arizona Department of Game and Fish. In their Planning Aid letter, dated November 6, 1997, the service recommends alternatives be implemented, such as the recommended plan, which would maximize the enhancement and development of wetland and riparian habitat.

Status of NEPA Document: The final EIS was filed in 23 April 1998.

Estimated Implementation Costs: (October 1998 price levels):

	Cost-Sharing
Federal (Agency/Purpose):	
Ecosystem Restoration	$53,433,000
Recreation	2,922,000
Subtotal	56,355,000
Non-Federal:	
Ecosystem Restoration (Phoenix)	26,632,000
Ecosystem Restoration (Tempe)	2,139,000
Recreation (Phoenix)	2,570,000
Recreation (Tempe)	352,000
Subtotal	31,693,000
Total	88,048,000

Description of Non-Federal Implementation Costs: The non-Federal sponsor is responsible for providing all lands, easements and rights-of-way, relocations, and disposal areas (LERRDs). The estimated value of LERRDs is $3,714,000. The non-Federal sponsor is to provide a cash contribution to bring the non-Federal share of the total project costs for ecosystem restoration to a minimum of 35 percent, with credit for LERRDs. In addition, the non-Federal sponsor is to provide 50 percent of the total recreation costs.

Estimated Annual O&M Costs: (October 1998 price levels):

	Cost-Sharing
Federal (Agency/Purpose):	
Ecosystem Restoration	0
Recreation	0
Non-Federal:	
Ecosystem Restoration (Phoenix)	
Water Supply	$ 1,017,000
Habitat	775,000
Recreation	1,050,000
Ecosystem Restoration (Tempe)	
Water Supply	154,000
Habitat	76,000
Recreation	148,000
Total	3,220,000

Description of Non-Federal O&M Cost: The non-Federal O&M costs consist primarily of three items. The first is the estimated annual costs necessary to supply the water budget requirements to support the restoration features and habitat. The second is associated with overall maintenance of the restoration project including replacement of vegetation and habitat damaged by infrequent flood flows exceeding the low flow channel capacity. The third is associated with maintenance of the recreation features for the project.

Estimated Effects: The project features will restore native plant communities, restore Federally listed threatened and endangered species habitat, returns the river to a more natural condition, and

increases recreation and environmental education opportunities. The project will result in a total increase of 338 habitat units. These habitat units are considered especially valuable due to scarcity and the dependence of certain species on these unique and vanishing resources.

This project will restore a unique natural resource that will benefit a variety of wildlife species and the human inhabitants of the metropolitan area. Both the Tempe and the Phoenix reaches would provide opportunities for the restoration and enhancement of habitat for numerous wildlife species including the endangered Yuma clapper rail and southwestern willow flycatcher. The restored upland, riparian and marsh vegetation would include creosote, catclaw, bursage, desert broom, saltbush, brittle bush, cottonwood, desert willow, cattails, bulrush, sedges, rushes, and other emergent and riparian vegetation. Wildlife species expected to utilize the restored habitat include coyote, rodents, reptiles, avian species such as the red-tailed hawk, cactus wren, Gambel's quail, curve-billed thrasher, bats, skunks, raccoons, amphibians, hooded orials, Abert's towhees, yellow and yellow-rumped warblers, red-winged blackbirds, Cooper's hawks, varios flycatchers, hosts of avifauna such as rails, egrets, herons, shorebirds, and waterfowl. Many of the bird species are neotropical migrants and depend exclusively on riparian communities for feeding and nesting. Five federally listed species that have been known to occur in the study area include the Yuma clapper rail, bald eagle, peregrine falcon, brown pelican, and southwester willow flycatcher. State sensitive species which may utilize the restored habitat include the lowland leopard frog, belted kingfisher, great egret, snowy egret, osprey, american bittern, least bittern, ferruginous pygmy owl, black-necked stilt, black-crowned night heron, and white-faced ibis.

Benefit-Cost Ratio: A benefit/cost ratio is not reported since environmental benefits are not quantified monetarily.

(3) Tucson Drainage Area, Arizona.—

Location: The study area encompasses the 12–square mile Tucson Arroyo/Arroyo Chico watershed that lies completely within the Tucson city limits in eastern Pima County, southern Arizona.

Problems and Opportunities Identified in Study: The Tucson Arroyo/Arroyo Chico Wash system consists of 6 major washes that drain central and downtown Tucson into the Santa Cruz River. The watershed is fully urbanized and the existing channel capacities are extremely low (most are equivalent to a 10–year capacity or less; some will contain only a 2–year flood).

The Tucson Arroyo/Arroyo Chico Wash constitutes the most critical flood problem in Tucson. The 12 square mile area of central and downtown Tucson that is drained by this system consists of low-capacity natural channels in the upper watershed (Arroyo Chico), and two covered channel sections through downtown Tucson (Tucson Arroyo) that were constructed in the 1920's. Flooding problems in this area of the city result from existing inadequate channel capacities.

Flooding occurs somewhere along Tucson Arroyo and/or Arroyo Chico on the average every other year. In July 1990, an estimated 5- to 10-year event resulted in flooding of homes along Arroyo Chico in the historic Colonia Solana District in central Tucson, and

businesses and residences along Tucson Arroyo near downtown Tucson. Future without-project structural flood damages alone are estimated at approximately $2.3 million on an average annual basis.

Loss of environmental resources associated with Tucson Arroyo and Arroyo Chico are large issues with agencies and residents alike. The historic desert riparian ecosystem has been impacted by increasing urbanization, dumping, and general degradation of the resource. Fewer than 10 acres remain in a highly degraded condition along the channel system.

Alternatives Plans Considered: Alternative flood control measures are severely constrained by expanding development throughout the watershed and along the channel right-of-way, and by the existing low-capacity of the covered channel sections through downtown Tucson, the main conduit for floodwaters through downtown. Alternatives shown to be infeasible included large-scale channelization, flood warning systems, elevation of structures, relocations, ring levees, dams, and a number of non-structural approaches. The array of feasible alternative plans evaluated for the watershed included multiple detention basins on the main channel and tributary channels. The detention basins will utilize the only available open space near the watercourses: Randolph Golf Course (where Naylor Wash joins Arroyo Chico Wash), and currently vacant or open properties along Arroyo Chico just upstream of the Park Avenue inlet to the covered channel segment which runs under portions of downtown Tucson. The covered channel segments are a severe constraint to plan formulation efforts due to extremely limited capacity. Increasing the capacity of the covered channel segments through "daylighting" or enlargement is not a viable solution from an economic standpoint.

Environmental restoration alternatives focused on maximization of habitat value within the limits of the proposed flood control project, with the goal of a blend of desert riparian and upland environments. Analysis was also conducted on the value of including open water options for migratory and resident waterfowl. Use of all available land was not considered due to the necessity of providing replacement of lost recreational opportunities which currently exist on-site. Restoration acreage was limited to existing open space available within the highly urbanized watershed. Detention basins presented the option of developing habitat on enlarged basin contours provided by plan.

Description of Recommended Plan: The recommended plan consists of two large detention basin complexes, one at Randolph Golf Course, and the other upstream of Park Avenue in the center of the basin, and also limited channel improvements upstream of the Park Avenue site, and downstream at the High School Wash confluence, to ensure inlet control and minimize breakout. The Randolph Golf Course complex (already constructed by non-Federal interests who requested credit under Section 104 of WRDA '86) consists of a series of interconnected below-ground basins which collect flows from Arroyo Chico and Naylor Wash, and reduce the outflow to a discharge that the channel can carry. Randolph Golf Course is completely integrated with the new flood control system. The Park Avenue complex controls runoff from areas downstream of

Randolph Golf Course, and includes three on-line, and one off-line basin, and also incorporates a large environmental restoration component, and replacement of lost recreational opportunities. The entire project reduces flood inundation to over 1100 structures, provides protection from a flood with a 1 percent chance of being exceeded in any given year, and substantially increases the acreage and long-term survivability of an urban desert riparian environment. Mitigation for project construction includes 6.8 acres of riparian habitat and 0.4 acres of upland desert vegetation.

Physical Data on Project Features:

(a) *Randolph Golf Course Detention Basin Complex.* Modifications to the Randolph Golf Course provided detention of approximately 200 ac-ft of floodwaters resulting from a flood having a 1 percent chance of being exceeded in any given year. Modifications included excavation of material in areas between the greens and fairways to create floodwater storage in "compartmentalized" detention basins, conduits to funnel flow from basin to basin, a small embankment on the downstream side of the golf course to provide detention for large events, and subsequent restoration of the pre-existing golf course. The non-Federal Sponsor finished construction of this complex in April 1996 prior to authorization of the Corps project, and has been granted consideration of Section 104 credit for this work. There was no mitigation required for this project feature.

(b) *Park Avenue Detention Basin Complex.* Construction of detention basins upstream of the Park Avenue inlet to the downstream covered channel segments is also required to provide significant reductions in flooding to downstream properties. The Park Avenue complex would consist of three in-line and one off-line basins to store approximately 250 ac-ft of floodwater during a flood having 1 percent chance of exceedance in any given year. Limited channel improvements upstream of the Park Avenue complex were also necessary to maintain control of inflows to this complex. This would consist of deepening the channel between Campbell and Parkway Terrace immediately upstream of the inlet to the Park Avenue complex over a distance of approximately 1600 feet. Mitigation for project impacts includes 1 for 1 replacement of 6.4 acres of desert riparian habitat at Park Avenue and 0.4 acres of the same for the channel area upstream of Kino Parkway at the Park Avenue complex inlet.

(c) *Channel Improvements.* Channel improvements are included at the underground confluence of High School Wash and Tucson Arroyo would consist of constructing an enlarged conduit on High School Wash immediately upstream from its confluence with Tucson Arroyo to prevent exceedance of the structure and subsequent downstream flooding. The existing structure will not contain moderate to large flood events issuing from the High School Wash subwatershed. The new structure would contain floods up to a 1 percent chance of exceedance in any given year.

(d) *Environmental Restoration.* In addition to the 6.8 acres of mitigation, ecosystem restoration of over 10 acres of desert riparian and upland environment would be included, consisting of transplanting and planting of both existing vegetation and container-bred plants sufficient to restore the ecosystem to the channel reach from Kino Parkway to Park Avenue within the constructed deten-

tion basins. There would be 2 acres of created waterfowl habitat within one basin to establish opportunities for resident and migratory birds. There would also be over 2 acres of "passive" recreation at the Park Avenue site consisting of grassed areas for picnicking, family outings, and wildlife watching. The maintenance access roads would be used as biking and walking trails from which one can observe activities and wildlife within the basins.

Views of States, Non-Federal Interests and Other Countries: The Arizona Department of Environmental Quality (ADEQ) has provided comments expressing the need for continued coordination of efforts in regards to a hazardous waste site downstream of the proposed Park Avenue complex, and concern in regards to the close proximity this site (known as Mission Linen) to the proposed Park Avenue basin #1. The concern is as to whether the recommended plan might have some hydrologic connection to the Mission Linen site. In general, there has been a high degree of support by non-Federal interests, particularly Arizona Department of Game and Fish, and residents of the floodplain. However, the Barrio San Antonio Neighborhood Association, which represents a neighborhood which is in close proximity to the proposed basin, but is not within a flood-prone area, opposes the project. Their concerns primarily focus on the Mission Linen issue discussed above, but also the desirability of a flood control and/or environmental restoration in relation to their neighborhood, and certain individuals feeling that they had not been informed of study efforts and findings associated with the first public comment period. As a result of a request from these individuals and the neighborhood association, the public comment period was extended. A second organization, the Southwest Center for Biological Diversity, opposes the entire project by virtue of their organizational mandate. To resolve the Mission Linen matter, further investigation of the hazardous waste site will be accomplished during preconstruction engineering and design.

Views of Federal and Regional Agencies: There are currently no unresolved issues associated with the Reporting Officer's recommendations.

Status of NEPA Document: The final environmental impact statement has been filed with EPA on 5 November 1997.

Estimated Implementation Costs: (October 1998 price levels):

Cost-Sharing	
Corps of Engineers—Flood Control (56%)	$16,280,000
Corps of Engineers—Environmental Restoration (65%)	339,000
Corps of Engineers—Recreation (50%)	149,000
Subtotal	16,768,000
Non-Federal	
PCDTFCD*—Flood Control (44%)	12,800,000
PCDTFCD*—Environmental Restoration (35%)	183,000
PCDTFCD*—Recreation (50%)	149,000
Subtotal	13,132,000
Total	29,900,000

* Pima County Department of Transportation and Flood Control District.

Description of Non-Federal Implementation Costs: The non-Federal sponsor is required to provide all LERRDs, contribute 5 per-

cent of all costs attributable to flood damage reduction/ecosystem restoration and recreation in cash, plus additional cash as necessary to make the sponsor share at least 35 percent for flood damage reduction and ecosystem restoration and 50 percent for recreation. The non-Federal sponsor applied for credit under Section 104 of PL 99–662 for advance construction of locally funded improvements (Randolph Park detention Basin). Credit is available against the non-Federal cost of LERRDs and for any additional cash necessary for the required 35 percent minimum non-Federal contribution. However, for this project there is no requirement to provide additional cash for the flood damage reduction portion of the project. The estimated credit is about $6,486,000, which represents creditable construction cost associated with the Randolph Park detention basin complex.

Estimated Annual O&M Costs: (October 1998 price levels)

Federal O&M for 5-year monitoring period: $6,000 per year for 5 years (50%).

Non-Federal* O&M for 5-year monitoring period: $6,000 per year for 5 years (50%).

Non-Federal* O&M of Flood Control Project: $15,000 per year for project life (100%).

* Pima County Department of Transportation and Flood Control District.

Description of Non-Federal O&M Cost: These costs consist of the non-Federal contribution to establishment of the environmental mitigation acreage ($6,000 per year for 5 years), which is monitoring of the vegetation and site conditions, maintenance, and other needed tasks, and operation, maintenance, repair, replacement and rehabilitation of the flood control features ($15,000 per year for project life), which consists of maintenance of outlet works, embankments, weirs, and other features of the flood control project, including sediment removal in the basins and channels.

(4) American River Watershed, California.—

Background. The City of Sacramento and the surrounding flood-prone areas are long overdue for increased protection from devastating floods. According to the Corps of Engineers, no other major city is as vulnerable to flooding. A major flood (recent hydrologic trends suggest the threat could be underestimated) would have disastrous consequences. More than 600,000 people live within the floodplain. The area contains almost $40 billion in property, including California's State Capitol, six major hospitals, 26 nursing home facilities, over one hundred schools, 160,000 residences and major transportation facilities.

While the threat is very real and the scope of the potential catastrophe is undisputed, the form that a flood control plan should take has been intensely debated, probably more than any other flood control project brought before the Committee. H.R. 1480 addresses both answers the question of how to best address the current water resources needs of the area and provides Sacramentans with overdue flood protection. This section, combined with provisions of sections 365, 580, 581 and 582, reflect the results of months, even years, of debate, negotiation and compromise. These provisions are intended to provide compromise an integrated, comprehensive solution to both flood control and water supply needs in the region. The Committee expresses its appreciation to the elected officials who

worked diligently in the effort to develop a mutually supportable plan and to the many local officials and water resources experts for their untiring efforts and contributions.

Modifications of Folsom Dam. The principal feature of the flood damage reduction measures authorized for the American River Watershed is the modification of the Folsom Dam on the American River at Folsom, California. The plan is based on the Corps of Engineers' Supplemental Information Report (SIR) of March 1996. However, the plan is to be modified by the plan prepared by the Sacramento Area Flood Control Agency (SAFCA) entitled "Folsom Dam Modification Report, New Outlets Plan", dated March 1998. The project includes enlargement of the existing eight "river" outlets at the dam plus the construction of five new outlets through the dam's auxiliary spillway. This plan is expected to yield about the same degree of flood control benefits as the plan identified in the Corps' 1996 SIR with less impact on reservoir operations and at reduced cost. The estimated cost of construction of the project is $150,000,000, with an estimated Federal cost of $97,500,000, and an estimated non-Federal cost of $52,500,000.

Because the existing project is operated by the Bureau of Reclamation, the Committee has included language directing the Corps to coordinate with the Secretary of the Interior on the design and construction of the project. The Committee expects the Corps to work closely with the Bureau and that both agencies will work cooperatively to assure timely implementation of this project. The agencies may enter into agreements regarding design and construction including, if determined by the Corps to be the most efficient and cost-effective approach, an agreement to have the Bureau manage construction activities.

Modification to Folsom Variable Storage Regime. Because of the increased outflow capacity created by the enlargement and addition of outlets at the dam, the maximum amount of space required for the variable flood control storage operation (or "reoperation measures") is reduced. The operating range of such storage will be changed from 400,000–670,000 acre-feet to 400,000–600,000 acre-feet. The sharing of costs incurred for this variable storage will continue as set forth in the Water Resources Development Act of 1996, on a permanent basis.

Minimizing Impact on Recreation. Because of the importance of recreational opportunities at Folsom Reservoir, the Committee has included language requiring that all water lost as a result of the variable flood control storage operation that has a significant impact on recreation in the reservoir shall be replaced, to the extent that water is available for purchase. The cost of acquiring replacement water is to be 75% Federal and 25% non-Federal. In determining the amount of cost to be paid by SAFCA, the reduction in water available for recreation caused by the diversion of water by the El Dorado County Irrigation District, for which infrastructure facilities are authorized in section 581(b) of this Act, shall be taken into account.

(5) South Sacramento County Streams, California.—

Location of Study Area: The South Sacramento County Streams drainage basin lies south and east of the city of Sacramento. A portion of the basin lies within the Sacramento city limits. There is

a high risk of flooding from Morrison, Florin, Elder, and Unionhouse and Laguna Creeks. These streams flow into Beach-Stone Lakes basin that connects further south with the Sacramento-San Joaquin Delta.

Problems and Opportunities Identified in the Project Area: The study addresses flood problems and the need for additional water resources related recreation and environmental restoration. Flood problems are included in two distinct basins—the Morrison Creek stream group (upper) basin and Beach-Stone Lakes (lower) basin. The upper basin is drained by Morrison Creek and its major tributaries, Elder, Florin, Unionhouse, and Laguna Creeks. The lower reaches of channels are protected with levees, which extend down to Beach-Stone Lakes. Channels and levees in the urbanized area in the middle of the study area are undersized and cannot contain events greater than those having a two percent chance of being exceeded in any year. Beach-Stone Lakes is a low, flat area surrounded by levees and other embankments. Over-bank flows from the Mokelumne and Cosumnes Rivers, as well as Morrison Creek, contribute to flooding. The Beach Lake levee, which protects the Pocket Area and other urbanized areas in the city of Sacramento, has insufficient reliability. Similarly, the levee that surrounds the Sacramento Regional Wastewater Treatment Plant (SRWTP) provides inadequate protection under without-project conditions. Potentially, a flood could impact approximately 100,000 people and cause damages ranging between $1 billion for an event having 1 chance in 100 of occurring in any given year to more than $2 billion for an event having 1 chance in 500 of occurring in any given year.

There are limited numbers of parks and other public recreation facilities in the study area. There is a good opportunity to use Morrison Creek levees to expand public pedestrian and bicycle trails in accordance with the local recreation trails master plan. Besides recreation, there is a significant need to restore fish and wildlife habitat along channels and streams in the study area.

Alternative Plans Considered: Three alternatives (besides the No-Action Plan) are formulated to solve the flood problems. They include the NED Plan, Consistent Protection Plan, and Consistent High Protection Plan. Each of the alternative plans includes levee and channel improvements for increased flood protection to four primary areas in the overall South Sacramento County study area. They include (1) the Pocket Area of the city of Sacramento, which is primarily protected by Beach Lake levee; (2) the Sacramento Regional Wastewater Treatment Plant; (3) lands at risk of flooding along the south and east side of Morrison Creek and along Elder and Florin Creeks upstream to Highway 99 and Unionhouse Creek upstream to Center Parkway; and (4) potential flooding areas along the south side of Morrison Creek and along Florin Creek upstream from Highway 99 to Stockton Boulevard. The NED Plan maximizes net benefits over costs and would provide increased levels of protection in each of the four major project areas ranging from a 1 in 200 to a 1 in 500 chance of flooding in any year. The Consistent Protection Plan would provide a level of protection in each area to at least the 1 in 200 chance of occurrence in any year. The Consistent High Protection Plan would provide protection up to the 1 in 500

chance of occurrence in any year in each area. Each plan presently consists of either new levees and/or floodwalls and levee and channel improvements to increase flow capacity. Each also includes a recreation component consisting of a bicycle path/walking trail on the top of some of the project levees. The plans also include restoring wetland and riparian habitat on buffer lands around the SRWTP.

Description of Recommended Plan: The recommended plan consists primarily of levee and channel improvements. Major flood control features include building 12.6 miles of floodwalls, raising 4.6 miles of existing levees, building 1.3 miles of new levees, improving 7.7 miles of existing levees with sheetpile cutoff walls, retrofitting 17 bridges, and removing 1 bridge. Ecosystem restoration would provide 215 acres of wildlife habitat including open water wetlands, riparian, and grassland cover on four sites in the Sacramento Regional Wastewater Treatment Plant buffer lands. Recreation features would consist of 4.2 miles of bicycle and pedestrian trails along the levees. In addition, the plan includes creation and administration of a $2,000,000 fund by the Sacramento Area Flood Control Agency (SAFCA) at full non-Federal cost to mitigate any adverse hydraulic impacts to residents of Beach-Stone Lakes potentially caused by upstream plan features and to residents of areas that will continue to have a high risk of flooding even after construction of the recommended plan. General vegetation and wildlife mitigation for flood control construction is about 0.7–acre seasonal wetland, 0.2–acre riparian scrub-shrub, and 0.22–acre emergent marsh. Mitigation for threatened and endangered species of 7.7 acres will be provided at a preservation bank approved by the U.S. Fish and Wildlife Service, and about 14 acres in the Beach-Stone Lakes area.

Physical Data on Project Features:

a. Structural:

(1) Detention basins, diversion channels, channel modification, levee modification, channel obstruction removal.

Area 1: Pocket Area.—Beach Lake levee would be raised along most of its alignment from the Sacramento River to Unionhouse Creek. Similarly, Morrison Creek west bank levee would be raised from Unionhouse Creek to the UPRR. The levees would be raised a maximum of about 4 feet, from elevation 18 feet to elevation 22 feet. Sheetpile floodwalls would be placed on Morrison Creek west bank levee from UPRR to Franklin Boulevard and along the west side of the incised channel from Franklin Boulevard to highway 99.

Area 2: Sacramento Regional Wastewater Treatment Plant.—The existing ring levee around the SRWTP would be raised about 4 feet, from elevation 18 feet to elevation 22 feet. The total length of the project is 24,000 feet. Where right-of-way is restricted, floodwalls would be used instead of levee raising.

Area 3: Morrison Creek Stream Group Below Highway 99

Morrison Creek. Floodwalls would be placed in levees on the east bank for 2.2 miles from Unionhouse Creek to Franklin Boulevard. Improvements to the east side of the incised portion of Morrison Creek would extend 0.7 mile from Franklin Boulevard to Highway 99.

Elder Creek. Sheetpile floodwalls would be constructed to a typical elevation 19.1 feet, and the top of wall would be about 1 foot above the top of the levee. The height in the incised reach would be about 2.5 to 3 feet above surrounding ground.

Florin Creek. Sheetpile floodwalls would be constructed to between 1 and 2 feet above surrounding ground.

Unionhouse Creek. Levee improvements would be along Unionhouse Creek from Morrison Creek to Center Parkway. Sheetpile floodwalls would be constructed on the levee on the north side only between Morrison Creek and Franklin Boulevard. These walls would be at elevation 18.2 feet, typically about 1 foot above the existing top of the levee. In the incised reach between Franklin Boulevard and Center Parkway, the floodwall height would typically be 2 to 2.5 feet above grade.

Area 4: Morrison Creek Stream Group Between Highway 99 and Stockton Boulevard

Morrison Creek. Improvements would consist of sheetpile floodwalls on both sides of the incised channel between Highway 99 and Stockton Boulevard. Portions of this reach would contain the design flow without improvements. Where the top of bank is low, a total of 7,000 linear feet of floodwall would be constructed. The maximum wall height would be 2.2 feet above grade. Sky footbridge, Steiner Drive, Riza footbridge, and Stockton Boulevard bridges would be retrofitted. The two footbridges would not require parapet walls.

Florin Creek. Improvements would consist of sheetpile floodwalls on both sides of the incised channel between Highway 99 and Stockton Boulevard for a total of 7,000 linear feet. Floodwalls would be set back from the channel banks and would extend into Sheldon Park on the north side of the channel above Highway 99. The floodwalls would be a maximum of 4.5 feet above grade. The improvements would extend the full distance within the reach.

b. Mitigation: 10 acres west of the SRWTP would be acquired and improved for wetland and riparian habitat. The mitigation area also serves as mitigation to the endangered Giant Garter snake.

c. Recreation Measures: Biking and hiking trails will be constructed on top of Beach Lake and Morrison Creek west bank levees.

d. Environmental Restoration Measures: Restoration would include expansion of riparian and wetlands habitat and improvement of water quality in existing ponds. Restoration would be at five sites in the SRWTP buffer lands and would affect about 215 acres.

Views of States, Non-federal Interests, and Other Counties: The Sacramento Area Flood Control Agency (SAFCA) has indicated a willingness to support financing and construction of flood protection facilities which provide a high level of protection for the local community. On 15 January 1997, the SAFCA Board indicated the Consistent High Protection Plan as the locally preferred plan.

Views of Federal and Regional Agencies: All Federal agencies providing views on the project thus far have indicated either support for or had no comments. SAFCA strongly supports the project.

Status of the Environmental Impact Statement: The Final Environmental Impact Statement/Environmental Impact Report was filed with EPA on 4 May 1998.

Estimated Implementation Costs: (October 1998 price levels)

Federal:	
Corps of Engineers/Flood Control	$37,940,000
Recreation	580,000
Environmental Restoration	2,680,000
Subtotal	41,200,000
Non-Federal:	
Sacramento Area Flood Control Agency:	
Flood Control	22,280,000
Recreation	580,000
Environmental Restoration	1,440,000
Subtotal	24,300,000
Total	65,500,000

Description of Non-Federal Implementation Costs: The non-Federal sponsor is required to provide all lands, easements, rights-of-way and disposal areas (LERRDs), contribute five (5) percent of all costs attributable to flood damage reduction in cash, plus additional cash as necessary to make the sponsor share at least 35 percent of total costs. The non-Federal sponsor is responsible for 100 percent of all incremental costs over the NED plan. The total value of lands, easements, rights-of-way, and relocations, is estimated to be $12 million. The non-Federal sponsor will provide 35 percent of the total cost attributable to ecosystem restoration, and 50 percent of the total costs of recreation.

Estimated Annual O&M Costs:

Federal: Corps of Engineers	0
Non-Federal: Sacramento Area Flood Control Agency	$400,000
Total	400,000

Description of Non-Federal O&M Costs: These costs consists of the costs for operation, maintenance, repair, replacement, and rehabilitation of the flood control, recreation, and restoration project features. These costs also include cost of monitoring of vegetation and site conditions for the ecosystem restoration project.

Estimated Effect Evaluation:

	Average annual equivalent beneficial effects	Average annual adverse effects
Purpose:		
Flood Damage Reduction	$19,817	$4,668
Recreation	121	116
Environmental Restoration	N/A	159
Total	19,938	4,943

Benefit-Cost Ratio: 4.1 (Current Discount Rate 6.875%).

(6) Upper Guadalupe River, California.—

Location: The study is within the southern portion of the city of San Jose, in the southern portion of the San Francisco Bay Area, CA.

Problems and Opportunities Identified in Study: The study area has experienced repeated flooding since it was first settled in 1777.

Urbanization has escalated significantly since World War II and since the development of the Silicon Valley in the 1970s. Over 7,500 residential and commercial buildings lie within the Federal Emergency Management Agency (FEMA) regulatory flood plain. Recent floods have occurred in 1982, 1983, and 1995. Although the magnitudes of these floods have been relatively small (none with an annual exceedence probability less than 5%) the estimated damages have ranged from $3,000,000 to nearly $15,000,000.

Alternative Plans Considered: In addition to the No Action Plan, the final array of alternative plans includes three action plans. The three action plans are as follow: the Willow Glen Plan, the Valley View Plan and the Bypass Channel Plan. The plan providing the lowest measure of protection is the Willow Glen Plan, which widens the existing channel to accommodate 9,000 cfs. The Valley View Plan would provide a greater measure of protection than the Willow Glen Plan by widening the existing channel to accommodate 12,000 cfs.

It was determined that widening the existing main channel was not a cost-effective means to increase the channel capacity for flows greater than 12,000 cfs. Therefore, a third alternative, which uses bypass channels, the Bypass Channel Plan, was formulated combining the least cost measures to provide approximately 14,600 cfs of channel capacity throughout the study area. The Bypass Channel Plan would remove over 6,600 buildings from the regulatory flood plain by widening 10,300 linear feet of channel, constructing 3,500 linear feet of floodwalls and levees, constructing 3 bypass channels (total of 8,700 linear feet) and replacing 5 bridges. This plan would include a recreation trail, which would be built on the maintenance access roads, which are required for the flood control features.

Each of the three alternative plans would include improvements to the downstream portions of two major tributaries. Ross Creek would be widened, and culvert capacity would be increased beneath existing roadways along Canoas Creek.

Description of Recommended Plan: The Bypass Channel Plan is the plan recommended to alleviate the damages associated with flooding along upper Guadalupe River. The Bypass Channel Plan combines channel widening, bypass channels, floodwalls, and bridge replacements to increase channel capacity throughout the study area. The Bypass Channel Plan would remove over 6,600 buildings from the regulatory flood plain by widening almost 2 miles of existing channel, constructing over half a mile of floodwalls and levees, constructing 3 bypass channels (over 1.6 miles of total bypasses) and replacing 5 bridges. This alternative plan would increase the capacities of the downstream portions of two major tributaries. Ross Creek would be widened, and culvert capacity would be increased beneath existing roadways along Canoas Creek. This plan would include a recreation trail, which would be built on the maintenance access roads, which are required for the flood control features.

The capacity of the proposed project varies throughout its 5–mile length and will have less than a 1% chance of being exceeded in any one year. The proposed project will reduce the areal extent of the Federal Emergency Management Agency regulatory flood plain

throughout the project area. Due to tributary related flooding, a small portion of the project area will remain in the regulatory flood plain. This remaining portion will ultimately be removed from the regulatory flood plain by a project, which is scheduled to be built along the tributary by the local sponsor. Prior to completion of the local project, remapping of the flood plain will clearly identify that portion of the flood plain which will be removed from the flood hazard potential, and any portion which remains will be subject to the National Flood Insurance Program.

For those portions of the project which include floodwalls or levees, the project will meet the National Flood Insurance Program requirements as administered by the Federal Emergency Management Agency. The floodwalls and levees will have a 10% chance of being exceeded in any one year.

Physical Data on Project Features: The Bypass Channel Plan features rock-lined bypass channels, channel widening, five bridge replacements, a levee and floodwalls designed to increase the capacity of the upper Guadalupe River and two major tributaries, Ross Creek and Canoas Creek. The plan is designed to remove 6,620 structures (of the total 7,500) from the FEMA regulatory flood plain. The remaining 880 structures will be removed from the FEMA regulatory flood plain upon completion of a local flood control project on Canoas Creek. Channel widening associated with the Bypass Channel Plan will be limited to one bank in most cases to preserve as much as possible of the existing riparian habitat.

Views of States, Non-Federal Interests and Other Countries: The Valley View Plan has been identified as the National Economic Development (NED) plan. However, the local sponsor supports the recommended plan, or Bypass Channel Plan, as it would remove the greatest number of structures from the FEMA regulatory flood plain, while enhancing the natural habitat values as much as possible. The sponsor is aware of local cost-sharing requirements associated with flood control projects. In a letter dated May 13, 1998, the sponsor indicated their preference for the Bypass Channel Plan and is willing to cost share on the basis of the NED Plan.

Views of Federal and Regional Agencies: One unresolved issue is formal consultation with the National Marine Fisheries Service (NMFS) regarding the steelhead trout. This population of steelhead trout is an anadromous fish listed as threatened by the Federal government. The conclusion of the final EIS is that the proposed plan would have short-term negative impacts on the steelhead trout, but that this impact would be mitigated in the long term, with habitat conditions eventually improving over current conditions. Although the Corps has provided a Biological Assessment to the NMFS and has requested formal consultation, the NMFS has delayed formal consultation pending completion of ongoing discussions with the sponsor regarding project impacts and mitigation measures. This discussion has been an integral part of the sponsor's application for a permit under Section 404 of the Clean Water Act for construction of their Upper Guadalupe River Flood Control Project. Resolution of this issue will be required before the Federal Government can commit any funds to construction of this project.

Status of NEPA Document: The final Environmental Impact Statement was published in the Federal Register on 10 April 1998.

At the time that the final EIS was circulated for review, consultation with the U.S. Fish and Wildlife Service (FWS) regarding the threatened red-legged frog was in progress. Subsequently, the FWS indicated in a letter dated July 14, 1998 that this project is not likely to affect this species and that further consultation regarding this species would not be needed for this project.

Estimated Implementation Costs: (Oct 98 price levels):

	Cost-sharing
Federal (Corps of Engineers):	
Flood Control	$42,862,000
Recreation	1,138,000
Betterments	0
Total	44,000,000
Non-Federal (Santa Clara Valley Water District):	
Flood Control ($41,300,000 LERRD)	92,462,000
Recreation ($0 LERRD)	1,138,000
Betterments ($0 LERRD)	2,728,000
Total ($41,300,000 LERRD)	96,328,000

Description of Non-Federal Implementation Costs: The sponsor will contribute LERRDs for flood control features totaling $41,300,000 and $51,162,000 in cash. The sponsor will contribute $1,138,000 in cash toward recreation features. No LERRDs are associated with these costs as no additional lands are required for recreation features. The sponsor will also contribute $2,728,000 toward the construction of betterments, which include the replacement of an existing bridge with a bridge which will be larger than that required for flood control purposes.

Description of Non-Federal O&M Cost: The total annual OMRR&R cost is estimated $495,000. The OMRR&R of the flood control project is the non-Federal sponsor's responsibility, in accordance with provisions contained in the Water Resources Development Act of 1986 (PL 99–662. The OMRR&R requirements for the selected plan include annual inspections and routine maintenance of bridges, maintenance roads, floodwalls, channel slopes, and rock weirs. Routine repairs for gabions, cribwalls, fencing, and recreation features (including daily maintenance of restrooms) are also included. Vegetation, sediment, trash, and debris removal are also included in the annual maintenance costs. OMRR&R costs will also cover surveillance of project performance.

Benefit-Cost Ratio: 2.1 (excluding recreation) (Current Discount Rate: 6⅞%).

(7) Yuba River Basin, California.—

Location of Study Area: The study area is located in Yuba County about 50 miles north of Sacramento in northern California. The area encompasses the lower Yuba River basin and part of the Feather River basin and includes parts of the eastern Sacramento Valley and Sierra Nevada foothills.

Problems and Opportunities Identified in the Project Area: The study area has experienced frequent floods in the past. The most destructive recorded floods on the Yuba and Feather Rivers occurred in 1950, 1955, 1986, and 1997. Subsequent levee breaks inundated or threatened urban and agricultural areas, forced thou-

sands of residents to evacuate their homes, and resulted in major property damage and loss of life.

Alternative Plans Considered: A full array of measures were evaluated to formulate flood damage reduction plans. Preliminary alternatives included modifying existing levees, implementing nonstructural measures, constructing a large or small bypass, reregulating Oroville and New Bullards Bar Reservoirs, regulating Englebright Reservoir, raising Englebright Dam and reregulating Englebright and New Bullards Bar Reservoirs, and constructing a single-purpose or multiple-purpose reservoir at the Parks Bar or Narrows dam sites.

Description of Recommended Plan: The recommended plan involves (1) constructing or deepening 6.7 miles of slurry walls, deepening 9 miles of interior toe drains, and constructing or modifying 9.5 miles of berms along sections of the Yuba and Feather Rivers and (2) constructing 5 miles of slurry walls and construction berms along the ring levee around the city of Marysville. The recommended plan would provide the communities of Linda and Olivehurst and RD 784 area with flood protection from a 1 in 200 annual event and the Marysville area with flood protection from a 1 in 300 annual event.

Physical Data on Project Features:

a. Structural:

(1) Levees—The recommended plan consists of improvements to the existing levee system. The recommended plan for Linda/Olivehurst and RD 784 areas (reaches 1 and 2) includes 3.7 miles of new slurry wall, 3 miles of extended slurry wall, and approximately 9 miles of new or modified berm and toe drains. The recommended plan for Marysville includes 5 miles of slurry wall with an average depth of 30 feet. Once the levee reconstruction work is completed, the levees would meet the Federal Emergency Management Agency's requirements for certification under the exception granted to the Sacramento River Flood Control Project, California, Phases I—V.

(2) Lands, easements, rights-of-way, and relocations—The Selected Plan consists of 45 acres needed for a levee easement, 48 acres needed for temporary construction easement, 54 acres needed for a borrow site and 32 acres, five individual sites, needed for staging. The proposed construction of a landside berm in Reaches 1 and 2 will require the relocation of four single family residences.

b. Water Use and Control: Design flows (minimum and maximum amounts and frequencies)—The design flow is 228,000 cfs on the Yuba River and 170,000 cfs on the Feather River.

c. Environmental Features: Mitigation on project lands—Use available "credits" of 2.98 acres at the existing mitigation site for Phase II of the System Evaluation.

Views of States, Non-Federal Interests and Other Counties: The State Reclamation Board (non-Federal sponsor) and Yuba County Water Agency strongly support construction of this project. Their commitment is demonstrated through the construction of the advanced work under Section 104 of WRDA 1986.

Views of Federal and Regional Agencies: Federal and regional agencies have no objection to the proposed project.

Status of Final Environmental Impact Statement: The Final EIS/EIR was filed with EPA on June 2, 1998.

Estimated Implementation Costs (October 1998 price levels):

Federal: Corps of Engineers/flood control (65%)	$17,350,000
Non-Federal State Reclamation Board (35%)	9,250,000
Total	26,600,000

Description of Non-Federal Implementation Costs: The non-Federal sponsor is responsible for providing all lands, easements, rights of way, relocations, and disposal areas (LERRDs) necessary for construction of the project. The value of LERRDs is $ 2.7 million. The non-Federal sponsor is to provide a cash contribution of 5 percent of the total project cost and an additional cash contribution, if necessary to bring the non-Federal share to a minimum of 35 percent of the total project cost, with credit given for LERRD's.

Estimated Annual O&M Costs (October 1998 price levels):

Federal: Corps of Engineers/flood control	0
Non-Federal: State Reclamation Board	0

Description of Non-Federal O&M Costs: Currently, the levees are operated and maintained as part of the Sacramento River Flood Control System. These O&M practices are not expected to change after the implementation of the selected plan. Since the associated costs would not change, there would be no additional O&M costs associated with the plan.

Estimated Effects:

Account annual	Average annual equivalent beneficial effects ($1,000)	Average adverse effects ($1,000)
National Economic Development	$5,379	$2,066

Benefit-Cost Ratio—2.6 (current discount rate—67/8%)

(8) Delaware Bay Coastline: Delaware and New Jersey—Broadkill Beach, Delaware.—

Location: Broadkill Beach is a bayfront community which is located in Sussex County approximately three miles northwest of Lewes, and extends along approximately 3 miles of bay frontage. To the east of Broadkill Beach lies the Delaware Bay, to the west lies the Primehook National Wildlife Refuge, and to the south lies the Beach Plum Island State Park.

Problems and Opportunities Identified in the Study: The community of Broadkill Beach is currently vulnerable to significant hurricane and storm induced damages. The storm damage mechanisms identified are long term erosion, storm recession, inundation and wave attack. An opportunity exists to reduce storm damages for Broadkill Beach with the construction of a shore protection project.

Alternative Plans Considered: The solutions considered included both nonstructural and structural measures. Nonstructural measures considered were no Federal action and permanent evacuation; Structural measures considered were berm restoration, berm restoration with dune, groin field with berm restoration and dune, offshore detached breakwater with berm restoration and dune, perched beach with berm restoration and dune, and seawall.

The plan formulation screening process eliminated most of the alternatives considered in this study. The solutions recommended for optimization to determine the NED plan included: berm restoration, berm restoration and dune, and groin field with berm restoration and dune.

Description of Selected Plan: The plan developed in the feasibility report generally extends 14,600 feet along the bayfront of Broadkill Beach. The plan consists of a berm and a dune. The plan includes dune grass, dune fencing, and suitable beachfill with periodic nourishment to ensure the integrity of the design.

Physical Data on Project Features: The selected storm damage reduction plan generally extends 14,600 feet along the bayfront of Broadkill Beach, and consists of:

• A 100 feet wide berm an elevation of +8 feet NGVD, extending from just north of Arizona Avenue southward along Broadkill Beach for approximately 13,100 feet. Tapers of 1,000 feet and 500 feet will extend from the northern and southern beachfill limits, respectively, for a total project length of 14,600 feet.

• A dune with a top elevation of +16 feet NGVD and a top width of 25 feet.

• Initial beachfill in the amount of 1,305,000 cubic yards, with 174,800 s.y. of planted dune grass for sand entrapment and 21,800 linear feet of sand fence to maintain dune stability.

• Periodic nourishment of approximately 360,000 cubic yards of fill from the offshore borrow area every 5 years for 50 years.

• Monitoring of the placed beachfill, borrow area, shoreline, wave and littoral environment is included with the plan.

Views of State and Non-Federal Interests: Sponsorship for the project will be provided by the State of Delaware Department of Natural Resources and Environmental Control. (DNREC). DNREC has expressed its support for the selected plan in its letter dated 6 September 1996.

Concurrence of Federal consistency with the Delaware Coastal Zone Management Program, in accordance with Section 307(c) of the Coastal Zone Management Act, was obtained from DNREC on 28 June 1996. A Water Quality Certificate, in accordance with Section 401 of the Clean Water Act, has been waived by DNREC—Division of Water Resources pending receipt of plans and specifications and favorable review of a subaqueous lands permit application in the next phase of study in a letter dated 13 September 1996.

Views of Federal and Regional Agencies: All comment letters and responses are provided in the final report, including a Section 2(b) report prepared by the United States Fish and Wildlife Service dated 12 July 1996. Federal and regional agencies support the Federal project. There are no unresolved issues.

Status of Final Environmental Impact Statement (EIS): Comments and concerns from Federal, State, and local agencies and the public were received regarding the Draft EIS. The Final EIS addressed the comments, and it was submitted with the final Broadkill Beach Interim Feasibility Report. The Final EIS was circulated on 22 November 1996.

Estimated Implementation Costs: (October 1998 price level)

Initial Construction:	
Federal: Corps of Engineers—Shore Protection	$5,674,000
Non-Federal: Delaware Department of Natural Resources and Environmental Control	3,375,000
Total	9,049,000
Periodic Nourishment (average annual cost of future construction over the 50 year life of the project):	
Federal: Corps of Engineers—Shore Protection	349,800
Non-Federal: Delaware Department of Natural Resources and Environmental Control	188,400
Total	538,200

Description of Non-Federal Implementation Costs: In addition to providing cash and LERRDS for the initial construction of the project, the sponsor will be required to provide 35 percent of the cost of the periodic nourishment over the 50-year life of the project.

Initial Construction:	
LERRD	$76,000
Cash	3,299,000
Total	3,375,000
Periodic Nourishment	
Cash	188,400
Total	188,400

Estimated Annual O&M Costs: (October 1998 Price Level)

Federal: Corps of Engineers	$0
Non-Federal: Delaware Department of Natural Resources and Environmental Control	5,400

Desription of non-Federal O&M Costs: Annual O&M costs associated with this project include costs for maintenance of sand fence and replanting of dune grass as needed.

Estimated Effects:

Account	Average annual equivalent beneficial effects (000's)	Average Annual Adverse effects (000's)
Purposes—Hurricane and Storm Damage Reduction: Net National Economic Development	$1,930	$1,362
Total	1,930	1,362

Benefit-Cost Ratio: 1.4 (Discount Rate—6.875%)

(9) Delaware Bay Coastline, Delaware & New Jersey; Port Mahon Delaware.—

Location: Port Mahon is located about 7.5 miles east of Dover, Delaware, 69 miles south of Philadelphia, Pennsylvania, and 32 miles north of Cape Henlopen. The nearest town to Port Mahon is Little Creek, approximately 3 miles to the southwest.

Problems and Opportunities Identified in the Study Area: The Port Mahon area has experienced considerable shoreline erosion over the years. Several related problems have been identified and include: loss of wetlands and beach habitat due to shoreline erosion; encroachment of the shoreline toward State Road 89 and the potential loss of road access to various state and privately-owned facilities in the study area; potential physical damage to structures

in the study area (including the fuel dock and underground pipeline which delivers jet fuel to Dover Air Force Base; fishing piers; and boat docks); and lack of sufficient depth to allow for navigation of fishing vessels and fuel barges at low tide.

Alternative Plans Considered: Alternatives recommended for detailed optimization analyses included variations of: beachfill using material from nearby navigation channels; interior marsh restoration; and shoreline fringe marsh restoration.

Description of Selected Plan: The selected plan consists of 3 elements designed to restore and protect the ecosystem at Port Mahon.

The first element consists of restoration of horseshoe crab habitat through the placement of sand along the shoreline. The plan also includes construction of a revetment to tie into the existing revetment from the termination of the beachfill to the project limits to provide stability. Port Mahon is recognized by the Delaware Estuary Program as a significant breeding site for horseshoe crabs, important from an ecological and economic standpoint. The source of sand for the initial construction would be the Delaware River Main Channel. Periodic nourishment would be accomplished through use of dredged material from the existing Delaware River Main Channel, coincident with maintenance operations.

The second element of the selected plan for the purpose of access during project construction calls for raising State Road 89. The elevated roadway will also protect the wetlands to the west of State Road 89 from excessive and damaging overwash.

The third element in the selected plan is the restoration of 21.4 acres of degraded interior marsh west of State Road 89. This calls for the reestablishment of daily tidal inundation into the wetlands and the creation of three open water ponds of 1-acre size. Removal of material to an elevation 6 inches below the mean high water line would enable replacement of the existing common reed (*Phragmites*) with smooth cordgrass (*Spartina alterniflora*), a more productive plant community. The excavated material from the marsh, ponds, and ditches would be placed adjacent to the active disposal area owned by the Delaware Department of Natural Resources and Environmental Control (DNREC). This placement is estimated to result in 10 acres of upland which would contribute to habitat diversity.

Physical Data on Project Features: Structural, Non-Structural and Environmental Features: The Selected Plan extends approximately 7,500 feet within the project area, and consists of the following:

- Placement of 306,000 cy of sandy material from the Delaware River navigation channel to restore 5,200 linear feet of horseshoe crab habitat along the shoreline.
- Placement of 2,800 cubic yards of revetment stone and 1,200 cubic yards of bedding stone are required to achieve an elevation at +7.0 ft. NAVD for a distance of 1,200 feet.
- Placement of 15,800 cubic yards of road fill are required to raise State Road 89 to elevation +7.0 ft. NAVD for a distance of 7,500 feet.
- Excavation of 21.4 acres of degraded interior marsh, requiring disposal of 96,000 cubic yards of material.

• Creation of 10 acres of upland to promote habitat diversity and utilize the excavated material.

Views of States, Non-Federal Interests and Other Countries: The Delaware Department of Natural Resources and Environmental Control (DNREC) is the non-Federal sponsor. DNREC has agreed to enter into a cost-sharing partnership with the Corps of Engineers to provide ecosystem preservation/restoration and shoreline erosion protection for Port Mahon, Kent County Delaware.

Views of Federal and Regional Agencies: A Planning Aid Report was prepared by the USFWS and included in the final Port Mahon Interim Feasibility Report. Based on review of the draft Environmental Assessment the USFWS has prepared a Section 2(b) report. Comments and concerns from other Federal, State and local agencies in letters dated from August 21, 1997 through September 18, 1997 are addressed in the Pertinent Correspondence Appendix.

Status of NEPA Document: Comments from the public, State, Non-Federal, Federal and Regional agencies on the Draft Environmental Assessment in letters dated from August 21, 1997 through September 18, 1997, are addressed in the Final Environmental Assessment (FEA), and submitted with the Pertinent Correspondence Appendix of the Port Mahon Final Interim Feasibility Report. The FONSI is dated 19 September 1997. Concerns expressed by the USFWS, Delaware Department of Natural Resources and Environmental Control, and The Nature Conservancy regarding tidal flow into the proposed interior marsh restoration and property ownership will be investigated during Plans & Specifications. Measures to reduce the volume of excavated material as well as alternate disposal locations/methods for the interior marsh restoration will be evaluated. Dimensions and locations of the ditching for the marsh restoration plan will also be refined. Coordination is currently ongoing with The Nature Conservancy for final design of the interior marsh restoration plan.

Estimated Implementation Costs: (October 1998 price level):

Initial Construction:	
Federal: Corps of Engineers—Ecosystem Restoration	$4,969,000
Non-Federal: Delaware Department of Natural Resources and Environmental Control	2,675,000
Total	7,644,000
Periodic Nourishment (average annual cost of future construction over the 50 year life of the project):	
Federal: Corps of Engineers—Ecosystem Restoration	152,000
Non-Federal: Delaware Department of Natural Resources and Environmental Control	82,000
Total	234,000

Description of Non-Federal Implementation Costs: In addition to providing cash and LERRDS for the initial construction of the project, the sponsor will be required to provide 35 percent of the cost of the periodic nourishment over the 50-year life of the project.

Initial Construction:	
LERRD	$290,000

Cash	2,385,000
Total	2,675,000
Periodic Nourishment:	
Cash	82,000
Total	82,000

Estimated Annual O&M Costs: (October 1998 price level)

Federal: Corps of Engineers	$0
Non-Federal: Delaware Department of Natural Resources and Environmental Control	8,400

Description of Non-Federal O&M Cost: Annual O&M costs associated with this project include the costs for maintenance of the proposed revetment and wetlands.

Estimated Effects: The selected plan will provide for the restoration of approximately 21.4 acres of tidal marsh habitat and protection of approximately 60.8 acres of tidal marsh habitat. The selected plan will also provide for the restoration of approximately 19.2 acres of Delaware Bay beach habitat critical to thousands of migrating shorebirds and horseshoe crabs. This plan maximized the Environmental Quality (EQ) attributes. Because the outcome of the construction actions identified by this study will be fish and wildlife habitat benefits which are not amenable to monetary benefit analyses, no National Economic Development (NED) plan was presented. The selected plan will restore 193 fish and wildlife habitat units annually over the estimated 50–year life of the project. The benefit/cost ratio has not been calculated since the environmental benefits are not monetarily quantified.

(10) Delaware Bay Coastline, Delaware and New Jersey: Roosevelt Inlet-Lewes Beach, Delaware—

Location of the Study Area: The study area extends from the northwestern end of Beach Plum Island southeastward to the Cape May-Lewes Ferry Terminal at Lewes Beach, Delaware, a distance of approximately 4 miles. The study area is located approximately 41 miles southeast of Dover, Delaware.

Problems and Opportunities Identified in the Study Area: Progressive and constant erosion is evident in certain areas of the shoreline. In an attempt to prevent further erosion of the shoreline, the State of Delaware has performed a number of beachfills on an as-needed basis. The Corps of Engineers has also conducted a number of maintenance dredgings at Roosevelt Inlet and has placed the dredged material along Lewes Beach. Despite the efforts undertaken by both the Corps and State of Delaware at Lewes Beach, the shoreline continues to erode. Long-term erosion has resulted in a persistent reduction in storm damage protection by reducing the height and width of the beachfront.

Federal navigation projects in the vicinity of Lewes Beach are the primary cause of the erosion at the western end of Lewes Beach. The proposed project provides mitigation for the erosion caused by the Federal navigation projects and its cost shared in accordance with Section 111 of the River and Harbor Act of 1968, as amended by Section 940 of WRDA 1986.

Alternative Plans Considered: Alternatives considered included both nonstructural and structural measures. Nonstructural meas-

ures given consideration included: No Federal Action; Floodplain Management; and Permanent Evacuation. Structural measures given consideration included: Berm Restoration; Berm Restoration with Dune; Groins; Bulkheads; Offshore Detached Breakwater; Seawall; and Perched Beach. The plan formulation screening process eliminated most of the alternative measures considered in this study. Alternatives recommended for detailed optimization to determine the NED plan included: Berm Restoration; Berm Restoration with Dune; and Reconstruction of the South Jetty with Berm Restoration and Dune.

Description of Selected Plan: The selected plan extends 1400 feet along the western end of Lewes Beach. The plan consists of a 25–foot wide berm at an elevation of +8.0 feet NAVD, and a dune with a top elevation of +14.0 feet NAVD and crest width of 25 feet. The plan includes dune grass, dune fencing, and suitable beachfill with periodic nourishment to ensure the integrity of the design. The plan also includes reconstruction of the south jetty to reduce periodic nourishment requirements at the western end of Lewes Beach.

Physical Data on Project Features: The selected shore protection plan extends 1400 feet along the western end of Lewes Beach, and consists of:

- A 25 ft wide berm at an elevation of +8.0 ft NAVD.
- A dune with a top elevation of +14.0 ft NAVD and a top width of 25 ft.
- A total initial quantity of 174,000 cubic yards of sand dredged from Roosevelt Inlet will be placed along the area. This fill quantity includes initial design fill requirements and advanced nourishment.
- 7,000 s.y. of planted dune grass for sand entrapment.
- 1,900 l.f. of sand fence to maintain dune stability.
- Renourishment of approximately 132,000 cubic yards of sand fill from Roosevelt Inlet every 6 years for the 50-year project life.
- A reconstructed south jetty, with a top elevation of +8.0 ft NAVD, extending 550 feet long with an additional 160-foot taper to tie-in with the existing revetment.
- Monitoring of the placed beachfill, borrow area, shoreline, wave and littoral environment is included in the plan.

Views of States, Non-Federal Interests and Other Countries: Sponsorship for the project will be provided by the State of Delaware Department of Natural Resources and Environmental Control (DNREC). DNREC has expressed its support for the proposed project. A letter dated April 8, 1997 was received from the Delaware Department of Environmental Resources which indicates that the Department intends to issue a water quality certificate upon review of the final environmental assessment. The Department has indicated that based on the input received to date, there is nothing that would indicate that these approvals will not be forthcoming. A letter dated April 18, 1997 was received from the Delaware Department of Natural Resources and Environmental Control, which indicates that the selected plan is consistent with the Delaware Coastal Management Program.

Views of Federal and Regional Agencies: All comment letters and responses are provided in the final report, including a Section 2(b)

report prepared by the United States Fish and Wildlife Service. No major or significant views were expressed by the agencies.

Status of NEPA Document: Comments from the Public and Agency review of the draft Environmental Assessment were received. The final Environmental Assessment addresses the comments, and was submitted with the final Feasibility Report. The FONSI is dated 29 May 1997.

Estimated Implementation Costs: (October 1998 price level)

Initial Construction:	
Federal: Corps of Engineers—Shore Protection/Navigation Mitigation	$2,620,000
Non-Federal: Delaware Department of Natural Resources and Environmental Control	773,000
Total	3,393,000
Periodic Nourishment (average annual cost of future construction over the 50 year life of the project):	
Federal: Corps of Engineers—Shore Protection/Navigation Mitigation	152,000
Non-Federal: Delaware Department of Natural Resources and Environmental Control	44,000
Total	196,000

Description of Non-Federal Implementation Costs: In addition to providing cash and LERRDS for the initial construction of the project, the sponsor will be required to provide 35 percent of the cost of the periodic nourishment over the 50-year life of the project.

Initial Construction:	
LERRD	$16,000
Cash	757,000
Total	773,000
Periodic Nourishment	
Cash	44,000
Total	44,000

Estimated Annual O&M Costs: (October 1998 price level)

Federal: Corps of Engineers	0
Non-Federal: Delaware Department of Natural Resources and Environmental Control	17,000

Description of Non-Federal O&M Costs: Annual O&M costs associated with this project include costs for maintenance of sand fence and replanting of dune grass as needed, as well as inspecting and repairing the south jetty as needed. Annual surveys of the beachfill and south jetty for O&M project monitoring purposes are also the responsibility of the non-Federal sponsor.

Estimated Effects:

Account	Average annual equivalent beneficial effects ($1,000)	Average annual adverse effects ($1,000)
Purposes: Storm Damage Reduction: Net National Economic Development	602	461
Total	602	461

Benefit-Cost Ratio: 1.3 (FY 98 Discount Rate—6.875%).

(11) Jacksonville Harbor, Florida.—

Location: The project is located in Duval County, Florida, and extends about 25 miles along the St. Johns River from the Atlantic Ocean to the downtown area of the City of Jacksonville. Jacksonville, which includes all of Duval County, is the largest urban complex in northeast Florida and southeast Georgia.

Problems and Opportunities Identified in Study: Jacksonville Harbor is a commercial deep draft navigation project with existing project depths to 38 feet below mean low water (MLW) over a distance of about 20 miles from the entrance. Many of the vessels that currently use Jacksonville Harbor must light-load or wait on high tides in order to enter or leave the harbor causing increased transportation costs. The current 38-foot MLW project depth also impacts the introduction of larger vessels into the fleet that would visit the harbor. The loss of those larger vessels results in a loss of transportation efficiencies to the port.

Alternative Plans Under Consideration: Initial structural alternatives included three different channel configurations (plans A, B, and C) at six different project depths (40–45 feet below MLW) with 12 potential disposal sites. After ship simulation model testing, plans A (which narrowed the channel) and B (which widened the channel) were combined to form plan C. Due to the cost of rock excavation for plan C and related economic evaluations, three modifications to plan A resulted. Plan A3 at a 40-foot below MLW project depth consisting of a narrower channel with one channel realignment to avoid rock areas satisfied planning objectives.

Description of Recommended Plan: The NED Plan consist of deepening the existing main Federal channel from a 38 to a 39-feet project depth from the entrance channel to about 14.7 and Cuts F and G of the West Blount Island channel from 30 to 38 feet. The recommended plan is a locally preferred plan (LPP) which consists of deepening the main channel to a project depth of 40 feet below MLW from the 40-foot depth contour in the Atlantic Ocean to about river mile 14.7; realignment of Cuts 39–41 of the main channel; and deepening the West Blount Island Channel along Cuts F and G to a 38-foot depth over the existing project width of 300 feet from the main channel to the Jacksonville Electric Authority petroleum terminal; and raising the dikes of the existing upland disposal area on the east end of Bartram Island to accommodate the material from the West Blount Island Channel. Disposal of material from the main channel involves transporting the predominantly rock material by bottom-dump barges to the existing Offshore Dredged Material Disposal Site (ODMDS) or an artificial reef site.

Physical Data on Project Features: The new modifications to the existing Federal channels will consist of the following project features:

a. Main Channel Deepening—The main channel deepening to a project depth of 40 feet below MLW extends from the 40-foot depth contour in the Atlantic Ocean to about river mile 14.7 over bottom widths varying from 375 to 950 feet. Quantities consist of approximately 1,588,000 cubic yards of material. Deepening to the 40-foot depth is the LPP.

b. Main Channel Realignment (Cuts 39–41)—A realignment of the existing Federal channel between cuts 39–41 within the limits

of the existing channel widener slightly straightens the turn and avoids rock areas.

c. West Blount Island Channel Deepening—The West Blount Island Channel deepening to a project depth of 38 feet below MLW extends from the main channel along Cuts F and G to the Jacksonville Electric Authority terminal over a bottom width of 300 feet. Approximately 1,431,000 cubic yards of material from Cuts F and G will be placed in an existing upland disposal area on the east end of Bartram Island after the dikes are raised.

d. Bartram Island Upland Disposal Area Modifications—The modifications to the upland disposal area on the east end of Bartram Island involve raising the dikes to accommodate the new work material from the West Blount Island Channel.

e. Construction of four advanced maintenance zones inside, and adjacent to, the Federal channel limits and one at the east end of Mill Cove.

Views of States, Non-Federal Interests and Other Countries: In a September 23, 1998 letter, the sponsor, representatives of the Jacksonville Port Authority, agreed to pay the incremental costs of deepening from the 39-foot NED project depth to the 40–foot depth of the LPP. Since the recommended plan does not involve blasting, there are no known significant issues.

Views of Federal, and Regional Agencies: Completion of the State and Agency review was completed on December 7, 1998. There are no areas of controversy with the project.

Status of Final Environmental Impact Statement: The final Environmental Impact Statement was published in the Federal Register on 6 November 1998.

Estimated Implementation Costs: (October 1998 price levels)

	Cost-sharing
Federal:	
Corps of Engineers General Navigation Facilities (GNF)	[1] $9,129,000
Non-Federal:	
Jacksonville Port Authority	
General Navigation Facilities (GNF)	15,699,000
Berthing Areas Dredging	1, 267,000
Diking	21,000
Subtotal	16,987,000
Total	26,116,000

[1] Federal share limited to 65% of the NED Plan GNF costs of $14,029,000

Description of Non-Federal Implementation Costs: Non-Federal interests are responsible for all lands, easements, rights-of-way, relocations, terminal facilities, and dredging of berthing areas. The Jacksonville Port Authority shall provide a cash contribution of 25 percent of the cost of the general navigation facilities during construction and 10 percent repayment over 30 years. Credit against the 10 percent repayment is allowed for the value of lands, easements, rights-of-way, and relocations (except utility relocations).

Jacksonville Port Authority:	
Channel Dredging for 39 ft. Project	$3,507,000
10% Repayment	1,403,000
Berthing Areas Dredging (39 ft.)	247,000
Diking for Berthing Areas (39 ft.)	21,000
Channel Dredging for 40 ft. Project	10,789,000

Berthing Area Dredging (40 ft)	1,020,000
Total	16,987,000

Estimated Annual O & M Costs: The estimated annual O&M costs include a net increase of $215,000 for additional project maintenance. No additional costs are incurred for construction of the LPP versus the NED Plan.

Description of non-Federal O & M Costs: Increased annual maintenance dredging costs for the main channel are $155,000 plus $60,000 for the West Blount Island Channel or $215,000. No O&M costs are apportioned to the non-Federal sponsor.

Estimated Effects: (October 1998 price levels)

Account	Average annual equivalent beneficial effects ($1,000)	Average annual adverse effects ($1,000)
Purposes:—Commercial Navigation: National Economic Development (39 ft.) ..	2,790	1,346
Total	2,790	1,346

Benefit-Cost Ratio: 2.1 (Current Discount Rate: 6⅞%).

(12) Tampa Harbor—Big Bend Channel, Florida.—

Location: The proposed navigation project is located at Hillsborough and Tampa Bays in city of Tampa, Hillsborough County, on the Gulf Coast of Florida.

Problems and Opportunities Identified in Study: Big Bend Channel is one of several waterways that branch from the 43-foot deep main entrance channel at Tampa Harbor. The Big Bend channel is a privately constructed, privately maintained, waterway about 2.2 miles long, 200 feet wide (bottom width), and 34 feet deep reference to mean low water. The existing Big Bend project includes a 1,000–foot long turning basin, having a varying width of 700 to 1,500 feet. Currently, the existing channel serves two users. The channel is primarily used by deep draft, integrated tug-barges hauling phosphate rock to a terminal near New Orleans (outbound) and coal to the Tampa Electric Company facility (inbound). Pilots report that navigation on the Big Bend channel is difficult in non-ideal weather conditions. The primary navigation problem relates to the 200–foot bottom width of the existing Big Bend channel. Frequent strong winds make navigation within channel boundaries extremely difficult. Additionally, the 34-foot channel depth restricts its use to vessels with operating drafts of about 34 feet or less. The use of shallow to moderate draft vessels occurs at a higher unit cost for transport. The study considered the feasibility of further modifying the existing Tampa Harbor Federal navigation project to include Big Bend channel with particular emphasis on deepening and widening the existing channels to accommodate the existing and prospective vessel fleet.

Alternative Plans Considered: The Big Bend Channel modification study considered enlarging the channel bottom width as well as deepening the channel. Based on a ship model simulation study, only the entrance channel and turning basin needs widening. Plan A would add 25 feet both north and south of the existing entrance channel width. Plan B would add 50 feet to the north. Deepening

the entrance channel, turning basin, inner channel, east channel, and berthing areas from 36 to 46 feet was considered.

Description of Recommended Plan: The feasibility report recommends a plan to deepen the existing 34-foot deep and 2.2 mile Big Bend channel to 41 feet and widen the channel from 200 to 250 feet. The plan also calls for deepening the existing turning basin to 41 feet and expanding the existing turning basin to provide a minimum width of 1,200 feet. During initial construction, all features of the plan would be dredged an additional 2 feet of depth beyond the recommended channel to provide for maintenance efficiencies. The Tampa Port Authority is the non-Federal sponsor of the proposed navigation improvements. Associated non-Federal facilities include deepening the berthing areas and modifying bulkheads.

Physical Data on Project Features: Approximately 3.5 million cubic yards of dredged material from the initial construction would be disposed in the existing disposal Island 3D in Tampa Harbor. The dikes on Island 3D would be raised approximately 7 feet to accommodate material from the initial construction of the Big Bend project.

Views of States, Non-Federal Interests and Other Countries: The recommended project is strongly supported by the State of Florida. The Florida Department of Environmental Protection expressed concern for the safety of manatees during construction. The non-Federal project sponsor, Tampa Port Authority, also strongly supports the recommended plan.

Views of Federal and Regional Agencies: The U.S. Fish and Wildlife Service and the State of Florida Department of Environmental Protection both support the recommended project, however, they express concern for the safety of manatees during construction.

Status of NEPA Documentation: An Environmental Assessment was completed September 1996. A Finding of No Significant Impact (FONSI) was signed on September 2, 1996.

Estimated Implementation Costs: (October 1998 price levels):

	Cost-sharing
Federal:	
U.S. Army Corps of Engineers General Navigation Facilities	$5,797,000
U.S. Coast Guard Navigation Aids	438,000
Subtotal	6,235,000
Non-Federal Cost—Tampa Port Authority:	
General Navigation Facilities	3,121,000
Berthing Areas/Bulkhead Modifications	3,000,000
Subtotal	6,121,000
Total	12,356,000

Description of Non-Federal Implementation Costs: The sponsor cost-sharing for General Navigation features includes channel, turning basin, and disposal area construction is 25 percent cash contribution, plus 10 percent over 30 years for a total of 35 percent, or $3,121,000. The non-Federal sponsor will also perform bulkhead modifications, estimated at $2,133,000, and dredging of berthing areas at a cost of $867,000.

Estimated Annual O&M Costs: (October 1998 price levels):

	Cost-sharing
Federal: U.S. Army Corps of Engineers Maintenance Dredging	$248,000
Non-Federal: Tampa Port Authority	49,000
Total	297,000

Description of Non-Federal O&M Costs: The Tampa Port Authority is responsible for the annual cost of dredging the berthing areas ($19,000) and disposal facility improvements ($30,000).

Estimated Effects:

Account	Average annual equivalent beneficial effects ($1,000)	Average annual adverse effects ($1,000)
Purposes: Commercial Navigation: National Economic Development (NED)	$3,804	$1,178
Total	3,804	1,178

Benefit to Cost Ratio: 3.2 to 1. (Current Discount Rate: 6–7/8%)

(13) Brunswick Harbor Deepening, Georgia.—

Location: Brunswick Harbor is located in an estuary along the Atlantic Coast approximately 80 miles south of Savannah, Georgia, and 70 miles north of Jacksonville, Florida.

Problems and Opportunities Identified in the Study: The existing authorized channel depths at Brunswick continue to constrain traffic. Under present conditions, many ships calling at the port incur costly tidal delays and light loading. A problem which is most acute for bulk and breakbulk vessels. As traffic continues to increase, and as vessels in the world fleet continue to grow in size due to the replacement of smaller ships with larger, more efficient ships, the problem will be exacerbated in the future. Also, ships currently calling at the port are experiencing problems with safe transit, turning capabilities and overall maneuverability in certain reaches of the inner/upper harbor. Opportunities exists to reduce transportation costs and increase safety for harbor transit.

Alternative Plans Considered: Based on previous studies, feasibility evaluations, and existing planning constraints, the final array of alternatives available to address the problems were combinations of the following measures: (a) deepen the channel by 2 to 6 feet to reduce light loading and tidal delays; (b) widen problem areas to increase vessel safety and efficiency of transits; (c) create a new turning basin in upper East River to increase vessel safety and turning capabilities; and (d) expand the existing Lower Turtle River turning basin to increase vessel safety and turning capabilities.

Description of Recommended Plan: The recommended plan consists of deepening the harbor by six feet. This would change the authorized project depth in the Bar Channel from −32 feet mlw to −38 feet mlw and in the Inner and Upper Harbor from −30 feet mlw to −36 feet mlw. The channel will be widened to 400 feet in reaches through the new bridge, which will replace the existing old and hazardous Sidney Lanier Bridge. Also, select areas in Lower Turtle River and Upper East River ranges will be widened to 400 feet. A new turning basin will be constructed in Upper East River, replacing the existing one, and the existing turning basin in Lower Turtle River will be expanded. These measures will allow for safe

and efficient navigation by the modern fleet projected to use Brunswick harbor.

Physical Data of Project Features: The existing harbor consists of 28 miles of channel, including nine miles of entrance (bar) channel and two turning basins. Existing depths are 30 feet in the inner and upper harbor and 32 feet in the bar channel. The improved features of the Harbor will consist of the following:

Project segment	Distance (mi)	Bottom width (ft)	Project depth (-ft mlw)
a. Channels:			
Bar Channel	9	500	38
Inner Harbor	8	400	36
Upper Harbor:			
East River Lower Range	1	400	36
East River Upper Range	1	400	36
Turtle River Lower Range	2	400	36
South Brunswick River	1	400	36
b. Turning Basins:			
East River		1,100×1,100	36
Lower Turtle River		2,500×1,150	36

Views of State, Non-Federal Interests and Other Countries: The non-Federal sponsor, Georgia Ports Authority (GPA), strongly supports the proposed project and has been an active participant in the conduct of the feasibility study. The GPA desires and has requested the Feasibility Report be completed and processed in order to meet Administrative requirements for inclusion in a Water Resource Development Act of 1998. The Port Authority has provided full cooperation to meet this goal and is prepared to meet the necessary financial obligations associated with this project.

Views of Federal and Regional Agencies: There are no significant issues associated with the recommended plan.

Status of National Environmental Policy Act Compliance: A final EIS was filed with the Environmental Protection Agency on 12 June 1998.

Estimated Implementation Cost: (October 1998 price levels).

Federal:	
U.S. Army Corps of Engineers General Navigation Facilities	$32,870,000
U.S. Coast Guard Aids to Navigation	96,000
Subtotal	32,966,000
Non-Federal:	
Georgia Ports Authority:	
General Navigation Facilities	17,509,000
Berthing Areas Dredging	215,000
Real Estate	27,000
Subtotal	17,751,000
Total	50,717,000

Description of Non-Federal Implementation Cost: The non-Federal sponsor is responsible for providing all lands, easements, rights-of-way, and relocations necessary for implementation of the project currently estimated at $27,000, provide project depths within the berthing areas at $215,000, and share in the cost of all general navigation features estimated at 25 percent during construc-

tion and an additional 10 percent repayment over 30 years with interest ($17,509,000). The value of lands, easements, rights-of-way, and dredged material disposal areas are credited toward the 10 percent additional non-Federal cost share to be paid over a period not to exceed 30 years.

Estimated Annual O&M Cost: The total annual differential maintenance dredging costs are currently estimated at $159,000. The existing annual maintenance cost for Andrews Island is estimated at $20,400 and no increase is expected for the future maintenance cost for Andrews Island due to new work and increased dike heights.

Description of Non-Federal O&M Cost: None. No additional non-Federal annual maintenance cost, over and above their existing cost, is expected for the berthing areas.

Estimated Effects: (October 1998 price level).

Account	Average annual equivalent beneficial effects ($1,000)	Average annual adverse effects ($1,000)
National Economic Development Navigation	6,837	3,617
Total	6,837	3,617

Benefit-Cost Ratio: 1.9 (Current Discount Rate: 6–7/8%)

(14) Beargrass Creek, Kentucky.—

Location: The Beargrass Creek Basin, a tributary of the Ohio River, lies entirely in Jefferson County, Kentucky, and has a 61 square-mile drainage area. Approximately 50% of the City of Louisville, the largest city in the State, lies within the boundaries of the drainage area. The focus of the study was on the South Fork and Buechel Branch.

Problems and Opportunities Identified in Study: Historical and/or significant floods in the basin occurred in 1937, 1964, 1970, 1973, 1990, 1993, and most recently in 1997 when 8.58 inches of rain fell over a 30 hour period. The probability that a flood causing significant damages will occur in any given year varies by stream reach from 7% to 93%. Overall, the average chance that significant damages will occur is 35%. An occurrence of the 1% chance flood event would damage 929 structures, valued at $234 million, and would result in approximately $48 million in damages. Expected annual damages are estimated at $3 million.

Alternative Plans Considered: A full range of structural and nonstructural measures were considered. Structural measures included detention basins, dry bed reservoirs, levees, floodwalls, bridge improvements, and channel modifications. Nonstructural measures included flood proofing, permanent relocation of structures, flood warning/preparedness systems, and regulation of floodplain uses. Detention basins, levees, and channel modifications were found to be the most effective. Nonstructural measures were found to be too costly, and in the case of flood warning/preparedness, not effective due to the short amount of warning time available.

Description of Recommended Plan: The recommended plan consists of four detention basins and a small section of channel improvement on the South Fork and three new detention basins, modification of an existing detention basin, and a combination floodwall/levee on Buechel Branch. The detention basins and chan-

nel improvements function as a system to reduce the probability that significant damages will occur as a result of overbank flooding. Depending on location, with these features in place, there is a 2% to 68% chance that significant damages will occur in any given year. Overall, the average chance that significant damages will occur is 20%. The area protected by the floodwall/levee feature has a 15% chance of being damaged by the 1% chance flood event in any one-year. The proposed project will reduce the areal extent of the Federal Emergency Management Agency regulatory floodplain throughout the project area, such that an estimated 314 structures will be removed from the regulatory floodplain. Remapping of the floodplain will clearly identify that portion of the flood plain which will be removed from the flood hazard potential, and any portion which remains subject to the National Flood Insurance Program.

Physical Data on Project Features: The recommended plan includes the following features:

a. Breckenridge Lane Detention Basin—30 acre feet.
b. Downing Way Detention Basin—13 acre feet.
c. Gerald Court Detention Basin—9 acre feet.
d. Bashford Manor Detention Basin—160 acre feet.
e. Richland Avenue Detention Basin—52 acre feet.
f. Old Shepherdsville Road Detention Basin—43 acre feet.
g. Hikes Lane Detention Basin—42 acre feet.
h. Fountain Square Apartments Detention Basin—modification of the inlet and outlet structures of the existing basin so it can be utilized for more frequent flood events.
i. South Fork Channel Modification—a bottom width of 30 feet, 3 on 1 side slopes on one bank only for a total length of about 2,000 feet.
j. Willow Brook I-Wall/Earth Levee—concrete I-floodwall, 3 to 5 feet high, about 1,200 feet long and earth levee, up to 5 feet high, about 650 feet long.

A number of environmental design features are incorporated into the project. Most of the detention basins will be planted with native grasses and forbs adapted to inundation and suitable for wildlife. Mowing will be no more than once a year to maintain a meadow condition and enhance wildlife use. Basin side slopes will be planted in trees and shrubs. The Old Shepherdsville Road detention basin is designed to retain water longer than the other basins, essentially acting as a wetland and providing an area for habitat. The South Fork channel modification will include artificial pools and riffles to be constructed by placement of stone riprap.

Although project features have been modified to avoid or minimize adverse impacts to fish and wildlife resources, the project will result in a net loss of six acres of trees. To mitigate for this loss, nine acres of native hard mast trees and shrubs will be planted on floodplain property owned by the Louisville Metro Parks Department.

Views of States, Non-Federal Interests, and Others: The final feasibility report was circulated for public and agency review on January 7, 1998. No comments were received from non-government entities. The non-Federal sponsor, the Louisville and Jefferson County Metropolitan Sewer District (MSD), supports the project.

The Commonwealth of Kentucky provided the coordinated views of 16 state agencies. The Kentucky Heritage Council will continue to consult regarding the need for additional cultural resource investigations. The Division of Water has issued a Water Quality Certification for the project.

Views of Federal and Regional Agencies: Letters received from the U.S. Department of Interior, Fish and Wildlife Service, and the Federal Emergency Management Agency did not raise any objections to the project.

Status of National Environmental Policy Act Compliance: An Environmental Assessment was completed. The Finding of No Significant Impact was signed on September 11, 1997.

Estimated Implementation Costs: (October 1998 Price Levels). (All costs are allocated to flood damage reduction).

Federal	$7,260,000
Non-Federal	3,910,000
Total:	11,170,000

Description of Non-Federal Implementation Costs: Non-federal implementation costs are based on their responsibilities to provide lands, easements, and rights-of-ways ($2,740,000); relocations ($128,000); and a cash contribution equal to 5% of the total project cost plus additional cash to make its total contribution equal to 35% of the total project cost ($1,040,000).

Description of Non-Federal O&M Cost: The non-Federal sponsor will be responsible for annual mowing and inspection of the project components as well as cleaning the spillway and outlet structures of the detention basins, sealing the wall joints of the floodwall, and cleaning the channel.

Benefit-Cost Ratio: 2.7 (Current Discount Rate: 6⅞%).

(15) Amite River and Tributaries, Louisiana.—

Location: The study area encompasses a major portion of East Baton Rouge Parish in southeastern Louisiana. The study area included seven watersheds in East Baton Rouge Parish that drain to the Amite River. They are Beaver Bayou, Blackwater Bayou, Jones Creek, Ward Creek, Bayou Fountain, Claycut Bayou and Bayou Manchac. Major urban areas in the study area include the capital city of Baton Rouge, Zachary and Baker.

Problems and Opportunities Identified in Study: Numerous minor floods and 9 major floods have occurred in the Amite River basin between 1973 and 1993. Flooding within the basin originates from excessive rainfall resulting in headwater and backwater overflow of the Amite River and tributary streams. The maximum flood of record occurred in 1983 and caused approximately $172 million in damages in the Amite River basin. In the East Baton Rouge watershed, flood damages were estimated at $65 million.

Alternative Plans Considered: Numerous structural and non-structural measures were considered for reducing flood damages in the East Baton Rouge Parish watershed. Structural plans included options such as: storm water retention basins, channel modifications, diversion levees, and pumping stations. Non-structural measures considered such actions as floodplain management, raising structures in place, building small earthen levees or floodwalls around structures, constructing ring levees around selected sub-

divisions, flood forecasting and warning, and removal of structures from the floodplain.

Description of Recommended Plan: The Recommended Plan involves channel modifications to five watersheds within the parish of East Baton Rouge. These watersheds are Blackwater Bayou and its main tributary, Beaver Bayou, Jones Creek and Tributaries, Ward Creek and tributaries, and Bayou Fountain. The plan consists of modifying approximately 66 total miles of channel. This involves approximately 25 miles of minimal channel clearing and snagging, 24 miles of earthen channel enlargement, and 17 miles of channel concrete lining. Included in the proposed construction are 60 miles of stream bank aesthetic tree planting. Fish and Wildlife mitigation features consist of the reforestation of 397 acres of cleared land to compensate for an estimated 280 acres of bottomland hardwoods that would be lost to project construction. Recreation features include an 11-mile bicycle path. The proposed channel modifications for Beaver Bayou, Ward Creek and Bayou Fountain are designed to have a 10% chance of being out of bank in any one year. Beaver Bayou and Jones Creek channel modifications are designed to have 4% and 2% chances, respectively, of being out of bank in any one year. The proposed project will reduce the areal extent of the Federal Emergency regulatory floodplain throughout the project area. Remapping of the floodplain will clearly identify that portion of the floodplain which will be removed from the flood hazard potential, and any portion which remains subject to the National Flood Insurance Program.

Physical Data on Project Features: Blackwater Bayou Feature: Earthen channel enlargement of 13 miles channel of main stem (mouth to Greenwell Springs Road) & its main tributary (Tributary #1—mouth to McCullough Road) seven roads and bridges and 4 pipeline relocations are required.

Beaver Bayou Feature: Earthen channel enlargement 8 miles channel of main stem (Frenchtown Road to Hubbs Road) three roads and bridges and 8 pipeline relocations are required.

Jones Creek Feature: Clearing, reshaping, & concrete line 19 miles of the main stem of Jones Creek (Jones Creek Road to Lobdell Road) & its main tributaries: Lively Bayou (mouth to Illinois Central RR), Lively Bayou Tributary (Mouth to Tams Dr.), and Weiner Creek (mouth to Cedar Crest Ave.); and clearing and snagging lower Jones Creek (mouth to Jones Creek Road); and constructing 11 miles of recreational bike paths along Jones Creek to tie in with 3 miles of street bike paths.

Ward Creek Feature: Clear and/or concrete lining 14 miles of channel in the following areas: Main stem of Ward Creek—minimal clearing & snagging (mouth to Corporate Blvd.—not including new section between Pecue & Siegen Lane); 2 main tributaries: Dawson Creek (minimal clear & snag between mouth to Bayou Duplantier), and North Branch of Ward Creek (concrete line between mouth to I–12)

Bayou Fountain Feature: Clear and/or widen 11 miles of channel in the following areas: Mouth to Siegen Lane—clear & snag between Siegen and Gardere Lane—widen channel, Gardere Lane to Ben Hur Road—clear & snag, one 4 inch petroleum products pipeline relocation required; and

Views of States, Non-Federal Interests and Other Countries: The feasibility study was cost-shared by the Louisiana Department of Transportation and Development. East Baton Rouge City-Parish Government has signed a Letter of Intent to sponsor and cost-share in the construction of the project. The letter of intent is dated November 13, 1995.

The major public concerns that were raised regarding the project include the following: (1) increasing the flooding potential in the northwest portion of Ascension Parish just south of Bayou Manchac; (2) the effects of the proposed action on esthetics of the urban area; and (3) the effects of the proposed action on current floodplain management within the urban area. These concerns were thoroughly discussed with the individuals and agencies expressing these concerns. Responses to these concerns are as follows: (1) the effects of the proposal would only minimally increase stages in Bayou Manchac but would hasten the arrival of study area stormwaters reaching the Amite River in relation to arrival of stormwaters from the remainder of the upstream Amite River tributaries which would be unaffected by the proposed action; (2) esthetic treatment including tree and shrub planting is an integral part of the proposed action with more intense treatments being implemented in areas of greater potential occurrences of visual observations; and (3) implementation of the proposed action would not occur without the enactment by the city/parish government of additional ordinances and promulgation of regulations to limit encroachment in the floodplain that would limit the flood-carrying capacity of the project. Issues raised have been favorably resolved with individuals and agencies expressing those concerns.

Views of Federal and Regional Agencies: The recommended plan fully compensates through mitigation measures for all adverse impacts to significant wildlife habitats. It incorporates all practicable means to avoid or minimize harm to the environment. The plan is supported by Federal and state resource agencies.

Status of NEPA Document: The final Environmental Impact Statement was filed with Environmental Protection Agency on July 25, 1996. The Record of Decision was signed by the Acting Assistant Secretary of the Army (Civil Works) on March 13, 1998.

Estimated Implementation Costs: (October 1998 Price Levels)

	Cost Sharing:
Federal (Agency/Purpose):	
Corps of Engineers/Flood Control	$84,034,000
Corps of Engineers/Recreation	641,000
Federal Total:	84,675,000
Non-Federal (Specify state/local sponsors):	
Louisiana/City-Parish/Flood Control	27,584,000
Louisiana/City-Parish/Recreation	642,000
Non-Federal Total:	28,225,000
Total:	112,900,000

Description of Non-Federal Implementation Costs: The non-Federal implementation cost is estimated at $28,225,000. This includes an estimated $14,843,000 in LERRDs and about $13,382,000 in cash. In lieu of a portion of the cash contribution, the sponsor will

perform work-in-kind, including design, construction and management of the proposed channel modifications for the Bayou Fountain Watershed, and perform all necessary clearing for channel modification on Beaver Bayou, Blackwater Bayou, Weiner Creek and Dawson Creek. The estimated value of this work-in-kind is $4,940,000. The non-Federal sponsor's share includes 50 percent of the cost of recreation features.

Description of Non-Federal O&M Cost: The non-Federal O&M costs consist of continuous inspection and debris removal, annual herbicide application and pavement repairs when necessary. Clearing and snagging earthen channels will be performed every 5 to 10 years as needed.

Benefit-cost Ratio: 2.6 (Current Discount Rate: 6⅞ percent)

(16) Baltimore Harbor Anchorages and Channel, Maryland and Virginia.—

Location: The study area encompasses the 32–square mile area of the Port of Baltimore. The port area of Baltimore includes the navigable part of the Patapsco River below Hanover Street, the Northwest and Middle Branches, and Curtis Bay and its tributary, Curtis Creek.

Problems and Opportunities Identified in Study: The anchorage areas within Baltimore Harbor were initially authorized between 1909 and 1945 and were designed to accommodate the types of vessels calling on the port at that time. In recent years, however, the trend toward using larger, more efficient vessels has taken precedence over using smaller ones, such that the existing anchorages areas at Baltimore are not sufficient in depth or width. Large vessels requiring anchorage must anchor 25 miles south of Baltimore in naturally deep water, resulting in delays and related costs to the shipping industry. In addition, some of the branch channels within the port are also insufficient to accommodate the types of vessels currently calling on Baltimore. Due to the narrow widths of the branch channels serving the Seagirt and Dundalk Marine Terminals, additional time is required for the pilots to safely maneuver ships to and from the berths.

Alternative Plans Under Consideration: During formulation of potential plans of improvement, various structural and nonstructural measures were examined, including construction of sea islands, various types of single-point and multi-point moorings, channel modifications, and implementation of a vessel traffic management system. Anchorage alternatives included free-swing anchorages, ranging from 1,500 feet wide and 30 feet deep to 2,400 feet wide and 44 feet deep. Specific channel improvements investigated were widening some of the channels from 300 feet to 400 feet, and from 350 feet to 500 feet; providing cutoff angles; construction of a turning basin at the head of the Fort McHenry Channel; and providing a new 400–foot wide channel at the South Locust Point Marine Terminal. Some of these alternatives were then grouped together into six plans to identify a plan of improvement that contributes the most net benefits.

Description of Recommended Plan: Construction of the recommended plan will widen and deepen two existing Federal anchorages; widen several connecting channels; provide a new turning basin near Fort McHenry; and provide a new branch channel

within the Port of Baltimore. The estimated 4.4 million cubic yards of initial dredged material will be placed in the existing Hart-Miller Island upland placement site. The proposed project has a total first cost of $27.7 million, and will produce an estimated $10 million in navigation benefits annually. Initial dredging is anticipated to be conducted over two dredging cycles in 2000 and 2001. Maintenance dredging of the recommended improvements is estimated at roughly 16,500 cubic yards per year and will be incorporated into the overall Baltimore Harbor and Channels dredging.

Physical Data on Project Features: The recommended plan includes the following components:

deepening and widening a portion of Anchorage #3 to 2,200 feet by 2,200 feet, by 42 feet deep;

deepening and widening a portion of Anchorage #4 to 1,800 feet by 1,800 feet, by 42 feet deep;

widening the East Dundalk Channel to 400 feet, plus the bends and entrances;

widening the Seagirt-Dundalk Connecting Channel to 500 feet;

widening the West Dundalk Channel to 500 feet, plus the bends and entrances;

providing cutoff angles at the intersection of the West Dundalk Channel and the main shipping channel;

providing cutoff angles at the intersection of the Connecting Channel and the west side of Dundalk Marine Terminal;

constructing a new channel at South Locust Point in the area of the remnant Produce Wharf Channel;

constructing a 50-foot deep turning basin (1,200 feet by 1,200 feet) near the head of the Fort McHenry Channel;

deauthorization of Anchorage #1;

placement of the dredged material at the-Hart-Miller Island placement site; and

Federal assumption of the maintenance of the existing State channels at Dundalk, Seagirt, and South Locust Point, exclusive of berthing areas.

The total volume of dredged material associated with implementation of this project is currently estimated to be 4.4 million cubic yards. The proposed project will not include any land acquisition.

Views of State, Non-Federal Interests, and Other Countries: The recommended plan has received support from the pertinent state and local agencies. The Maryland Port Administration, the project's non-Federal sponsor, has indicated a strong desire to move forward with the project, as indicated in their 21 November 1997 letter which outlines their proposed financial arrangements for the project cost-sharing. The Anchorages project is in keeping with the State of Maryland's overall plan for harbor development. There are no known significant issues related to this project.

Views of Federal and Regional Agencies: The recommended plan has received the support of Federal and regional agencies. No negative comments or concerns were expressed during the agency review process.

Status of NEPA Document: The draft environmental impact statement was distributed for agency and public comment in January-March 1997. All comments were addressed in the final feasi-

bility report; no negative comments or concerns were received. The final environmental impact statement was filed for agency and public review on 1 August 1997; no significant concerns were identified during the final EIS review.

Estimated Implementation Costs: (October 1998 price levels).

Federal: Corps of Engineers—Navigation	$19,000,000
Non-Federal: Maryland Port Administration	9,430,000
Total First Cost	28,430,000

Description of Non-Federal Implementation Costs: (October 1998 price levels). The Maryland Port Administration of the Maryland Department of Transportation is required to provide the non-Federal share for the project. This share is roughly 25 percent of the project dredging costs, with those elements of dredging below 45 feet MLLW (mean lower low water) cost-shared at 50–50, and the dredging shallower than 45 feet MLLW at 75–25.

Lands, Easements, Rights-of-Way, Relocations and Total Non-Federal Construction Share:	
Dredged Disposal	$2,007,000
Cash	6,793,000
	8,800,000
10–Percent Post-Construction Payback Over 30 Years	630,000
Total Non-Federal Cash (Construction and Payback)	7,423,000

Description of Non-Federal O&M Costs: There are no non-Federal operation and maintenance responsibilities associated with this project.

Estimated Effects: (October 1998 price levels).

Account	Average annual equivalent beneficial effects ($1,000)	Average annual adverse effects ($1,000)
Purposes: National Economic Development—Navigation	$10,300	$2,400
TOTAL	$10,300	$2,400

Benefit-cost ratio: 4.3 (current discount rate = 6.875 percent).

(17) Red River Lake at Crookston, Minnesota.—

Location: Crookston is located in Polk County in northwestern Minnesota. It is approximately 25 miles east of Grand Forks, North Dakota and about 85 miles south of the Canadian border. The city is built upon both banks of the Red Lake River, which has several meander loops within the city boundaries.

Problems and Opportunities Identified in the Study: Recurring overland flooding from the Red Lake River causes damages to residential, commercial and public structures. Approximately 40% of the land area of the city of Crookston, including some 710 residential and commercial structures, are located in the regulated floodplain. Major floods have occurred in 1950, 1965, 1966, 1967, 1969, 1978, 1979, 1996, and 1997. The flood of 1950 caused extensive damage to the city and resulted in the loss of two lives and several million dollars (1998 value) in damage. The city of Crookston erected emergency levees in 1965 that together with emergency flood fights prevented major damages ($700,000 in 1997) to the flood prone residential areas. The emergency levees were not constructed to permanent levee standards and have deteriorated considerably

since construction. The risk of failure of these levees during a major flood event is very high as was evidenced by large-scale foundation slides during the 1997 flood. Failure of the levees would cause catastrophic damages. The city of Crookston is very concerned about the adequacy of the levee system.

Alternative Plans Considered: The feasibility study considered a wide array of alternative ways to alleviate the flooding problems at Crookston. These included several different downstream cutoff channels designed to evacuate flood flows quicker and lower the flood stage in Crookston. These cutoffs were considered separately and then in various combinations. Also considered were permanent levees, floodwalls, and road raises; main channel widening; upstream reservoirs; flood proofing of structures; flood proofing of the sewer system and the no action alternative.

Description of the Recommended Plan: The recommended plan consists of two downstream high-flow channels, levees and road raises providing flood damage reduction for the neighborhoods of Woods Addition, Thorndale and Riverside/Downtown, and flood plain management techniques for areas of the city not protected by permanent levees. Once it is in place, the proposed project would meet the National Flood Insurance Program requirements as administered by the Federal Emergency Management Agency. It would have a 1% chance of being exceeded in any one year.

Physical Data on Project Features:

Downstream Highflow Cutoff Channels are located downstream of the city. Both grass-lined channels would have 100–foot bottom widths and side slopes ranging from 1 on 3 to 1 on 5. They are designed to pass water only when a flood surpassing the 50% exceedance frequency occurs; the rest of the time the flow will continue in the natural river channel.

The levee for the Thorndale neighborhood is 1,800 feet in length, 2 to 3 feet high with a 10-foot crest and 1 on 3 side slopes.

The levee for the Woods Addition neighborhood is 6,000 feet in length, up to 10 feet high with a 10-foot crest and 1 on 3 side slopes. There is also a road raise at Ash Street and Houston Avenue.

The Downtown/Riverside road raise includes raising 660 feet of existing streets up to 6 feet in height and an earthen tie back levee to connect the road raise to high ground.

Views of States, Non-Federal Interests and Other Countries: The State of Minnesota, acting through its Department of Natural Resources, has expressed support for the proposed plan. The city of Crookston is ready, willing and able to fulfill the requirement as the non-Federal sponsor, including cost sharing as evidenced by a City Council resolution dated 25 March 1997. The city has signed a pre-construction engineering and design (PED) cost sharing agreement.

Views of Federal, and Regional Agencies: The Feasibility report has been coordinated with appropriate Federal Agencies, including the Environmental Protection Agency, Federal Emergency Management Agency, U.S. Fish and Wildlife Service, Natural Resource Conservation Service, and the Advisory Council on Historic Preservation. The report has also been coordinated with appropriate Regional agencies, including the Minnesota Department of Natural

Resources, Minnesota Pollution Control Agency, State Historic Preservation Officer, Minnesota Water Resource Board, Polk County, and the city of Crookston. No significant objections to the proposed plan have been raised.

The Status of National Environmental Policy Act Compliance: An environmental assessment of the proposed project indicates that it would not result in significant effects to the environment. A Finding of No Significant Impact statement was signed in June 1997.

Estimated Implementation Costs: (October 1998 price levels):

	Cost-Sharing
Federal:	
Corps of Engineers/Flood Control	$5,720,000
Non-Federal:	
City of Crookston	3,230,000
Total	8,950,000

Description of non-Federal Implementation Cost: The non-Federal sponsor is required to obtain the necessary real estate interests and provide the required cost sharing funds. The required cost sharing funds include a minimum cash contribution of 5% plus any additional funds required to bring the total non-Federal cost share requirement to 35% of the total implementation cost. Estimated specific cost sharing requirements are as follows:

Lands and damages	$2,502,000
Relocations	282,000
Cash	446,000
Total	3,230,000

Description of Non-Federal O&M Costs: The non-Federal sponsor is required to operate and maintain the completed project. This would include periodic inspections of and repairs to the levees, interior drainage facilities and channel cutoffs; operation of the project during periods of high water; and servicing of all project features, including landscaping. Operations and maintenance would also include the monitoring of river sedimentation and performing any remedial actions required.

Benefit-Cost Ratio: 1.7 (Current Discount Rate: 6⅞%).

(18) Lower Cape May Meadows, Cape May Point, New Jersey.—

Location: The study area is located along the southern tip of the Atlantic coast of New Jersey, extending approximately 2.5 miles to include Lower Cape May Meadows and the Borough of Cape May Point.

Problems and Opportunities Identified in Study: Lower Cape May Meadows has been severely impacted by shoreline erosion and subsequent ecosystem degradation. These problems have been linked to the Federal navigation project at Cape May Inlet. Since 1955, more than 124 acres has been lost to erosion alone. It is estimated that more than 138 additional acres will be lost by the year 2050 under the no-action scenario. Lower Cape May Meadows also serves as a buffer during storms between the ocean and the surrounding developed areas.

The Federal navigation project at Cape May Inlet is the primary cause of the erosion at Cape May Meadows. The proposed project, in part, mitigates for the erosion caused by the Federal navigation

project. Other separable project elements are included to provide ecosystem restoration and hurricane and storm damage reduction.

Alternative Plans Considered: Final plans considered included; protective dune and berm restoration, restoration of beach habitat, restoration of freshwater wetland habitat, reestablish drainage between ponds, eliminate/control of nuisance plant species *Phragmites australis,* creation of water reservoirs within ponds, reconnect hydrologic units in combination with water control structures, dike(s) along with possible drainage structures located along Cape May Point and West Cape May.

Description of Selected Plan: The selected plan consists of the following components: (1) Restoration of a protective dune/berm which includes planting of dune vegetation. An offshore borrow area will be used. Periodic nourishment over the project life will be required. (2) Seaward restoration of 35 acres of freshwater emergent freshwater wetlands, extending MHW a maximum distance of 280 feet seaward. (3) Restoration of the existing freshwater wetlands which includes; elimination of 95 acres of *Phragmites australis,* planting of emergent wetland vegetation, restoration/creation of drainage ditches to restore flow and link hydrological segments of the project area, installation of water control structures, creation of deep water fish reservoirs within existing ponds, and construction of a shallow earthen water retaining structure and a self-regulating tide gate to allow for a tidal marsh.

Physical Data on Project Features:

Protective Dune/Berm Component:	
Volume of Initial Fill	1,722,000 cu yds.
Volume of Renourishment Fill	650,000 cu yds.
Interval of Renourishment	4 years.
Length of Fill	10,050 ft.
Width of Beach Berm	20 ft.
Width of Dune Crest	25 ft.
Dune Grass	18 acres.
Sand Fencing	15,000 linear ft.
Internal Ecosystem Restoration	
Seaward restoration of previously eroded wetland	35 acres.
Elimination of Phragmites australis	95 acres.
Emergent wetland vegetation plantings	105 acres.
Tidal marsh	25 acres.

Views of States, Non-Federal Interests and Other Countries: In a letter dated 5 November 1997, the New Jersey Department of Environmental Protection has expressed its support for the project.

Views of Federal and Regional Agencies: Agency involvement, especially USFWS, has been on-going since study initiation. The selected plan contributes to the goals of many different agency programs including: North American Waterfowl Management Plan, Western Hemisphere Shorebird Reserve Network, The Convention On Wetlands of International Importance (Ramsar, Iran, 1971), National Estuary Program—Delaware Estuary Program, Coastal Ecosystems Program, the Cape May Stopover Project. In addition, the feasibility study is officially endorsed by the Coastal America Program. Many agencies have already expressed support for the project based on information provided to them.

Status of NEPA Document: EIS finalized August 1998.

Estimated Implementation Costs: (October 1998 price level).

Initial Construction:	
Federal: Corps of Engineers—Navigation Mitigation/Shore Protection/Ecosystem Restoration	$12,118,000
Navigation Mitigation	6,295,000
Shore Protection	2,378,000
Ecosystem Restoration	3,445,000
Non-Federal: New Jersey Department of Environmental Protection	3,834,000
Navigation Mitigation	699,000
Shore Protection	1,280,000
Ecosystem Restoration	1,885,000
Total	15,952,000

Project cost sharing is as follows: navigation mitigation—76 percent (jetties effect) is cost shared 90 percent Federal and 10 percent non-Federal, 24 percent (natural erosion) is cost shared 65 percent Federal and 35 percent non-Federal; shore protection and ecosystem restoration is cost shared 65 percent Federal and 35 percent non-Federal. Periodic nourishment for navigation mitigation and shoreline protection is cost shared on the same basis as is the initial construction.

Periodic Nourishment (average annual cost of future construction over the 50 year life of the project):	
Federal: Corps of Engineers—Navigation Mitigation/Shore Protection	$897,000
Navigation Mitigation	621,000
Ecosystem Restoration	142,000
Shore Protection	134,000
Non-Federal: New Jersey Department of Environmental Protection	217,000
Navigation Mitigation	69,000
Ecosystem Restoration	76,000
Shore Protection	72,000
Total	1,114,000

Description of Non-Federal Implementation Costs: In addition to providing cash and LERRDS for the initial construction of the project, the sponsor will be required to provide the non-Federal share of cost of the periodic nourishment over the 50-year life of the project.

Initial construction:	
LERRD	$148,000
Cash	3,686,000
Total	3,834,000
Periodic Nourishment:	
Cash	217,000
Total	217,000

Estimated Annual O&M Costs: (October 1998 price level).

Federal: Corps of Engineers	0
Non-Federal: New Jersey Department of Environmental Protection	$56,000

Description of Non-Federal O&M Cost: The annual operation and maintenance of the project includes maintaining the dunes (including sand fence) and beach surveys. Beach surveys are to be conducted annually along 8 survey lines located within the project. Other operation and maintenance costs pertain to the water control structures, vegetation (both Phragmites and plantings), drainage channels, fish reservoirs and other project features.

Estimated Effects: The selected plan will provide for the restoration of approximately 25 acres of tidal wetlands and 150 acres of non-tidal wetlands. This plan maximized the Environmental Quality (EQ) attributes. Because the outcome of the construction actions identified by this study will be fish and wildlife habitat benefits which are not amenable to monetary benefit analyses, no National Economic Development (NED) plan was presented. The selected plan will restore 388 fish and wildlife habitat units annually over the estimated 50-year life of the project. The benefit/cost ratio has not been calculated since the environmental benefits are not monetarily quantified.

The significance of the outputs from the selected plan is related to the significance of the study area. Lower Cape May Meadows (The Meadows) is an internationally significant coastal freshwater wetland situated along the Atlantic flyway. It provides a vital resting spot for shorebirds, birds of prey, and songbirds during their seasonal migration as well as providing habitat for residential birds. It is considered by Federal, State and private organizations to be one of the foremost avian viewing areas in North America, attracting more than 100,000 birders each year. Since all of the components of the selected plan restore either eroded or degraded acres of this internationally significant wetland, their outputs are considered highly significant.

The selected plan includes a project element that is not the least costly alternative to terminate the Section 111 (Navigation Mitigation) project element near the Cape May Point. The plan includes sand placement along Cape May Point in lieu of a close off dike to terminate the project. The average annual incremental cost of sand placement termination option is $333,000 providing average annual benefits of $472,000, and has an incremental benefit to cost ratio of 1.4.

(19) New Jersey Shore Protection: Townsends Inlet to Cape May Inlet, New Jersey.—

Location: The study area is located along the southern tip of the Atlantic coast of New Jersey, extending approximately 15 miles from Townsends Inlet to Cape May Inlet and includes the communities of Avalon, Stone Harbor and North Wildwood, Wildwood and Wildwood Crest.

Problems and Opportunities Identified in Study: The problem categories are: (1) long term shoreline erosion, (2) storm damage vulnerability with a high potential for storm induced erosion, inundation and wave attack, exacerbated by long term erosion and (3) degradation of coastal water quality, fish and wildlife habitat due to natural and man induced perturbations including erosion. Specific problem identification by area includes:

Townsends Inlet frontage at Avalon, where the natural variability of the inlet shoreline was disturbed with the building of three groins and the 8th Street terminal groin. The inlet shoreline has receded to the revetted bulkhead. Geographical alignment of the inlet now exposes Avalon directly to Northeasters.

Seven Mile Island oceanfront has shown the greatest variability in historic shoreline change. Erosion of Avalon's northern shoulder is a chronic problem. Stone Harbor exhibits shoreline variability but suffers more from historically narrow beaches. The present con-

dition of the beaches and dunes in the area are inadequate to protect against a major storm event.

Stone Harbor Point has experienced significant erosion since the 1960's. Erosion is progressing behind the bulkhead/revetment and terminal groin of Stone Harbor despite small scale shore protection projects by the State. The natural area being lost is coastal upland and wetlands which, even in its degraded state, serves as a valuable feeding and nesting site for numerous shorebirds.

Hereford Inlet Frontage at North Wildwood. Since the construction of groins and seawalls in the 1970's, the shoreline has been fixed but with little or no beach in front of the structures. Undermining due to channel currents has created unsafe conditions. The southern end of Stone Harbor has greater exposure to the northeast.

Alternative Plans Considered: For Townsends Inlet (Avalon): seawall, groin extensions, bulkheading with revetment; for Seven Mile Beach (Avalon and Stone Harbor): beach restoration, groin field, bulkheading; for Hereford Inlet Frontage of North Wildwood: realignment of the channel, seawall, groins, bulkheading with revetment; and for ecosystem restoration at Stone Harbor Point: sand spit restoration, hardened structure (weir type), extend bulkhead with revetment, dredge channel without jetties, nearshore berm (at Stone Harbor Point), perched beach, low cost bulkhead, low cost revetment, floating breakwater, marsh planting, modify back bay channels.

Description of Selected Plan:

Inlet Frontages: Avalon—The selected plan is to place a seawall or enhanced revetment against the existing bulkhead. The seawall will be approximately 2,970 feet long, extending from the beginning of the existing bulkhead to the 8th Street groin.

North Wildwood—The selected plan for the inlet frontage of North Wildwood is a seawall or enhanced revetment, placed against the existing bulkhead and enlarging the existing seawalls to establish a uniform elevation and toe scour protection. The total length of the proposed seawall is 8,660 feet.

Stone Harbor Point Ecosystem Restoration: The selected plan has been identified as the restoration of 107 acres of coastal barrier habitat including wetland, beach, dune and bayberry (tertiary dune) habitats. Oceanfront restoration will be accomplished by creating a berm and dune system. The dune will extend 1,000 linear feet southwest of the terminal groin in Stone Harbor. Along the inlet frontage the beach will transition to the west 350 linear feet with a varying berm and dune size, and continue along the inlet towards the northwest an additional 250 feet. The dune includes a sand-filled, geotextile core extending 1,350 feet with scour protection.

Seven Mile Island Oceanfront: The selected plan for the Seven Mile Island ocean frontage is beachfill restoration. In Avalon, from 8th to 33rd Streets, the beachfill will consist of a 150 feet wide berm and a 16 feet (NGVD) high dune with 25 feet wide crest. In Stone Harbor, from 71st to 127th Streets, the beachfill will have similar construction.

Physical Data on Project Features:

a. Structural, Non-Structural and Environmental Features: The selected storm damage reduction plan generally covers a 2,970 feet section of Avalon's Townsends Inlet frontage; an 8,660 feet section of North Wildwood's Hereford Inlet frontage; and two sections of Seven Mile Island, encompassing the vulnerable, developed coastal areas from 8th Street to 33rd Street in Avalon and from 71st Street to 127th in Stone Harbor. The selected ecosystem restoration plan generally extends 1,000 feet southwest of the Stone Harbor terminal groin. Specific project features are:

Townsends Inlet Frontage at Avalon, a 2,970 feet seawall extending from the beginning of the bulkhead to the 8th Street groin. The seawall has a top elevation of +14.0 feet NGVD, a toe elevation of −3.0 feet NGVD, a top width of 12 feet. The seawall will be constructed with approximately 81,000 tons of 3 to 6 ton capstone over corestone, matstone and bedding (approximately 60,000 tons combined). About 17,000 tons of existing revetment stone will be reused in the new seawall.

—Hereford Inlet Frontage at North Wildwood, the selected plan is a seawall constructed over the existing bulkhead with the enlarging of existing seawalls. The total length of the proposed seawall is 8,660 feet with a top elevation of +13.0 feet NGVD, a toe elevation of −6.0 feet NGVD, a top width of 12 feet. The seawall will be constructed with approximately 212,000 tons of 3 to 6 ton capstone over corestone, matstone and bedding (approximately 53,000 tons combined). About 23,000 tons of existing revetment stone will be reused in the new seawall.

—Seven Mile Island at both Avalon and Stone Harbor, the selected plan includes a berm extending seaward 150 feet from the design baseline at elevation +8.5 feet NGVD. A dune will be constructed at elevation +16 feet NGVD and a crest width of 25 feet. A total of 3,111,000 cubic yards of sand will be needed for the initial fill placement and subsequent periodic nourishment of 746,000 cubic yards will be required every 3 years over the 50-year life of the project. The plan also includes 50 acres of dune grass, 42,500 linear feet of sand fence and dune access-ways to be placed at the street ends.

—Stone Harbor Point, the selected plan restores and protects 107 acres of coastal barrier habitat including wetland, beach, dune and bayberry habitats. The plan includes the planting of 3 acres of dune grass and 64 acres of bayberry and eastern red cedar. A berm extending seaward 150 feet from the design baseline at an elevation +8.5 feet NGVD will extend 1000 feet southwest of the terminal groin in Stone Harbor. A dune will be constructed at elevation +12 feet NGVD with a crest width of 25 feet. The selected plan requires 1,366,000 cubic yards of sand to be obtained from the Hereford Inlet borrow area. No periodic nourishment is included in the design. The proposed project will preserve and restore critical habitat which has been lost, or would continue to be lost in the future, due to erosion.

Views of States, Non-Federal Interests and Other Countries: The New Jersey Department of Environmental Protection (NJDEP) is the non-Federal sponsor. NJDEP has an interest in entering into a partnership with the Corps of Engineers to provide shore protection and environmental restoration for this project, as stated in a

letter dated 15 July 1996, from Bernard J. Moore, Administrator, NJDEP. This project has considerable public support as well.

Additionally, the NJDEP has entered into Preconstruction Engineering and Design (PED) agreement as stated in the PED Agreement dated 26 September 1997. A conditional CZM letter was issued by NJDEP Land Use Regulation Program (LURP), dated 21 February 1997. Lands, Easements, Relocation's, Rights of Way and Disposal (LERRD) required for the construction of a Federal project are the responsibility of the local sponsor and will be addressed in the Project Cooperation Agreement prepared at the end of the PED.

Views of Federal and Regional Agencies: The US Fish and Wildlife Service (FWS) not only supports the proposed plan, but participated in the ecosystem restoration study. US Environmental Protection Agency (EPA), National Marine Fisheries, and NJDEP look favorably upon the project in general. Unresolved issues that are to be resolved during the PED phase of the study include borrow area shallow water habitat and piping plover impacts. The Corps will continue to consult with FWS and NJDEP's Division of Fish, Game and Wildlife to identify measures that would avoid or minimize adverse impacts.

Status of NEPA Document: The Final Environmental Impact Statement (FEIS) was submitted with the final report for the Townsends Inlet to Cape May Inlet Feasibility Study. Full compliance with the respective resource agencies will be achieved during the PED process.

Estimated Implementation Costs: (October 1998 price level).

Initial Construction:	
Federal: Corps of Engineers—Shoreline Protection/Ecosystem Restoration	$36,730,000
Non-Federal: New Jersey Department of Environmental Protection	19,770,000
Total	56,500,000
Periodic Nourishment (average annual cost of future construction over the 50 year life of the project):	
Federal: Corps of Engineers—Shoreline Protection/Ecosystem Restoration	4,204,000
Non-Federal: New Jersey Department of Environmental Protection	2,264,000
Total	6,468,000

Description of Non-Federal Implementation Costs: In addition to providing cash and LERRDS for the initial construction of the project, the sponsor will be required to provide 35 percent of the cost of the periodic nourishment over the 50-year life of the project.

Initial Construction:	
LERRD	$471,000
Cash	19,305,000
Total	19,776,000
Periodic Nourishment:	
Cash	37,733,000
Total	37,733,000

Estimated Annual O&M Costs: (October 1998 price level).

Federal: Corps of Engineers	0
Non-Federal: New Jersey Department of Environmental Protection	224,000

Description of Non-Federal O&M Cost: Costs include project monitoring which is necessary to determine beach profile conditions. In some cases maintenance costs for dune crossovers and vehicle access will increase due to a Federal project. Costs, over and above current expenditures are included in OMRR&R. Maintenance and repair costs for the seawall are also included.

Estimated Effects:

Account	Average annual beneficial effects ($1,000)	Average annual adverse effects ($1,000)
Purposes—Storm Damage Reduction, Ecosystem Restoration; National Economic Development	$11,081	$6,153

Project economic life: 50 years

Benefit-Cost Ratio: 1.8 (Current Discount Rate: 6.875%)

NED plan recommended? Yes.

The selected plan will provide for the restoration of about 107 acres of coastal barrier habitat including wetland, beach, dune and bayberry habitats. This plan maximizes the Environmental Quality (EQ) attributes. Because the outcome of the construction actions identified by this study will be fish and wildlife habitat benefits which are not amenable to monetary benefit analyses, no National Economic Development (NED) plan was presented. The selected plan will initially restore 169 fish and wildlife habitat units, which will decline to some value between 105 and 85 by the end of the estimated 50-year life of the project. The benefit/cost ratio has not been calculated since the environmental benefits are not monetarily quantified.

(20) Guanajibo River, Puerto Rico.—

Location: Vicinity of town of San Germán and the south part of the metropolitan area of the city of Mayagüez in the western portion of Puerto Rico.

Problems and Opportunities Identified in the Study: Some 736 acres of high density urban area are flooded by the Río Guabajibo. There are in the area over 2,700 families and several dozen structures of small businesses and public buildings and facilities. The 1975 flood associated with Hurricane Eloísa resulted in about two meters of depth of flooding and caused over $25 million in damages.

Alternative Plans Considered: The final array of alternative plans considered to alleviate the area's flooding problem included combinations of levees and floodwalls to protect against different flood frequencies.

Description of Recommended Plan: The plan consists of 6,260 meters of floodwalls and levees in the vicinity of the Guanajibo Homes, San José, Valle Hermoso, and Buena Ventura residential developments located in the southern part of the Mayagüez metropolitan area. The floodwalls and levees will provide protection for a 1% annual chance of flood along Río Guanajibo and 1,470 meters of channel improvements and replacement of a bridge in the town of San Germán to protect it against a 10% annual chance of flood along the same river. Once it is in place, the proposed project will meet the National Flood Insurance Program requirements as administered by the Federal Emergency Management Agency. It will

have a 1% chance of being exceeded in any one year. The plan also includes the planting of 27.6 acres of mangroves east of the Guanajibo Homes development to mitigate for wetland loss by construction of project floodwalls and levees.

Physical Data on Project Features:

Feature	Mayaguez-Hormigueros	San German
Levee	4,810 meters	
Floodwalls	1,470 meters	
Channel Improvement		1,470 meters
Bridge Replacement		P.R. Highway 119
Wetland Mitigation	27.5 acres	

Views of States, Non-Federal Interests, and Other Countries: Local sponsor provided on September 6, 1994, letter of intent supporting conclusions and recommendations of report. There are no significant issues.

Views of Federal and Regional Agencies: A draft report and EIS was coordinated with all concerned agencies beginning in July 1994. There are no areas of controversy.

Status of Final Environmental Impact Statement: The Record of Decision was signed on November 6, 1996.

Estimated Implementation Costs: As the Chief of Engineers report recommending this project was signed on February 27, 1996, the Committee is applying the cost sharing that was in place at that time to the implementation of this project. (October 1998 price levels):

Federal (Corps of Engineers)	$19,745,000
Non-Federal	7,486,000
Total	27,031,000

Description of Non-Federal Implementation Costs: The sponsor will contribute LERRDs for the flood control project totaling $6,134,000 ($4,015,000 in lands and $2,119,000 in relocations) and $1,352,000 in cash.

Estimated Annual O&M Costs. (October 98 price levels):

Federal (Corps of Engineers)	0
Non-Federal	$80,000
Total	80,000

Description of Non-Federal O&M Cost: The total annual OMRR&R cost is estimated to be $80,000. The OMRR&R requirements for the selected plan include annual inspections and routine maintenance of bridges, maintenance roads, floodwalls, levees, and channel slopes.

Estimated Effects (October 1998 price levels):

	Annual average equivalent beneficial effects	Average annual adverse effects
Inundation Reduction	$5,708,600	
Redevelopment	90,600	
Others	52,800	
Total	5,852,000	2,100,000

Benefit-Cost ratio: 2.8 (Current Interest Rate: 6⅞%).

(21) Rio Grande De Manati, Barceloneta, Puerto Rico.—

Location of Study Area: The study area is located in the north central region of Puerto Rico. The total basin is 172 square miles in land area and includes the municipalities of Corozal, Naranjito, Orocovis, Ciales, Morovis, Manati, Barceloneta, and Arecibo. The primary focus of the study is the town of Barceloneta where flooding is most significant.

Problems and Opportunities Identified in Study: The overflow of Rio Grande de Manati results in severe frequent flooding to the entire town of Barceloneta. There have been at least fifteen damaging floods on the Rio Grande de Manati. Flood waters during the floods of May and October 1985 reached three to four feet throughout most of the town which resulted in damages of about $7.4 million for each flood. The town of Barceloneta was declared a disaster area twice by the President as a result of these floods.

Alternative Plans Under Consideration: Alternative plans of improvement including various combinations of levees, channels, and interior drainage modifications.

Description of Recommended Plan. The recommended plan consists of providing 5,300 meters of levees around the town of Barceloneta and 1,620 meters of pilot channels, and minimum interior drainage facilities. Project implementation requires acquisition of six residential structures, relocation of a boat ramp, three highway ramps, and agricultural road ramp, and relocation of existing utilities impacted by the levee at four locations. Once it is in place, the proposed project will meet the National Flood Insurance program requirements as administered by the Federal Emergency Management Agency. It will have a 1 percent chance of being exceeded in any one year.

Physical Data on Project Features: The project will consist of the following project features:

a. *Levees*—The project includes construction of 5,300 meters of levees around the town. The eastern section of the levee extends for about 3,200 meters starting at the north interior drainage structure (Culvert 1) and continues east and southeast crossing Calle Plazuela and Highway 684, continuing southward near the municipal sports complex and around the Villa Catalana residential development. The western section of levee starts at Culvert 1, and extends 2,100 meters in a southwestern direction across Highway 681 to end at high ground just across Highway 682. The average height of the levee is 5.4 meters.

b. *Pilot Channels*—The two portions of the existing Rio Grande de Manati channel cut off by the eastern section of levee will be replaced by pilot (bypass) channels. The south pilot channel is located 50 meters south of the existing river channel near the southeastern end of the project. The existing river channel would be filled to build the levee and drainage channel. The north slope of the south pilot channel and levee slope adjacent to the pilot channel would be protected with gabions. The north pilot channel is located about 750 meters east of the existing channel. The existing river channel would be filled to an elevation 1.0 meters NGVD. The north pilot channel would have a 15 meter bottom width at elevation—2.2 meters NGVD.

c. *Interior Drainage Facilities*—The proposed minimum facilities consist of 5,230 meters of drainage channels along the protected side of the levee, drainage culverts under two highway ramps, and two drainage structures on the levees. The drainage channels would be constructed with a triangular cross section with an average depth of flow of 1.5 meters and an average top width of 9.0 meters. Corrugated metal pipe culverts for interior drainage are provided under Highway 681 and the agricultural access road. The drainage structures, Culvert 1 and 2, consist of corrugated aluminum pipe culverts with flap gates and concrete headwalls. Two large agricultural areas, 57.5 acres on the east and 179.0 acres on the north serve as ponding areas.

d. *Other Features*—The recommended project also requires the construction of one small ramp over the levee at Highway 682, two ramps over the levee at Highways 681 and 684, and one agricultural road ramp where the eastern part of the levee precludes access to agricultural lands. Acquisition of six residential structures, relocation of a boat ramp, and various utility relocations are also required.

Views of States, Non-Federal Interests and Other Countries: The non-Federal sponsor provided a letter of intent supporting the project. There are no significant issues affecting project implementation.

Views of Federal, and Regional Agencies: A draft report and environmental assessment were coordinated with various Federal and regional agencies. There are no areas of controversy and the project is supported.

Status of Final Environmental Impact Statement: An environmental assessment has been completed and a Finding of No Significant Impact was signed in March 1994.

Estimated Implementation Costs: (October 1998 price levels).

	Cost-Sharing
Federal: Corps of Engineers	$8,785,000
Non-Federal: Puerto Rico Department of Natural And Environmental Resources	4,706,000
Total	13,491,000

Description of Non-Federal Implementation Costs: The non-Federal costs required from the project sponsor would be those associated with relocations ($1,374,000); lands, easements, and rights-of-way ($1,747,000); a minimum of 5 percent cash of the flood damage reduction first costs ($672,000); plus additional cash of $913,000 to reach the minimum of 35 percent contribution of the total first cost for flood damage reduction. Thus, the total non-Federal cost share would be $4,706,000.

Estimated Annual O & M Costs: $20,000—Non-Federal.

Description of non-Federal O & M Costs: Maintenance and repairs of flood control levees, pilot channels and interior drainage facilities.

Estimated Effects: (October 1998 price levels).

Account	Average annual equivalent beneficial effects ($1,000)	Average annual adverse effects ($1,000)
Purposes: Flood Damage Reduction—National Economic Development Flood Damage Reduction	$4,243	$1,021
Total	4,243	1,021

Benefit-Cost Ratio: 4.0 (Current Discount Rate: 6⅞%).

(22) Rio Nigua at Salinas, Puerto Rico.—

Location: Vicinity of town of Salinas, including the communities of Playa de Salinas and El Coco, in the southern part of Puerto Rico.

Problems and Opportunities Identified in the Study: Over 300 acres of dense urban areas are flooded by the Río Nigua. There are in the area over 3,000 families and several hundreds small business and public buildings and facilities. The January 1992 flood resulted in over one meter of flooding, caused two deaths, and approximately $10 million in damage.

Alternative Plans Considered: The final array of alternative plans considered to alleviate the area's flooding problem included mostly levees with minor channel improvements to protect against different flood frequencies.

Description of Recommended Plan. The recommended plan of improvements for the Río Nigua south of PR Highway 52 consists of a 2,960 meter long levee along the east bank of the river extending from the highway down to end east of the mouth of the river in the coastal area. The plan includes protection measures against erosion for the east abutment of the highway bridge, a new bridge and ramp at PR Highway 1, and levee segment to protect the intersection between highways 52 and 1. The proposed levee project is expected to provide protection for a 1% annual chance of flood with a 99.7 percent probability. The recommended plan also includes a 3,980 meter long levee to provide flood protection to the Coco community, upstream from PR Highway 52. This levee project is also expected to provide protection for a 1% annual chance of flood. Once it is in place, the entire proposed project will meet the National Flood Insurance Program requirements as administered by the Federal Emergency Management Agency. It will have a 1% chance of being exceeded in any one year.

Physical Data on Project Features:

Feature	Town and Playa	El Coco community
Levee	2,960 meters	3,980 meters.
Bridge Replacement	PR Highway 1	

Views of States, Non-federal Interests, and Other Countries: The local sponsor provided a letter of intent on August 19, 1996. It supported the conclusions and recommendations of the report. There are no significant issues.

Views of Federal and Regional Agencies: A draft report and EA was coordinated with all concerned Federal agencies beginning in May 1996. All required concurrences have been received. There are no areas of controversy.

Status of Final Environmental Impact Statement: An Environmental Impact Statement was not required for the proposed action. EPA concurred with this finding on July 11, 1996. A Finding of No Significant Impact (FONSI) was signed on September 10, 1996.

Estimated Implementation Costs: (October 1998 price levels).

Federal (Corps of Engineers)	$7,645,000
Non-Federal	6,057,000
Total	13,702,000

Description of non-Federal Implementation Costs. The sponsor will contribute LERRDs for flood control features totaling $5,378,000 ($2,686,000 in lands and $2,692,000 in relocations) and $679,000 in cash.

Estimated Annual O&M Costs: (October 1998 price levels).

Federal (Corps of Engineers)	0
Non-Federal	$69,900
Total	69,900

Description of Non-Federal O&M Cost. The total annual OMRR&R cost is estimated to be $69,900. The OMRR&R requirements for the selected plan include annual inspections and routine maintenance of bridges, maintenance roads, floodwalls, levees, and channel slopes.

Estimated Effects: (October 1998 price levels).

	Average annual equivalent beneficial effects	Average annual adverse effects
Inundation Reduction	$2,976,000	
Redevelopment	47,700	
Others	70,600	
Total	3,094,300	1,086,600

Benefit cost ratio: 2.8 (Current Discount Rate: 6⅞%).

(23) Salt Creek, Graham, Texas.—

Location: The study area is located within the corporate limits of Graham, Young County, Texas, which is approximately 61 miles south of the city of Wichita Falls.

Problems and Opportunities Identified in Study: Graham (population 9,000) has experienced loss of physical property and injuries to flood victims as a result of normal creek flooding along Salt Creek and backwater flooding from the Brazos River as it enters the headwaters of Possum Kingdom Reservoir (non-Federal). Since 1972, eight significant floods have occurred in Graham. The most damage was attributable to the storm event of 1–3 August 1978 when 32.5 inches of rain fell in the Brazos River Basin near the city. This flood caused extensive backwater into the city, inundating one-third of the city. This flood resulted in six deaths and property damages in excess of $62 million for Young County and the surrounding counties. The April 26, 1990 flood on Salt Creek was the largest since the USGS began keeping stage records on Lake Graham and the May 3, 1990 event was the second largest since 1963. Estimated damages to structures and their contents exceeded $625,000. Structures valued at approximately $17 million

within the city of Graham are vulnerable to floods with a 1% probability of exceedence.

Alternative Plans Considered: The screening of alternatives included three structural plans for levees to protect against floods with exceedence probabilities of 10%, 2% and 1%, and three non-structural plans consisting of permanent evacuation for areas with flood exceedence probabilities of 20%, 10% and 4%.

Description of Recommended Plan: The recommended plan includes a buy-out and removal of 127 structures in the floodplain subject to a flood exceedence probability of 10%; installation of a flood warning system to protect residents above the buy-out zone; creation of recreational areas consisting of a trail, picnic sites, and park road; and environmental restoration of the project lands. The proposed project reduces the number of structures included in the NFIP as administered by FEMA from 483 to 356 or 25% and provides for a reduction of $259,000 in annual insurance subsidy.

Physical Data on Project Features: The NED/locally preferred plan consists of a permanent evacuation of the ten percent exceedence probability floodplain containing 127 structures including 94 residential (40 mobile homes and 54 permanent structures), 30 commercial, and three public structures. The flood warning system consists of a precipitation gage upstream of Lake Graham and a computer link to the Brazos River Authority central flood warning system in Waco, Texas. The recreation features consist of 9,705 feet long, eight feet wide, concrete trail; 2,600 feet long nature trail; 35 covered picnic facilities, two parking lots and a park drive. The environmental restoration features include the replanting of native trees, shrubs, and herbaceous vegetation on approximately 79 acres in order to partially restore some of the floodplain forest which has been adversely impacted by past development actions. An additional 19 acres will be set aside for preservation.

Views of States, Non-Federal Interests and Other Countries: The Brazos River Authority and the city of Graham are the local sponsors. The Brazos River Authority is the source of non-Federal funds. The city will contribute lands to the project and no cash. The city strongly supports the project. The Brazos River Authority has decided to implement the project.

Views of Federal and Regional Agencies: The Final Fish and Wildlife Coordination Act Report dated November 6, 1997 was coordinated with Texas Parks and Wildlife. The conclusion was that the selected non-structural, buy-out plan would have minimal adverse impacts on fish and wildlife resources of the project area, and would significantly contribute to the long term recovery of habitats which have been disturbed by past development activities. There are no outstanding issues.

Status of NEPA Document: The Environmental Assessment has been completed as part of the Feasibility Report and has been approved. The FONSI has been prepared and was signed October 24, 1997.

Estimated Implementation Costs: $10.08 million (October 1998 price level).

	Cost-Sharing
Federal (Agency/Purpose):	
Corps of Engineers/Flood Damage Reduction (65%)	$5,806,000

	Cost-Sharing
Corps of Engineers/Environmental Restoration (65%)	428,000
Corps of Engineers/Recreation (50%)	326,000
Subtotal	6,560,000
Non-Federal (Specify state/local sponsors):	
Brazos River Authority/Flood Damage Reduction (35%)	2,964,000
City of Graham/Environmental Restoration (35%)	231,000
Brazos River Authority/Recreation (50%)	325,000
Subtotal	3,520,000
Total	10,080,000

Description of Non-Federal Implementation Costs: Non-Federal implementation costs consist primarily of the cost related to the acquisition of lands, easements, rights-of-way, relocations and disposals. The estimated cost of LERRDs is $2.9 million. The non-Federal cash requirement is $556,000.

Estimated Annual O&M Costs: There are no Federal annual O&M costs. The City of Graham, Texas will be responsible for all O&M costs estimated at $25,500,000 annually.

Description of Non-Federal O&M Cost: O&M responsibilities include mowing, trash collection and, as needed, replacements for rehabilitation of any of its components.

Estimated Effects:

Account	Average annual equivalent beneficial effects ($1,000)	Average annual adverse effects ($1,000)
Purposes—National Economic Development Plan:		
FDR	328.3	474.1
1ER	N/A	48.8
FWS[1]	56.8	2.1
Rec	498.8	72.7
Total	884.4	597.7

* FWS (Flood Warning System).

Benefit-Cost Ratio: 1.5 (Current Discount Rate: 6 7/8%)

Section 101(b)

(b) Projects Subject to Report.—The following 15 projects for water resources development and conservation and other purposes are authorized to be carried out by the Secretary substantially in accordance with the plans, and subject to the conditions, recommended in a final report of the Corps of Engineers, if the report is completed not later than September 30, 1999.

(1) Nome, Alaska.—

Location: Nome is located on the Seward Peninsula in western Alaska and can be reached only by air or sea transportation. The town is on Norton Sound in the Bering Sea, approximately 510 air miles north of Anchorage. 1

Problems and Opportunities Identified in Study: The existing Federal navigation project at Nome is not functionally adequate and requires major modifications and/or replacement to meet the needs of the growing fishing fleet and barge traffic. The following actions have been identified as most likely to result in an improved

harbor and navigation system capable of meeting the needs of the existing fleet.

a. Reduce vessel losses by improving the navigation structures.

b. Minimize or eliminate lightering requirements for barges by improving channels.

c. Eliminate entrance channel access problems through redesign of the navigation structures/system.

d. Minimize maintenance of the navigation system through improved designs.

e. Increase usability of the causeway loading/offloading cells by improving wave protection.

Alternative Plans Considered: Alternatives ranged from complete reconstruction of the existing Federal project to construction of a new channel and jetty system closer to the causeway. Alternatives that involve moving the harbor as well as the navigation features were also considered. Fourteen alternatives were evaluated, the recommended plan is both the NED plan and the locally preferred plan. The recommended plan was shown to meet all recognizable future needs of Nome while still being feasible from engineering, environmental, and economic standpoints.

Description of Recommended Plan: The major features of the NED plan are a new jetty/breakwater system, a new channel design and configuration, a spur breakwater, and a sediment trap. The proposed breakwater will be located on the east side of the existing causeway, and the channel will be relocated to between the new breakwater and the causeway. A new entrance through the spit will be constructed. The breakwater spur will be added to the end of the causeway to provide additional protection to vessels using the causeway, and a sediment trap will be constructed on the east side of the existing breach in the causeway.

Physical Data on Project Features: Proposed navigation improvements at Nome will consist of a rubblemound breakwater structure approximately 910 meters in length, designed to reduce wave energy both at the causeway loading/off-loading cells and within the navigable channel. The crest elevation of the structure is +4.3 meters MLLW. A 60-meter-long rubblemound spur, also with a crest elevation of +4.3 meters, will be added to the end of the existing causeway to further improve wave conditions at the causeway cells and to minimize diffracted wave energy entering the channel area. A new entrance channel will be constructed, varying in width from 107 meters through the entrance section to 46 meters through the inner harbor access section. Depth of the channel varies from -6.7 to -3 meters MLLW. To control along shore sediment transport, a 108,000-cubic-meter sediment trap will be constructed on the east side of the causeway to capture sediments and allow for efficient removal.

Views of States, Non-Federal Interests, and Other Countries: The non-Federal sponsor, the city of Nome, has cooperated with the Corps throughout the reconnaissance and feasibility study processes. The locally preferred plan is the NED plan. The State of Alaska fully supports the project as an important improvement to transportation and will assist the sponsor with the local share. A letter of support from the Alaska Department of Transportation and Public Facilities is included in the report. The Community De-

velopment Quota (CDQ) group of the region and the Norton Sound Economic Development Corporation strongly support the project. Yukon Delta Fisheries Development Association, another CDQ group that currently uses the harbor, has also expressed support for harbor improvements in Nome.

Views of Federal and Regional Agencies: The Environmental Protection Agency (EPA) was informed of sediment test results, and a plan has been developed with the EPA to properly dispose of contaminated material that is subject to being dredged. The proposed project alternative was presented to the Alaska Department of Fish and Game (ADF&G), Fairbanks Habitat Office, and it was indicated that the NED plan is not expected to affect the fisheries of the Snake River. The NED plan was also discussed with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service, and no problems were identified.

Status of NEPA Document: The environmental assessment, along with the required review period, has been completed. A consistency Finding and Certificate of Reasonable Assurance has been received from the State of Alaska to verify that State requirements have been met. The finding of no significant impact was signed on 30 June 1998.

Estimated Implementation Costs: (October 98 Price Level).

	Cost Sharing
Federal (Navigation):	
COE/Federal Channel	$19,650,000
Coast Guard/Federal Channel	10,000
Total Federal	19,660,000
Non-Federal (Navigation):	
City of Nome/Federal Channel	4,644,000
City of Nome/Additional Channel Features	304,000
Total Non-Federal	4,947,000
Total	24,608,000

Description of Non-Federal Implementation Costs: The non-Federal share of the project cost, is $4,947,000. Of the non-Federal share, 10 percent of the cost of the general navigation features (jetties, channels and turning basins) and 25 percent of the cost of channel deepening beyond 20 ft. accounts for $2,339,000. Dredging along the causeway, which is 100 percent local accounts for $304,000. LERRDS accounts for $1,257,000 of the cost, while the balance of the non-Federal costs of $1,047,000, is 10 percent of the general navigation features minus LEERDS, which will be financed over time.

Estimated Annual O&M Costs: (October 1998 price level).

	Cost Sharing
Federal (Navigation):	
Corps of Engineers/Maintenance Dredging	$450,000
Coast Guard/Navigation Aids	1,000
Total Federal	451,000
Non-Federal (Navigation):	
City of Nome	4,000
Total	455,000

Description of Non-Federal O&M Cost: Maintenance of floats and piles, periodic dredging within the inner harbor, and dredging in front of the causeway cells.

Estimated Effects:

Account	Average annual equivalent beneficial Effects ($1,000)	Average Annual adverse effects ($1,000)
NED, Commercial Navigation:	$3,608.0	$2,211.0

Cost-Benefit Ratio: 1.6 (Current Discount Rate: 6⅞%)

(2) Seward Harbor, Alaska.—

Location: Seward, located on the Kenai Peninsula, is about 150 miles south of Anchorage, Alaska, by road. The town is located at the northern end of Resurrection Bay off the Gulf of Alaska and can be reached by air, sea, and rail, as well as by road.

Problems and Opportunities Identified in Study: Marine activities at Seward are driven primarily by commercial fishing and tourism. The demand for moorage space greatly exceeds the supply much of the year. All assigned (permanent) slips have been fully occupied throughout the summer for more than 15 years. Vessels and the mooring facilities are damaged during peak periods from minor impacts, overstressing of the float system, and other incidents caused by overcrowding.

Alternative Plans Considered: Four locations were assessed for creating additional harbor space for Seward. Only the eastward expansion of the existing harbor was carried forward for detailed analyses based upon environmental, economic, and local considerations. Four alternatives for this expansion were considered in detail, all of which relocated the existing eastern breakwater, which has provided adequate protection since 1965. The breakwater would be moved farther east toward the coal pier, and a new mooring area would be dredged.

Description of Recommended Plan: The recommended plan is basically the same as the NED plan, except the deep-water disposal material would be disposed adjacent to the south breakwater and would eventually be graded and used for harbor access by the local sponsor. This plan would have minimal impacts on the adjacent fishing-related industries, maximize the basin size, and provide additional uplands for badly needed parking and harbor access. Disposing of dredged materials in the old entrance channel would create habitat for clam/mussel beds.

Physical Data on Project Features: A 1,700–foot-long rubble mound breakwater would be constructed approximately 400 feet east of the existing harbor in a north-south alignment for a length of 1,070 feet. The seaward toe of the breakwater would maintain a minimum distance of 30 feet from the existing piles supporting the coal trestle. The remainder of the new breakwater would then change to a southwest alignment to form the eastern side of the new entrance channel. The new entrance channel would have the same configuration and depth as the existing channel. The 330–foot gap of the old entrance channel would be closed by construction of a rubble mound structure. Existing breakwater materials can be used in new breakwater construction when possible. About 5.2

acres of additional uplands would be created south of the harbor using dredged materials. The basin would be dredged to −15 ft and −12.5 ft MLLW to optimize the requirements of the present and anticipated fleet.

Views of State and Non-Federal Interests: The city of Seward (sponsor) and the State of Alaska Department of Transportation and Public Facilities, Coastal and Harbor Engineering Section, both favor the eastern expansion plan. In addition, local fishing-related business interests strongly favor expanding existing facilities instead of developing new facilities several miles away.

Views of Federal and Regional Agencies: Sampling was performed on the material to be dredged, and no contamination was found. Some concern has been expressed over an outfall pipe from a seafood processing plant, which could be a source of fish waste in the future if the harbor construction adversely affects circulation in the bay. This is unlikely, but will be monitored by the sponsor. State and Federal resource agencies have not voiced any major or significant objections to the expansion of the harbor.

Status of NEPA Document: The environmental assessment, along with the required review period, has been completed. A consistency Finding and Certificate of Reasonable Assurance have been received from the State of Alaska to verify that State requirements have been met. The finding of no significant impact was signed on September 23, 1998.

Estimated Implementation Costs: (October 1998 price level).

	Cost sharing
Federal (navigation):	
COE/General Navigation Features	$4,343,000
Coast Guard	21,000
Total Federal	4,364,000
Non-Federal (navigation):	
City of Seward/GNF	482,000
City of Seward/Additional 100% Local Costs	7,359,000
LERRD	35,000
Total Non-Federal	7,876,000
Total Cost	12,240,000

Description of Non-Federal Implementation Costs: The non-Federal share of the project is $7,876,900. Of the non-Federal share, 10 percent of the general navigation features (channel and breakwaters) account for $482,200. Dredging the mooring basin, inner harbor floats and piles, utilities, adjacent uplands, engineering & design and supervision & administration of local features, which are all 100-percent local, accounts for $7,359,500. LERRD accounts for $35,000, while the balance of the non-Federal cost, $447,300, is 10 percent of the GNF minus LERRD, which will be financed over time.

Estimated Annual O&M Costs: (October 1998 price level).

	Cost sharing
Federal:	
Corps of Engineers/ Armor & Hydrographic Surveys	$9,600
Coast Guard/Maintain Navigation Aids	600
Non-Federal:	
City of Seward/ Local Sponsor Yearly maintenance	2,700

	Cost sharing
Replacement	20,100
Total	33,000

Description of Non-Federal O&M Cost: The city of Seward's O&M cost would consist of one dredging event, one pile/float replacement event during the 50–year project life cycle, and routine annual maintenance.

Estimated Effects:

Account	Average annual equivalent beneficial effects ($1,000)	Average Annual Adverse effects ($1,000)
NED, Commercial Navigation	$1,553.0	$872.0

Benefit-Cost Ratio: 1.7 (Current Discount Rate: 6⅞%).

(3) Hamilton Airfield, California.—

Location: Hamilton Army Airfield and the antenna field are located approximately 25 miles north of San Francisco on the southeast edge of the City of Novato, Marin County, California.

Problems and Opportunities Identified in Study: The Hamilton Army Airfield has been in the Base closure process, since 1974. Approximately 20 acres of the airfield are considered "contaminated" with relatively low levels of petroleum hydrocarbons, volatile and semi-volatile compounds, herbicides and metals. The antenna field, which is owned by the State Lands Commission, was also part of the military complex in the past and has more recently been used by the Novato Police Department for target practice. The U.S. Army is implementing a remediation program under the Base Realignment and Closure Act of 1988 (BRAC) for the airfield to restore it to a condition protective of human health and the environment for reuse as a wetland area, and further is coordinating its remediation technical studies with the State's efforts to restore a valuable wetlands ecosystem. The State Lands property is being remediated under the formerly used defense site (FUDS) program. All contaminants on these properties will be remediated to support reuse prior to site transfer and reuse. The Army intends to have the site remediated and available for reuse by January 2000.

These properties historically supported tidal salt marsh habitat, but levee construction separated the area from the tidal influence of San Pablo Bay. Subsequent natural and artificial processes have resulted in lowered surface elevations. This project is being proposed to restore important tidal salt marsh habitat in San Francisco Bay. Restoration of tidal wetlands on subsided diked lands using dredged material provides an opportunity to offset historic habitat losses and beneficially reuse suitable dredged material.

Alternative Plans Considered: The Hamilton Restoration Group, which consists of representatives from a variety of regulatory and conservation organizations, identified the following four restoration measures, which are expected to have a positive effect on the environmental condition of Hamilton Army Airfield, and be supported by other involved public agencies and local interests.

Alternative 1: No-action.

Alternative 2: Wetlands would be restored to the Airfield and Navy ballfields without the use of dredged material. Approximately 670 acres of habitat would be restored.

Alternative 3: Wetlands would be restored to the Airfield and Navy ball fields using dredged material to accelerate marsh establishment and raise elevations for seasonal wetlands. Approximately 670 acres of habitat would be restored.

Alternative 4: Wetlands would be restored to the Airfield and adjacent properties including the former antenna field at the site without the use of dredged material. Approximately 990 acres of habitat would be restored.

Alternative 5: Wetlands would be restored to the Airfield and adjacent properties including the former antenna field at the site using dredged material to accelerate marsh establishment and raise elevations for seasonal wetlands. Approximately 990 acres of habitat would be restored.

Description of Recommended Plan: Wetlands would be restored to the Airfield and adjacent properties including the former antenna field at the site using dredged material to accelerate marsh establishment and raise elevations for seasonal wetlands. Approximately 988 acres of habitat would be restored.

If it would reduce costs to the Government, the Secretary should consider establishing a joint venture with the Montezuma project under section 217 of WRDA 1996 to allow for private operation of offloading and other activities at both the Hamilton and Montezuma sites.

Physical Data on Project Features:

Perimeter Levee: Approximately 11,000 feet of perimeter levee will be constructed to an elevation of +12 feet. This levee will have a crest width of 16 feet, 3H:1V sideslopes, and 50–foot wide toe berms, resulting in a footprint of 196 feet. In addition, 9,400 ft of perimeter levee built as specified above will have an inter-tidal bench on the inside slope extending the footprint on the inside by 42 feet. This perimeter levee will tie in to the existing +10 foot levee owned by the New Hamilton Partners.

Internal Peninsulas: A system of internal peninsulas will be constructed to +5 feet inside the site to reduce wave fetch to a maximum of 3,000 feet. The peninsulas will total about 5,800 feet in length. These peninsulas will be separated from the perimeter levee by at least a 200–foot gap to prevent predator access to the future marsh. These peninsulas will have a crest width of 10 feet and a 3H:1V slope, resulting in a 60–foot wide footprint.

Novato Sanitary District Discharge Outfall Protection Levee: A 2,500 foot long levee will be constructed to +8 feet in elevation to carry the pipeline from the relocated dechlorination plant across the marsh. The levee will have a 16–foot crest and 3H:1V sideslopes, resulting in a 56–foot wide footprint.

Levee Breaches and Pilot Channels: A single inlet channel will be excavated in the existing outboard levee and salt marsh for each of the sites. The inlets consist of two parts: the levee breach cut through the existing outboard levee; and a narrower, but equally deep, pilot channel cut through the outboard marsh.

Dredged Material: Dredged material will be placed on site to raise elevations suitable to a variety of habitats. A total of

10,600,000 cubic yards would be utilized. The dredged material to be used will be suitable for wetland habitat purposes based on marine sediment criteria in effect at the time of placement. The dredged material will come from nearby navigation projects, either new construction or maintenance.

Environmental: The wetland complex as a result of this project, including establishment of vegetation and repopulation of wildlife is expected to develop naturally over time.

Views of States, Non-Federal Interests and Other: The non-Federal sponsor of this project is the California State Coastal Conservancy. The Coastal Conservancy has taken an active role in the restoration of wetlands in the San Francisco Bay Area and they are highly committed to restoring the Hamilton site. The Coastal Conservancy previously worked with the Corps of Engineers to successfully develop the Sonoma Baylands Wetland Demonstration Project. The Coastal Conservancy has indicated that they fully understand the 75/25 construction cost sharing and maintenance responsibilities.

Views of Federal and Regional Agencies: This wetland restoration project has attracted the keen interest of numerous Federal, State, and local agencies. The Hamilton Restoration Group (HRG) has been established to provide a forum for a variety of interests to provide input on project feasibility, goals, design, and other relevant issues. The National Marine Fisheries Service first formed this group in the summer of 1995, and the lead was handed to the Coastal Conservancy in 1996. Participants in the HRG include the Coastal Conservancy, San Francisco Bay Conservation and Development Commission, City of Novato, California Regional Water Quality Control Board, California Department of Fish and Game, National Marine Fisheries Service, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, Port of Oakland, University of California, and congressional representatives. This project is part of the Coastal America Program.

Status of Final Environmental Impact Statement (EIS): The final EIS was filed on 15 January 1999.

Estimated Implementation Cost: (1998 price levels).

	Cost-sharing
Federal (Agency /Purpose): Corps of Engineers/ Ecosystem Restoration	$41,400,000
Non-Federal: California State Coastal Conservancy	13,800,000
Total	55,200,000

Estimated Annual O&M Costs: (October 1998 price levels).

	Cost-sharing
Federal: Corps of Engineers	0
Non-Federal: Coastal Conservancy	322,000

Description of Non-Federal O&M Costs: The non-Federal O&M costs consist primarily of required levee maintenance, exotic vegetation control, and larval mosquito monitoring and control. Monitoring of the progress of the wetland restoration will also continue after project construction, when the completed project is conveyed to the non-Federal sponsor.

Estimated Effects: Several local animal and plant species, including the salt marsh harvest mouse and the California clapper rail, have been listed as endangered due to the reduction of their wetland habitats. Approximately 82% of the original tidal wetlands of San Francisco Bay have been destroyed by diking or filling them for purposes such as agriculture, housing, and salt production. This loss of tidal wetlands has greatly reduced the amount of habitat available to many species of fish and wildlife. The disposal of dredged material from San Francisco Bay is currently constrained by physical, environmental, and regulatory limits on the use of existing disposal sites. To the extent that dredged material is used beneficially, the need for unconfined aquatic disposal and other disposal methods, and the impacts associated with those methods, will be reduced.

Relationship to Other Plans: Oakland Harbor Deep-Draft Navigation Improvements (50 feet channel depth) is being pursued by the Port of Oakland and base realignment and closure of Hamilton Army Airfield.

Cumulative Funds Expended to Date on Previous/Related Project(s): No Federal funds have been expended to date on the Oakland Harbor Navigation -50 ft Deepening Project, as the project sponsor (Port of Oakland) is seeking authorization under Section 203 of WRDA 86. Federal funds expended on the Base Realignment and Closure, Hamilton Army Airfield are as yet undetermined.

(4) Oakland Harbor, California.—

Location: Oakland Harbor is located on San Francisco Bay at the city of Oakland in northern California.

Problems and Opportunities Identified in Study: The Port of Oakland desires construction of a project to deepen the inner and outer harbor to a depth of -50 feet. The Port desires to provide a safe navigation channel to accommodate modern classes of deep-draft containerships scheduled to use the Port's facilities. The Port also desires to combine the dredging with plans for dredged material reuse. The Port's Vision 2000 plan would convert the Oakland Fleet Industrial Supply (FISCO) into new marine terminals and create a new Joint Intermodal Rail Terminal (JIT). The Port indicates that they have lost several users in recent years because of inadequate channel depth, even with the ongoing −42 foot depth project. Some users state that depths of −50 feet are required for them to continue to utilize the Port of Oakland.

Alternative Plans Considered: In addition to the no action alternative, the Port has developed plans for alternative project depths to satisfy Federal planning requirements for optimization and cost sharing. The locally preferred plan will be to dredge to −50 feet, plans for dredging to −46, −47, −48 and −49 feet have also been developed. The Port has also considered a wide variety of alternative scenarios for the reuse of dredged material, including all those considered on previous dredging projects in the San Francisco Bay area. The final array of disposal options is limited to deep ocean disposal, beneficial use at Hamilton Airfield and Montezuma Wetlands project, reuse sites on Port of Oakland property and an upland site for contaminated material. The Port has considered a variety of channel and turning basin configuration and settled upon one that it considers the most feasible.

Description of Recommended Plan: The recommended NED plan consists of widening and deepening the existing Oakland Harbor navigation project to an effective depth of −50 feet.

Physical Data on Project Features: The recommended plan will include the following features:

a. Structural: The following description assumes completion of the project now underway to deepen Oakland Harbor to −42 feet.

• Entrance Channel would be deepened from −42 feet mean lower low water (MLLW) to −50 feet MLLW, with side slopes of 1—vertical to 3—horizontal. The entrance channel would be widened 100 feet.

• Outer Harbor Channel would be deepened from −42 feet mean lower low water (MLLW) to −50 feet MLLW, with side slopes of 1—vertical to 3—horizontal. That portion of the Outer Harbor Channel containing the Outer Harbor Turning Basin would be widened 120 feet to provide a turning basin 1,600 feet in diameter.

• Inner Harbor Channel would be deepened from −42 feet mean lower low water (MLLW) to −50 feet MLLW, with side slopes of 1—vertical to 3—horizontal. The Inner Harbor channel will be widened to 750 feet by excavation at the western edge (Oakland side) of proposed new berths to safely accommodate the larger sixth generation vessels while also allowing moored vessels to be present at existing berths (APL and Howard terminals) and in the area of the new berths.

• Inner Harbor Turning Basin would be widened to provide a basin 1,500 feet in diameter. The widening will occur on both sides of the channel, and will excavate part of the former Alameda Naval Air Station.

• Construction of the recommended plan—50 ft MLLW will require excavation of approximately 12.8 million cubic yards (mcy) of dredged material. Approximately 7.0 mcy would be deposited at the Middle Harbor Habitat Enhancement Area (MHEA) and 300,000 cy would be reused upland for construction of port facilities at the Port's Vision 2000 Plan. Up to 2.5 mcy could be used for wetland restoration at Hamilton airfield and up to 2.9 mcy could be used for wetland restoration at Montezuma. Alternatively, the excess material would be disposed of at the San Francisco Deep Ocean Disposal Site. Additionally, up to 100,000 cy may also be taken offsite to a landfill.

b. Environmental Features: The plan seeks to take maximum advantage of opportunities to beneficially reuse dredged material. In addition to the upland reuse for construction of port facilities, the plan includes the following features.

• Middle Harbor Environmental Enhancement Area (MHEA): The MHEA is a key component of the proposed project, is a reuse/disposal option close to the dredging, it could accommodate 7 mcy. It is owned by the Port. Middle Harbor is an approximately 200–acre area. It is proposed to place material here to create approximately 120 acres of shallow water habitat. The Middle Harbor area is no longer required for active maritime operations due to the closure of the Fleet Industrial Supply Center Oakland (FISCO), and the Port's plan to create five new berths and a tug wharf along the Inner Harbor. Two aspects of this plan are unresolved, whether this proposed fill in the bay will be permitted by the Bay Conserva-

tion and Development Commission (BCDC) and the use of some of the material in an aquatic site.

• Hamilton Wetlands Restoration Site: This potential beneficial reuse option is a wetlands restoration project designed to accept dredged material suitable for unconfined aquatic disposal (including wetland cover) from a variety of dredging projects to assist with the restoration of former wetlands at a site being transferred to the state of California for reuse under BRAC 1988. The Hamilton site consists of three parcels in Novato, California, including the former Hamilton Army Airfield, adjacent ball fields and the former Antenna Field. The BCDC and the Coastal Conservancy will seek Congressional authorization for the proposed Hamilton Wetlands Restoration project. It is uncertain whether this authorization will be obtained in time for the site to be ready to accept Oakland Harbor sediment. Beneficial use of dredged material from the Oakland Harbor project would proportionally restore about 228 acres at the Hamilton wetlands restoration site.

• Montezuma Wetlands: This potential beneficial reuse option is a wetlands restoration project designed to accept dredged material suitable for unconfined aquatic disposal (including wetland cover) from a variety of dredging projects. The Montezuma site will be privately constructed and the project sponsor proposes to charge a tipping fee for accepting dredged material. The environmental documentation for this project has not been completed, and it is uncertain whether the required permits and facilities would be in place in time for the proposed project. Beneficial use of dredged material from the Oakland Harbor project would proportionally restore about 542 acres at the Montezuma wetlands project.

Views of States, Non-Federal Interests and Other Countries: The plan preferred by the Port of Oakland deepens the Oakland Harbor to 50 feet (entrance channel, outer harbor and inner harbor).

Views of Federal and Regional Agencies: No significant issue raised.

Status of NEPA Document: The EIS was filed 13 February 1998.

Estimated Implementation Costs: (October 1998 price levels).

	Cost-sharing
Federal (Agency/Purpose): Corps of Engineers/Navigation	$90,650,000
Beneficial Use of Dredged Material/Ecosystem Restoration	37,770,000
(Additional cash contribution over time after credit for LERR)	-599,000
Subtotal Corps	127,821,000
Aids to Navigation	260,000
Subtotal Federal	128,081,000
Non-Federal (Specify state/local sponsors): Port of Oakland/Navigation	53,840,000
LERR	13,850,000
Beneficial Use of Dredged Material/Ecosystem Restoration	12,600,000
(Additional cash contribution over time after credit for LERR)	599,000
Subtotal Non-Federal	80,889,000
Berthing, local service facilities, and owner relocations	43,320,000
Total non-Federal	124,209,000
Estimated Total First Cost	252,290,000

Description of Non-Federal Implementation Costs: Non-Federal costs identified above include lands, easements, rights-of-way, relocations, and dredge material disposal areas and costs of deepening berthing areas/local service facilities required for the project. The non-Federal sponsor is required to provide during the period of construction, a cash contribution equal to 25 percent of the total cost of construction attributable to the general navigation features (GNF) between −42 feet and −45 feet; a cash contribution equal to 50 percent of the total cost of construction attributable to GNF between −45 feet and −50 feet (NED plan), plus repay with interest, over a period not to exceed 30 years following completion of the period of construction of the project, an additional 10 percent of the total cost of construction of general navigation features. The non-Federal costs also include a cash contribution equal to 25 percent of the total costs attributable to ecosystem restoration. The non-Federal costs identified above included lands, easements and rights-of-way, relocations and disposal areas; costs associated with deepening the berthing areas/local service facilities required for the project. The value of lands easements and rights of way are estimated at $13,850,000.

Estimated Annual O&M Costs: (October 1998 price levels).

	Cost-sharing
Federal (Agency/Purpose): Corps of Engineers/Navigation	$295,000
Subtotal	295,000
Non-Federal (Specify state/local sponsors): Port of Oakland/Navigation	135,000
Subtotal	135,000
Total	430,000

Description of Non-Federal O&M Cost: The non-Federal sponsor is responsible for 50 percent of maintenance dredging associated with the increase in depth between -45 ft and -50 feet.

Estimated Effects:

Account	Average annual equivalent beneficial effects ($1000)	Average annual adverse effects ($1000)
Navigation	$187,870	$23,290

Benefit-Cost Ratio: 8.1 to 1 (Current Discount Rate: 6.875%)

(5) Delaware Bay Coastline—Delaware & New Jersey: Reeds Beach to Pierces Point, New Jersey.—

Location of Study Area: The Reeds Beach to Pierces Point study area is located on the southern tip of New Jersey in Middle Township, Cape May County, and extends from Bidwell Creek at the north end of Reeds Beach southward approximately 3 miles to Pierces Point.

Authority for Report: Authorization to undertake this study was established by a resolution adopted by the Committee on Public Works and Transportation, United States House of Representatives, on 1 October, 1986.

Problems and Opportunities Identified in the Study Area: The Reeds Beach and Pierces Point areas have experienced environ-

mental degradation due to shoreline erosion and storm damage over the years. Several related problems have been identified. These problems include:

—Loss of beach and dune habitat due to past and continuing shoreline erosion, including loss of essential habitat for: migrating shorebirds, horseshoe crab spawning, threatened and endangered species (such as least tern and piping plover).

—Loss of wetlands and related habitat due to past and continuing shoreline erosion, including loss of diamond back terrapin habitat in dunes and adjacent marshes.

—Encroachment of the shoreline toward public roads and the potential loss of road access.

—Potential physical damage to structures in the study area (approximately 130 residential and 2 commercial structures).

Alternative Plans Considered: Alternative measures evaluated for comparative purposes included variations of berm restoration, dune construction, bulkhead groin field construction, and offshore detached breakwater construction.

Description of Recommended Plan: The selected plan for Reeds Beach and Pierces Point bay frontage provides environmental restoration by means of construction of a beach. A berm will be constructed to provide habitat for the horseshoe crab and the least tern. The horseshoe crab is a critical food source to many species of migratory shorebirds and migratory birds. The numbers of horseshoe crabs have declined in the area due to lack of suitable beach habitat. The material is to be taken from Borrow Area A offshore from Town Bank.

Due to the relatively low long-term erosion rate (less than 1 foot per year) and the fact that approximately 80% of the project's environmental benefits are estimated to remain at the end of the 50–year project life, no periodic nourishment will be performed for this project. Environmental monitoring will also be performed for this project at a total cost of $125,000 over a 5-year period.

Physical Data on Project Features: The entire project length of the selected plan is 6,800 feet, including tapers. The beachfill will extend the entire length of Pierces Point with a 300 foot taper at the northern end (terminating before an existing creek) and a 500 foot taper at the southern end. The total length of the project at Pierces Point, including tapers, is 2,600 feet. The beachfill at Reeds Beach will extend from the southern end and run north to approximately 1,250 feet south of the stone jetty at the entrance to Bidwell Creek. There will be a 500–foot taper at both the northern and southern ends. The total length of the project at Reeds Beach, including tapers, is 4,200 feet.

The beachfill will consist of an 80–foot wide berm. The landward elevation of the berm is +5.5 feet North American Vertical Datum (NAVD) and the seaward elevation is +3.5 feet NAVD. The initial beachfill for Pierces Point will require a total volume of 78,000 cubic yards of sand. The initial beachfill for Reeds Beach will require a total volume of 171,000 cubic yards of sand. The material is to be taken from Borrow Area A offshore from Town Bank.

Views of States, Non-Federal Interests and Other Countries: Sponsorship for the project will be provided by the New Jersey De-

partment of Environmental Protection (NJDEP). NJDEP has expressed its support for the recommended restoration plan.

Views of Federal and Regional Agencies: A Planning Aid Report has been prepared by the USFWS, and is included in the Final Reeds Beach to Pierces Point, NJ Interim Feasibility Report. Comments and concerns from other Federal, State and local agencies have been addressed in the final report. There are no significant outstanding issues.

Status of NEPA Documentation: Comments and concerns from Federal, State, and local agencies and the public regarding the Draft Environmental Assessment (EA) have been addressed and are included in the Final Integrated Feasibility Report and Environmental Assessment.

Estimated Implementation Costs: (October 1998 Price Level).

	Cost-sharing
Initial Construction:	
Federal: Corps of Engineers	$2,637,000
Non-Federal: New Jersey Department of Environmental Protection	1,420,000
Total	4,057,000

Description of Non-Federal Implementation Costs: (October 1998 Price Level).

Initial Construction	
LERRD	$333,000
Cash	1,087,000
Total	1,420,000

Estimated Annual O&M Costs: (October 1998 Price Level).

Federal: Corps of Engineers	0
Non-Federal: New Jersey Department of Environmental Protection	$11,400

Description of Non-Federal O&M Costs: Annual O&M cost associated with this project includes costs for hydraulic and environmental monitoring of the project.

Estimated Effects: The recommended plan will provide for the restoration of approximately 13.5 Habitat Units for horseshoe crab habitat and 17.0 Habitat Units for least tern habitat. The recommended plan also provides incidental national economic development benefits associated with the prevention of storm damages. Average annual economic benefits associated with storm damage reduction are estimated to be $612,200 at October 1998 price levels. Regional development is further enhanced by increasing the quality of the recreation experience offered in and adjacent to the project site.

(6) Delaware Bay Coastline: Delaware and New Jersey—Villas & Vicinity, New Jersey.—

Location of the Study Area: The Villas and Vicinity study area is located in Cape May County, New Jersey, and extends approximately 6 miles from the Delaware Bay entrance to the Cape May Canal northward to Norbury's Landing. The study area includes the communities of North Cape May, Town Bank, Villas, and Sunray Beach.

Authority for Report: Authorization to undertake this study was established by a resolution adopted by the Committee on Public

Works and Transportation, United States House of Representatives, on 1 October, 1986.

Problems and Opportunities Identified in the Study: The Villas and Vicinity study area has experienced shoreline erosion over the years. Several related problems have been identified including:

a. Loss of beach and dune habitat due to past and continuing shoreline erosion.

b. Encroachment of the shoreline toward wetlands, and the potential for habitat loss as the erosion continues.

c. Potential physical damage to structures in the study area (601 residential and 8 commercial).

The opportunity exists to address some or all of the problems identified in the study area with development and construction of an ecosystem restoration project. Based on the results of problem identification, formulation studies focused on the northern portion of the study area where narrow beaches and diminished dunes provide the greatest opportunity for ecosystem restoration.

Alternative Plans Considered: The solutions considered included both nonstructural and structural measures. The project alternative measures considered are as follows: (1) Non-structural measures considered consisted of the no Federal action and permanent evacuation; and (2) structural measures considered consisted of berm restoration, berm restoration with dune, bulkhead, groin field with berm restoration and dune, offshore detached breakwater with berm restoration and dune, perched beach with berm restoration and dune, seawall, and seawall with berm restoration.

The plan formulation screening process eliminated most of the alternatives considered in this study, and concluded that formulation should proceed primarily for environmental purposes, given the limited potential for economic benefits to justify hurricane and storm damage reduction. The solutions recommended for detailed study included: berm restoration and berm restoration and dune.

Description of Recommended Plan: The plan developed by the district engineer for ecosystem restoration consists of an 80 foot wide berm approximately 29,000 feet in length.

Physical Data on Project Features: The recommended plan for environmental protection and restoration at the Villas and Vicinity consists of the following:

- A berm with a total width of 80 feet measured bayward from the design line, with a crest elevation of +4.7 feet NAVD and sloping bayward from +4.7 feet to +2.7 feet NAVD. The beachfill extends from Rosewood Avenue in the Villas northward to the southern boundary of the adjacent Reeds Beach to Pierces Point study area for a total length of 28,500 linear feet. A taper of 500 feet extends from the southern limit of the project, bringing the total project length to approximately 29,000 feet.
- From the offshore borrow area, a total sand fill quantity of 950,000 cubic yards. There is no periodic nourishment included in the recommended plan.
- Beachfill for the proposed project is available from an offshore borrow area located between 500 to 3000 feet offshore of Town Bank.
- To properly assess the functioning of the proposed plan, monitoring of the placed beachfill, borrow area, shoreline, wave and lit-

toral environment is included with the plan. Environmental monitoring is being addressed through coordination with other interested agencies, and will be finalized in the Final Environmental Assessment.

Views of States, Non-Federal Interests, and Other Countries: Sponsorship for the project will be provided by the State of New Jersey Department of Environmental Protection (NJDEP). NJDEP has expressed its support for an ecosystem restoration plan. However during coordination of the draft report, issues were raised by some local interests. This led to the State's request of 30 October 1997 for a delay of the final report submission to reconsider its position on the project. Upon coordination with other state and local agencies with an interest in the study area, the sponsor requested that the final report be prepared and reaffirmed its support in a letter dated 14 January 1998. A revised Draft Feasibility Report and Environmental Assessment was distributed in June 1998 for agency and public coordination. In a letter dated 15 December 1998, the non-Federal sponsor expressed support for the project.

Views of Federal and Regional Agencies: All comments letters and responses are provided in the final report, including a Supplemental Section 2(b) report prepared by the United States Fish and Wildlife Service dated 24 July 1998. There are no significant issues at this time.

Status of Final Environmental Statement: Comments from the public and agency review of the Draft and Revised Draft Environmental Assessments were received. The Final Environmental Assessment addresses the comments, and is included with the Final Feasibility Report.

Estimated Implementation Costs: (October 1998 price level).

Initial Construction:	
Federal: Corps of Engineers—Ecosystem Restoration	$4,888,000
Non-Federal: New Jersey Department of Environmental Protection	2,632,000
Total	7,520,000

Description of Non-Federal Implementation Costs: The sponsor will be required to provide cash and LERRDS for construction of the project. Note: the project does not contain periodic nourishment.

Initial Construction:	
LERRD	$292,000
Cash	2,340,000
Total	2,632,000

Estimated Annual O&M Costs: (October 1998 price level).

Federal: Corps of Engineers	0
Non-Federal: New Jersey Department of Environmental Protection	$11,300

Description of non-Federal O&M Costs: Annual O&M costs associated with this project include beach shaping, beach surveys and project monitoring.

Estimated Effects: The recommended plan will provide for the restoration of approximately 82 acres of beach habitat. This plan maximizes the Environmental Quality (EQ) attributes. Because the outcome of the construction actions recommended by this study will be fish and wildlife habitat benefits which are not amenable to

monetary benefit analysis, no National Economic Development (NED) plan was presented. Over the 50-year life of the project, the recommended plan will restore 155 fish and wildlife habitat units (73 HU's for horseshoe crab and 82 HU's for least tern). The benefit/cost ratio has not been calculated since the environmental benefits are not monetarily quantified.

(7) Delaware Coast From Cape Henlopen to Fenwick Island, Bethany Beach/South Bethany Beach, Delaware.—

Location: The study area extends from 1260 feet north and south of the town boundaries of Bethany Beach and 1540 feet north and south of the town boundaries of South Bethany, for a total length of 14,950 feet.

Problems and Opportunities Identified in the Study Area: Progressive and constant erosion is evident in certain areas of the shoreline. In an attempt to prevent further erosion of the shoreline, the State of Delaware has performed a number of beachfills on an as-needed basis. Despite the efforts undertaken by the State of Delaware, the shoreline continues to erode. Long-term erosion has resulted in a persistent reduction in storm damage protection by reducing the height and width of the beachfront.

Alternative Plans Considered: Alternatives considered included both nonstructural and structural measures. Nonstructural measures given consideration included: No Federal Action; Floodplain Management; and Permanent Evacuation. Structural measures given consideration included: Berm Restoration; Berm Restoration with Dune; Groins; Bulkheads; Offshore Detached Breakwater; Seawall; and Perched Beach. The plan formulation screening process eliminated most of the alternative measures considered in this study. Alternatives recommended for detailed optimization to determine the NED plan included: Berm Restoration; and Berm Restoration with Dune.

Description of Selected Plan: The selected plan extends 14,950 feet along the shorefront of Bethany Beach and South Bethany. The plan consists of a 150-foot wide berm at an elevation of +7.0 feet NAVD, and a dune with a top elevation of +16.0 feet NAVD and crest width of 25 feet. The plan includes dune grass, dune fencing, and suitable beachfill with periodic nourishment to ensure the integrity of the design.

Physical Data on Project Features:

The selected shore protection plan extends 14,950 feet along the shorefront of Bethany Beach and South Bethany, and consists of:

A 150 ft wide berm at an elevation of +7.0 ft NAVD.

A dune with a top elevation of +16.0 ft NAVD and a top width of 25 ft.

A total initial quantity of 2,748,000 cubic yards dredged from the designated borrow area will be placed along the area. This fill quantity includes initial design fill requirements and advanced nourishment.

116,160 s.y. of planted dune grass for sand entrapment

27,425 l.f. of sand fence to maintain dune stability.

Renourishment of approximately 480,000 cubic yards of sand fill from the designated borrow area every 3 years for the 50–year project life.

Monitoring of the placed beachfill and borrow area is included in the plan.

Views of States, Non-Federal Interests and Other Countries: Sponsorship for the project will be provided by the State of Delaware Department of Natural Resources and Environmental Control (DNREC). DNREC has expressed its support for the project in a letter dated 19 October 1998.

Views of Federal and Regional Agencies: All comment letters and responses will be provided in the final report, including a Section 2(b) report prepared by the United States Fish and Wildlife Service. No major or significant views were expressed by the agencies.

Status of NEPA Document: Comments from the Public and Agency review of the draft Environmental Impact Statement were received. The final Environmental Impact Statement addresses the comments, and is included in the final Feasibility Report.

Estimated Implementation Costs: (October 1998 price level).

Initial Construction:	
Federal: Corps of Engineers—Shore Protection	$14,433,000
Non-Federal: Delaware Department of Natural Resources and Environmental Control	7,772,000
Total	22,205,000
Periodic Nourishment (average annual cost of future construction over the 50 year life of the project):	
Federal: Corps of Engineers—Shore Protection	1,030,000
Non-Federal: Delaware Department of Natural Resources and Environmental Control	554,000
Total	1,584,000

Description of Non-Federal Implementation Costs: In addition to providing cash and LERRDS for the initial construction of the project, the sponsor will be required to provide 35 percent of the cost of the periodic nourishment over the 50-year life of the project.

Initial Construction:	
LERRD	$326,000
Cash	7,446,000
Total	7,772,000
Periodic Nourishment (annualized):	
Cash	554,000
Total	554,000

Estimated Annual O&M Costs: (October 1998 price level).

Federal: Corps of Engineers	0
Non-Federal: Delaware Department of Natural Resources and Environmental Control	$45,000

Description of Non-Federal O&M Costs: Annual O&M costs associated with this project include costs for maintenance of sand fence and replanting of dune grass as needed. Annual surveys of the beachfill and O&M project monitoring purposes are also the responsibility of the non-Federal sponsor.

Estimated Effects:

Account	Average annual equivalent beneficial effects ($1,000)	Average annual adverse effects ($1,000)
Purposes—Storm Damage Reduction: Net National Economic Development	5,604	3,295

Account	Average annual equivalent beneficial effects ($1,000)	Average annual adverse effects ($1,000)
Total	5,604	3,295

Benefit-Cost Ratio: 1.6 (Current Discount Rate—6.875%).

(8) Little Talbot Island, Duval County, Florida.—

Location: Little Talbot Island is located on the upper east coast of Florida in Duval County. Little Talbot Island is within twenty miles of the Florida-Georgia border.

Problems and Opportunities Identified in the Study: The problems in the study area concern coastal flooding, shoreline erosion and storm wave damage. Several times yearly, coastal flooding and storm waves damage State Road A1A/SR–105, which is the main route used to travel between Amelia Island and the Jacksonville metropolitan area. The existing shoreline has some dumped stone placed against the bank to provide some stabilization. This stone has not been effective in providing shore protection and the bank continues to erode. The study area along the southern tip of Little Talbot Island extends approximately 3,300 feet east of the State Road A1A/SR–105 bridge crossing over Fort George River and 2,400 feet west of the bridge. The average elevation of the southern tip of Little Talbot Island in the study area is +10.0 feet mean low water (MLW).

Alternative Plans Under Consideration: Alternatives considered during the study included beach nourishment, nearshore placement of sand, construction of seawalls, groins, and stone revetment and breakwaters, raising the roadway elevation of State Road A1A/SR–105, and a no-action plan. Both structural and nonstructural measures were evaluated. Those alternatives that were believed to be detrimental to the natural resources of the area or not cost effective were eliminated from further analysis at the beginning of the study.

Description of Recommended Plan: The selected plan consists of the construction of a 3,300 foot long stone revetment over the existing rubble on the east side of the bridge. The Florida Department of Transportation (FDOT) intends to rehabilitate the bridge within the next few years and will raise the elevation of 2,400 feet of State Road A1A/SR–105 on the western approach of the bridge. Therefore, protection of this reach is not necessary.

Physical Data on Project Features:

a. Stone Riprap:

Project Length—3,300 feet.

Structure Crest—+10 MLW.

Stone Weight (lb)—550–2,100 lb.

Side Slopes—1 vertical on 2 horizontal.

Views of States, Non-Federal Interests, and Other Countries: FDOT stated their intent to be the non-Federal sponsor for the project in a letter dated October 26, 1998.

Views of Federal and Regional Agencies: The recommended plan has been reviewed by interested agencies and groups during coordination of the report. They concur with the findings expressed in the report and support the recommended plan.

Status of NEPA Document: The final EA is included in the Final report and the FONSI was signed on 10 June 1997.

Estimated Implementation Costs: (October 1998 price levels).

	Cost sharing
Federal:	
Corps of Engineers:	
Shore Protection	$3,839,000
Subtotal	3,839,000
Non-Federal:	
Florida Department of Transportation:	
Shore Protection	2,065,000
Lands, easements, rights-of-way	11,000
Subtotal	2,076,000
Total	5,915,000

Description of Non-Federal Implementation Costs: Lands, easements and rights-of-way is $14,000 and relocation of structures and utilities is $30,000. The cost of the shore protection project is shared at 65% Federal and 35% non-Federal. The non-Federal associated cost for the highway raising is $590,000.

Estimated Annual O&M Costs: Non-Federal—$53,000.

Description of Non-Federal O&M Cost: The Non-Federal sponsor is responsible for O&M costs of the stone revetment.

Estimated Effects: (October 1998 price levels).

Account	Average annual equivalent beneficial effects	Average annual adverse effects
National Economic Development:		
Shore Protection	$1,345,000	$475,000

Benefit-Cost Ratio: 2.8 (Current Discount Rate: 6–⅞%).

(9) Ponce De Leon Inlet, Volusia County, Florida.—

Location: The project is located in Volusia County on the east coast of Florida, about 65 miles south of St. Augustine Harbor and 57 miles north of Canaveral Harbor. The existing navigation project was authorized in the River and Harbor Act of 1965. That project consists of an entrance channel from the Atlantic Ocean which provides access to a northwesterly channel along the Halifax River and a southeasterly channel along the Indian River. Both inner harbor channels connect with the Atlantic Intracoastal Waterway.

Problems and Opportunities Identified in Study: The existing channels in Ponce DeLeon Inlet are experiencing extensive shoaling and costly maintenance. The feasibility report evaluated the inlet stability, maintenance and related navigation problems in the Ponce DeLeon Inlet area. Of specific concern are the impacts and needs of the Port Authority, charter boat operators, commercial fishermen, general recreational boaters and concerns of the U.S. Coast Guard (USCG). USCG search and rescue data from 1981 to 1991 indicates that 20 lives have been lost in the area of the inlet.

Alternative Plans Under Consideration: Extending the south jetty 500, 800, or 1,000 feet along two different orientations was considered in combination with other measures to stabilize the inlet. Re-

opening the north jetty weir to various lengths; realignment of the entrance channel by construction of a channel through the north spit overlying the past historical breakthrough location; construction of a groin field along the sand spit inside the inlet and adjacent to the north jetty spit; and a landward extension of the north jetty in conjunction with revetment along the north sand spit represented other measures considered.

Description of Recommended Plan. Extending the south jetty by 1,000 feet parallel to the existing north jetty provided the best hydrodynamic improvements to the inlet.

Physical Data on Project Features: The new modifications to the existing Federal channels will consist of the following features:

a. 1000-foot South Jetty Extension—The cross-section of the 1000-foot south jetty extension is similar to the cross-section used during the original jetty construction. The only modifications made were steepening of the side slopes from 1:2 to 1:1.5, and the addition of a 30–foot scour apron on the inside (north side) of the jetty, to prevent damage to the jetty from the scouring which is expected upon completion of the extension, The crest elevation of the extension will match the elevation of the original jetty, but the crest width will increase from the jetty's 10 feet to 15 feet along the extension, in accordance with current design procedures which require a minimum of 3 stones across the width of the structure. A taper will be constructed to provide a smooth transition from the original jetty's 10-foot width to the extension's 15-foot width.

Views of States, Non-Federal Interests and Other Countries: Public views and comments have been solicited at various points during the study process. In general, public agencies concurred with the study approach and list of measures presented for stabilization of the inlet.

Views of Federal, and Regional Agencies: USFWS and the Florida State Department of Environmental Protection both support the recommended project, however express concern for the safety of manatees and sea turtles during construction. If trucks are used to haul rock along the beach during construction of the south jetty extension, arrangements will be made to locate and move sea turtle eggs during the nesting season.

Status of NEPA Document: A Finding of No Significant Impact has been signed.

Estimated Implementation Costs: (October 1998 price level).

	Cost sharing
Federal:	
Corps of Engineers:	
General Navigation Facilities	$2,976,000
U.S. Coast Guard:	
Navigation Aids	12,000
Subtotal	$2,988,000
Non-Federal:	
Ponce DeLeon Inlet Port Authority:	
General Navigation Facilities	$2,466,000
Total	$5,454,000

Description of Non-Federal Implementation Costs: Non-Federal interests are responsible for all costs for lands, easements, rights-of-way, relocations, and dredging of berthing areas. The non-Fed-

eral share of the general navigation facilities producing commercial and recreational benefits is allocated to the purposes served. For commercial navigation, the non-Federal share is 20 percent, or 10 percent cash contribution during construction and 10 percent repayment over 30 years. The non-Federal share of construction for recreation navigation is 50 percent.

Estimated Annual O&M Costs: The total estimated annual O&M costs is $225,000. O&M will be cost shared based on the project's commercial and recreational navigation purposes as follows:

Description of non-Federal O&M Costs: The Non-Federal sponsor is responsible for the O&M costs assigned to recreational navigation.

Estimated Effects:

Account	Average annual equivalent beneficial effects ($1,000)	Average annual adverse effects ($1,000)
National Economic Development:		
Navigation	$567	$419
Total	$567	$419

Benefit-Cost Ratio: 1.4 (Current Discount Rate: 6⅞%)

(10) Savannah Harbor Expansion, Georgia.—

Location: Savannah Harbor is located on the Lower Savannah River, on the state border between Georgia and South Carolina. The project is located adjacent to the City of Savannah.

Problems and Opportunities Identified: Since the last Savannah Harbor deepening, the Georgia Ports Authority has experienced a growth in container ship size which has far exceeded projections. The purpose of this study is to readdress the economic projections and to ascertain the NED and recommended plan for further deepening of the Harbor.

Alternative Plans Considered: The non-Federal sponsor investigated deepening the harbor in two-foot increments from the present depth of −42 feet mean low water (MLW) to −50 feet MLW. The NED and Recommended plan is deepening to 48 feet mean low water.

Physical Data of Project Features: The non-Federal sponsor recommends a plan that consists of the following modifications to the existing Federal Navigation Project:

(a) deepening the entrance channel up to −50 feet Mean Low Water (MLW);

(b) deepening the inner harbor *up* to −48 feet;

(c) widening bends in the entrance channel and inner harbor at 12 locations;

(d) enlarging the Kings Island Turning Basin to a width of 1,676 feet and mitigation that includes a cultural resources mitigation plan, a natural resources mitigation plan, and an impact avoidance plan.

Views of States, Non-Federal Interests and Other Countries: Responses to draft documents indicate that additional environmental analyses are needed to further identify and evaluate all the impacts of alternative depths and develop an acceptable mitigation plan.

Views of Federal and Regional Agencies: Responses to draft documents indicate that additional environmental analyses are needed to further identify and evaluate all the impacts of alternative depths and develop an acceptable mitigation plan.

Status of NEPA Document: A Final Tier I EIS was filed with EPA on 18 September, 1998.

Estimated Implementation Costs: (October 1998 price level).

Federal:	
Corps of Engineers:	
General Navigation Facilities	$144,328,000
U.S. Coast Guard:	
Aids to Navigation	832,000
Subtotal	145,160,000
Non-Federal:	
Georgia Ports Authority	
General Navigation Facilities	84,548,000
Berthing Areas	466,000
Subtotal	85,014,000
Total	$230,174,000

Description of Non-Federal Implementation Costs: The Local Sponsor will be required to acquire the proper real estate interests for the land adjoining the project that either will be directly impacted from the deepening of the harbor, and the land used in temporary easements for construction and river access. The cost will be credited against the sponsor's 10 percent cash cost share.

Estimated Annual O&M Costs: (October 1998 price levels).

Federal:	
Corps of Engineers:	
Increased cost of maintenance dredging	153,000
Non-Federal	None

Estimated Effects:

Account	Average annual equivalent beneficial effects ($1,000)	Average annual adverse effects ($1,000)
National Economic Development	$54,220	$16,415
Total	54,220	16,415

Benefit-Cost Ratio: 3.0 (Current Discount Rate: 6⅞%)

The Committee notes that both the Chief of Engineer's Tier I Environmental Impact Statement and Feasibility Report provide for the establishment of a Stakeholders Evaluation Group ("SEG"). The Committee understands that the SEG's early and consistent involvement in the project is an integral and essential component of the project. The SEG process as outlined in the EIS requires the development of a consensus concerning a mitigation plan to fully and adequately address predicted and potential adverse impacts on, among other things: the Savannah National Wildlife Refuge; striped bass population; shortnose sturgeon; wetlands; chloride levels; dissolved oxygen levels; erosion and historical resources. The Committee further notes that, consistent with the philosophy expressed by Congress in Section 906(a) of the Water Resources De-

velopment Act of 1986, which requires mitigation related to fish and wildlife resources, the Chief of Engineers and Secretary must ensure that the SEG-developed mitigation plan addressing adverse project impacts is implemented in advance of or concurrent with project construction, and must also ensure that project cost estimates are sufficient to address the mitigation alternatives. The Committee understands that neither the Secretary nor the Georgia Port Authority will proceed with final design or construction of the project until the respective department heads concur in an appropriate implementation plan and mitigation plan. Finally, the Committee intends that the Chief of Engineers and Secretary ensure that any requests for funds to be appropriated by Congress for project construction are allocated in a manner that ensures project impacts are fully and adequately mitigated and are otherwise consistent with the SEG-developed mitigation plan.

(11) Des Plaines River, Illinois.—

Location: Chicagoland Area, Illinois. The study area includes the Cook and Lake Counties portion of the watershed for which the drainage area is 67 square miles.

Problems and Opportunities Identified in Study: The Des Plaines River is subject to severe overbank flooding due to inadequate channel capacity to carry peak flows during major storm events. Damaging floods in this primarily urban watershed have occurred in 1938, 1948, 1950, 1954, 1957, 1960, 1962, 1965, 1972, 1974, 1976, 1979, 1986, 1987, and 1996. The 1986 and 1987 floods together caused damages exceeding $100 million. Flooding affects transportation, homes, commercial/industrial sites, public/municipal sites, streets, golf courses, cemeteries, and recreation/open space areas. Average annual damages for baseline conditions (2004) are estimated at $24.5 million and will increase to $26.9 million in 2010 due to continued urbanization.

Alternative Plans Considered: A full range of structural and nonstructural measures were considered. Structural measures included flood water storage facilities, channel and bridge modifications, diversions, and levees. Non-structural measures included floodproofing and acquisition of structures and flood warning and emergency preparedness. Storage facilities and levees were the most cost-effective solutions.

Description of Recommended Plan: The recommended plan consists of expansion of three existing reservoirs, one new lateral storage area, and two levees. The project features function as a system to reduce baseline conditions average annual damages by 25 percent. The levees will exempt the protected areas from the Federal Emergency Management Agency's National Flood Insurance Program. They will have a 95 percent chance of containing the 1 percent chance flood event in any one year. The proposed levee projects will reduce the areal extent of the Federal Emergency Management Agency regulatory floodplain. Remapping of the floodplain will clearly identify that portion of the flood plain which will be removed from the flood hazard potential, and any portion which remains subject to the National Flood Insurance Program.

Physical Data on Project Features:

North Fork Mill Creek Reservoir—The existing dam will be raised 3 feet and will be approximately 900 feet in length. The pri-

mary outlet will be a 10' x 2' box outlet structure. An emergency spillway will be constructed with a length of 830 feet. The resulting storage volume will be 1040 acre-feet.

Buffalo Creek Reservoir Expansion—An additional 500 acre-feet of storage will be created by excavation in conjunction with lowering the design water elevation of the two existing permanent pools to create one permanent pool.

Big Bend Lake Expansion—An additional 590 acre-ft of storage will be created by excavation in conjunction with lowering the design water elevation of the existing permanent pool.

Van Patton Woods Lateral Storage Area—This storage area has two sections providing a total of 412 acre-feet of storage. The eastern section is 3,700 feet long with an average height of 7 feet and the western section is 3,400 long with an average height of 7 feet.

Mount Prospect/Prospect Heights Levee—An earth levee about 8,000 feet long, with a height varying from 2 to 9 feet.

Rand Park Levee—An earth levee about 2,600 feet long, with a height varying from 3 to 7 feet.

Mitigation—The project will impact 4 acres of forested wetlands, 10 acres of upland prairie, and 72 acres of emergent wetlands. Mitigation for these impacts is proposed to be accomplished by establishing 15 acres of forested wetlands and 50 acres of emergent wetlands on property owned by the Lake County Forest Preserve District.

Views of States, Non-Federal Interests and Others: The recommended plan is a locally preferred plan that reflects the sponsors' constraints concerning the use of forest preserve lands, encroachment on private property, and local regulations on mitigation of induced flooding impacts. The local sponsors (i.e., the Metropolitan Water Reclamation District of Greater Chicago, the State of Illinois, and the Lake County Stormwater Management Commission) and numerous municipalities in the study area have expressed support for the recommended project.

Views of Federal and Regional Agencies: Federal, State, and regional agencies have been consulted during the development of the draft feasibility report and their views and recommendations have been considered. The proposed measures for mitigation of environmental impacts are based on the recommendations contained in the U.S. Fish and Wildlife Service's Coordination Act Report.

Status of National Environmental Policy Act Document: The draft Environmental Impact Statement was filed with EPA on 9 April 1999. The public review period expires on 4 June 1999.

Estimated Implementation Costs: (October 1998 Price Levels) (All costs are allocated to flood damage reduction).

Federal	$31,700,000
Non-Federal	17,100,000
Total	48,800,000

Description of Non-Federal Implementation Costs: Non-federal implementation costs are based on their responsibilities to provide lands, easements, and rights-of-ways ($9,100,000); relocations ($1,800,000); and a cash contribution equal to 5% of the total project cost plus additional cash to make its total contribution equal to 35% of the total project cost ($6,200,000). The local spon-

sor will apply for credit under Section 104 of the Water Resources Development Act of 1986 for construction of the Rand Park Levee at a total estimated first cost of $8.5 million.

Description of Non-Federal O&M Cost: For the levees and lateral storage areas, the local sponsor will have to periodically mow and remove excessive vegetation, maintain structures in working order, remove debris and sediment, and maintain the levee section and landscaping. The sponsor is also responsible for the repair, rehabilitation, and replacement of culverts, gates, and other structural features of the levees. Requirements for the reservoirs are similar and include additional features such as access roads and pump stations.

Benefit-Cost Ratio: 1.7 (Current Discount Rate: 6⅞%).

(12) New Jersey Shore Protection, Brigantine Inlet to Great Egg Harbor Brigantine Island, New Jersey.—

Location: The study area is located along the open coastline of southern New Jersey, entirely within Atlantic County. Brigantine Island is approximately 6.5 miles in length, extending from Brigantine Inlet to Absecon Inlet.

Problems and Opportunities Identified in the Study Area: Significant beach and dune erosion has left Brigantine Island vulnerable to storm damages. Severe storms in recent years have caused a reduction in the overall beach height and width along the study area, which, along with the absence of significant dunes, exposes the community of Brigantine to catastrophic damage from ocean flooding and wave attack. In an attempt to prevent further erosion of a portion of the shoreline, the State of New Jersey and the City of Brigantine have rehabilitated an oceanfront bulkhead and constructed an emergency beachfill.

Alternative Plans Considered: Alternatives considered included both nonstructural and structural measures. Nonstructural measures given consideration included: No Federal Action; Regulation of Future Development; and Permanent Evacuation. Structural measures given consideration included: Beach Restoration; Bulkhead; Seawall; Beach and Dune Restoration; Beach and Dune Restoration with Groin Field; Beach and Dune Restoration with Submerged Offshore Reef; Beach and Dune Restoration with Groin Field and Submerged Offshore Reef; Beach and Dune Restoration with Offshore Detached Breakwater; Beach and Dune Restoration with Perched Beach; Offshore Submerged Feeder Berm; and Beach Dewatering. The plan formulation screening process eliminated most of the alternative measures considered in this study. Alternatives recommended for detailed optimization to determine the NED plan included: Beach Restoration; and Beach and Dune Restoration.

Description of Selected Plan: The selected plan extends 9300 feet along the oceanfront of Brigantine Island. The plan consists of a 100-foot wide berm at an elevation of +6.0 feet-NAVD, and a dune with a top elevation of +10.0 feet-NAVD and top width of 25 feet. The dunes will be planted with 10 acres of dune grass will be protected by 12,000 linear feet of sand fence.

Physical Data on Project Features:

• The storm damage reduction plan for Brigantine Island identified in this report generally extends from 800 feet north of 15th

Street North to approximately 19th Street South, for a total length of 9,300 feet, and consists of:

• The beachfill project will extend from 15th Street North to 15th Street South, an approximate length of 7,300 feet, and will include a berm extending seaward 100 feet from the design line at an elevation of +6.0 feet-NAVD.

• A dune with a top elevation of +10 feet-NAVD and a top width of 25 feet, between 9th Street North and 15th Street South.

• A northern beachfill taper of 800 feet and a southern beachfill taper of 1200 feet.

• A total sand fill quantity of 648,000 cubic yards is needed for the initial fill placement.

• 10 acres of planted dune grass and 11,860 linear feet of sand fence for the entrapment of sand on the dune and delineating walkovers.

• Renourishment of approximately 312,000 cubic yards of sand fill from the borrow area identified adjacent to Brigantine Inlet every six years for the 50 year project life.

• To properly assess the functioning of the proposed plan, monitoring of the placed beachfill, borrow area, shoreline, and wave and littoral environment is included with the plan. Environmental monitoring is being addressed through coordination with other interested agencies and will be finalized in the Final Environmental Impact Statement for the project.

Views of States, Non-Federal Interests and Other Countries: Sponsorship for the project will be provided by the State of New Jersey Department of Environmental Protection (NJDEP). NJDEP has expressed its support for the proposed project in a letter dated November 10, 1997.

Views of Federal and Regional Agencies: All comment letters and responses will be provided in the final report. No major or significant views have been expressed by the agencies.

Status of NEPA Document: The Environmental Impact Statement was finalized in August 1998.

Estimated Implementation Costs: (October 1998 price level).

Initial Construction:	
Federal: Corps of Engineers	$ 3,230,000
Non-Federal: NJ Department of Environmental Protection	1,740,000
Total	4,970,000
Periodic Nourishment (average annual cost of future construction over the 50 year life of the project):	
Federal: Corps of Engineers	$ 302,000
Non-Federal: NJ Department of Environmental Protection	163,000
Total	$ 465,000

Description of Non-Federal Implementation Costs: In addition to providing cash and LERRDS for the initial construction of the project, the sponsor will be required to provide 35 percent of the cost of the periodic nourishment over the 50-year life of the project.

Initial Construction:	
LERRD	$ 35,000
Cash	1,705,000
Total	1,740,000

Periodic Nourishment:	
Cash	163,000
Total	163,000

Estimated Annual O&M Costs: (October 1998 price level).

Federal: Corps of Engineers	0
Non-Federal: NJ Department of Environmental Protection	$19,000

Description of Non-Federal O&M Costs: The annual operation and maintenance of the project includes maintaining the dunes, pedestrian accesses, beach shaping and beach surveys. In addition, sand fence and replanting of dune grass that becomes damaged or suffers deterioration over time will be replaced or maintained as needed. The non-Federal sponsor bears full financial responsibility for these activities.

Estimated Effects:

Account	Average annual equivalent beneficial effects	Average annual adverse effects
Purposes—Storm Damage Reduction:		
Net National: Economic Development	$1,024,000	$853,000
Total	1,024,000	853,000

Benefit-Cost Ratio: 1.2 (FY 98 Discount Rate—6.875%).

(13) Columbia River Channel, Oregon and Washington.—

Location of the Study Area: The study area includes the Lower Columbia and Willamette Rivers, with Federal navigation channel currently authorized to 40 feet, Columbia River Datum (CRD). For the Columbia River this extends from the mouth of the Columbia River Mile (CRM) 3.0 to CRM 106.5, which coincides with the Interstate 5 Highway Bridge. For the Willamette River, this extends from the mouth of the Willamette River Mile (WRM) 0 to WRM 11.6, which coincides with the Broadway Bridge.

Problems and Opportunities Identified in Study: The level of waterborne commerce on the Columbia River has continued to show steady growth, along with an increase in the size of commercial vessels using the navigation channel. Average vessel size has increased due to the efficiencies gained by shippers using larger vessels to transport both bulk and containerized commodities. With the increased use of larger vessels for transport of bulk commodities such as wheat and corn, limitations posed by the existing channel dimensions now occur with greater frequency. Container vessels are showing a rapid increase in size, and competition exerts pressure to fully load these vessels. Ships with design drafts approaching or greater than the 40–foot depth constraint cannot fully utilize their design drafts. This often results in reduced efficiency in the shipping process.

Alternative Plans Considered: Planning constraints recognized that channel improvement alternatives were limited to a maximum of 3 feet of deepening by the study's authorizing legislation. Also, it was directed that the Dredged Material Management Plan (1998) would serve as the no action alternative for the study. This plan evaluated the most efficient way to maintain the authorized 40-foot navigation channel in the future.

Alternatives for improving deep-draft navigation, as well as any dredging and disposal actions needed for construction and maintenance, were formulated and evaluated on the basis of technical, economic, social, and environmental criteria. A range of alternatives was considered. Besides the no action alternative, a nonstructural alternative to upgrade the existing river stage forecasting system to improve navigation was evaluated. Also, as a result of public comments for reducing the environmental impacts associated with dredging, regional port concepts were formulated to locate deep-draft facilities closer to the mouth of the Columbia River. These concepts, however, were dropped from further consideration because of the high costs associated with construction, transportation, port facility, and environmental needs.

Three structural channel deepening alternatives were considered that alter the channel's configuration and/or depth by 41, 42, or 43 feet to improve deep-draft vessel transport. These alternatives would be similar and require dredging and disposal alternatives for construction and maintenance. The construction of the 41-, 42-, and 43-foot channels requires dredging 5.6, 11.5, and 19.1 million cubic yards (mcy) of sandy material from the channel, respectively. The depth and width of the dredge cut would vary with location.

Description of Recommended Plan: The proposed plan is the structural alternative that deepens the Columbia River navigation channel to 43 feet. The proposed disposal action for the 43-foot structural alternative is the least cost disposal plan. Disposal actions will occur in-water, at two beach nourishment locations, at new and existing upland locations, and offshore in the ocean. In-water disposal will occur throughout the project area in and adjacent to the channel and in certain deepwater locations near Skamokawa. Disposal in-water will also include capping actions in the Willamette River wherein clean, sandy dredged material will be placed over contaminated sediments. The least cost disposal plan focuses on upland disposal and will use 31 upland disposal locations. Eight of these upland sites have never been previously used for disposal purposes. The eight new upland disposal sites encompass 452 acres of lands primarily used for agricultural practices. Wildlife mitigation actions will be implemented that will address impacts to wildlife resources and their habitats. This mitigation is principally associated with the eight new disposal sites.

The proposed action would include disposal of construction and subsequent channel maintenance dredged material at 2 new ocean disposal sites, a deepwater site, and existing Expanded Site E. Designation and use of these sites would be accomplished through formal EPA rule making process specified in Section 102 of the MPRSA.

Physical Data on Project Features:

Channel Depth—−43 feet Columbia River Datum (CRD).

Channel Width—600 feet.

Channel Length—Columbia River mile 3–106.5; Willamette River mile 0–11.6.

Turning Basins:

CRM 15—800 × 4,250.

CRM 73.5—700 × 4,100.

CRM 105.5—1,000 × 3,000.

WRM 4—5,000 × 1,000.
WRM 10—1,500 × 1,000.
WRM 11.7—1,500 × 1,000.

There are two Corps designated anchorages (one for shallow draft traffic, one for deep draft traffic) along the navigation channel, both of which are located at approximately CRM 103. The deep draft anchorage will be designated as being deepened in all deepening alternatives, although due to natural depths and mining, construction dredging will be minimal. The other anchorage has an authorized depth of 25 feet, which will not be altered in any of the study alternatives.

Views of States, Non-Federal Interests and Other Countries: The seven Lower Columbia River ports support implementation of the 43-foot channel improvement alternative and anticipate an expedited processing towards authorization and construction. The sponsoring ports will provide a letter of intent and a preliminary financing plan for their project share, which will be included in the final report. The ports have been actively involved in the feasibility study from its inception. The ports indicate they are clearly financially capable and fully prepared to perform the responsibilities as the non-federal sponsor as prescribed in the feasibility report and the draft PCA.

Views of Federal and Regional Agencies: The Environmental Protection Agency (EPA) is a cooperating agency for the study and will study results in procedures for permanent ocean disposal site designation. The U.S. Fish and Wildlife Service has provided a Coordination Act Report and agency comments on the draft report, as well as preparing a biological opinion for the project. The National Marine Fisheries Service is preparing a biological opinion for the project and has comment on the draft report. The draft report has received comment letters from numerous state resource agencies. The district is in the process of responding to all comment letters.

Status of NEPA Document: The public review period for the draft report closed on 5 February 1999. The Division Engineer's Public Notice of the availability of the final report for public review is scheduled for June 1999.

Estimated Implementation Costs: (Based on Sponsors' Preferred Plan; Navigation and Ecosystem Restoration).

Project purpose	Federal	Non-Federal	Total
Navigation	$101,683,000	74,831,000	$176,023,000
Ecosystem Restoration	4,940,000	2,660,000	7,600,000
Total	106,623,000	77,491,000	183,623,000

Description of Non-Federal Implementation Costs: The work requires include deepening of berths and dock improvements.

Estimated Total Annual O&M Costs: $17,800,000.

Federal (Agency/Purpose) and Cost Sharing:

Navigation: 75% Federal—25% Non-Federal.

Ecosystem Restoration: 65% Federal—35% Non-Federal.

Non-Federal (Specify state/local sponsor):

Port of Portland on behalf of the seven lower Columbia River Ports:

Portland, St. Helens, Astoria, Oregon;

Vancouver, Woodland, Longview, Kalama, Washington.

Description of Non-Federal O&M Costs: Sponsor may be required to pay incremental differences to execute a sponsor's preferred plan.

Estimated Effects: Lower Columbia River ports have been the primary shipping point for West Coast grain and feed grain exports for many years. More than 38 million tons of commerce valued at more than $9 billion were shipped to or from Lower Columbia River ports in 1995. Increasing trade between the Pacific Northwest states and the Pacific Rim nations has accentuated the need for a deepened navigation channel in the Lower Columbia River, to accommodate larger, deeper-draft vessels.

Account	Average annual equivalent beneficial effects	Average annual adverse effects ($1,000)
NED:		
Transportation & Delay	$39,412,000	$16,768,000
Ecosystem Restoration	[1]	757,000

[1] No monetary benefits.

Project economic life 50 years.

Benefit-Cost Ratio: 2.3:1 (Current Discount Rate: 6⅞%).

NED plan recommended? No. The sponsor prefers to deviate from the NED plan with some of the upland disposal sites identified in the plan.

(14) Johnson Creek, Arlington, Texas.—

Location: The study area is located within the corporate limits of Arlington, Tarrant County, Texas, which is approximately 15 miles east of the city of Fort Worth.

Problems and Opportunities Identified in Study: The Johnson Creek watershed, which has a drainage area of 21 square miles, lies principally in Tarrant County with a small portion lying in Dallas County. Much of the watershed is extensively developed being used for industrial, residential, commercial, and recreational activities. The Six Flags Over Texas Amusement Park, the Ballpark at Arlington (Texas Rangers baseball stadium), and the Arlington Convention Center are all located along the banks of Johnson Creek. A total of 556 structures, with an estimated total value of $66.6 million, were identified within the Standard Project Flood (SPF) limits of Johnson Creek. Approximately 37 percent of these structures are susceptible to the 10-year flood with flood damages beginning with about a 2-year flood event. Is estimated that a SPF event in the Johnson Creek watershed could cause flood losses totaling nearly $29.4 million. Comparatively, 100-year and 10-year flood events could produce losses totaling almost $17.0 million and $8.3 million, respectively. Historically, numerous flood events have occurred along Johnson Creek. The flood of record occurred on 16–17 May 1989, which damaged 175 structures and overtopped the eight major bridges by as much as two to five feet. The flood of 26–27 March 1977 inundated about 70 homes, sixty-five families were evacuated, and one person was drowned.

Alternative Plans Considered: Alternatives investigated in detail included three structural plans (channelization) for a recurrence interval of 1% and four non-structural plans consisting of permanent evacuation for the 50%, 20%, 10% and 4% chance floodplains.

Description of Plan: The Plan includes a buy-out and removal from the flood plain of 140 structures within the 4% recurrence interval in the city of Arlington, Texas; construction of linear recreational trails, and selected picnic sites; and creation of environmental restoration lands. The Committee intends that the project be constructed substantially in accordance with the locally-preferred plan.

Physical Data on Project Features: The Plan would consist of the acquisition and removal of a total of 140 low lying floodplain residential structures. The Plan would include acquisition of approximately 155 acres of currently undeveloped areas within the corridor, of which 61 acres would be existing grass/shrub lands and 94 acres would be existing forested areas. The recreation features which would be added to the evacuation lands would include 7,244 linear feet of concrete trail, configured to allow access from four different areas. Three footbridges, each measuring 10-feet wide and 120-feet long, would span the creek within reach 5, and would support pedestrian, bicycle, and maintenance vehicle traffic. A total of 35 uncovered picnic sites and a 30-foot by 60-foot pavilion would be located in the evacuation area. The recreational facilities on environmental restoration lands would include 4,660 linear feet of trail, linking the main acquisition area to a smaller acquisition area containing the proposed pavilion.

Views of States, Non-Federal Interests and Other Countries: The city of Arlington is the local sponsor. The city strongly supports and will fund the project.

Views of Federal and Regional Agencies: The Final Fish and Wildlife Coordination Act Report dated September 8, 1998, concluded that the selected non-structural, buy-out plan would have minimal adverse impacts on fish and wildlife resources of the project area, and would significantly contribute to the long term recovery of habitats which have been disturbed by past development activities. Further, the acquisition of additional floodplain property would significantly speed up the recovery process. There are no outstanding issues.

Status of NEPA Document: The Final Environmental Assessment has been included as part of the Final Feasibility Report, dated March 1999. These documents were released for public review and comment on 31 July 1998 and minor comments were received by the close of the public comment period on 30 August 1998.

Estimated Implementation Costs: $20,300,000 (Oct 98 price level):

	Cost-sharing
Federal (Agency/Purpose):	
Corps of Engineers/Food Damage Reduction (65%)	$10,024,100
Corps of Engineers/Environmental Restoration (65%)	1,288,300
Corps of Engineers/Recreation (65%)	633,200
Subtotal (rounded)	12,000,000
Non-Federal (Specify state/local sponsors);	
City of Arlington/Flood Damage Reduction (65%)	5,397,600
City of Arlington/Environmental Restoration (65%)	693,700
City of Arlington/Recreation (78%)	

	Cost-sharing
Subtotal (rounded)	8,300,000
Total	20,300,000

Description of Non-Federal Implementation Costs: Non-Federal implementation costs for the Plan consist primarily of the cost related to the acquisition of lands, easements, rights-of-way, relocations and disposals. Estimated costs of LERRDS are $16.0 million. The five percent non-Federal cash contribution during construction is not required on non-structural flood damage reduction projects.

Estimated Annual O&M Costs: There are no Federal annual O&M costs. The local sponsor, the City of Arlington, Texas will be responsible for all O&M costs estimated at $90,000.00 annually

Description of Non-Federal O&M Cost: O&M responsibilities include mowing, trash collection and, as needed, replacements or rehabilitation of any of its components.

Estimated Effects:

Account	Average annual equivalent beneficial effects (1,000's)	Average annual Adverse Effects (1,000's)
Purposes—National Economic Development Plan:		
FDR	$808.3	$1,542.1
ER	N/A	198.2
Rec	1,788.0	288.8
Total	2,596.3	2,029.1

Note: FDR = Flood Damage Reduction; ER = Environmental Restoration; 4Rec = Recreation.

Benefit-Cost Ratio: 1.8 (Current Discount Rate: 6⅞%)

(15) Howard Hanson Dam, Washington.—

Location: The project is located on the Green River in King County, Washington, about 35 miles southeast of Seattle and about 35 miles east of Tacoma.

Problems and Opportunities Identified in Study: This study is conducted under the sponsorship of City of Tacoma Public Utility, Water Division (TPU), in response to water shortages experienced in the 1987 and 1992 droughts, anticipated increases in water demand in the Puget Sound Region, and a desire to correct the decline in salmon and steelhead fisheries and other natural resources in the Green River Basin. HHD AWS Project study was initiated by the Seattle District, US Army Corps of Engineers (USACE; the Corps) in August 1989 to address how the existing federal HHD Project could meet water supply needs of Puget Sound residents. In response to a change in federal policy in 1994 (EC 11–2–163 Draft dated Mar 1994) making environmental restoration a higher federal priority, the study objective was expanded to include environmental (ecosystem) restoration. The study formulated a recommended change to Howard Hanson Dam (HHD) to provide water supply storage sufficient to meet the identified needs for 50 years, restore ecosystems by re-establishing runs of chinook and coho salmon and steelhead trout in the upper Green River watershed above the dam, and restore selected ecosystem functions, processes and structures throughout the Green River Basin.

Alternative Plans Considered: Alternative plans looked at storing additional water behind the existing Howard Hanson Dam during

the spring, after danger of floods has passed, for use during the summer and early fall when flows on the river are low. A final array of four reservoir storage alternatives were considered to provide Municipal and Industrial (M&I) water supply for the Tacoma area and ecosystem restoration improvements on the Green River. The alternatives are: 1) no action; 2) a single-purpose water supply project with increased conservation storage of 22,400 ac-ft for M&I water supply and fish passage as mitigation; 3) a dual-purpose water supply and ecosystem restoration project with immediate full implementation of the AWS project, with increased storage of 22,400 ac-ft of M&I water supply and 9,600 ac-ft of low flow augmentation (LFA) water; and 4) the preferred alternative, a dual-purpose water supply and ecosystem restoration project with phased implementation: Phase I, storage of 20,000 ac-ft for M&I water supply; and Phase II, additional storage of 2,400 ac-ft for M&I water supply and 9,600 ac-ft for LFA.

Description of Recommended Plan: The preferred project alternative is designed to be implemented in two phases as a result of coordination with TPU, the state and federal resource agencies and the Muckleshoot Indian Tribe (MIT). Phase I includes construction of all mitigation features having to do with raising the pool to elevation 1,167 feet and all ecosystem restoration features. This includes a full height fish passage facility, right abutment drainage remedies, and habitat mitigation and restoration features, such as reconnection of side channels, gravel nourishment, planting of sedge meadows, and placement of large woody debris. Water will be stored in the spring for M&I use in the summer and fall. Timing and rate of storage will be adaptively managed by TPU, the Corps of Engineers, the resource agencies, and the MIT, while delivery will be at a rate established by TPU. Phase II includes construction of all remaining AWS project mitigation features required for a pool raise to elevation 1,177 feet. Under Phase II, an additional 2,400 ac-ft of M&I water plus 9,600 ac-ft of LFA water will be stored, for a combined total of 32,000 ac-ft of water storage under the HHD AWS project. Delivery rate of the stored M&I water will be established by TPU and delivery rate of the LFA water will be adaptively managed by the Corps, the resource agencies, the MIT, and TPU.

Physical Data on Project Features: The goal, to satisfy regional water supply needs for the 50–year project life, is nearly achievable under Phase I and can be fully achieved under Phase II. The storage of an additional 22,400 ac-ft of water for M&I water, as proposed in the ultimate development, will provide a stable, cost effective, water supply for the region well into the next century. Restoration of fish passage through HHD is the keystone of the AWS project ecosystem restoration. The new fish passage facility, increased instream flows, and fish and wildlife habitat restoration measures all provide significant opportunities to restore and maintain self-sustaining and harvestable runs of salmon and steelhead in the Green River. The phased implementation and adaptive management measures proposed for the project allow flexibility for adjustments to ensure protection of fish and wildlife.

Views of States, Non-Federal Interests and Other Countries: The Chief's Report is being completed for a cost shared feasibility study/

environmental impact statement. Seattle District signed a cost share agreement with TPU, for the PED phase of the project in March 1999.

Views of Federal and Regional Agencies: As a result of the phased implementation and adaptive management proposal, NMFS, USFWS, and WDFW endorsed the Phase I project proposal and indicated a willingness to implement Phase II if it can be demonstrated that Phase II impacts could be sufficiently minimized and mitigated.

Status of NEPA Document: NEPA documentation is at a level sufficient for a final Feasibility Report/EIS.

Estimated Implementation Costs: (October 1998 price level).

Project purpose	Federal	Non-Federal	Total
Water Supply	$0	$19,330,000	$19,330,000
Ecosystem Restoration	36,098,000	19,437,000	55,535,000
Total Cost	36,098,000	38,767,000	74,865,000

Description of Non-Federal Implementation Costs: The non-Federal sponsor is responsible for 100% of the cost for water supply and 35% of the total cost for the ecosystem restoration. The total non-Federal share included $2,346,000 for all lands, easements, rights-of-way, relocations, and disposal areas necessary for implementation of the project.

Estimated Annual O&M Costs: (October 1998 price level).

	Cost sharing
Federal: COE	0
Subtotal	0
Non-Federal: Tacoma Public Utilities	$721,000
Subtotal	721,000

Description of Non-Federal O&M Cost: Most of the O&M costs consist of additional manpower required to operate the new fish passage facility and maintain the habitat mitigation and restoration features of the project, materials, supplies, and a percentage of O&M of the existing project.

Estimated Effects:

Account	Average annual equivalent beneficial effects ($1000)	Average annual Adverse effects ($1000)
Purposes:		
NED M&I Water Supply	$1,477	None.

Ecosystem Rest. *No $ Benefits*

Benefit-Cost Ratio: 1.1 (Current Discount Rate: 6⅞%)

Section 102. Small Flood Control Projects

Subsection (a) directs the Secretary to study and carry out projects for flood control under the authority of section 205 of the Flood Control Act of 1948. This section authorizes the Secretary to participate in small projects for flood control and related purposes where the Federal contribution is not more than $5 million (increased to $7 million in this bill). The normal provisions concerning

non-Federal participation in the project apply to projects constructed under this authority.

(1) Lancaster, California.—Project for flood control, Lancaster, California, westside stormwater retention facility.

(2) Gateway Triangle Area, Florida.—Project for flood control, Gateway Triangle Area, Florida.

(3) Plant City, Florida.—Project for flood control, Plant City, Florida.

(4) Stone Island, Lake Monroe, Florida.—Project for flood control, Stone Island, Florida.

(5) Ohio River, Illinois.—Project for flood control, Ohio River, Illinois.

(6) Repaupo Creek, New Jersey.—Project for flood control, Repaupo Creek, New Jersey.

(7) Owasco Lake Seawall, New York.—Project for flood control, Owasco Lake Seawall, New York.

(8) Port Clinton, Ohio.—Project for flood control, Port Clinton, Ohio.

(9) North Canadian River, Oklahoma.—Project for flood control, North Canadian River, Oklahoma.

(10) Abington Township, Pennsylvania.—Project for flood control, Baeder and Wanamaker Roads, Abington Township, Pennsylvania.

(11) Port Indian, West Norriton Township, Montgomery County, Pennsylvania.—Project for flood control, Port Indian, West Norriton Township, Montgomery County, Pennsylvania.

(12) Port Providence, Upper Providence Township, Pennsylvania.—Project for flood control, Port Providence, Upper Providence Township, Pennsylvania.

(13) Springfield Township, Montgomery County, Pennsylvania.—Project for flood control, Springfield Township, Montgomery County, Pennsylvania.

(14) First Creek, Knoxville, Tennessee.—Project for flood control, First Creek, Knoxville, Tennessee.

(15) Metro Center Levee, Cumberland River, Nashville, Tennessee.—Project for flood control and recreation, Metro Center Levee, Nashville, Tennessee.

Subsection (b) provides that the maximum Federal expenditure for the Festus and Crystal City, Missouri flood control project shall be $10,000,000 and directs the Secretary to make corresponding changes to the project cooperation agreement. Nothing in this subsection affects any applicable cost sharing requirements under the Water Resources Development Act of 1986.

Section 103. Small Bank Stabilization Projects

Directs the Secretary to study and carry out projects for streambank erosion control, under section 14 of the Flood Control Act of 1946 as amended (which provides authority for the Secretary to undertake emergency measures to prevent erosion damage to endangered highways, public works, and non-profit public facilities). Subjects projects to the normal cost-sharing requirements. Authorizes projects at (1) Saint Joseph River, Indiana, (2) Saginaw River, Bay City, Michigan; (3) Big Timber Creek, New Jersey; (4) Lake Shore Road, Athol Springs, New York; (5) Marist College, Pough-

keepsie, New York; (6) Monroe County, Ohio; and (7) Green Valley, West Virginia.

Section 104. Small Navigation Projects

Directs the Secretary to study and carry out projects for navigation, under the authority of section 107 of the River and Harbor Act of 1960 (which authorizes federal participation in small navigation projects up to $4 million). Projects constructed under this authority are subject to the normal cost-sharing. Authorizes projects at (1) Grand Marais, Arkansas; (2) Fields Landing Channel, Humboldt Harbor, California; (3) San Mateo (Pillar Point Harbor), California; (4) Agana Marina, Guam; (5) Agat Marina, Guam; (6) Apra Harbor Fuel Piers, Guam; (7) Apra Harbor Pier F–6, Guam; (8) Apra Harbor Seawall, Guam; (9) Guam Harbor, Guam; (10) Illinois River Near Chautauqua Park, Illinois; (11) Whiting Shoreline Waterfront, Whiting, Indiana; (12) Naraguagus River, Machias, Maine; (13) Union River, Ellsworth, Maine; (14) Detroit River, Michigan; (15) Fortescue Inlet, Delaware Bay, New Jersey; (16) Buffalo and LaSalle Park, New York; and (17) Sturgeon Point, New York.

Section 105. Small Projects for Improvement of the Environment

(a) Directs the Secretary to study and carry out projects for improvement of the environment under the authority of section 1135 of the Water Resources Development Act of 1986 for (1) Illinois River in the vicinity of Havana, Illinois; and, (2) Knitting Mill Creek, Virginia.

(b) Directs the Secretary to carry out under section 1135 of the Water Resources Development Act of 1986, a project to construct a turbine bypass at Pine Flat Dam, Kings River, California.

Section 106. Small Aquatic Ecosystem Restoration Projects

Directs the Secretary to study and carry out projects for aquatic ecosystem restoration under the authority of section 206 of the Water Resources Development Act of 1996. That section authorizes the Secretary to carry out ecosystem restoration and protection projects where the Secretary determines that such projects will improve the quality of the environment. The federal contribution is not more than $5 million and the non-federal share is 35% for construction and 100% of operation and maintenance. Authorizes projects at (1) Contra Costa County, Bay Delta, California; (2) Indian River, Florida; (3) Little Wekiva River, Florida; (4) Cook County, Illinois; (5) Grand Batture Island, Mississippi; (6) Hancock, Harrison, and Jackson Counties, Mississippi; (7) Mississippi River and River Des Peres, St. Louis, Missouri; (8) Hudson River, New York; (9) Oneida Lake, New York; (10) Otsego Lake, New York; (11) North Fork of Yellow Creek, Ohio; (12) Wheeling Creek Watershed, Ohio; (13) Springfield Millrace, Oregon; (14) Upper Amazon Creek, Oregon; (15) Lake Ontelaunee Reservoir, Berks County, Pennsylvania; and (16) Blackstone River Basin, Rhode Island and Massachusetts.

As provided under section 212 of this Act, assistance provided before October 1, 2003 under section 206 of the Water Resources Development Act of 1996 can be in the form of grants or reimbursements of project costs. The Committee is aware that an educational

institution in Contra Costa County, California is interested in availing itself of such assistance. The Secretary is encouraged to provide grants or reimbursements to implement the program at such location.

TITLE II—GENERAL PROVISIONS

Section 201. Small Flood Control Authority

Amends section 205 of the Flood Control Act of 1948 to clarify its application to nonstructural, as well as structural, flood control projects. Increases the Federal contribution to not more than $7 million.

Section 202. Use of Non-Federal Funds for Compiling and Disseminating Information on Floods and Flood Damages

Amends section 206(b) of the Flood Control Act of 1960 to allow the use of non-Federal contributions for compiling and disseminating information on floods and flood damages.

Section 203. Contributions by States and Political Subdivisions

Amends section 5 of the Flood Control Act of June 22, 1936 to allow the Secretary to receive funds from State and local governments in connection with environmental restoration projects.

Section 204. Sediment Decontamination Technology

Amends section 405 of the Water Resources Development Act of 1992 to increase the authorization to $22,000,000 to complete technology testing, technology commercialization, and development of full scale processing facilities within the New York/New Jersey Harbor. Also encourages the Secretary to utilize contracts, cooperative agreements, and grants with colleges and universities and other non-Federal entities in carrying out this program. The section adds a new subsection (e) which encourages the Secretary to utilize contracts, cooperative agreements, and grants with colleges and universities and other non-Federal entities. The Committee intends that the Secretary consider the Sediment and Dredged Materials Technology Institute, a New Jersey university consortium.

Section 205. Control of Aquatic Plants

Amends section 104 of the River and Harbor Act of 1958 to add arundo to the list of aquatic plants to be addressed under this section, and increases the authorization from $12,000,000 to $15,000,000. Also encourages the Secretary to utilize contracts, cooperative agreements, and grants with colleges and universities and other non-Federal entities in carrying out this program including a grant for aquatic plant research to be conducted by the Oregon Lake Management Program at Portland State University. The Committee has also added “arundo donax” to the aquatic plant control program with the intent that the increased annual authorization would be able to address problems related to arundo, with priority given to problems along the Santa Ana River, California.

Section 206. Use of Continuing Contracts Required for Construction of Certain Projects

Prohibits the Secretary from implementing a policy of requiring full allocation of funding with respect to a water resources project if initiation of construction has occurred but sufficient funds to complete such construction have not been appropriated. Requires the Secretary to enter into continuing contracts for such projects.

Section 207. Support of Army Civil Works Program

Provides that section 2361 of title 10 of the United States Code shall not apply to a contract, cooperative agreement, or grant entered into under section 229 of the Water Resources Development Act of 1996 between the Secretary and Marshall University or under section 350 of this bill with Juniata College.

Section 208. Water Resources Development Studies for the Pacific Region

Amends Section 444 of the Water Resources Development Act of 1996 by authorizing the Secretary to conduct studies for water resources development, flood damage reduction, and environmental restoration, as well as for navigation, in the Pacific Region.

Section 209. Everglades and South Florida Ecosystem Restoration

Amends section 528 of the Water Resources Development Act of 1996 to extend the time period for initiation of critical restoration projects in South Florida to September 30, 2000, to extend the authorization of appropriations for such projects through September 30, 2003, and to allow the Secretary to provide a credit to non-Federal sponsors for work performed. Also amends provisions in section 528 relating to the provision of credit to non-Federal interests for certain land acquisitions in the Caloosahatchee River basin and other areas.

Section 210. Beneficial Uses of Dredged Material

Amends section 204 of the Water Resources Development Act of 1992 by requiring binding agreements with the non-Federal interest (in lieu of cooperative agreements in accordance with section 221 of the Flood Control Act of 1970) and by allowing nonprofit entities to serve as the non-Federal interest for a project under specified conditions. The Committee intends that this authority be used only where the non-profit organization has the capability to meet all necessary terms and conditions of a project cooperation agreement, including necessary operation and maintenance requirements.

Section 211. Harbor Cost Sharing

Amends sections 101 and 214 of the Water Resources Development Act of 1986 by striking "45 feet" each place it appears and inserting "53 feet" and provides that such amendments shall only apply to the project, or separable element thereof, on which a contract for physical construction has not been awarded before the date of enactment of this Act.

Section 212. Aquatic Ecosystem Restoration

Amends section 206 of the Water Resources Development Act of 1996 to allow, before October 1, 2003, the Federal share to be provided in the form of grants or reimbursements of project costs, including Delta Science Center, Contra Costa County, California, and to allow a nonprofit entity to serve as the non-Federal interest for a project. The Committee intends that this authority be used only where the non-profit organization has the capability to meet all necessary terms and conditions of a project cooperation agreement, including any necessary operation and maintenance requirements.

Section 213. Watershed Management, Restoration, and Development

Amends section 503 of the Water Resources Development Act of 1996 to allow a nonprofit entity to serve as the non-Federal interest for a project; adding Clear Lake, California to the description of the Sacramento River watershed project. Amends section 503(d) to add at the end the following: (1) Fresno Slough watershed, California; (2) Hayward Marsh, Southern San Francisco Bay watershed, California; (3) Kaweah River watershed, California; (4) Malibu Creek watershed, California; (5) Illinois River watershed, Illinois; (6) Catawba River watershed, North Carolina; (7) Cabin Creek basin, West Virginia; and (8) Lower St. Johns River basin, Florida.

Section 214. Flood Mitigation and Riverine Restoration Pilot Program

(a) In General.—Authorizes the Secretary to undertake a pilot program to conduct projects to reduce flood hazards and restore the natural functions and values of rivers throughout the United States.

(b) Studies and Projects.—Authorizes the Secretary to conduct studies to identify appropriate flood damage reduction, conservation, and restoration measures, and to design and implement watershed management and restoration projects. Requires consultation and coordination with the Federal Emergency Management Agency and other appropriate Federal, State, tribal, and local governmental agencies. Requires emphasis on nonstructural approaches to preventing or reducing flood damages. Requires consideration of and coordination with any State, tribal, and local flood damage reduction or riverine and wetland restoration studies and projects.

(c) Cost-Sharing Requirements.—Requires non-Federal interests to pay 50% of the cost of studies conducted under this section in accordance with the provisions of section 105 of the Water Resources Development Act of 1986. Requires non-Federal interests to pay 35% of the costs of non-structural or environmental restoration projects carried out under this section. Requires non-Federal interests to pay no less than 35% and no more than 50% of the costs of structural projects carried out under this section, in accordance with section 103(a) of the Water Resources Development Act of 1986. Requires non-Federal interests to pay 100% of all costs of operation and maintenance.

(d) Project Justification.—The Secretary may implement a project if he or she determines the project will significantly reduce poten-

tial flood damages, will improve the quality of the environment, and is justified considering all costs and beneficial outputs of the project. Requires the Secretary, in cooperation with States, localities and tribes to develop criteria for selecting and rating projects and other policies for carrying out this section.

(e) Priority Areas.—Authorizes the Secretary to examine the potential for flood damage reduction at appropriate locations, including: (1) Upper Delaware River, New York; (2) Willamette River floodplain, Oregon; (3) Pima County, Arizona, at Paseo De Las Iglesias and Rillito River; (4) Los Angeles and San Gabriel Rivers, California; (5) Murrieta Creek, California; (6) Napa County, California, at Yountville, St. Helena, Calistoga, and American Canyon; (7) Santa Clara basin, California, at Upper Guadalupe River and tributaries, San Francisquito Creek and Upper Penitencia Creek; (8) Pine Mount Creek, New Jersey; (9) Chagrin River, Ohio; (10) Blair County, Pennsylvania, at Altoona and Frankstown Township, Pennsylvania; and (11) Lincoln Creek, Wisconsin.

(f) Program Review.—Requires an independent review of the efficacy of the pilot program in achieving the goals of flood control and riverine restoration and a report to the authorizing committees on the findings of such review.

(g) Cost Limitations.—Limits the federal share for any single project to $30,000,000. For projects over $15,000,000 a resolution of approval is required by the Transportation and Infrastructure Committee in the U.S. House of Representatives and the Committee on Environment and Public Works in the U.S. Senate.

(h) Authorization of Appropriations.—Authorizes $25,000,000 for fiscal year 2000; $25,000,000 for fiscal year 2001; $25,000,000 for fiscal year 2002; and $25,000,000 for fiscal year 2003 to carry out this section. For fiscal years 2001–2003, appropriations are contingent on receiving appropriation for subsection (e) for each prior year.

The Secretary is expected to ensure that to the maximum extent possible, each project is undertaken with the concurrence of the respective State.

Section 215. Shoreline Management Program

Requires the Secretary to review and report to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate regarding the shoreline management program administered by the Corps, with particular attention to inconsistencies of implementation in its divisions and districts of the Corps and complaints from property owners in the Savannah District.

Section 216. Assistance for Remediation, Restoration, and Reuse

Authorizes the Secretary to provide assessment, planning, and design assistance to State and local governments for remediation, environmental restoration, and reuse of areas that will contribute to conservation of water and related resources. Encourages beneficial reuse of dredged material in providing such assistance. The non-Federal cost share is 50%. Authorizes $3,000,000 a year for fiscal years 2000–2004.

Section 217. Shore Damage Mitigation

(a) In General.—Amends section 111 of the River and Harbor Act of 1968 to include Atlantic Intracoastal Waterway and Gulf Intracoastal Waterway in the authorization.

(b) Palm Beach County, Florida.—Modifies the project for navigation in Palm Beach County, Florida authorized by section 2 of the River and Harbor Act of March 2, 1945, to include beach nourishment as a dredged material disposal option.

(c) Galveston County, Texas.—Authorizes the Secretary to use dredged material from the Gulf Intracoastal Waterway to prevent beach erosion at Rollover Pass, Galveston County, Texas.

Section 218. Shore Protection

(a) Non-Federal Share of Periodic Nourishment.—Amends section 103(d) of the Water Resources Development Act of 1986 to establish a 40% non-Federal cost share for periodic beach nourishment projects for shore protection or beach erosion control after January 1, 2001, a 45% non-Federal cost share for such projects after January 1, 2002, and a 50% non-Federal cost share for such projects after January 1, 2003. However, all costs assigned to benefits of periodic nourishment measures to private property shall be borne by the non-Federal interest and all costs of such measures assigned to the protection of federally-owned property shall be borne by the United States.

(b) Utilization of Sand from Outer Continental Shelf.—Prohibits assessment of fees for use of sand from the Outer Continental Shelf for a federally-authorized shore protection project.

(c) Report on Nation's Shorelines.—Requires the Secretary to submit a report to Congress on the state of the Nation's shorelines within 3 years of enactment of this Act using data from specific coastal locations, including using Southeast Virginia coastline, to develop a systems approach to sand management.

(c) National Coastal Data Bank.—Requires the Secretary within 2 years to establish a national coastal data bank on the characteristics of the Nation's shorelines.

The Committee emphasizes the importance of viewing the nation's shores as an interdependent system. It is important to understand how sand moves through this system and the extent to which it erodes and accretes in local areas. In addition, the Committee believes a national shore data bank will be a valuable single source of information that can assist decision-makers, researchers and others in viewing the shorelines as a single interdependent system.

Section 219. Flood Prevention Coordination

Amends section 206 of the Flood Control Act of 1960 to require the Secretary to coordinate with FEMA and other Federal agencies to make flood control projects and plans complementary and integrated.

Section 220. Annual Passes for Recreation

Amends Section 208(c)(4) of the Water Resources Development Act of 1996 to extend the authority for alternative annual passes to December 31, 2003.

Section 221. Cooperative Agreements for Environmental and Recreational Measures

Authorizes the Secretary to enter into cooperative agreements with non-Federal public bodies and non-profit entities for collaborative efforts for environmental protection and restoration, natural resources conservation, and recreation in connection with water resources projects. Requires the Secretary to submit a report within 18 months to the House and Senate authorizing committees on such cooperative agreements. The Committee is aware of ongoing efforts between the Corps and nonprofit natural resources organizations and conservancies and intends that such cooperative arrangements will be facilitated by this section.

Section 222. Nonstructural Flood Control Projects

(a) Analysis of Benefits.—Amends section 308 of the Water Resources Development Act of 1990 to require the Secretary to calculate benefits of nonstructural projects in a manner similar to structural projects so that each type of project is evaluated equally.

(b) Reevaluation of Flood Control Projects.—At the request of a non-Federal interest for a flood control project, the Secretary shall conduct a reevaluation of a previously authorized project to consider nonstructural alternatives in light of the amendments made by subsection (a).

(c) Cost Sharing.—Amends section 103(b) of the Water Resources Development Act of 1986 to make costs of lands, easements, rights-of-way, dredged material disposal areas, and relocations a Federal responsibility, if such activities will exceed 35 percent of the cost of the project and to provide that such Federal contribution be made during construction.

Section 223. Lakes Program

Amends section 602(a) of the Water Resources Development Act of 1986 to add the following projects: (1) Clear Lake, Lake County, California; (2) Osgood Pond, Milford, Hillsborough; and, (3) Flints Pond, Hollis, Hillsborough County, New Hampshire.

Section 224. Construction of Flood Control Projects by non-Federal Interests

(a) Construction by Non-Federal Interests.—Amends section 211 of the Water Resources Development Act of 1996 to clarify that the Secretary shall approve a project for construction by a non-Federal interest unless the Secretary determines in writing that the design and feasibility documents do not meet standards and practices of the Corps, the project is not economically justified or environmentally acceptable, or the study does not meet requirements for obtaining appropriate permits.

(b) Conforming Amendment.—Amends section 211 to preserve the applicability of certain laws.

(c) Reimbursement.—The Secretary may credit future work as a way of reducing the amount of reimbursement required for the local sponsor. Amends section 211 to clarify that "subject to appropriations" does not require specific language in an appropriations act. The intent of the clarification is to expressly overturn an ear-

lier interpretation by the Corps' of the phrase "subject to amounts being made available in advance in appropriations Acts."

Section 225. Enhancement of Fish and Wildlife Resources

Amends section 906(e) of the Water Resources Development Act of 1986 to allow up to 80% of the non-Federal share of first costs be satisfied through in-kind contributions, including facilities, supplies, and services that are necessary to carry out the enhancement project.

Section 226. Sense of Congress; Requirement Regarding Notice

Provides that it is the sense of Congress that equipment and products purchased with funds made available under this Act should be American made. Requires the Secretary to provide notice of this policy to persons provided financial assistance under this Act.

Section 227. Periodic Beach Nourishment

Amends section 506(a) of the Water Resources Development Act of 1996 by adding at the end the following: "(5) Lee County, Captiva Island segment, Florida".

Section 228. Environmental Dredging

Amends section 312 of the Water Resources Development Act of 1990 to change the non-Federal cost-share to 35% and to provide that disposal costs shall be shared as a cost of construction.

The Committee re-affirms its intent that section 312, including priority work described in subsection (f), be carried out by the Corps', notwithstanding Policy Guidance Letter No. 49 or any other guidance that mistakenly interprets the relationship of the Environmental Protection Agency and CERCLA to section 312. Section 312, as amended by section 205 of the Water Resources Development Act of 1996, created a partnership with the expectation that the Corps' authority would supplement EPA CERCLA actions. The Corps' should proceed with such work where all regulatory agencies concur that such work does not provide relief to a private party or governmental entity which would otherwise be legally responsible for the remediation.

TITLE III—PROJECT RELATED PROVISIONS

Section 301. Missouri River Levee System

Modifies the project for flood control, Missouri River Levee System, Missouri, to clarify that $2,616,000 expended before the date of enactment of the Water Resources Development Act of 1986 shall not be treated as part of total project costs.

Section 302. Ouzinkie Harbor, Alaska

Provides that the maximum Federal expenditure for the Ouzinkie Harbor navigation project shall be $8,500,000 and directs the Secretary to make corresponding changes to the project cooperation agreement.

Section 303. Greers Ferry Lake, Arkansas

Modifies the project for flood control, Greers Ferry Lake, Arkansas, to authorize the construction of water intake facilities for the benefit of Lonoke and White Counties, Arkansas.

Section 304. Ten- and Fifteen-Mile Bayous, Arkansas

Modifies the project for flood control, St. Francis River Basin, Missouri and Arkansas, to expand the project boundaries to include Ten- and Fifteen-Mile Bayous near West Memphis, Arkansas.

Section 305. Loggy Bayou, Red River Below Denison Dam, Arkansas, Louisiana, Oklahoma, and Texas

Modifies the project for flood control on the Red River below Denison Dam, Arkansas, Louisiana, Oklahoma, and Texas and directs the Secretary to conduct a study to determine the feasibility of expanding the project to include mile 0.0 to mile 7.8 of Loggy Bayou between the Red River and Flat River. If the Secretary determines that the project should be expanded, the Secretary may assume responsibility for operation and maintenance of the expanded project.

Section 306. Sacramento River, Glenn-Colusa, California

Modifies the project for flood control, Sacramento River, to authorize the Secretary to (1) raise the authorization level for the Glenn-Colusa portion to $26,000,000, with a Federal cost of $20,000,000 and an estimated non-Federal cost of $6,000,000, and (2) stabilize the bank of the riverbed gradient facility in the vicinity of River Mile 208. This section also authorizes a non-Federal interest to receive credit for expenses incurred in the preparation of an environmental impact report.

Section 307. San Lorenzo River, California

Modifies the project for flood control and habitat restoration, San Lorenzo River, California, to authorize the Secretary to expand the project to include a 1,000 foot portion of the San Lorenzo River.

Section 308. Terminus Dam, Kaweah River, California

Transfers to the Secretary additional lands at the Terminus Dam, Kaweah River, California, acquired by the non-Federal sponsor for the project. This section has no impact on the requirement that the non-Federal interest provide all lands, easements and rights-of-way relocations and dredged material disposal areas for the project. The Secretary may carry out operation and maintenance if fully reimbursed by non-Federal interests. The United States is held harmless for the ownership, operation, and maintenance of lands and facilities transferred under this section.

Section 309. Delaware River, Mainstem and Channel Deepening, Delaware, New Jersey, and Pennsylvania

(1) Modifies the project for navigation, Delaware River Mainstem and Channel Deepening, to allow the non-Federal interests to receive credit for preconstruction, engineering, design and construction management work performed by the non-Federal interests.

(2) Authorizes the Secretary to provide credit for work performed by the non-Federal interests that the Secretary determines is necessary to construction of the project.

(3) Authorizes the Secretary to enter into an agreement with a non-Federal interest for payment of disposal or tipping fees for dredged material from a Federal project other than for the construction or operation and maintenance of the new deepening project.

(4) Authorizes the Secretary to work with the non-Federal interests to develop a Disposal Area Management Program for dredged material disposal necessary for construction and operations and maintenance of the project.

Section 310. Potomac River, Washington, District of Columbia

Modifies the Potomac River project, authorized in 1936 and modified in 1996, to authorize the Secretary to construct the project at a Federal cost of $5,965,000.

Section 311. Brevard County, Florida

Requires the Secretary to conduct a study of any damage to the project for shoreline protection, Brevard County, Florida, and to mitigate any damage that is the result of a Federal navigation project. In conducting the study the Secretary shall utilize the services of an independent coastal expert. The Committee expects that the selection of the independent coastal expert will be done in a manner acceptable to all parties. The Committee is hopeful that reliance on the expertise of a neutral third party will resolve matters in dispute.

Section 312. Broward County and Hillsboro Inlet, Florida

Modifies project for shoreline protection, Broward County and Hillsboro Inlet, Florida, to authorize the Secretary to reimburse the non-Federal interest for the Federal share of the cost of preconstruction planning and design.

Section 313. Fort Pierce, Florida

Modifies a shore protection and harbor mitigation project to incorporate an additional mile into the project and authorizes periodic nourishment for the project in accordance with section 506(a)(2) of the Water Resources Development Act of 1996. Total cost is $9,128,000, with an estimated Federal cost of $7,073,500 and an estimated non-Federal cost of $2,054,500.

Section 314. Nassau County, Florida

Modifies the project for beach erosion control, Nassau County, Florida, to increase the cost ceiling for the project to $17,000,000, with an estimated Federal cost of $13,300,000 and an estimated non-Federal cost of $3,700,000.

Section 315. Miami Harbor Channel, Florida

Modifies the project for navigation, Miami Harbor Channel, Florida, to include construction of artificial reefs and related environmental mitigation required by Federal, State, and local environmental permitting agencies.

Section 316. Lake Michigan, Illinois

Modifies the project for storm damage reduction and shoreline protection, Lake Michigan, Illinois, to authorize the Secretary to provide credit against the non-Federal share of the cost of the project for cost incurred by the non-Federal sponsor:

(1) in constructing Reach 2D and Segment 8 of Reach 4 of the project; and

(2) in reconstructing Solidarity Drive in Chicago, Illinois, prior to entry into a project cooperation agreement with the Secretary.

Section 317. Springfield, Illinois

Amends section 417 of the Water Resources Development Act of 1996 to provide a 50% cost share to assistance provided under this section.

Section 318. Little Calumet River, Indiana

Modifies the project for flood control, Little Calumet River, Indiana, to increase the cost ceiling to $167,000,000, with an estimated Federal cost of $122,000,000 and an estimated non-Federal cost of $45,000,000.

Section 319. Ogden Dunes, Indiana

Requires the Secretary to conduct a study of beach erosion in and around the town of Ogden Dunes, Indiana, and to mitigate any such damage that is the result of a Federal navigation project.

Section 320. Saint Joseph River, South Bend, Indiana

(a) Modifies the project for streambank erosion, recreation, and pedestrian access, Saint Joseph River, South Bend, Indiana, to establish a cost ceiling of $7,800,000.

(b) Requires the Secretary to revise the project cooperative agreement to take into account the change in the Federal share.

(c) Nothing in this section affects cost sharing requirements under the Water Resources Development Act of 1986.

Section 321. White River, Indiana

Modifies the project for flood control, Indianapolis on West Fork of the White River, Indiana, to authorize the Secretary to undertake riverfront alterations at a total cost of $110,975,000, with an estimated Federal cost of $52,475,000 and an estimated non-Federal cost of $58,500,000.

Section 322. Lake Pontchartrain, Louisiana

Requires the Secretary to conduct a study to determine the feasibility of modifying existing flood control projects in the vicinity of Lake Pontchartrain, Louisiana, to determine if such projects should include pumps adjacent to each of the 4 proposed drainage structures for the Saint Charles Parish and to construct the pumps after completion of the study.

Section 323. Larose to Golden Meadow, Louisiana

Modifies the project for hurricane protection, Larose to Golden Meadow, Louisiana, to authorize the Secretary to convert the Gold-

en Meadow floodgate into a navigation lock if the Secretary determines that the conversion is feasible.

Section 324. Louisiana State Penitentiary Levee, Louisiana

Modifies section 401(a) of the Water Resources Development Act of 1986 to direct the Secretary to provide credit for the cost of work performed by the non-Federal interest prior to the execution of a project cooperation agreement, as determined by the Secretary to be compatible with and an integral part of the project.

Section 325. Twelve-Mile Bayou, Caddo Parish, Louisiana

Transfers responsibility for maintenance of the levee along Twelve Mile Bayou to the Secretary if economically justifiable and environmentally acceptable and the levee meets appropriate design and engineering standards.

Section 326. West Bank of the Mississippi River (East of Harvey Canal), Louisiana

(a)(1) Modifies the project for flood control and storm damage reduction, West Bank of the Mississippi River (East of Harvey Canal), Louisiana to provide that any liability under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 from the construction of the project is a Federal responsibility.

(a)(2) Allows the non-Federal sponsor to prepay the operation and maintenance costs for the portion of the project known as "Algiers Channel."

(b) Combines 3 separate previously authorized projects into a single project.

Section 327. Tolchester Channel, Baltimore Harbor and Channels, Chesapeake Bay, Kent County, Maryland

Modifies the project for navigation, Tolchester Channel, Baltimore Harbor and Channels, Chesapeake Bay, Kent County, Maryland, to authorize the Secretary to straighten the navigation channel to improve navigation safety.

Section 328. Sault Sainte Marie, Chippewa County, Michigan

Modifies the project for navigation, Sault Sainte Marie, Chippewa County, Michigan, to exclude interest from the amount to be paid by the non-Federal interests.

Section 329. Jackson County, Mississippi

Modifies the project for environmental infrastructure, Jackson County, Mississippi, to direct the Secretary to provide a credit of up to $5,000,000 against non-Federal costs for costs incurred by the non-Federal sponsor since February 8, 1994.

Section 330. Tunica Lake, Mississippi

Authorizes the construction of an outlet weir at Tunica Lake Cutoff, Tunica County, Mississippi, for the purpose of stabilizing water levels in the lake.

Section 331. Bois Brule Drainage and Levee District, Missouri

Modifies the project for flood control, Bois Brule Drainage and Levee District, Missouri to increase the maximum federal cost share to $15,000,000. Requires the Secretary to revise the project cooperation agreement accordingly. Nothing in this provision affects cost sharing requirements.

Section 332. Meramec River Basin, Valley Park Levee, Missouri

Modifies the Meramec River Basin project for flood control so as to be carried out at a maximum Federal expenditures of $35,000,000.

Section 333. Missouri River Mitigation Project, Missouri, Kansas, Iowa, and Nebraska

Modifies the project for mitigation of fish and wildlife losses, Missouri River Bank Stabilization and Navigation Project, Missouri, Kansas, Iowa, and Nebraska, to increase the land to be used as mitigation by 118,650 acres and to authorize a study and report to Congress on the full cost of restoring lost Missouri River habitat. Nothing in this modification is intended to affect the allocation of resources provided among the states.

Section 334. Wood River, Grand Island, Nebraska

Modifies the project for flood control, Wood River, Grand Island, Nebraska, to increase the cost ceiling to $17,039,000, with an estimated Federal cost of $9,730,000 and an estimated non-Federal cost of $7,309,000.

Section 335. Absecon Island, New Jersey

Modifies the project for storm damage reduction and shoreline protection, Brigantine Inlet to Great Egg Harbor Inlet, Absecon Island, New Jersey to authorize the Secretary to provide a credit towards the non-Federal share in an amount equal to the Federal share of the costs incurred by the non-Federal sponsor for work associated with the project after October 12, 1996, if such work is recommended by the Chief of Engineers and approved by the Secretary.

Section 336. New York Harbor and Adjacent Channels, Port Jersey, New Jersey

Modifies the project for navigation, New York Harbor and Adjacent Channels, New York and New Jersey, to increase the total cost ceiling for the portion of the project located between Military Ocean Terminal Bayonne and Global Terminal, Bayonne, New Jersey, to $103,267,000, with an estimated Federal cost of $76,909,000 and an estimated non-Federal cost of $26,358,000.

Section 337. Passaic River, New Jersey

Modifies the Passaic River, New Jersey project to include an esplanade for safe pedestrian access.

Section 338. Sandy Hook to Barnegat Inlet, New Jersey

Modifies the project for shoreline protection, Sandy Hook to Barnegat Inlet, New Jersey, to include demolition of Long Branch pier

and extension of Ocean Grove pier and to authorize the Secretary to reimburse the non-Federal sponsor for the costs of such activities.

Section 339. Arthur Kill, New York and New Jersey

Modifies the project for navigation, Arthur Kill, New York and New Jersey, to increase the total cost ceiling for the portion of the project at Howland Hook Marine Terminal to $315,700,000, with an estimated Federal cost of $183,200,000 and an estimated non-Federal cost of $132,500,000.

Section 340. New York City Watershed

Increases the authorization for assistance to non-Federal interests conducting environmental projects in the New York City watershed to $42,500,000.

Section 341. New York State Canal System

Increases the authorization for capital improvements to the New York State Canal System to $18,000,000.

Section 342. Fire Island Inlet to Montauk Point, New York

Modifies the project for combined beach erosion control and hurricane protection, Fire Island Inlet to Montauk Point, Long Island, New York to direct the Secretary, in coordination with the Secretary of the Interior, to transmit a mutually acceptable shore erosion plan for the Fire Island Inlet to the Moriches Inlet to Congress by June 30, 1999.

Section 343. Broken Bow Lake, Red River Basin, Oklahoma

Modifies the project for flood control and water supply, Broken Bow Lake, Red River Basin, Oklahoma, to require the Secretary to make seasonal adjustments to the top of the conservation pool.

Section 344. Willamette River Temperature Control, McKenzie Subbasin, Oregon

(a) Modifies the project for environmental restoration, Willamette River Temperature Control, McKenzie Subbasin, Oregon, to increase the cost ceiling to $64,741,000.

(b) Requires a report to Congress not later than 90 days after enactment on the cost growth of this project and a cost estimate for adding fish screens to the project.

Section 345. Aylesworth Creek Reservoir, Pennsylvania

Modifies the project for flood control, Aylesworth Creek Reservoir, Pennsylvania, to transfer $50,000 in 1999 and 2000 to the Aylesworth Creek Reservoir Park Authority for recreational facilities.

Section 346. Curwensville Lake, Pennsylvania

Modifies the project for water reallocation at Curwensville Lake, Pennsylvania to require the Secretary to provide design and construction assistance for recreational facilities at Curwensville Lake.

Section 347. Delaware River, Pennsylvania and Delaware

Modifies the project for navigation, Delaware River, Philadelphia to Wilmington, Pennsylvania and Delaware, to authorize the Secretary to extend the channel of the Delaware River at Camden, New Jersey, to within 150 feet of the existing bulkhead and to relocate the 40 foot deep Federal navigation channel, eastward within Philadelphia Harbor, from the Ben Franklin Bridge to the Walt Whitman Bridge, into deep water.

Section 348. Mussers Dam, Pennsylvania

Amends Section 209 of the Water Resources Development Act of 1992 to deauthorize construction.

Section 349. Nine-Mile Run, Allegheny County, Pennsylvania

Modifies the Nine-Mile Run Project, Allegheny County, Pennsylvania, to provide a credit toward the non-Federal share for costs incurred by the non-Federal interests for costs of preparing environmental and feasibility documentation before entering into an agreement with the Secretary.

Section 350. Raystown Lake, Pennsylvania

Amends section 519(b) of the Water Resources Development Act of 1996 for engineering and design services for recreational facilities at Raystown Lake. The Secretary may provide a grant to Juniata College for the construction of facilities and structures at Raystown Lake, Pennsylvania consistent with the master plan described in section 318 of the Water Resources Development Act of 1992.

Section 351. South Central, Pennsylvania

Amends section 313(a) of the Water Resources Development Act of 1992 to increase the authorization of appropriations to $180,000,000. The Committee intends that the Corps, where appropriate utilize or adopt as its own other agency documents as a means of streamlining NEPA compliance for the section 313 program. Therefore, section 313(e) should be interpreted to mean that compliance with provisions of NEPA are satisfied by the adoption, where appropriate and without further NEPA actions, of NEPA compliance performed for the same work in obtaining other Federal assistance or funding or in obtaining State or Federal permits, including permits required by the Clean Water Act.

Section 352. Cooper River, Charleston Harbor, South Carolina

Modifies the project for rediversion, Cooper River, Charlestown Harbor, South Carolina, to authorize the Secretary to pay the State of South Carolina $3,750,000 for the State to perform all future operation of the St. Stephen fish lift.

Section 353. Bowie County Levee, Texas

Modifies the project for flood control, Red River Below Denison Dam, Texas and Oklahoma, to direct the Secretary to implement the Bowie County Levee feature of the project and, if necessary, to allow the non-Federal interest to participate in the financing of the

project in accordance with section 903(c) of the Water Resources Development Act of 1986.

Section 354. Clear Creek, Texas

Allows the Secretary to consider after the date of enactment of this bill the costs and benefits associated with nonstructural measures undertaken before the construction of the project.

Section 355. Cypress Creek, Texas

Modifies the project for flood control, Cypress Creek, Texas, to add a nonstructural flood control element at a total cost of $5,000,000. Authorizes the Secretary to reimburse the non-Federal interest for work done on such nonstructural flood control element in an amount equal to the Federal share. The Committee understands this modification to the existing project will result in significant savings.

Section 356. Dallas Floodway Extension, Dallas, Texas

Modifies the project for flood control, Dallas Floodway Extension, Dallas, Texas, to add environmental restoration and recreation as project purposes, authorizes the Secretary to construct the project in accordance with the Chain of Wetlands Plan, and raises the total cost ceiling to $123,200,000, with an estimated Federal cost of $80,000,000 and an estimated non-Federal cost of $43,200,000.

Section 357. Upper Jordan River, Utah

Modifies the project for flood control, Upper Jordan River, Utah, to direct the Secretary to carry out the locally preferred project, at a total cost of $12,870,000, with an estimated Federal cost of $8,580,000 and an estimated non-Federal cost of $4,290,000.

Section 358. Elizabeth River, Chesapeake, Virginia

Requires the Secretary to comply with the provisions of a project cooperation agreement signed prior to enactment of the cost-share requirements of the Water Resources Development Act of 1986 notwithstanding limitations provided in that Act.

Section 359. Bluestone Lake, Ohio River Basin, West Virginia

Amends the Bluestone Lake project authorization to direct the Secretary to implement Plan C/G, as defined in the Evaluation Report of the District Engineer, dated December 1996.

Section 360. Greenbrier Basin, West Virginia

Amends section 579(c) of the Water Resources Development Act of 1996 to provide a new authorization ceiling of $73,000,000.

Section 361. Moorefield, West Virginia

Modifies the project for flood control, Moorefield, West Virginia, to complete payment of the remaining non-Federal share of the cost of the project.

Section 362. West Virginia and Pennsylvania Flood Control

Modifies the authorization in section 581(a) of the Water Resources Development Act of 1996 for flood control measures in

West Virginia and Pennsylvania to reflect concerns about the level of protection to be provided by such measures.

Section 363. Project Reauthorizations

Reauthorizes the following Corps of Engineers projects: (1) Lee Creek, Arkansas and Oklahoma; (2) Indian River County, Florida; (3) Lido Key, Florida; (4) St. Augustine, St. Johns County, Florida; (5) Cass River, Michigan (Vassar); (6) Saginaw River, Michigan (Shiawassee Flats); (7) Park River, Grafton, North Dakota; and (8) Memphis Harbor, Memphis, Tennessee.

Section 364. Project Deauthorizations

Deauthorizes the following Corps of Engineers projects or portions of projects (1) Bridgeport Harbor, Connecticut; (2) Clinton Harbor, Connecticut; (3) Bass Harbor, Maine; (4) Boothbay Harbor, Maine; (5) Bucksport Harbor, Maine; (6) East Boothbay Harbor, Maine; (7) Wells Harbor, Maine; (8) Falmouth Harbor, Massachusetts; (9) Green Harbor, Massachusetts; and (10) New Bedford and Fairhaven Harbor, Massachusetts. Also provides that portions of the Clinton Harbor, Connecticut, Wells Harbor, Maine and Green Harbor, Massachusetts, navigation projects are re-designated as channels or anchorage areas.

Section 365. American and Sacramento Rivers, California

This section authorizes construction of modifications to levees and related structures along the American River and the Natomas Cross Canal. The work, referred to as "levee parity" improvements, is intended to correct inadequate flow-carrying capacity at several levee reaches along the American River when the emergency flood release is necessary at Folsom Dam and to assure that levees along the Natomas Cross Canal provide a level of flood protection consistent with modifications to the Sacramento River levee work in the vicinity that were authorized in 1996. The section also authorizes an increase in project costs for the "common elements" project authorized in 1996. The estimated total cost for the levee parity provisions and the common elements, with the cost increase, is $91,900,000, with an estimated Federal cost of $68,925,000, and an estimated non-Federal cost of $22,975,000. The new total cost is an increase of $35,000,000 over the amount authorized in 1996. Due to: the extraordinary circumstances involved in the debate over providing flood control for the Sacramento area; the excessive delay this debate has caused in authorizing needed relief; the fact that work authorized in this section could have been authorized in 1996 if it were not for such debate; and the unique condition of a major metropolitan area not having a significant degree of flood protection, the Committee has chosen to apply the cost-sharing requirements in effect for the project authorized in 1996 rather than the cost-sharing adopted in 1996, which were to be applied to subsequent authorizations. This will lessen the financial burden on the non-Federal sponsor and expedite implementation of this long-overdue work.

Section 366. Martin, Kentucky

Modifies the project authorized by section 202(a) of the Energy and Water Development Appropriations Act of 1981 to authorize the Secretary to take all necessary measures to prevent future losses that would occur from a flood equal in magnitude to a 100–year frequency event.

TITLE IV—STUDIES

Section 401. Upper Mississippi and Illinois Rivers Levees and Streambanks Protection

Requires the Secretary to conduct a study of erosion damage to levees and infrastructure on the Upper Mississippi and Illinois Rivers and the impact of increased barge and pleasure craft traffic on deterioration of levees and other flood control structures on such rivers.

Section 402. Upper Mississippi River comprehensive plan

Requires the Secretary to develop a plan to address water and related land resources problems and opportunities in the Upper Mississippi and Illinois River basins in the interest of systemic flood damage reduction, continued maintenance of the navigation project, management of bank caving and erosion, watershed nutrient and sediment management and related purposes. The Secretary shall transmit a report on the plan to Congress within 3 years after enactment of this Act.

Section 403. El Dorado, Union County, Arkansas

Requires the Secretary to conduct a study to determine the feasibility of improvements to regional water supplies for El Dorado, Union County, Arkansas.

Section 404. Sweetwater Reservoir, San Diego County, California

Requires the Secretary to conduct a study of potential water quality problems and pollution abatement measures in the watershed and in and around Sweetwater Reservoir, San Diego County, California.

Section 405. Whitewater River Basin, California

Requires the Secretary to determine the feasibility of flood damage reduction in the Whitewater River Basin, California and based upon the results of such study give priority consideration to the recommended project, including the Salton Sea Wetlands Restoration project, in the flood mitigation and riverine restoration pilot program authorized under section 214 of this Act.

Section 406. Little Econlackhatchee River Basin, Florida

Requires the Secretary to conduct a study of pollution abatement measures in the Little Econlackhatchee River Basin, Florida.

Section 407. Port Everglades Inlet, Florida

Requires the Secretary to conduct a study to determine the feasibility of carrying out a sand bypass project at Port Everglades Inlet, Florida.

Section 408. Upper Des Plaines River and Tributaries, Illinois and Wisconsin

Directs the Secretary to conduct a study of the Upper Des Plaines River and Tributaries, upstream of the confluence with Salt Creek at Riverside, Illinois to determine the feasibility of various water-related improvements.

Section 409. Cameron Parish West of Calcasieu River, Louisiana

Requires the Secretary to conduct a study to determine the feasibility of carrying out a project for storm damage reduction and environmental restoration, Cameron Parish West of Calcasieu River, Louisiana.

Section 410. Grand Isle and Vicinity, Louisiana

Requires the Secretary, in carrying out a study of storm damage reduction benefits of a project for storm damage reduction, Grand Isle and vicinity, Louisiana, to include benefits to the mainland coast of Louisiana as project benefits attributable to such project.

Section 411. Lake Pontchartrain Seawall, Louisiana

Requires the Secretary to complete a post-authorization change report on the project for hurricane-flood protection in the Lake Pontchartrain area to modify the existing seawall fronting protection along a designated section of the Lake's shore.

Section 412. Westport, Massachusetts

Requires the Secretary to conduct a study to determine the feasibility of carrying out a navigation project for the town of Westport, Massachusetts, and the possible beneficial uses of dredged material for shoreline protection and storm damage protection in the area.

Section 413. Southwest Valley, Albuquerque, New Mexico

Requires the Secretary to undertake and complete a feasibility study for flood damage, and, based upon the results of such study, give priority consideration to including the recommended project in the flood mitigation and riverine restoration pilot program authorized in section 214 of this Act.

Section 414. Cayuga Creek, New York

Requires the Secretary to conduct a study to determine the feasibility of carrying out a flood control project for Cayuga Creek, New York.

Section 415. Arcola Creek Watershed, Madison, Ohio

Requires the Secretary to conduct a study to determine the feasibility of a project to provide environmental restoration and protection for the Arcola Creek watershed, Madison, Ohio.

Section 416. Western Lake Erie Basin, Ohio, Indiana, and Michigan

Requires the Secretary to conduct a study to develop measures to improve flood control, navigation, water quality, recreation, and fish and wildlife habitat in a comprehensive manner in the western Lake Erie basin, including watersheds of the Maumee, Ottawa, and Portage Rivers.

Section 417. Schuylkill River, Norristown, Pennsylvania

Requires the Secretary to conduct a study to determine the feasibility of carrying out a project for flood control for the Schuylkill River, Norristown, Pennsylvania.

Section 418. Lakes Marion and Moultrie, South Carolina

Requires the Secretary to conduct a study to determine the feasibility of carrying out a project for water supply, treatment, and distribution to Calhoun, Clarendon, Colleton, Dorchester, Orangeburg, and Sumter Counties, South Carolina.

Section 419. Day County, South Dakota

Requires the Secretary to conduct an investigation of flooding and other water resources problems between the James River and Big Sioux watersheds in South Dakota.

Section 420. Corpus Christi, Texas

Requires the Secretary to review the two 175–foot-wide barge shelves on either side of the navigation channel as part of the study authorized in a committee resolution on August 1, 1990.

Section 421. Mitchell's Cut Channel (Caney Fork Cut), Texas

Requires the Secretary to conduct a study to determine the feasibility of carrying out a project for navigation, Mitchell's Cut Channel (Caney Fork Cut), Texas.

Section 422. Mouth of the Colorado River, Texas

Requires the Secretary to conduct a study to determine the feasibility of carrying out a project for navigation at the mouth of the Colorado River, Texas.

Section 423. Kanawha River, Fayette County, West Virginia

Requires the Secretary to conduct a study to determine the feasibility of developing a public port along the Kanawha River in Fayette County, West Virginia, at a site known as Longacre.

Section 424. West Virginia Ports

Requires the Secretary to conduct a study to determine the feasibility of expanding public port development in West Virginia along the Ohio River and the navigable portion of the Kanawha River from its mouth to river mile 91.0.

Section 425. Great Lakes Region Comprehensive Study

Requires the Secretary to conduct a comprehensive study of the Great Lakes region to ensure that future use, management, and protection of water and related resources. Provides that such study shall include a comprehensive management plan specifically for St. Clair River and Lake St. Clair. Requires a report to Congress within 4 years that includes the strategic plan for Corps programs in the Great Lakes Basin and details Corps projects in the region. Authorizes $1,400,000 for fiscal years 2000–2003.

Section 426. Nutrient Loading Resulting from Dredged Material Disposal

Requires the Secretary to conduct a study of nutrient loading that occurs as a result of discharges of dredged material into open-water sites in the Chesapeake Bay and report to Congress not later than 18 months after enactment of this Act. The Committee is aware of a proposal to dispose of dredged material at site 104 and expects this study will provide helpful information on the possible environmental impacts of open water disposal.

Section 427. Santee Delta Focus Area, South Carolina

Requires the Secretary to conduct a study of the Santee Delta focus Area, South Carolina, to determine the feasibility of carrying out a project for enhancing wetlands values and public recreation.

TITLE V—MISCELLANEOUS PROVISIONS

Section 501. Corps Assumption of NRCS Projects

(a) Llagas Creek, California. Authorizes the Secretary to complete the flood control project at Llagas Creek, California, originally constructed by the Natural Resources Conservation Service of the Department of Agriculture. The total cost of the project is $45,000,000, with an estimated Federal cost of $21,800,000 and an estimated non-Federal cost of $23,200,000.

(b) Thornton Reservoir, Cook County, Illinois.—Directs the Secretary to complete the flood control project at Thornton Reservoir, Illinois, originally constructed by the Natural Resources Conservation Service of the Department of Agriculture.

Section 502. Construction Assistance

Increases the authorization levels for construction assistance under section 219 of the Water Resources Development Act of 1992 as follows: Atlanta, Georgia $25,000,000; Paterson and Passaic County, New Jersey $20,000,000; Lynchburg, Virginia $30,000,000; and Richmond, Virginia $30,000,000.

Section 503. Contaminated Sediment Dredging Technology

Authorizes $2,000,000 for the Secretary to review and test innovative dredging technologies that are designed to remove contaminated sediments without reducing water quality. Requires the Secretary to test such a technology before December 31, 2000 in the vicinity of Peoria Lakes, Illinois.

Section 504. Dam Safety

Authorizes the Secretary to provide assistance to enhance dam safety at the following locations: (1) Healdsburg Veteran's Memorial Dam, California; (2) Felix Dam, Pennsylvania; (3) Kehly Run Dam, Pennsylvania; (4) Owl Creek Reservoir, Pennsylvania; and (5) Sweet Arrow Lake Dam, Pennsylvania.

Section 505. Great Lakes Remedial Action Plans

Amends section 401(a)(2) of the Water Resources Development Act of 1990 to allow non-profit public or private entities to be the

non-Federal sponsor for projects under the Great Lakes Remedial Action Program.

Section 506. Sea Lamprey Control Measures in the Great Lakes

(a) Authorizes the Secretary, in conjunction with the Great Lakes Fishery Commission, to undertake a program for the control of sea lampreys in and around the waters of the Great Lakes. These projects may be either structural or non-structural.

(b) Provides for a 35% non-Federal cost share for projects under this section on non-Federal lands.

(c) Allows a nonprofit entity to serve as the non-Federal interest for the project.

(d) Authorizes $2,000,000 a year for fiscal years 2000–2005 for this program.

Section 507. Maintenance of Navigation Channels

Amends section 509(a) of the Water Resources Development Act of 1996 to add the following projects as Federal operations and maintenance responsibilities: (1) Acadiana Navigation Channel, Louisiana; (2) Contraband Bayou, Louisiana; (3) Lake Wallula Navigation Channel, Washington; and (4) Wadley Pass, Suwanee River, Florida.

Section 508. Measurement of Lake Michigan Diversions

Amends section 1142(b) of the Water Resources Development Act of 1986 to increase the authorization for measurement of freshwater diversions from Lake Michigan to $1,250,000.

Section 509. Upper Mississippi River Environmental Management Program

(a) Amends section 1103(e)(1) of the Water Resources Development Act of 1986 to authorize the Secretary to undertake data analysis and applied research as part of the Upper Mississippi River management program, and to establish an independent advisory committee.

(b) Amends the reporting requirement under section 1103(e)(2) to require a report to Congress every 6 years (rather than 10 years) and to specify reporting requirements.

(c) Increases the authorization of appropriations for fish and wildlife habitat rehabilitation to $22,750,000 a year. Increases the authorization of appropriations for resource monitoring, data inventory and analysis, and applied research to $10,420,000.

(d) Authorizes the transfer of 20% of amounts appropriated for fish and wildlife habitat rehabilitation to carry out resource planning, data inventory and analysis and applied research, and vice versa.

(e) Requires completion of a habitat needs assessment by September 30, 2000.

(f) Makes conforming amendments.

Section 510. Atlantic Coast of New York Monitoring

Amends section 404(c) of the Water Resources Development Act of 1992 to extend the authorization for the Atlantic Coast of New York Monitoring Program through fiscal year 2003.

Section 511. Water Control Management

Conditions the Secretary's authority to consider a regionalized water control management plan. Requires the Secretary to submit a report on water control management activities to House and Senate committees within 180 days of enactment of the bill and before implementing any such regionalized water control management plan.

Section 512. Beneficial Use of Dredged Material

Adds the following projects to those eligible for the beneficial use of dredged material under section 204 of the Water Resources Development Act of 1992: (1) Bodega Bay, California; (2) Sabine Refuge, Louisiana; (3) Hancock, Harrison, and Jackson Counties, Mississippi; (4) Rose City Marsh, Orange County, Texas; and (5) Bessie Heights Marsh, Orange County, Texas.

Section 513. Design and Construction Assistance

Amends section 507(2) of the Water Resources Development Act of 1996 to authorize expansion and improvement of Long Pine Run Dam at a total cost of $20,000,000.

Section 514. Lower Missouri River Aquatic Restoration Projects

Authorizes the Secretary to develop an overall strategy and plan for environmental restoration along the Lower Missouri River between Gavins Point Dam and the confluence of the Missouri and Mississippi Rivers. Directs the Secretary to recommend specific projects that may be carried out under section 206 of the Water Resources Development Act of 1996. Any recommended projects shall provide for such activities and measures as the Secretary determines to be necessary to protect and restore fish and wildlife habitat without adversely affecting private property rights or water related needs of the region.

Section 515. Aquatic Resources Restoration in the Northwest

(a) Authorizes the Secretary in cooperation with other Federal agencies to develop and implement projects for fish screens, fish passage devices and other measures agreed to by non-Federal and relevant Federal interests and to mitigate for the impacts associated with the irrigation system water diversions by local governments in Oregon, Washington, Montana, and Idaho.

(b) Requires the Secretary to consult with other Federal, State and local agencies and to make use of existing data and studies. It also requires that participation by non-Federal interests be voluntary and the Secretary shall not hold any non-Federal interest financially responsible for any decisions or actions taken under this section.

(c) Provides that the non-Federal cost-share for non-Federal lands be 35 percent.

(d) Authorizes $10,000,000 for this program.

Section 516. Innovative Technologies for Watershed Restoration

Provides the Secretary shall use, and encourage the use of, innovative treatment technologies, including membrane technologies,

for watershed and environmental restoration and protection projects involving water quality.

Section 517. Environmental Restoration

(a) Atlanta, Georgia.—section 219(c)(2) of the Water Resources Development Act of 1992 is amended by inserting before the period "and watershed restoration and development in the regional Atlanta watershed, including Big Creek and Rock Creek".

(b) Paterson and Passaic Valley, New Jersey.—section 219(c)(9) of the Water Resources Development Act of 1992 is amended to read as follows: Drainage facilities to alleviate flooding problems on Getty Avenue in the vicinity of St. Joseph's Hospital for the City of Paterson, New Jersey, and Passaic County, New Jersey, and innovative facilities to manage and treat additional flows in the Passaic Valley, Passaic River basin.

Section 518. Expedited Consideration of Certain Projects

Authorizes the Secretary to expedite completion of reports and proceed directly to project planning, engineering, and design for the following: (1) Arroyo Pasajero, San Joaquin River basin, California, project for flood control; (2) Success Dam, Tule River, California, project for flood control and water supply; and, (3) Alafia Channel, Tampa Harbor, Florida, project for navigation.

Section 519. Dog River, Alabama

Authorizes the Secretary to provide technical assistance to non-Federal interests in planning and implementing projects to improve water quality, the restoration of aquatic ecosystems, and the restoration of natural water depths at Dog River, Alabama. The non-Federal share of assistance under this section is 90 percent.

Section 520. Elba, Alabama

Authorizes the Secretary to repair and rehabilitate a levee in the city of Elba, Alabama at a total cost of $12,900,000.

Section 521. Geneva, Alabama

Authorizes the Secretary to repair and rehabilitate a levee in the city of Geneva, Alabama at a total cost of $16,600,000.

Section 522. Navajo Reservation, Arizona, New Mexico, and Utah

(a) In General.—Authorizes the Secretary, in conjunction with other Federal and local agencies, to undertake a survey of and provide technical, planning, and design assistance for watershed management, restoration, and development on the Navajo Indian Reservation, Arizona, New Mexico, and Utah.

(b) Cost Sharing.—Authorizes the Federal share of activities carried out under this section to be 75 percent and provides that funds made available under the Indian Self-Determination and Education Assistance Act may be used by the Navajo Nation in meeting the non-Federal cost-share.

(c) Authorization.—Authorizes $12,000,000 to carry out this section.

Section 523. Augusta and Devalls Bluff, Arkansas

Authorizes the Secretary to perform operations and maintenance and rehabilitation on 37 miles of levees in and around Augusta and Devalls Bluff, Arkansas. Requires the Secretary to seek reimbursement from the Secretary of the Interior for the share of the cost of performing such maintenance and repair allocated to benefits to a Federal wildlife refuge.

Section 524. Beaver Lake, Arkansas

Authorizes the Secretary to reallocate approximately 31,000 additional acre-feet at Beaver Lake to water supply storage at no cost to the Beaver Water District or the Carroll-Boone Water District.

Section 525. Beaver Lake Trout Production Facility, Arkansas

Requires the Secretary to construct the Beaver Lake trout hatchery by September 30, 2002. Requires the Secretary to prepare a plan for mitigation of effects of the Beaver Dam project on Beaver Lake.

Section 526. Chino Dairy Preserve, California

Directs the Secretary to provide technical assistance to State and local agencies in the study, design, and implementation of measures for flood damage reduction and environmental restoration and protection in the Santa Ana River Watershed, California, with particular emphasis on structural and nonstructural measures in the vicinity of the Chino Dairy Preserve. Directs the Secretary to conduct a feasibility study to determine the most cost-effective plan for flood damage reduction and environmental restoration and protection in the vicinity of the Chino Dairy Preserve, Santa Ana River Watershed, Orange County and San Bernardino County, California.

Section 527. Novato, California

Directs the Secretary to carry out a project for flood control under section 205 of the Flood Control Act of 1948 at Rush Creek, Novato, California, notwithstanding Corps' policy requiring a minimum flow of 800 cfs.

Section 528. Orange and San Diego Counties, California

Authorizes the Secretary to prepare special area management plans in Orange and San Diego Counties, California to demonstrate the effectiveness of using such plans to provide information regarding aquatic resources and for use in making regulatory decisions and issuing permits.

Section 529. Salton Sea, California

Requires the Secretary to provide technical assistance to Federal, State, and local agencies in the study, design, and implementation of measures for environmental restoration and protection of the Salton Sea, California. Requires a feasibility study to determine the most effective plan for the Corps to assist in the environmental restoration and protection of the Salton Sea.

Section 530. Santa Cruz Harbor, California

Authorizes the Secretary to modify the cooperative agreement with the Santa Cruz Port District, California, to reflect unanticipated additional dredging effort and to extend such agreement for 10 years.

Section 531. Point Beach, Milford, Connecticut

Modifies the project for hurricane protection and storm damage reduction at Point Beach, Milford, Connecticut to raise the authorized level of Federal expenditures to $3,000,000.

Section 532. Lower St. Johns River Basin, Florida

Authorizes the Secretary to apply the computer model developed under the St. Johns River Basin feasibility study to assist non-Federal interests in developing strategies for improving water quality in the Lower St. Johns River Basin, Florida, with a 50% non-Federal cost share. Authorizes the Secretary to provide 1–foot contour topographic survey maps of the Lower St. Johns River Basin, Florida, to non-Federal interests for analyzing environmental data and establishing bench marks for subbasins.

Section 533. Shoreline Protection and Environmental Restoration, Lake Allatoona, Georgia

Authorizes the Secretary in cooperation with EPA to carry out water related environmental restoration and resource protection activities at Lake Allatoona and Etowah River in Georgia. Authorizes $850,000 to develop preconstruction design measures to alleviate shoreline erosion and sedimentation problems at Lake Allatoona/Etowah River, Georgia. Authorizes $250,000 to conduct a feasibility study to evaluate environmental problems and recommend environmental infrastructure restoration measures for the Little River within Lake Allatoona, Georgia.

Section 534. Mayo's Bar Lock and Dam, Coosa River, Rome, Georgia

Authorizes the Secretary to provide technical assistance, including planning, engineering, and design assistance, for the reconstruction of the Mayo's Bar Lock and Dam. The non-Federal share of assistance under this section shall be 50 percent.

Section 535. Comprehensive Flood Impact Response Modeling System, Coralville Reservoir and Iowa River Watershed, Iowa

The Secretary, in cooperation with the University of Iowa, shall conduct a study and develop a comprehensive flood impact response modeling system for Coralville Reservoir and the Iowa River Watershed, Iowa. $900,000 is appropriated for each of fiscal years 2000 through 2004.

Section 536. Additional Construction Assistance in Illinois

The Secretary may carry out the project for Georgetown, Illinois, and the project for Olney, Illinois, referred to in House Report Number 104–741, accompanying Public Law 104–182.

Section 537. Kanopolis Lake, Kansas

Requires the Secretary to offer Kansas the opportunity to purchase water storage in Kanopolis Lake, Kansas, at a price calculated in accordance with and in a manner consistent with the terms of a memorandum of understanding between the Corps and the State of Kansas.

Section 538. Southern and Eastern Kentucky

Amends section 531(h) of the Water Resources Development Act of 1996 to increase the authorization to $25,000,000.

Section 539. Southeast Louisiana

Amends section 533(c) of the Water Resources Development Act of 1996 to increase the authorization for projects for flood control in Jefferson, Orleans, and St. Tammany Parishes, Louisiana, to $200,000,000.

Section 540. Snug Harbor, Maryland

Authorizes the Secretary, in coordination with the Director of the Federal Emergency Management Agency (FEMA), to provide technical assistance, conduct a study, and carry out a project for flood damage reduction in the vicinity of Snug Harbor, Maryland. Authorizes the Director of FEMA, in coordination with the Secretary and under authorities of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, to provide technical assistance and nonstructural measures for flood damage mitigation in the vicinity of Snug Harbor, Maryland. Provides that the Federal share under this section shall not exceed $3,000,000 and the non-Federal share shall be determined by the normal cost-share requirements of the Water Resources Development Act of 1996 and the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

Section 541. Welch Point, Elk River, Cecil County, and Chesapeake City, Maryland

Directs the Secretary to carry out a study to determine if the spillage of dredged materials that were removed as part of the Chesapeake and Delaware Canal project is a significant impediment to vessels transiting the Elk River near Welch Point, Maryland and, if so, to conduct such dredging as may be required to permit navigation on the river. Directs the Secretary to carry out a study to determine if additional compensation is required to fully compensate the city of Chesapeake, Maryland, for damage to the city's water supply resulting from dredging of the Chesapeake and Delaware Canal project and, if so, to provide such compensation to the city of Chesapeake.

Section 542. West View Shores, Cecil County, Maryland

Directs the Secretary, within one year, to conduct an investigation of the contamination of the well system of West View Shores, Cecil County, Maryland, and, if such contamination is from any Federal navigation project, authorizes the Secretary to provide alternative water supplies, including replacement of wells.

Section 543. Restoration Projects for Maryland, Pennsylvania, and West Virginia

Amends section 539 of the Water Resources Development Act of 1996 to make various changes and to allow for the use of funds appropriated under section 340 of the Water Resources Development Act of 1992 to carry out projects under this section.

Section 544. Cape Cod Canal Railroad Bridge, Buzzards Bay, Massachusetts

Authorizes the Secretary to provide up to $300,000 for alternative transportation that may arise as a result of the operation, maintenance, repair, and rehabilitation of the Cape Cod Canal Railroad Bridge.

Section 545. St. Louis, Missouri

Authorizes $1,700,000 for the Secretary to conduct a water resources demonstration project in the vicinity of St. Louis, Missouri.

Section 546. Beaver Branch of Big Timber Creek, New Jersey

Authorizes the Secretary to compile and disseminate information on floods and flood damages and provide technical assistance regarding floodplain management for Beaver Branch of Big Timber Creek, New Jersey.

Section 547. Lake Ontario and St. Lawrence River Water Levels, New York

Authorizes the Secretary to provide technical assistance to the International Joint Commission and the St. Lawrence River Board of Control in undertaking studies on the effects of fluctuating water levels on the natural environment, recreational boating, property flooding, and erosion along the shorelines of Lake Ontario and the St. Lawrence River in New York.

Section 548. New York-New Jersey Harbor, New York and New Jersey

Directs the Secretary to enter into cooperative agreements with non-Federal interests to investigate, develop, and support measures for sediment management and reduction of contaminant sources which affect navigation in the Port of New York-New Jersey and the environmental conditions of New York-New Jersey Harbor estuary. The investigation shall include an analysis of economic and environmental benefits and the cost of potential sediment management and contamination reduction measures. Nothing in this section provides any regulatory authority with respect to sediment management and contaminant source reduction.

Section 549. Sea Gate Reach, Coney Island, New York, New York

Authorizes 9,000,000 for the Secretary to construct a project for shoreline protection which includes a beachfill with revetment and T-groin for the Sea Gate Reach on Coney Island, New York, as identified in the March 1998 report prepared for the Corps of Engineers, New York District, entitled "Field Data Gathering, Project Performance Analysis and Design Alternative Solutions to Improve Sandfill Retention".

Section 550. Woodlawn, New York

Directs the Secretary to provide planning, design and other technical assistance to non-Federal interests for identifying and mitigating sources of contamination at Woodlawn Beach in Woodlawn, New York. Provides for a 50 percent non-Federal cost-share under this section.

Section 551. Floodplain Mapping, New York

Requires the Secretary to provide assistance to a non-Federal sponsor and to coordinate with the Federal Emergency Management Agency on a project to develop maps identifying floodplains in New York, including hydrologic and hydraulic information. The Federal share of the project is 75% and $12,000,000 is authorized to be appropriated to carry out this assistance.

Section 552. White Oak River, North Carolina

Directs the Secretary to conduct a study to determine if water quality deterioration and sedimentation of the White Oak River, North Carolina, is the result of the Atlantic Intracoastal Waterway navigation project, and to mitigate if any deterioration has occurred.

Section 553. Toussaint River, Carroll Township, Ottawa County, Ohio

Authorizes the Secretary to provide technical assistance for the removal of military ordnance from the Toussaint River, Carroll Township, Ottawa County, Ohio.

Section 554. Sardis Reservoir, Oklahoma

Directs the Secretary to accept payment by the State of Oklahoma as the full cost obligation for water supply storage at Sardis Reservoir, Oklahoma. The Committee is aware that intended savings from the buy-out could be used to build a water distribution system for the surrounding area residents. The Committee encourages the Sardis Lake Authority and the Choctaw Nation of Oklahoma to form an entity to benefit equally from the sale of surplus water from the appropriate, agreed-upon lake level of Sardis Lake.

Section 555. Waurika Lake, Oklahoma, Water Conveyance Facilities

Makes the costs incurred as the result of a settlement between the Secretary and a third party arising from the construction of the Federal water resources project at Waurika Lake, Oklahoma, a Federal responsibility. Also modifies the payment of costs to account for previous construction delays caused by contractor default and related litigation.

Section 556. Skinner Butte Park, Eugene, Oregon

Directs the Secretary to conduct a study of the south bank of the Willamette River to determine the feasibility of carrying out a project to stabilize the river bank, and to restore and enhance riverine habitat, using a combination of structural and bioengineering techniques and to carry out such project, with a 35% non-Federal cost share, if feasible. Authorizes $1,000,000 for this section.

Section 557. Willamette River Basin, Oregon

Directs the Secretary to work with the Administrators of EPA and FEMA and other appropriate Federal agencies to develop and implement a comprehensive basin-wide strategy in the Willamette River Basin, Oregon for the integrated management of land and water resources to improve water quality, reduce flood hazards, ensure sustainable economic activity, and restore habitat for native fish and wildlife.

Section 558. Bradford and Sullivan Counties, Pennsylvania

Authorizes the Secretary to provide assistance for water-related environmental infrastructure and resource protection and development projects in Bradford and Sullivan Counties, using funds and authorities under title I of the Energy and Water Development Appropriations Act of 1999.

Section 559. Erie Harbor, Pennsylvania

Authorizes the Secretary to reimburse the appropriate non-Federal interest not more than $78,366 for architect and engineering costs incurred in connection with the Erie Harbor basin navigation project, Pennsylvania.

Section 560. Point Marion Lock and Dam, Pennsylvania

Modifies the project for navigation, Point Marion Lock and Dam, Borough of Point Marion, Pennsylvania, to direct the Secretary to mitigate damages to the shoreline, which are the result of a Federal navigation project.

Section 561. Seven Points' Harbor, Pennsylvania

Authorizes $850,000 for the Secretary to construct a breakwater-dock combination at the entrance to Seven Points' Harbor, Pennsylvania. All operations and maintenance costs associated with any facility constructed under this section shall be the responsibility of the lessee of the marina complex at Seven Points' Harbor.

Section 562. Southeastern Pennsylvania

Amends section 566(b) of the Water Resources Development Act of 1996 to add environmental restoration as an authorized form of environmental assistance to non-Federal interests in Southeastern, Pennsylvania.

Section 563. Susquehanna-Lackawanna River Watershed, Pennsylvania

Authorizes the Secretary to provide technical assistance to non-Federal interests for preparing a watershed master plan for the Susquehanna River Basin. Provides for a 50 percent non-Federal cost share under this section.

Section 564. Aguadilla Harbor, Puerto Rico

Authorizes the Secretary to conduct a study to determine if erosion and additional storm damage risks that exist in the vicinity of Aguadilla Harbor, Puerto Rico, are the result of a Federal navigation project. If the Secretary determines that such erosion and additional storm damage risks are the result of the project, the Sec-

retary shall take appropriate measures to mitigate the erosion and storm damage.

Section 565. Oahe Dam to Lake Sharpe, South Dakota, Study

Amends section 441 of the Water Resources Development Act of 1996 to direct the Secretary to transmit a report, in coordination with Federal, State and local officials, to Congress by September 30, 1999 on the results of the investigation under this section.

Section 566. Integrated Water Management Planning, Texas

Authorizes $10,000,000 for the Secretary, in cooperation with other Federal agencies and the State of Texas, to provide technical, planning, and design assistance to non-Federal interests in developing integrated water management plans and projects that will serve the cities, counties, water agencies, and participating planning regions in Texas. The non-Federal share of the cost of assistance provided under this section shall be 50 percent, of which up to ½ may be provided as in-kind services.

Section 567. Bolivar Peninsula, Jefferson, Chambers, and Galveston Counties, Texas.

Authorizes the Secretary to design and construct a shore protection project between the south jetty of the Sabine Pass Channel and the north jetty of the Galveston Harbor Entrance Channel in Jefferson, Chambers, and Galveston Counties, Texas, including beneficial use of dredged material from Federal navigation projects. In determining the cost share, the Secretary shall allow the non-Federal interest to pay the additional cost required for the project costs to equal the project benefits.

Section 568. Galveston Beach, Galveston County, Texas

Authorizes the Secretary to design and construct a shore protection project between the Galveston South Jetty and San Luis Pass, Galveston County, Texas, using innovative nourishment techniques, including beneficial use of dredged material from Federal navigation projects.

Section 569. Packery Channel, Corpus Christi, Texas

Authorizes the Secretary to construct a navigation and storm protection project consisting of construction of a channel and a channel jetty and placement of sand along the length of the seawall. In determining the cost share, the Secretary shall allow the non-Federal interest to pay the additional costs that may be necessary so the estimated costs of the project equal the estimated benefits.

Section 570. Northern West Virginia

Authorizes the following projects to be carried out by the Secretary substantially in accordance with the plans, and subject to the conditions, recommended in the respective reports designated in this section: (1) Parkersburg, West Virginia; (2) Weirton, West Virginia; (3) Erickson/Wood County, West Virginia; and, (4) Monongahela River, West Virginia.

Section 571. Urbanized Peak Flood Management Research

Authorizes $3,000,000 for the Secretary to develop and implement a research program to evaluate opportunities to manage peak flood flows in urbanized watersheds located in the State of New Jersey. The Secretary is to report policy recommendations to Congress not later than 3 years after enactment of this Act.

Section 572. Mississippi River Commission

Amends section 8 of the Flood Control Act of 1928 (P.L. 391, 70th Congress) to increase the salary of civilian commissioners to $21,500 per year.

Section 573. Coastal Aquatic Habitat Management

Authorizes $7 million for the Secretary to work with other Federal, state, local and private entities, in the development of a management strategy to address problems associated with toxic microorganisms (including pfiesteria) and the resulting degradation of ecosystems in the tidal and nontidal wetlands and waters of the United States for the States along the Atlantic Ocean. As part of the management strategy the Secretary may provide planning, design, and other technical assistance to each participating State in the development and implementation of non-regulatory measures to mitigate environmental problems and restore aquatic resources. The cost share for these programs shall be 65 percent Federal and all operations and maintenance shall be provided by the non-Federal interests.

Section 574. Recreation User Fees Initiative

Authorizes the Secretary to retain 100 percent of the amounts of user fees collected at 5 projects and facilities to be returned directly to those facilities in order to increase the quality of the visitor experience at public recreational areas and to enhance the protection of resources. The amounts withheld may only be used for backlogged repair and maintenance projects for the interpretation, signage, habitat or facility enhancement, resource preservation, annual operation and maintenance, and law enforcement related to public use. A report to Congress on the results of this initiative is required. The term "at selected recreation sites" in subsection (a) is limited to the 5 or fewer projects and facilities as described in subsection (e).

Section 575. Abandoned and Inactive Noncoal Mine Restoration

(a) The Secretary is authorized to provide technical, planning, and design assistance to Federal and non-Federal interests for carrying out projects to address water quality problems caused by drainage and related activities.

(b) Assistance provided under subsection (a) may be in support of projects for the following purposes: (1) management of drainage from abandoned and inactive noncoal mines; (2) restoration and protection of streams, rivers, wetlands, other waterbodies, and riparian areas degraded by drainage; and (3) demonstration of management practices and innovative and alternative treatment technologies to minimize or eliminate adverse environmental effects associated with drainage.

(c) The non-Federal share of the cost of assistance under subsection (a) shall be 50 percent; except that the Federal share with respect to projects located on lands owned by the United States shall be 100 percent.

(d) Nothing in this section shall be construed as affecting the authority of the Secretary of the Interior. The Committee also notes that if the Secretary provides assistance under this section in any situation involving a removal or remedial action under CERCLA, the Secretary should obtain concurrence from the Administrator of EPA.

(e) The Secretary is authorized to provide assistance to non-Federal and non-profit entities to develop, manage, and maintain a database of conventional and innovative, cost-effective technologies for reclamation of abandoned and inactive noncoal mines. Such assistance shall be provided through the rehabilitation of abandoned mine sites program, managed by the Sacramento District Office of the Corps of Engineers.

(f) There is authorized to be appropriated to carry out this section $5,000,000.

Section 576. Beneficial Use of Waste Tire Rubber

Authorizes $5,000,000 for the Secretary to conduct pilot projects to encourage the beneficial use of waste tire rubber, including crumb rubber, recycled from tires. Such beneficial use may include marine pilings, underwater framing, floating docks with built-in flotation, utility poles, and other uses associated with transportation and infrastructure projects receiving Federal funds. The Secretary shall, when appropriate, encourage the use of waste tire rubber, including crumb rubber, in such federally funded projects.

Section 577. Site Designation

Amends section 102(c)(4) of the Marine Protection, Research, and Sanctuaries Act of 1972 to extend site designation by 5 years.

Section 578. Land Conveyances

This section conveys Federal property at: (a) Pike County, Missouri; (b) Candy Lake, Osage County, Oklahoma; (c) Lake Hugo, Oklahoma; (d) Marshall County, Oklahoma; (e) Summerfield Cemetery Association, Oklahoma; (f) Dexter, Oregon; (g) Richard B. Russell Dam and Lake, South Carolina; (h) Charleston, South Carolina; (i) Clarkston, Washington; and (j) Matewan, West Virginia.

Section 579. Namings

(a) Designates 8 Mile Creek in Paragould, Arkansas as the "Francis Bland Floodway Ditch."

(b) Designates the bridge over the Lock and Dam #4 on the Arkansas River, Arkansas as the "Lawrence Blackwell Memorial Bridge."

Section 580. Folsom Dam and Reservoir Additional Storage and Water Supply Studies

This section conditionally authorizes further flood control improvements for the Sacramento, California area, referred to as the "dry raise" of Folsom Dam. Further, it directs the Corps to study

potential additional storage at Folsom Dam and Reservoir to address water supply needs (known as a "wet raise"). It also assures that vehicular traffic across Folsom Dam is not significantly disrupted by construction of the dry raise by requiring a bridge to be built in the event the Corps proceeds with implementation of that work. Lastly, it directs the Corps to conduct a feasibility study of additional levee improvements that might be advisable on the American and Sacramento Rivers.

Subsection (a) requires an expedited study of replacing existing spillway gates and raising the dam and embankment at the Folsom Dam and Reservoir to provide additional flood protection. By limiting the scope of alternatives to an increase of the greater of 6.5 feet or sufficient to achieve a total of 140–year level of flood protection, the Committee expects the Corps to expedite its study and to forward its report to Congress no later than April 15, 2001. If implemented, this work would allow for temporary increases in storage (a "dry" raise) when needed for flood control. This section does not authorize permanent increase in the storage space for any purpose and specifically prohibits any increase in conservation storage.

Subsection (b) directs the Corps to study the potential increase in storage for water supply that might be feasible if improvements studied under subsection (a) are implemented. This study of a so-called "wet" raise is to assess opportunities for additional water supply storage without adversely affecting private property and recreational values at the reservoir.

Subsection (c) conditionally authorizes implementation of the potential dry raise studied under subsection (a), after completion of the study and its transmittal to Congress, provided that: height, level-of-protection and conservation storage restrictions of subsection (a) are met; technical, economic, environmental and procedural requirements are satisfied; and measures to mitigate adverse impacts on property and recreation are included. The Committee is concerned that any increase in flood control surcharge storage resulting from this section not have significant adverse effects on private properties along the lakeshore or on recreational uses on the reservoir. The Committee expects the Corps to focus on a design that minimizes, or avoids entirely, such adverse effects and, where such effects are unavoidable to achieve the flood control goals of this subsection, to interpret the "to the maximum extent practicable" provision fairly with respect to private property owners and those using the reservoir for recreational purposes and to consult with property owners, state and local recreation officials and organizations and elected officials representing the area. Furthermore, in determining technical feasibility, the Corps is to fully evaluate potential impacts to areas downstream of the dam, including potential flood impacts downstream of Sacramento.

Subsection (d) directs the Corps to immediately begin planning and design of an alternative to the roadway currently on top of Folsom Dam. If the dry raise is found to satisfy the requirements of this section, the Corps is to build this alternative (likely, but not required, to be a bridge downstream of the dam) before construction of the dry raise. The timing of construction of the dry raise and the alternative to the road shall not cause significant disruption of traffic currently using the Folsom Dam Road. Because the

alternative transportation improvement is needed to preserve the safety, physical security and structural integrity of Folsom Dam and Reservoir and is necessary to implement state-of-the-art design and construction criteria for that purpose, the Committee has concluded that the cost-sharing criteria adopted in 1986 for dam safety improvements are warranted.

Subsection (e) directs the Corps to study the feasibility of additional levee improvements that might be advisable on the American and Sacramento Rivers near and downstream of the confluence and those rivers. As the effects of improvements authorized in this Act become more accurately quantified during detailed design of such improvements and to assess opportunities to increase potential flood protection through levee modifications, the Committee concluded that specific Congressional authorization of additional study was warranted. An amount of $2,000,000 is authorized for this feasibility study; it is to be completed and transmitted to Congress within two years of enactment.

Section. 581. Water Resources Development

Section 581 is intended to address the water supply needs of the Sacramento, California region. It also reflects an agreement among Sacramento area members of the House in developing a comprehensive approach to water resources generally. The Federal share of design and construction activities and grants under this section is 65% Federal and 35% non-Federal.

Subsection (a) directs the Corps to design and construct water supply infrastructure sufficient to provide water to Placer County, California. The principal feature of this subsection is water withdrawal, conveyance, treatment and storage facilities capable of diversion and transportation of up to 117,000 acre-feet of water annually as set forth in an existing contract between the Bureau of Reclamation and the Placer County Water Agency (PCWA). The subsection also directs the Corps to modify existing facilities or build new facilities on the American River to provide permanent facilities for withdrawal and distribution of water from the American River where temporary pumping operations currently occur. In addition, modifications to an existing PCWA reservoir are directed.

Subsection (b) directs the Corps to modify the El Dorado County Irrigation District's Folsom Lake diversion facility.

Subsection (c) directs the Corps to build water supply facilities for the Georgetown Divide Public Utility District by expanding the PCWA pumping facilities addressed in subsection (a).

Subsection (d) directs the Corps to provide funds to the San Juan Water District to study conjunctive use opportunities and to carry out a pilot project to analyze processes identified in the study.

Subsection (e) directs the Corps to implement the East San Joaquin County Recharge Project. The project is expected to include, but not necessarily be limited to, about 2,000 acres of groundwater recharge ponds/wetlands and a 28–mile unlined canal connecting the existing Folsom South Canal to the current facilities of the Stockton East Water District South Farmington Canal. Prior to implementation, San Joaquin County must perfect its California water rights permits or licenses.

Subsection (g) directs the Corps to provide, through grants or other agreements, funds for projects on the American River and its tributaries to provide water supply benefits.

Subsection (h) allows the Federal share of projects and activities under this section to be provided in the form of grants or reimbursements. The Corps may reimburse non-Federal interests for the non-Federal share of costs of projects they carry out themselves provided the Corps approves plans prior to construction and verifies that work is done in accordance with approved plans.

Subsection (i) directs the Corps to contract with California to study adding water supply by changing operations at Federal, State, local and private reservoirs on rivers that drain into the Sacramento and San Joaquin River Valleys. Changes in operation shall be assumed to be voluntary. The subsection also directs the Corps to study possible increased water supply at the Sites/Colusa, Cottonwood Creek and Yuba River project areas and other potential reservoir sites draining into the California Central Valley.

Subsection (j) states that nothing in this section is to be construed as affecting any water rights in California. This provision and this section were the subject of much debate during the committee markup process. It is the Committee's intent that authorizations in this section not prejudice state and local water supply decisions.

Section 582. Allocation of Appropriations

Section 582 establishes the funding relationships between activities authorized in section 580 and water supply improvements contained in section 581. The relative amounts that are authorized to be appropriated each fiscal year, beginning in FY 2000, are established so as to facilitate final design and construction of flood control improvements in the early years and shift the emphasis to finalizing design and construction of water supply infrastructure in later years. Unused appropriated funds for flood control and water supply projects are authorized to remain available for other flood control (section 580) and water supply (section 581) projects, respectively. The specified relationship of funding for flood control and water supply projects shall not be in effect in any year in which funds cannot be obligated for such projects due to specified procedural or financial delays.

Section 583. Wallops Island, Virginia

The Secretary shall take emergency action to protect Wallops Island, Virginia from damaging coastal storms. The Secretary shall seek reimbursement from other Federal agencies whose resources are protected by the emergency action taken. There is authorized to be appropriated to carry out this section $8,000,000.

Section 584. Detroit River, Detroit, Michigan

The Secretary is authorized to repair and rehabilitate the seawalls on the Detroit River in Detroit, Michigan.

ADDITIONAL ITEMS

The Committee encourages the Secretary to conduct research to fill existing knowledge gaps on roller-compacted concrete for the

construction and rehabilitation of dams, and other water resources-related projects. The research should focus on assessing roller-compacted concrete's long-term durability, mix designs, joint preparation, and use for alternative facing systems.

Currently, feasibility studies conducted for water resources projects examine the economic, environmental, and social impacts of the projects. There is concern that such analyses do not accurately identify and portray the impacts because they are examined in isolation. The Secretary, therefore, is encouraged to use a system approach to evaluate the economic, environmental, and social beneficial and adverse impacts.

The Committee is aware that the Moss Landing Harbor in Monterey Bay, California, has not been maintained as scheduled, and the federal channel has a much reduced depth. The Secretary is encouraged to develop an arrangement with the Moss Landing Harbor District so that the Harbor District can use its equipment to dredge the Federal channel and receive reimbursement for the Federal share of the cost of work done.

The Secretary is requested to review the report entitled "The Emerald Necklace Environmental Improvements Master Plan, Phase I Muddy River Flood Control, Water Quality, and Habitat Enhancement," prepared by the Boston Parks and Recreation Department, to determine if the plans outlined in the report are cost effective, technically sound, environmentally acceptable, and in the Federal interest, and report the results of the review to Congress by December 31, 1999.

HEARINGS

The Subcommittee on Water Resources and Environment held three days of hearings on projects, programs and policies considered during the development of WRDA: on March 31, 1998; April 22, 1998; and April 28, 1998. During these hearings, testimony was received from 30 witnesses, including Members of Congress, the Administration, [project sponsors, national water resources development and environmental organizations, and state and local officials]. On February 10, 1999, the Subcommittee held a hearing on agency budgets and priorities, receiving testimony from Dr. Joseph Westphal, Assistant Secretary of the Army for Civil Works. Secretary Westphal described the importance of enacting a WRDA 99 as soon as possible.

COMMITTEE CONSIDERATION

On April 21, 1999, the Subcommittee on Water Resources and Environment approved by recorded vote, H.R. 1480 with an amendment by Mr. Boehlert. On April 22, 1999, the Committee on Transportation and Infrastructure adopted by voice vote, an en bloc amendment, offered by Mr. Shuster, which also included an amendment by Mr. DeMint and Mr. Isakson. The amendment made technical and clarifying changes, revised several project authorizations, and added various provisions related to studies and projects.

On April 21, 1999, the Committee reported the bill, as amended, by a recorded vote of 49–24.

ROLLCALL VOTES

Clause 3(b) of rule XIII requires each committee report to include the total number of votes cast for and against on each rollcall vote on a motion to report and on any amendment offered to the measure or matter, and the names of those members voting for and against.

OBERSTAR EN BLOC AMENDMENT ON AMERICAN AND SACRAMENTO RIVERS AND FOLSOM DAM

This amendment would authorize the "Folsom Stepped Release" plan, modify the project for levees on the American River and Natomas Canal and authorize a study and implementation of increased storage at Folsom Dam and Reservoir. Ayes—31; Nays—40.

AYES	NAYS
Mr. Baird	Mr. Bachus
Mr. Baldacci	Mr. Baker
Mr. Barcia	Mr. Bass
Ms. Berkley	Mr. Bateman
Mr. Berry	Mr. Bereuter
Mr. Blumenauer	Mr. Boehlert
Mr. Borski	Mr. Coble
Mr. Boswell	Mr. Cook
Mr. Clement	Mr. Cooksey
Mr. Costello	Mr. DeMint
Mr. Cummings	Mr. Doolittle
Ms. Danner	Mr. Duncan
Mr. DeFazio	Mr. Ehlers
Mr. Filner	Mr. Ewing
Mr. Holden	Mrs. Fowler
Ms. Johnson	Mr. Franks
Mr. Lampson	Mr. Gilchrest
Mr. Lipinski	Mr. Horn
Mr. McGovern	Mr. Hutchinson
Mr. Mascara	Mr. Isakson
Mr. Menendez	Mrs. Kelly
Ms. Millender-McDonald	Mr. Kuykendall
Mr. Nadler	Mr. LaTourette
Ms. Norton	Mr. LoBiondo
Mr. Oberstar	Mr. Metcalf
Mr. Pascrell	Mr. Mica
Mr. Sandlin	Mr. Miller
Mr. Shows	Mr. Moran
Mrs. Tauscher	Mr. Ney
Mr. Traficant	Mr. Pease
Mr. Wise	Mr. Petri
	Mr. Quinn
	Mr. Sherwood
	Mr. Simpson
	Mr. Sweeney
	Mr. Terry
	Mr. Thune
	Mr. Watts
	Mr. Young
	Mr. Shuster

FINAL PASSAGE OF H.R. 1480, AS AMENDED (49–24)

AYES

Mr. Bachus
Mr. Baird
Mr. Baker
Mr. Barcia
Mr. Bass
Mr. Bateman
Mr. Bereuter
Mr. Berry
Mr. Boehlert
Mr. Coble
Mr. Cook
Mr. Cooksey
Ms. Danner
Mr. DeMint
Mr. Doolittle
Mr. Duncan
Mr. Ehlers
Mr. Ewing
Mrs. Fowler
Mr. Franks
Mr. Gilchrest
Mr. Horn
Mr. Hutchinson
Mr. Isakson
Mrs. Kelly
Mr. Kuykendall
Mr. LaHood
Mr. LaTourette
Mr. LoBiondo
Mr. Menendez
Mr. Metcalf
Mr. Mica
Mr. Miller
Mr. Moran
Mr. Ney
Mr. Pease
Mr. Petri
Mr. Quinn
Mr. Sherwood
Mr. Shows
Mr. Simpson
Mr. Sweeney
Mr. Taylor
Mr. Terry
Mr. Thune
Mr. Watts
Mr. Wise
Mr. Young
Mr. Shuster

NAYS

Mr. Baldacci
Ms. Berkley
Mr. Blumenauer
Mr. Borski
Mr. Boswell
Mr. Clement
Mr. Costello
Mr. Cummings
Mr. DeFazio
Mr. Filner
Mr. Holden
Ms. Johnson
Mr. Lampson
Mr. Lipinski
Mr. McGovern
Mr. Mascara
Ms. Millender-McDonald
Mr. Nadler
Ms. Norton
Mr. Oberstar
Mr. Pascrell
Mr. Sandlin
Mrs. Tauscher
Mr. Traficant

COST OF THE LEGISLATION

Clause 7 of rule XIII of the Rules of the House of Representatives does not apply where a cost estimate and comparison prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974 has been timely submitted prior to the filing of the report and is included in the report. Such a cost estimate is included in this report.

COMPLIANCE WITH HOUSE RULE XI

1. Pursuant to clause 3(c)(1) of rule XIII of the Rules of the House of Representatives, oversight findings and recommendations have been made by the Committee as reflected in this report.
2. With respect to the requirement of clause 3(c)(2) of rule XIII of the Rules of the House of Representatives, and 308(a) of the Congressional Budget Act of 1974, the Committee references the report of the Congressional Budget Office included below.
3. With respect to the requirement of clause 3(c)(4) of rule XIII of the Rules of the House of Representatives, the Committee has received no report of oversight findings and recommendations from the Committee on Government Reform and Oversight on the subject of H.R. 1480.
4. With respect to the requirement of clause 3(c)(3) of rule XIII of the Rules of the House of Representatives and section 402 of the Congressional Budget Act of 1974, the Committee has received the following cost estimate for H.R. 1480 from the Director of the Congressional Budget Office.

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, April 26, 1999.

Hon. BUD SHUSTER,
Chairman, Committee on Transportation and Infrastructure, House of Representatives, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 1480, the Water Resources Development Act of 1999.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contacts are Victoria Heid Hall (for the effects on outer continental shelf receipts); Deborah Reis (for the effects on recreation fees); Gary Brown (for all other federal costs); Marjorie Miller (for the state and local impact); and Keith Mattrick (for the private-sector impact).

Sincerely,

STEVEN M. LIEBERMAN
(for Dan L. Crippen, Director).

Enclosure.

CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

H.R. 1480—Water Resources Development Act of 1999

Summary: H.R. 1480 would authorize the appropriation of about $3.6 billion (in 1999 dollars) over the 2000–2009 period for the Secretary of Army, acting through the Army Corps of Engineers, to conduct studies and undertake specified projects and programs for

flood control, port development, inland navigation, storm damage reduction, and environmental restoration. Adjusting for anticipated inflation, CBO estimates that implementing the bill would require appropriations of about $4 billion over that period. The bill also would authorize:

Prepayment or waiver of amounts owed to the federal government;

Spending a portion of the fees collected at Corps recreation sites and extending a statutorily reduced price for visiting Raystown Lake, Pennsylvania;

Free use of sand, gravel, and shell resources from the outer continental shelf (OCS) at eligible projects by state and local governments; and

Sale of specified federal lands in Washington, South Carolina, and Oklahoma.

CBO estimates that implementing H.R. 1480 would result in additional outlays of about $2.9 billion over the 2000–2004 period, assuming the appropriation of the necessary amounts. The remaining amounts authorized by the bill would be spent after 2004. Enacting the bill would affect direct spending; therefore, pay-as-you-go procedures would apply. CBO estimates that enacting H.R. 1480 would reduce direct spending by $17 million in 2000 and would result in a net increase in direct spending of $11 million over the 2000–2004 period.

H.R. 1480 contains no intergovernmental mandates as defined in the Unfunded Mandates Reform Act (URMA). State and local governments would likely incur some costs as a result of the bill's enactment, but most of these costs would be voluntary.

H.R. 1480 would impose a new private-sector mandate on the Summerfield Cemetery Association, Oklahoma. CBO estimates that the cost of this mandate would be less than $50,000, falling well below the threshold ($100 million in 1996, adjusted for inflation) established in UMRA.

Estimated cost to the Federal Government: The estimated budgetary impact of H.R. 1480 is shown in the following table. For constructing, operating, and maintaining projects that are already authorized, CBO estimates that the Corps will need about $4 billion annually over the 2000–2004 period (roughly the level appropriated in 1999). The table shows the estimates of additional spending necessary to implement the bill. The costs of this legislation fall primarily within budget function 300 (natural resources and environment).

	By fiscal years, in millions of dollars—				
	2000	2001	2002	2003	2004
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
Estimated Authorization Level	837	846	655	413	354
Estimated Outlays	419	716	749	563	420
CHANGES IN DIRECT SPENDING					
Estimated Budget Authority	−17	8	8	8	4
Estimated Outlays	−17	8	8	8	4

Basis of estimate: For the purpose of this estimate. CBO assumes that H.R. 1480 will be enacted by the end of fiscal year 1999 and

that all amounts estimated to be authorized by the bill will be appropriated for each fiscal year.

Spending subject to appropriation

Estimates of annual budget authority needed to meet design and construction schedules were provided by the Corps. CBO adjusted the estimates to reflect the impact of anticipated inflation during the time between authorization and appropriation. Estimated outlays are based on historical spending rates for activities of the Corps.

Direct spending

Prepayments and Waivers of Payments. H.R. 1480 would authorize the state of Oklahoma to pay the present value of its outstanding obligation to the United States for water supply. CBO estimates that, if the bill is enacted, a prepayment of about $20 million would be made in 2000 and that payments forgone would be about $2 million a year over the 2000–2033 period. The bill would authorize the Corps to waive payments from the Waurika Project Master Conservancy District and the cities of Chesapeake, Virginia, and Moorefield, West Virginia, for other projects. CBO estimates that, under current law, payments from these entities would total less than $500,000 annually over the 2000–2031 period.

Spending Recreation Fees. H.R. 1480 would authorize the Corps to retain and spend over the 2000–2003 period all recreation fees collected by the Corps at up to five of the agency's recreation projects, one of which must be the Mississippi River Headwaters Recreation Areas in Minnesota. At present, all recreation fees collected by the Corps (about $36 million annually) are deposited as offsetting receipts in the Treasury and are unavailable for spending unless appropriated. By allowing the Corps to spend some of these receipts, this provision would result in new direct spending. CBO estimates that authorizing the Corps of spend without further appropriation any receipts earned from five projects would increase outlays by about $4 million annually through 2003. For purposes of this estimate, CBO anticipates that the Corps would use the new authority at its four highest revenue-generating projects plus the specified areas in Minnesota.

Raystown Lake. Enacting H.R. 1480 would extend through 2003 the current price for an annual pass to recreation facilities at Raystown Lake, Pennsylvania. The Water Resources Development Act of 1996 directed the Corps to set the price of an annual pass at $10 through 1999. At the time, the cost of an annual pass was $25. CBO anticipates that, under current law, the Corps will raise the price for visiting Raystown Lake up to the previous level beginning in 2000. Based on historical purchases of annual passes, CBO estimates that preventing the fee increase will result in a loss of offsetting receipts to the Treasury of about $30,000 a year over the 2000–2003 period.

Increasing Receipts for Water Supply at Kannapolis Lake. Enacting H.R. 1480 would result in payments to the United States for water supply that would not occur under current law. The bill would direct the Corps to supply storage to the state of Kansas at a lower cost than is required under current law. The state has indi-

cated that it would not contract with the Corps without such a discount. CBO estimates that, if H.R. 1480 is enacted, annual payments by the state would total about $160,000 a year over the 2000 through 2029 period. Payments would be recorded as offsetting receipts. This payment level is about one-sixth of the amount that the state would be required to pay at current prices.

Using Outer Continental Shelf Sand and Gravel. H.R. 1480 would amend the Outer Continental Shelf Lands Act to allow state and local governments to use—without charge—sand, gravel, and shell resources from the outer continental shelf for shore restoration and protection programs. Under current law, the Department of the Interior (DOI) cannot charge other federal agencies for the use of these OCS resources. Section 218 would extend free use of the resources to state and local government agencies. Based on information from DOI, CBO estimates that exempting these projects from fees for OCS sand, gravel, and shell resources would result in forgone receipts of about $2 million each year. Proceeds from the sale of this material are recorded as offsetting receipts to the Treasury; thus a loss of these receipts would increase direct spending.

Sales of Land. H.R. 1480 would direct the Corps to sell at fair market value land that was acquired for the Candy Lake Project in Osage County, Oklahoma, and land that was acquired for storing equipment in Charleston, South Carolina. The lands were acquired in the mid-1970s at a total cost of about $2.4 million. Accounting for inflation, CBO estimates the current value of these lands at about $5 million. CBO anticipates that the lands could be sold in fiscal year 2000. Annual lease payments and other revenues accruing to the federal government from these lands are not significant.

CBO anticipates that sale proceeds would be counted for pay-as-you-go purposes. Under the Balanced Budget Act, proceeds from nonroutine asset sales (sales that are not authorized under current law) may be counted for pay-as-you-go scorekeeping only if the sale would entail no financial cost to the government.

H.R. 1480 also would direct the Corps to transfer lands located in Clarkston, Washington, to the Port of Clarkston. The Port would not be required to pay for the lands as long as they are used for recreation purposes. The fair market value of the lands are estimated at slightly less than $2 million. Based on information provided by the Corps, CBO anticipates that the lands would continue to be used for recreation purposes after conveyance and that no consideration would be required. The Port currently leases the lands from the United States without cost.

The bill also would direct the Corps to sell at fair market value lands in Choctaw and Marshall Counties, Oklahoma, to the Choctaw County Industrial Authority and the state of Oklahoma, respectively. Based on information from the Corps, CBO estimates that any receipts accruing to the United States from these lands under current law are insignificant; however, CBO and the Corps have not had sufficient time to evaluate all of the potential budgetary effects of selling these lands, including the amounts that would be paid to the United States for them.

Pay-as-you-go considerations: The Balanced Budget and Emergency Deficit Control Act sets up pay-as-you-go procedures for legislation affecting direct spending or receipts. The net changes in outlays that are subject to pay-as-you-go procedures are shown in the following table. (The bill would not affect governmental receipts.) For the purposes of enforcing pay-as-you-go procedures, only the effects in the current year, the budget year, and the succeeding four years are counted.

	By fiscal year, in millions of dollars										
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Changes in outlays	0	−17	8	8	8	4	4	4	4	4	4
Changes in receipts	Not applicable										

The above estimates do not include any receipts for the sales of land in Choctaw and Marshall Counties, Oklahoma. CBO cannot estimate proceeds for these asset sales at this time.

Estimated impact on State, local, and tribal governments: H.R. 1480 contains no intergovernmental mandates as defined in UMRA. State and local governments that choose to participate in water resources development projects and programs carried out by the Corps would incur costs as described below. In addition, some state and local governments would benefit from provisions in this bill that would alter their obligations to make payments to the federal government and order transfers of land.

CBO estimates that nonfederal entities (primarily state and local governments) that choose to participate in the projects authorized by this bill would spend about $1.6 billion during fiscal years 2000 through 2011 to help construct these projects. These estimates are based on information provided by the Corps. In addition to these costs, nonfederal entities would pay for the operation and maintenance of many of the projects after they are constructed. The bill also would authorize several new programs that would assist state and local governments. Those governments choosing to participate in these programs generally would be required to provide funds equaling from 35 percent to 50 percent of the total costs.

H.R. 1480 would make a number of changes to federal laws governing cost sharing between the federal government and state and local governments. Some of these changes would affect all state and local governments participating in particular programs, while others would affect only specific projects. The bill also includes several provisions that would alter the repayment obligations of specific state and local governments, either by allowing the prepayment of amounts owed or by waiving amounts owed under current law.

State and local governments would benefit from a provision in the bill that would allow them to use sand, gravel, and shell resources from the outer continental shelf for eligible projects at no charge. In addition, H.R. 1480 would authorize the transfer of certain land and facilities now owned by the federal government to state and local governments. In some cases, these governments would be required to pay the costs necessary to complete these conveyances, should they choose to take the property.

H.R. 1480 would authorize a number of water supply projects to benefit certain northern California counties that could reduce

water supplies available to some other water users in the state, including public agencies. The bill would, however, authorize appropriations of $10 million for grants or other cooperative agreements with local water agencies for the purpose of reducing the adverse impacts of these projects. Further, the bill includes language intended to avoid any preemption of existing water rights in California.

Estimated impact on the private sector: H.R. 1480 would impose a new private-sector mandate on the Summerfield Cemetery Association, Oklahoma. The Association would be responsible for the costs to the Federal Government of conveying land to the Association. Based on information provided by government sources, CBO estimates that the total cost of this new mandate would be less than $50,000 and therefore would not exceed the annual inflation-adjusted $100 million threshold, as defined in UMRA.

Previous CBO estimate: On April 14, 1999, CBO transmitted a cost estimate for S. 507, the Water Resources Development Act of 1999, as reported by the Senate Committee on Environment and Public Works on March 23, 1999. The differences in the estimates reflect differences between the two bills.

Estimate prepared by: Federal Costs: OCS receipts—Victoria Heid Hall; recreation fees—Deborah Reis; all other costs—Gary Brown. Impact on State, local, and tribal governments: Marjorie Miller. Impact on the private sector: Keith Mattrick.

Estimate approved by: Paul N. Van de Water, Assistant Director for Budget Analysis.

CONSTITUTIONAL AUTHORITY STATEMENT

Pursuant to clause 3(d)(1) of rule XIII of the Rules of the House of Representatives, committee reports on a bill or joint resolution of a public character shall include a statement citing the specific powers granted to the Congress in the Constitution to enact the measure. The Committee on Transportation and Infrastructure finds that Congress has the authority to enact this measure pursuant to its powers granted under article I, section 8 of the Constitution.

FEDERAL MANDATES STATEMENT

The Committee adopts as its own the estimate of federal mandates prepared by the Director of the Congressional Budget Office pursuant to section 423 of the Unfunded Mandates Reform Act.

ADVISORY COMMITTEE STATEMENT

No advisory committees within the meaning of section 5(b) of the Federal Advisory Committee Act were created by this legislation.

APPLICABILITY TO THE LEGISLATIVE BRANCH

The Committee finds that the legislation does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act.

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

WATER RESOURCES DEVELOPMENT ACT OF 1996

* * * * * * *

TITLE I—WATER RESOURCES PROJECTS

SEC. 101. PROJECT AUTHORIZATIONS.

(a) PROJECTS WITH CHIEF'S REPORTS.—Except as provided in this subsection, the following projects for water resources development and conservation and other purposes are authorized to be carried out by the Secretary substantially in accordance with the plans, and subject to the conditions, described in the respective reports designated in this subsection:

(1) AMERICAN RIVER WATERSHED, CALIFORNIA.—

(A) * * *

(A) IN GENERAL.—The project for flood damage reduction, American and Sacramento Rivers, California: Report of the Chief of Engineers, dated June 27, 1996, [at a total cost of $56,900,000, with an estimated Federal cost of $42,675,000 and an estimated non-Federal cost of $14,225,000,] *at a total cost of $91,900,000, with an estimated Federal cost of $68,925,000 and an estimated non-Federal cost of $22,975,000,* consisting of—

(i) approximately 24 miles of slurry wall in the levees along the lower American River;

(ii) approximately 12 miles of levee modifications along the east bank of the Sacramento River downstream from the Natomas Cross Canal;

(iii) 3 telemeter streamflow gauges upstream from the Folsom Reservoir; and

(iv) modifications to the flood warning system along the lower American River.

* * * * * * *

(D) OTHER COSTS.—The non-Federal interest shall be responsible for—

(i) * * *

(ii) 25 percent of the costs incurred for the variable flood control operation of the Folsom Dam and Reservoir [during the 4-year period beginning on the date of the enactment of this Act and 100 percent of such costs thereafter].

* * * * * * *

TITLE II—GENERAL PROVISIONS

* * * * * * *

SEC. 206. AQUATIC ECOSYSTEM RESTORATION.

(a) * * *

(b) COST SHARING.—Non-Federal interests shall provide 35 percent of the cost of construction of any project carried out under this section, including provision of all lands, easements, rights-of-way, and necessary relocations. *Before October 1, 2003, the Federal share may be provided in the form of grants or reimbursements of project costs.*

(c) AGREEMENTS.—Construction of a project under this section shall be initiated only after a non-Federal interest has entered into a binding agreement with the Secretary to pay the non-Federal share of the costs of construction required by this section and to pay 100 percent of any operation, maintenance, and replacement and rehabilitation costs with respect to the project in accordance with regulations prescribed by the Secretary. *Notwithstanding section 221(b) of the Flood Control Act of 1970 (42 U.S.C. 1962d–5b(b)), the Secretary, after coordination with the appropriate State and local government officials having jurisdiction over an area in which a project under this section will be carried out, may allow a nonprofit entity to serve as the non-Federal interest for the project.*

* * * * * * *

SEC. 208. RECREATION POLICY AND USER FEES.

(a) * * *

* * * * * * *

(c) ALTERNATIVE TO ANNUAL PASSES.—

(1) * * *

* * * * * * *

(4) EXPIRATION OF AUTHORITY.—The authority to establish an annual pass under paragraph (2) shall expire on the later of December 31, [1999, or the date of transmittal of the report under paragraph (3)] *2003*.

* * * * * * *

SEC. 211. CONSTRUCTION OF FLOOD CONTROL PROJECTS BY NON-FEDERAL INTERESTS.

(a) * * *

* * * * * * *

(d) AUTHORITY TO CARRY OUT IMPROVEMENT.—

(1) IN GENERAL.—[Any non-Federal]

(A) STUDIES AND DESIGN ACTIVITIES UNDER SUBSECTION (b).—A non-Federal interest may only carry out construction for which studies and design documents are prepared under subsection (b) if the Secretary approves such construction. The Secretary shall approve such construction unless the Secretary determines, in writing, that the design documents do not meet standard practices for design methodologies or that the project is not economically justified or environmentally acceptable or does not meet the require-

ments for obtaining the appropriate permits required under the Secretary's authority. The Secretary shall not unreasonably withhold approval. Nothing in this subparagraph may be construed to affect any regulatory authority of the Secretary.

(B) STUDIES AND DESIGN ACTIVITIES UNDER SUBSECTION (c).—Any non-Federal interest that has received from the Secretary pursuant to subsection [(b) or] (c) a favorable recommendation to carry out a flood control project, or separable element of a flood control project, based on the results of completed studies and design documents for the project or element may carry out the project or element if a final environmental impact statement under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) has been filed for the project or element.

(2) PERMITS.—Any plan of improvement proposed to be implemented in accordance with this subsection *(other than paragraph (1)(A))* shall be deemed to satisfy the requirements for obtaining the appropriate permits required under the Secretary's authority. Such permits shall be granted subject to the non-Federal interest's acceptance of the terms and conditions of such permits if the Secretary determines that the applicable regulatory criteria and procedures have been satisfied.

* * * * * * *

(e) REIMBURSEMENT.—

(1) GENERAL RULE.—Subject to appropriations Acts, the Secretary may reimburse any non-Federal interest an amount equal to the estimate of the Federal share, without interest, of the cost of any authorized flood control project, or separable element of a flood control project, constructed pursuant to this section *and provide credit for the non-Federal share of the project*—

(A) if, after authorization and before initiation of construction of the project or separable element, the Secretary approves the plans for construction of such project by the non-Federal interest; [and]

(B) if the Secretary finds, after a review of studies and design documents prepared pursuant to this section, that construction of the project or separable element is economically justified and environmentally acceptable[.]*; and*

(C) if the construction work is reasonably equivalent to Federal construction work.

(2) SPECIAL RULES.—

(A) REIMBURSEMENT.—For work (including work associated with studies, planning, design, and construction) carried out by a non-Federal interest with respect to a project described in subsection (f), the Secretary shall, [subject to amounts being made available in advance in appropriations Acts] *subject to appropriations*, reimburse, without interest, the non-Federal interest an amount equal to the estimated Federal share of the cost of such work*, or provide credit (depending on the request of the non-Federal interest) for the non-Federal share of such work,* if such work

is later recommended by the Chief of Engineers and approved by the Secretary.

* * * * * * *

(6) SCHEDULE AND MANNER OF REIMBURSEMENT.—

(A) BUDGETING.—The Secretary shall budget and request appropriations for reimbursements under this section on a schedule that is consistent with a Federal construction schedule.

(B) COMMENCEMENT OF REIMBURSEMENTS.—Reimbursements under this section may commence upon approval of a project by the Secretary.

(C) CREDIT.—At the request of a non-Federal interest, the Secretary may reimburse the non-Federal interest by providing credit toward future non-Federal costs of the project.

(D) SCHEDULING.—Nothing in this paragraph shall affect the President's discretion to schedule new construction starts.

* * * * * * *

TITLE IV—STUDIES

* * * * * * *

SEC. 417. SPRINGFIELD, ILLINOIS.

(a) IN GENERAL.—The Secretary shall provide assistance to the city of Springfield, Illinois, in developing—

(1) * * *

* * * * * * *

(b) COST SHARING.—The non-Federal share of assistance provided under this section before, on, or after the date of enactment of this subsection shall be 50 percent.

* * * * * * *

SEC. 441. OAHE DAM TO LAKE SHARPE, SOUTH DAKOTA.

(a) INVESTIGATION.—The Secretary shall investigate potential solutions to the recurring flooding and related problems in the vicinity of Pierre and Ft. Pierre, South Dakota, caused by sedimentation in Lake Sharpe. The potential solutions to be investigated shall include lowering of the lake level and sediment agitation to allow for resuspension and movement of the sediment. The investigation shall include development of a comprehensive solution which includes consideration of structural and nonstructural measures upstream from the lake consisting of land treatment, sediment retention structures, and such other measures as the Secretary determines to be appropriate.

(b) REPORT.—Not later than September 30, 1999, the Secretary shall transmit to Congress a report on the results of the investigation under this section. The report shall include the examination of financing options for regular maintenance and preservation of the lake. The report shall be prepared in coordination and cooperation

with the Natural Resources Conservation Service, other Federal agencies, and State and local officials.

* * * * * * *

SEC. 444. PACIFIC REGION.

The Secretary may conduct studies in the [interest of navigation] *interests of water resources development, including navigation, flood damage reduction, and environmental restoration* in that part of the Pacific region that includes American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.

* * * * * * *

TITLE V—MISCELLANEOUS PROVISIONS

* * * * * * *

SEC. 503. WATERSHED MANAGEMENT, RESTORATION, AND DEVELOPMENT.

(a) IN GENERAL.—The Secretary may provide technical, planning, and design assistance to non-Federal interests for carrying out watershed management, restoration, and development projects at the locations described in subsection (d). *Notwithstanding section 221(b) of the Flood Control Act of 1970 (42 U.S.C. 1962d–5b(b)), the Secretary, after coordination with the appropriate State and local government officials having jurisdiction over an area in which a project under this section will be carried out, may allow a nonprofit entity to serve as the non-Federal interest for the project.*

* * * * * * *

(d) PROJECT LOCATIONS.—The Secretary may provide assistance under subsection (a) for projects at the following locations:

(1) * * *

* * * * * * *

(7) Sacramento River watershed, California*, including Clear Lake*.

* * * * * * *

(14) Fresno Slough watershed, California.

(15) Hayward Marsh, Southern San Francisco Bay watershed, California.

(16) Kaweah River watershed, California.

(17) Malibu Creek watershed, California.

(18) Illinois River watershed, Illinois.

(19) Catawba River watershed, North Carolina.

(20) Cabin Creek basin, West Virginia.

(21) Lower St. Johns River basin, Florida.

* * * * * * *

SEC. 506. PERIODIC BEACH NOURISHMENT.

(a) IN GENERAL.—The Secretary shall carry out periodic beach nourishment for each of the following projects for a period of 50 years beginning on the date of initiation of construction of the project:

(1) * * *

* * * * * * *

(5) LEE COUNTY, FLORIDA.—Project for shoreline protection, Lee County, Captiva Island segment, Florida.

(b) PERIODIC BEACH NOURISHMENT SUBJECT TO REVIEW.—

(1) * * *

* * * * * * *

(3) PROJECTS.—The projects referred to in paragraph (1) are as follows:

[(A) LEE COUNTY, FLORIDA.—Project for shoreline protection, Lee County, Captiva Island segment, Florida.]

[(B)] *(A)* PALM BEACH COUNTY, FLORIDA.—Project for shoreline protection, Jupiter/Carlin, Ocean Ridge, and Boca Raton North Beach segments, Palm Beach County, Florida.

[(C)] *(B)* RARITAN BAY AND SANDY HOOK BAY, NEW JERSEY.—Project for hurricane-flood protection, Raritan Bay and Sandy Hook Bay, New Jersey.

[(D)] *(C)* FIRE ISLAND INLET, NEW YORK.—Project for shoreline protection, Fire Island Inlet, New York, between Gilgo State Park and Tobay Beach to protect Ocean Parkway along the Atlantic Ocean shoreline in Suffolk County, New York.

SEC. 507. DESIGN AND CONSTRUCTION ASSISTANCE.

The Secretary shall provide design and construction assistance to non-Federal interests for each of the following projects if the Secretary determines that the project is feasible:

(1) * * *

[(2) Construction of a multipurpose dam and reservoir, Bear Valley Dam, Franklin County, Pennsylvania, at an estimated total cost of $15,000,000.]

(2) Expansion and improvement of Long Pine Run Dam and associated water infrastructure in accordance with the requirements of subsections (b) through (e) of section 313 of the Water Resources Development Act of 1992 (106 Stat. 4845) at a total cost of $20,000,000.

* * * * * * *

SEC. 509. MAINTENANCE OF NAVIGATION CHANNELS.

(a) IN GENERAL.—Upon request of the non-Federal interest, the Secretary shall be responsible for maintenance of the following navigation channels constructed or improved by non-Federal interests if the Secretary determines that such maintenance is economically justified and environmentally acceptable and that the channel was constructed in accordance with applicable permits and appropriate engineering and design standards:

(1) * * *

* * * * * * *

(12) Acadiana Navigation Channel, Louisiana.

(13) Contraband Bayou, Louisiana, as part of the Calcasieu River and Pass Ship Channel.

(14) Lake Wallula Navigation Channel, Washington.

(15) Wadley Pass (also known as McGriff Pass), Suwanee River, Florida.

* * * * * * *

SEC. 519. RECREATION PARTNERSHIP INITIATIVE.

(a) * * *

(b) INFRASTRUCTURE IMPROVEMENTS.—

(1) * * *

* * * * * * *

(3) ENGINEERING AND DESIGN SERVICES.—The Secretary may perform, at full Federal expense, engineering and design services for project infrastructure expected to be associated with the development of the site at Raystown Lake, Hesston, Pennsylvania.

[(3)**]** *(4)* AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection $3,000,000.

* * * * * * *

SEC. 528. EVERGLADES AND SOUTH FLORIDA ECOSYSTEM RESTORATION.

(a) * * *

(b) RESTORATION ACTIVITIES.—

(1) * * *

* * * * * * *

(3) CRITICAL RESTORATION PROJECTS.—

(A) * * *

(B) INITIATION OF PROJECTS.—After September 30, **[**1999**]** *2000*, no new projects may be initiated under subparagraph (A).

(C) AUTHORIZATION OF APPROPRIATIONS.—

(i) IN GENERAL.—There is authorized to be appropriated to the Department of the Army to pay the Federal share of the cost of carrying out projects under subparagraph (A) $75,000,000 for the period consisting of fiscal years 1997 through **[**1999**]** *2003*.

* * * * * * *

(D) CREDIT OF PAST AND FUTURE ACTIVITIES.—The Secretary may provide a credit to the non-Federal interests toward the non-Federal share of a project implemented under subparagraph (A). The credit shall be for reasonable costs of work performed by the non-Federal interests if the Secretary determines that the work substantially expedited completion of the project and is compatible with and an integral part of the project, and the credit is provided pursuant to a specific project cooperation agreement.

* * * * * * *

(e) COST SHARING.—

(1) * * *

* * * * * * *

(4) CREDIT.—Regardless of the date of acquisition, the value of lands or interests in land acquired by non-Federal interests

for any activity described in subsection (b) shall be included in the total cost of the activity and credited against the non-Federal share of the cost of the activity *if the Secretary determines that such land acquisition is compatible with and an integral component of the Everglades and South Florida ecosystem restoration, including potential land acquisition in the Caloosahatchee River basin or other areas*. Such value shall be determined by the Secretary.

* * * * * * *

SEC. 531. SOUTHERN AND EASTERN KENTUCKY.

(a) * * *

* * * * * * *

(h) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section [$10,000,000] *$25,000,000*.

* * * * * * *

SEC. 533. SOUTHEAST LOUISIANA.

(a) * * *

* * * * * * *

(c) FUNDING.—There is authorized to be appropriated [$100,000,000] *$200,000,000* for the initiation and partial accomplishment of projects described in the reports referred to in subsection (a).

* * * * * * *

SEC. 539. RESTORATION PROJECTS FOR MARYLAND, PENNSYLVANIA, AND WEST VIRGINIA.

(a) IN GENERAL.—

(1) TECHNICAL ASSISTANCE.—The Secretary may provide [technical] assistance to non-Federal interests *(or in the case of projects located on lands owned by the United States, to Federal interests)*, in cooperation with Federal and State agencies, for reclamation and water quality protection projects for the purpose of abating and mitigating surface water quality degradation caused by abandoned mines along—

(A) * * *

* * * * * * *

(3) CONSULTATION WITH FEDERAL ENTITIES.—Any project under paragraph (1) that is located on lands owned by the United States shall be undertaken in consultation *or in conjunction* with the Federal entity with administrative jurisdiction over such lands.

* * * * * * *

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $1,500,000 for projects undertaken under subsection (a)(1)(A) and $1,500,000 for projects undertaken under subsection (a)(1)(B). *Funds authorized to be appropriated to carry out section 340 of the Water Resources Development*

Act of 1992 (106 Stat. 4856) are authorized for projects undertaken under subsection (a)(1)(B).

* * * * * * *

SEC. 552. NEW YORK CITY WATERSHED.

(a) * * *

* * * * * * *

(i) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section **[**$22,500,000**]** *$42,500,000*.

SEC. 553. NEW YORK STATE CANAL SYSTEM.

(a) * * *

* * * * * * *

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section **[**$8,000,000**]** *$18,000,000*.

* * * * * * *

SEC. 562. CURWENSVILLE LAKE, PENNSYLVANIA.

The Secretary shall modify the allocation of costs for the water reallocation project at Curwensville Lake, Pennsylvania, to the extent that the Secretary determines that such modification will provide environmental restoration benefits in meeting instream flow needs in the Susquehanna River basin. *The Secretary shall provide design and construction assistance for recreational facilities at Curwensville Lake and, when appropriate, may require the non-Federal interest to provide not more than 25 percent of the cost of designing and constructing such facilities. The Secretary may transfer, in each of fiscal years 1999 through 2003, $100,000 to the Clearfield County Municipal Services and Recreation Authority for recreational facilities.*

* * * * * * *

SEC. 566. SOUTHEASTERN PENNSYLVANIA.

(a) * * *

(b) FORM OF ASSISTANCE.—Assistance under this section may be in the form of design and construction assistance for water-related environmental infrastructure and resource protection and development projects in southeastern Pennsylvania, including projects for waste water treatment and related facilities, water supply and related facilities, *environmental restoration,* and surface water resource protection and development.

* * * * * * *

SEC. 575. HARRIS COUNTY, TEXAS.

(a) * * *

* * * * * * *

(c) CLEAR CREEK, TEXAS.—In any evaluation of economic benefits and costs for the project for flood control, Clear Creek, Texas, authorized by section 203 of the Flood Control Act of 1968 (82 Stat. 742) that occurs after the date of enactment of this subsection, the Secretary shall include the costs and benefits of nonstructural measures undertaken, including any buyout or relocation actions, of non-

Federal interests within the drainage area of such project before the date of the evaluation in the determination of conditions existing before the construction of the project.

* * * * * * *

SEC. 579. GREENBRIER RIVER BASIN, WEST VIRGINIA, FLOOD PROTECTION.

(a) * * *

* * * * * * *

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section **[**$12,000,000**]** *$73,000,000*.

* * * * * * *

SEC. 581. WEST VIRGINIA AND PENNSYLVANIA FLOOD CONTROL.

[(a) IN GENERAL.—The Secretary may design and construct flood control measures in the Cheat and Tygart River Basins, West Virginia, and the Lower Allegheny, Lower Monongahela, West Branch Susquehanna, and Juniata River Basins, Pennsylvania, at a level of protection sufficient to prevent any future losses to these communities from flooding such as occurred in January 1996, but no less than a 100-year level of flood protection.**]**

(a) IN GENERAL.—The Secretary may design and construct—

(1) flood control measures in the Cheat and Tygart River basins, West Virginia, at a level of protection that is sufficient to prevent any future losses to these communities from flooding such as occurred in January 1996 but no less than a 100-year level of protection; and

(2) structural and nonstructural flood control, streambank protection, stormwater management, and channel clearing and modification measures in the Lower Allegheny, Lower Monongahela, West Branch Susquehanna, and Juniata River basins, Pennsylvania, at a level of protection that is sufficient to prevent any future losses to communities in these basins from flooding such as occurred in January 1996, but no less than a 100-year level of flood protection with respect to those measures that incorporate levees or floodwalls.

* * * * * * *

SECTION 205 OF THE FLOOD CONTROL ACT OF 1948

SEC. 205. That the Secretary of the Army is hereby authorized to allot from any appropriations heretofore or hereafter made for flood control, not to exceed $40,000,000 for any one fiscal year, for the **[**construction of small projects**]** *implementation of small structural and nonstructural projects* for flood control and related purposes not specifically authorized by Congress, which come within the provisions of section 1 of the Flood Control Act of June 22, 1936, when in the opinion of the Chief of Engineers such work is advisable. The amount allotted for a project shall be sufficient to complete Federal participation in the project. Not more than **[**$5,000,000**]** *$7,000,000* shall be allotted under this section for a project at any single locality. The provisions of local cooperation

specified in section 3 of the Flood Control Act of June 22, 1936, shall apply. The work shall be complete in itself and not commit the United States to any additional improvement to insure its successful operation, except as may result from the normal procedure applying to projects authorized after submission of preliminary examination and survey reports.

SECTION 206 OF THE FLOOD CONTROL ACT OF 1960

SEC. 206. (a) * * *

(b) FLOOD PREVENTION COORDINATION.—The Secretary shall coordinate with the Director of the Federal Emergency Management Agency and the heads of other Federal agencies to ensure that flood control projects and plans are complementary and integrated to the extent practicable and appropriate.

[(b)**]** *(c)* FEES.—The Secretary of the Army is authorized to establish and collect fees from Federal agencies and private persons for the purpose of recovering the cost of providing services pursuant to this section. Funds collected pursuant to this section shall be deposited into the account of the Treasury of the United States entitled "Contributions and Advances, Rivers and Harbor, Corps of Engineers (8862)" and shall be available until expended to carry out this section. No fees shall be collected from State, regional, or local governments or other non-Federal public agencies for services provided pursuant to this section*; except that this limitation on fees shall not apply to funds voluntarily contributed by such entities for the purpose of expanding the scope of the services requested by such entities*.

[(c)**]** *(d)* The Secretary of the Army is authorized to expend not to exceed $15,000,000 per fiscal year for the compilation and dissemination of information under this section.

SECTION 5 OF THE FLOOD CONTROL ACT OF JUNE 22, 1936

FLOOD CONTROL ACT OF 1936

SEC. 5. That pursuant to the policy outlined in sections 1 and 3, the following works of improvement, for the benefit of navigation and the control of destructive flood waters and other purposes, are hereby adopted and authorized to be prosecuted, in order of their emergency as may be designated by the President, under the direction of the Secretary of War and supervision of the Chief of Engineers in accordance with the plans in the respective reports and records hereinafter designated: *Provided,* That penstocks or other similar facilities, adapted to possible future use in the development of adequate electric power may be installed in any dam herein authorized when approved by the Secretary of War upon the recommendation of the Chief of Engineers: *Provided further,* That the Secretary of War is authorized to receive from States and political subdivisions thereof, such funds as may be contributed by them to be expended in connection with funds appropriated by the United States for any authorized flood control *or environmental restortation* work whenever such work and expenditure may be con-

sidered by the Secretary of War, on recommendation of the Chief of Engineers, as advantageous in the public interest, and the plans for any reservoir project may, in the discretion of the Secretary of War, on recommendation of the Chief of Engineers, be modified to provide additional storage capacity for domestic water supply or other conservation storage, on condition that the cost of such increased storage capacity is contributed by local agencies and that the local agencies agree to utilize such additional storage capacity in a manner consistent with Federal uses and purposes: *And provided further,* That when contributions made by States and political subdivisions thereof, are in excess of the actual cost of the work contemplated and properly chargeable to such contributions, such excess contributions may, with the approval of the Secretary of War, be returned to the proper representatives of the contributing interests.

WATER RESOURCES DEVELOPMENT ACT OF 1992

* * * * * * *

TITLE I—WATER RESOURCES PROJECTS

* * * * * * *

SEC. 102. PROJECT MODIFICATIONS.

(a) * * *

* * * * * * *

(ff) BLUESTONE LAKE, OHIO RIVER BASIN, WEST VIRGINIA.—The project for flood control, Bluestone Lake, Ohio River Basin, West Virginia, authorized by section 4 of the Flood Control Act of June 28, 1938 (52 Stat. 1217), is modified to direct the Secretary to [take such measures as are technologically feasible] *implement Plan C/G, as defined in the Evaluation Report of the District Engineer, dated December 1996,* to prohibit the release of drift and debris into waters downstream of the project, including measures to prevent the accumulation of drift and debris at the project, the collection and removal of drift and debris on the segment of the New River upstream of the project, and the removal (through the use of temporary or permanent systems) and disposal of accumulated drift and debris at Bluestone Dam.

* * * * * * *

TITLE II—GENERALLY APPLICABLE PROVISIONS

* * * * * * *

SEC. 204. BENEFICIAL USES OF DREDGED MATERIAL.

(a) * * *

* * * * * * *

(c) COOPERATIVE AGREEMENT.—Any project undertaken pursuant to this section shall be initiated only after non-Federal interests have entered into a [cooperative agreement in accordance with the requirements of section 221 of the Flood Control Act of 1970] *binding agreement with the Secretary* in which the non-Federal interests agree to—

(1) * * *

* * * * * * *

(g) NON-FEDERAL INTERESTS.—Notwithstanding section 221(b) of the Flood Control Act of 1968 (42 U.S.C. 1962d–5b(b)), the Secretary, after coordination with the appropriate State and local government officials having jurisdiction over an area in which a project under this section will be carried out, may allow a nonprofit entity to serve as the non-Federal interest for the project.

* * * * * * *

SEC. 209. DAM SAFETY PROGRAM EXTENSION.

(a) * * *

* * * * * * *

[(e) MUSSERS DAM, MIDDLE CREEK, SNYDER COUNTY, PENNSYLVANIA.—

[(1) IN GENERAL.—The Secretary is authorized to provide planning, engineering and design, construction, technical, and other assistance to non-Federal interests for repair, reconstruction, replacement, or other modification to Mussers Dam, Middle Creek, Snyder County, Pennsylvania, in order to bring such dam into compliance with the safety requirements which the Federal Energy Regulatory Commission has determined to be necessary.

[(2) COORDINATION.—The Secretary shall provide any assistance under paragraph (1) in coordination with the Federal Energy Regulatory Commission and State and local interests.

[(3) LIMITATION ON STATUTORY CONSTRUCTION.—Nothing in this subsection shall be construed as affecting or modifying—

[(A) the obligations of non-Federal interests under the Federal Power Act or any license, permit, or exemption issued under such Act; or

[(B) the duties and responsibilities of the Federal Energy Regulatory Commission under the Federal Power Act to require and enforce on a timely basis safety compliance with such Act and any license, permit, or exemption issued under such Act.

[(4) FEDERAL SHARE.—The Federal share of the cost of repair, reconstruction, replacement, and other modification to Mussers Dam for the purpose described in paragraph (1) shall be 75 percent.

[(5) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection $3,000,000 for fiscal years beginning after September 30, 1992. Such sums shall remain available until expended.]

[(f)] *(e)* BEAVER LAKE, ARKANSAS.—All costs incurred in carrying out the project to correct seepage problems at Beaver Lake, Arkansas, shall be treated as costs incurred for a dam safety project and

shall be subject to cost sharing in accordance with section 1203 of the Water Resources Development Act of 1986.

* * * * * * *

SEC. 219. ENVIRONMENTAL INFRASTRUCTURE.

(a) * * *

* * * * * * *

(c) PROJECT DESCRIPTIONS.—The projects for which the Secretary is authorized to provide assistance under subsection (a) are as follows:

(1) * * *

(2) ATLANTA, GEORGIA.—A combined sewer overflow treatment facility for the city of Atlanta, Georgia *and watershed restoration and development in the regional Atlanta watershed, including Big Creek and Rock Creek.*

* * * * * * *

[(9) PATERSON AND PASSAIC COUNTY, NEW JERSEY.—Drainage facilities to alleviate flooding problems on Getty Avenue in the vicinity of St. Joseph's Hospital for the city of Paterson, New Jersey, and Passaic County, New Jersey.]

(9) PATERSON, PASSAIC COUNTY, AND PASSAIC VALLEY, NEW JERSEY.—Drainage facilities to alleviate flooding problems on Getty Avenue in the vicinity of St. Joseph's Hospital for the City of Paterson, New Jersey, and Passaic County, New Jersey, and innovative facilities to manage and treat additional flows in the Passaic Valley, Passaic River basin, New Jersey.

* * * * * * *

(e) AUTHORIZATION OF APPROPRIATIONS FOR CONSTRUCTION ASSISTANCE.—There are authorized to be appropriated for providing construction assistance under this section—

(1) * * *

* * * * * * *

[(5) $20,000,000 for the project described in subsection (c)(16); and

[(6) $20,000,000 for the project described in subsection (c)(17).]

(5) $25,000,000 for the project described in subsection (c)(2);

(6) $20,000,000 for the project described in subsection (c)(9);

(7) $30,000,000 for the project described in subsection (c)(16); and

(8) $30,000,000 for the project described in subsection (c)(17).

TITLE III—MISCELLANEOUS PROVISIONS

* * * * * * *

SEC. 313. SOUTH CENTRAL PENNSYLVANIA ENVIRONMENT IMPROVEMENT PROGRAM.

(a) * * *

* * * * * * *

(g) AUTHORIZATION AND ALLOCATION OF APPROPRIATIONS.—

(1) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section [$80,000,000] *$180,000,000* for fiscal years beginning after September 30, 1992. Such sums shall remain available until expended.

* * * * * * *

TITLE IV—INFRASTRUCTURE TECHNOLOGY, RESEARCH AND DEVELOPMENT

* * * * * * *

SEC. 404. ATLANTIC COAST OF NEW YORK.

(a) * * *

* * * * * * *

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated $1,400,000 for each of fiscal years [1993, 1994, 1995, 1996, and 1997] *1993 through 2003* to carry out this section. Such sums shall remain available until expended.

SEC. 405. SEDIMENTS DECONTAMINATION TECHNOLOGY.

(a) DECONTAMINATION PROJECT.—

(1) * * *

* * * * * * *

(4) PRACTICAL END-USE PRODUCTS.—Technologies selected for demonstration at the pilot scale shall be intended to result in practical end-use products.

(5) ASSISTANCE BY THE SECRETARY.—The Secretary shall assist the project to ensure expeditious completion by providing sufficient quantities of contaminated dredged material to conduct the full-scale demonstrations to stated capacity.

* * * * * * *

(c) AUTHORIZATION OF APPROPRIATIONS.—[There is authorized to be appropriated to carry out this section $10,000,000.] *There is authorized to be appropriated to carry out this section $22,000,000 to complete technology testing, technology commercialization, and the development of full scale processing facilities within the New York/New Jersey Harbor.* Such sums shall remain available until expended.

* * * * * * *

(e) SUPPORT.—In carrying out the program under this section, the Secretary is encouraged to utilize contracts, cooperative agreements, and grants with colleges and universities and other non-Federal entities.

* * * * * * *

SECTION 104 OF THE RIVER AND HARBOR ACT OF 1958

SEC. 104. (a) There is hereby authorized a comprehensive program to provide for control and progressive eradication of waterhyacinth, alligatorweed, Eurasian water milfoil, *arundo,* melaleuca, and other obnoxious aquatic plant growths, from the navigable wa-

ters, tributary streams, connecting channels, and other allied waters of the United States, in the combined interest of navigation, flood control, drainage, agriculture, fish and wildlife conservation, public health, and related purposes, including continued research for development of the most effective and economic control measures, to be administered by the Chief of Engineers, under the direction of the Secretary of the Army, in cooperation with other Federal and State agencies. Local interests shall agree to hold and save the United States free from claims that may occur from control operations and to participate to the extent of 30 per centum of the cost of such operations. Costs for research and planning undertaken pursuant to the authorities of this section shall be borne fully by the Federal Government.

(b) There are authorized to be appropriated such amounts, not in excess of [$12,000,000] *$15,000,000* annually, as may be necessary to carry out the provisions of this section. Any such funds employed for control operations shall be allocated by the Chief of Engineers on a priority basis, based upon the urgency and need of each area, and the availability of local funds.

(c) SUPPORT.—In carrying out this program, the Secretary is encouraged to utilize contracts, cooperative agreements, and grants with colleges and universities and other non-Federal entities.

WATER RESOURCES DEVELOPMENT ACT OF 1986

* * * * * * *

TITLE I—COST SHARING

SEC. 101. HARBORS.

(a) CONSTRUCTON.—

(1) PAYMENTS DURING CONSTRUCTION.—The non-Federal interests for a navigation project for a harbor or inland harbor, or any separable element thereof, on which a contract for physical construction has not been awarded before the date of enactment of this Act shall pay, during the period of construction of the project, the following costs associated with general navigation features:

(A) * * *

(B) 25 percent of the cost of construction of the portion of the project which has a depth is excess of 20 feet but not in excess of [45] *53* feet; plus

(C) 50 percent of the cost of construction of the portion of the project which has a depth in excess of [45] *53* feet.

* * * * * * *

(b) OPERATION AND MAINTENANCE.—

(1) IN GENERAL.—The Federal share of the cost of operation and maintenance of each navigation project for a harbor or inland harbor constructed by the Secretary pursuant to this Act or any other law approved after the date of the enactment of this Act shall be 100 percent, except that in the case of a deep-draft harbor, the non-Federal interests shall be responsible for an amount equal to 50 percent of the excess of the cost of the operation and maintenance of such project over the cost which

the Secertary determines would be incurred for operation and maintenance of such project if such project had a depth of [45] *53* feet.

* * * * * * *

SEC. 103. FLOOD CONTROL AND OTHER PURPOSES.

(a) * * *

(b) NONSTRUCTURAL FLOOD CONTROL PROJECTS.—The non-Federal share of the cost of nonstructural flood control measures shall be 35 percent of the cost of such measures. The non-Federal interests for any such measures shall be required to provide all lands, easements, rights-of-way, dredged material disposal areas, and relocations necessary for the project, but shall not be required to contribute any amount in cash during construction of the project. *At any time during construction of the project, where the Secretary determines that the costs of lands, easements, rights-of-way, dredged material disposal areas, and relocations in combination with other costs contributed by the non-Federal interests will exceed 35 percent, any additional costs for the project, but not to exceed 65 percent of the total costs of the project, shall be a Federal responsibility and shall be contributed during construction as part of the Federal share.*

* * * * * * *

(d) CERTAIN OTHER COSTS ASSIGNED TO PROJECT PURPOSES.—

(1) CONSTRUCTION.—Costs of constructing projects or measures for beach erosion control and water quality enhancement shall be assigned to appropriate project purposes listed in subsections (a), (b), and (c) and shall be shared in the same percentage as the purposes to which the costs are assigned, except that all costs assigned to benefits to privately owned shores (where use of such shores is limited to private interests) or to prevention of losses of private lands shall be borne by non-Federal interests and all costs assigned to the protection of federally owned shores shall be borne by the United States.

(2) PERIODIC NOURISHMENT.—

(A) IN GENERAL.—Subject to subparagraph (B), the non-Federal share of costs of periodic nourishment measures for shore protection or beach erosion control that are carried out—

(i) after January 1, 2001, shall be 40 percent;

(ii) after January 1, 2002, shall be 45 percent; and

(iii) after January 1, 2003, shall be 50 percent;

(B) BENEFITS TO PRIVATELY OWNED SHORES.—All costs assigned to benefits of periodic nourishment measures to privately owned shores (where use of such shores is limited to private interests) or to prevention of losses of private lands shall be borne by the non-Federal interest and all costs assigned to the protection of federally owned shores for such measures shall be borne by the United States.

* * * * * * *

TITLE II—HARBOR DEVELOPMENT

* * * * * * *

SEC. 214. DEFINITIONS.

For purposes of this title—

(1) DEEP-DRAFT HARBOR.—The term "deep-draft harbor" means a harbor which is authorized to be constructed to a depth of more than [45] *53* feet (other than a project which is authorized by section 202 of this title).

* * * * * * *

(3) GENERAL CARGO HARBOR.—The term "general cargo harbor" means a harbor for which a project is authorized by section 202 of this title and any other harbor which is authorized to be constructed to a depth of more than 20 feet but not more than [45] *53* feet;

* * * * * * *

TITLE VI—WATER RESOURCES CONSERVATION AND DEVELOPMENT

* * * * * * *

SEC. 602. LAKES PROGRAM.

(a) Subject to section 903(a) of this Act, the Secretary shall carry out programs for the removal of silt, aquatic growth, and other material in the following lakes:

(1) * * *

* * * * * * *

(15) Skaneateles and Owasco Lakes, New York, removal of silt and aquatic growth and prevention of sediment deposit; [and]

(16) Twin Lakes, Paris, Illinois, removal of silt and excess aquatic vegetation, including measures to address excessive sedimentation, high nutrient concentration, and shoreline erosion[.]*;*

(17) Clear Lake, Lake County, California, removal of silt and aquatic growth and measures to address excessive sedimentation and high nutrient concentration; and

(18) Osgood Pond, Milford, Hillsborough County, New Hampshire, removal of silt and aquatic growth and measures to address excessive sedimentation.

(19) Flints Pond, Hollis, Hillsborough County, New Hampshire, removal of silt and aquatic growth and measures to address excessive sedimentation.

TITLE IX—GENERAL PROVISIONS

* * * * * * *

SEC. 906. FISH AND WILDLIFE MITIGATION.

(a) * * *

* * * * * * *

(e) In those cases when the Secretary, as part of any report to Congress, recommends activities to enhance fish and wildlife resources, the fish costs of such enhancement shall be a Federal cost when—

(1) * * *

(3) such activities are located on lands managed as a national wildlife refuge.

When benefits of enhancement do not qualify under the preceding sentence, 25 percent of such first costs of enhancement shall be provided by non-Federal interests under a schedule of reimbursement determined by the Secretary. *Not more than 80 percent of the non-Federal share of such first costs may be satisfied through in-kind contributions, including facilities, supplies, and services that are necessary to carry out the enhancement project.* The non-Federal share of operation, maintenance, and rehabilitation of activities to enhance fish and wildlife resources shall be 25 percent.

* * * * * * *

TITLE XI—MISCELLANEOUS PROGRAMS AND PROJECTS

* * * * * * *

SEC. 1103. UPPER MISSISSIPPI RIVER MANAGEMENT.

(a) * * *

* * * * * * *

(e)(1) The Secretary, in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, is authorized to undertake, as identified in the master plan—

(A) a program for the planning, construction, and evaluation of measures for fish and wildlife habitat rehabilitation and enhancement; *and*

(B) implementation of a **[**long-term resource monitoring program; and**]** *long-term resource monitoring, computerized data inventory and analysis, and applied research program.*

[(C) Implementation of a computerized inventory and analysis system.**]**

In carrying out subparagraph (A), the Secretary shall establish an independent technical advisory committee to review projects, monitoring plans, and habitat and natural resource needs assessments.

[(2) Each program referred to in paragraph (1) shall be carried out for 15 years. Before the last day of such 15-year period, the Secretary, in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, shall conduct an evaluation of such programs and submit a report on the results of such evaluation to Congress. Such evaluation shall determine each such program's effectiveness, strengths, and weaknesses and contain recommendations for the modification and continuance or termination of such program.**]**

(2) REPORTS.—Not later than December 31, 2004, and not later than December 31st of every sixth year thereafter, the Secretary, in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, shall transmit to Congress a report that—

(A) contains an evaluation of the programs described in paragraph (1);

(B) describes the accomplishments of each of such programs;

(C) provides updates of a systemic habitat needs assessment; and

(D) identifies any needed adjustments in the authorization.

(3) For purposes of carrying out paragraph (1)(A) of this subsection, there is authorized to be appropriated to the Secretary [not to exceed $8,200,000 for the first fiscal year beginning after November 17, 1986, not to exceed $12,400,000 for the second fiscal year beginning after November 17, 1986, and not to exceed $13,000,000 per fiscal year for each of the succeeding 13 fiscal years] *$22,750,000 for fiscal year 1999 and each fiscal year thereafter*.

(4) For purposes of carrying out paragraph (1)(B) of this subsection, there is authorized to be appropriated to the Secretary [not to exceed $7,680,000 for the first fiscal year beginning after November 17, 1986, and not to exceed $5,080,000 per fiscal year for each of the succeeding 14 fiscal years] *$10,420,000 for fiscal year 1999 and each fiscal year thereafter*.

[(5) For purposes of carrying out paragraph (1)(C) of this subsection, there is authorized to be appropriated to the Secretary not to exceed $40,000 for the first fiscal year beginning after November 17, 1986, not to exceed $280,000 for the second fiscal year beginning after November 17, 1986, not to exceed $1,220,000 for the third fiscal year beginning after November 17, 1986, and not to exceed $875,000 per fiscal year for each of the succeeding 12 fiscal years.

[(6) TRANSFER OF AMOUNTS.—

[(A) GENERAL RULE.—Subject to subparagraph (B), for each fiscal year beginning after September 30, 1992, the Secretary, in consultation with the Secretary of the Interior, and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, may transfer not to exceed 20 percent of the amount appropriated to carry out each of subparagraphs (A), (B), and (C) of paragraph (1) to carry out any other of such subparagraphs.

[(B) LIMITATION.—The aggregate amounts obligated in fiscal years 1988 through 2002—

[(i) to carry out paragraph (1)(A) may not exceed $189,600,000;

[(ii) to carry out paragraph (1)(B) may not exceed $78,800,000; and

[(iii) to carry out paragraph (1)(C) may not exceed $12,040,000.]

(5) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out paragraph (1)(A) $350,000 for each of fiscal years 1999 through 2009.

(6) TRANSFER OF AMOUNTS.—For fiscal year 1999, and each fiscal year thereafter, the Secretary, in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, may transfer not to exceed 20 percent of the amounts appropriated to carry out subparagraph (A) or (B) of paragraph (1) to the amounts appropriated to carry out the other of such subparagraphs.

(7)(A) Notwithstanding the provisions of subsection (a)(2) of this section, the costs of each project carried out pursuant to paragraph (1)(A) of this subsection shall be allocated between the Secretary and the appropriate non-Federal sponsor in accordance with the provisions of section 906(e) of this Act; except that the costs of operation and maintenance of projects located on Federal lands or lands owned or operated by a State or local government shall be borne by the Federal, State, or local agency that is responsible for management activities for fish and wildlife on such lands.

(B) Notwithstanding the provisions of subsection (a)(2) of this section, the cost of implementing the activities authorized by [paragraphs (1)(B) and (1)(C)] *paragraph (1)(B)* of this subsection shall be allocated in accordance with the provisions of section 906 of this , as if such activity was required to mitigate losses to fish and wildlife.

* * * * * * *

(f)(1) The Secretary, in consultation with any agency established under subsection (d)(1) of this section, is authorized to implement a program of recreational projects for the system substantially in accordance with the recommendations of the GREAT I, GREAT II, and GRRM studies and the master plan reports. In addition, the Secretary, in consultation with any such agency, shall, at Federal expense, conduct an assessment of the economic benefits generated by recreational activities in the system. The cost of each such project shall be allocated between the Secretary and the appropriate non- Federal sponsor in accordance with title I of this Act.

(2)[(A)] For purposes of carrying out the program of recreational projects authorized in paragraph (1) of this subsection, there is authorized to be appropriated to the Secretary not to exceed $500,000 per fiscal year for each of the first 15 fiscal years beginning after the effective date of this section.

[(B) For purposes of carrying out the assessment of the economic benefits of recreational activities as authorized in paragraph (1) of this subsection, there is authorized to be appropriated to the Secretary not to exceed $300,000 per fiscal year for the first and second fiscal years beginning after the computerized inventory and analysis system implemented pursuant to subsection (e)(1)(C) of this section is fully functional and $150,000 for the third such fiscal year.]

* * * * * * *

(h)(1) The Secretary, in consultation with any agency established under subsection (d)(1) of this section, shall monitor traffic movements on the system for the purpose of verifying lock capacity, updating traffic projections, and refining the economic evaluation so as to verify the need for future capacity expansion of the system.

(2) The Secretary, in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, shall determine the need for river rehabilitation and environmental enhancement and protection based on the condition of the environment, project developments, and projected environmental impacts from implementing any proposals resulting from recommendations made under subsection (g) and paragraph (1) of this subsection. *The Secretary shall complete the on-going habitat*

needs assessment conducted under this paragraph not later than September 30, 2000, and shall include in each report required by subsection (e)(2) the most recent habitat needs assessment conducted under this paragraph.

* * * * * * *

SEC. 1142. MEASUREMENT OF LAKE MICHIGAN DIVERSIONS.

(a) * * *

(b) There are authorized to be appropriated [$250,000] *$1,250,000* per fiscal year for each fiscal year beginning after September 30, 1986, to carry out this section, including those funds necessary to maintain the measurements and computations, as well as necessary capital construction costs associated with the installation of new flow measurement devices or structures declared necessary and appropriate by the Secretary.

* * * * * * *

SECTION 111 OF THE RIVER AND HARBOR ACT OF 1968

SEC. 111. The Secretary of the Army is authorized to investigate, study, plan, and implement structural and nonstructural measures for the prevention or mitigation of shore damages attributable to Federal navigation works *and shore damages attributable to the Atlantic Intracoastal Waterway and the Gulf Intracoastal Waterway*, if a non-Federal public body agrees to operate and maintain such measures, and in the case of interests in real property acquired in conjunction with nonstructural measures, to operate and maintain the property for public purposes in accordance with regulations prescribed by the Secretary. The costs of implementing measures under this section shall be cost-shared in the same proportion as the cost-sharing provisions applicable to the project causing the shore damage. No such project shall be initiated without specific authorization by Congress if the Federal first cost exceeds $2,000,000.

SECTION 8 OF THE OUTER CONTINENTAL SHELF LANDS ACT

SEC. 8. LEASING OF OUTER CONTINENTAL SHELF.—(a) * * *

* * * * * * *

(k)(1) * * *

(2)(A) * * *

(B) In carrying out a negotiation under this paragraph, the Secretary may assess a fee based on an assessment of the value of the resources and the public interest served by promoting development of the resources. No fee shall be assessed directly or indirectly under this subparagraph against [an agency of the Federal Government] *a Federal, State, or local government agency*.

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WATER RESOURCES DEVELOPMENT ACT OF 1990

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TITLE I—WATER RESOURCES PROJECTS

* * * * * * *

SEC. 101. PROJECT AUTHORIZATIONS.

(a) PROJECTS WITH REPORT OF THE CHIEF OF ENGINEERS.—Except as provided in this subsection, the following projects for water resources development and conservation and other purposes are authorized to be carried out by the Secretary substantially in accordance with the plans, and subject to the conditions, recommended in the respective reports designated in this subsection:

(1) * * *

* * * * * * *

(18) PASSAIC RIVER MAIN STEM, NEW JERSEY AND NEW YORK.—

(A) * * *

(B) STREAMBANK RESTORATION MEASURES.—The project shall include the construction of environmental and other streambank restoration measures (including bulkheads, recreation, greenbelt, scenic overlook facilities, and public access to Route 21*, including an esplanade for safe pedestrian access with an overall width of 600 feet*) on the west bank of the Passaic River between Bridge and Brill Streets in the city of Newark, New Jersey, at a total cost of $25,000,000. The project element authorized by this subparagraph shall be carried out, in cooperation with the city of Newark, so that it is compatible with the proposed reconstruction plans for Route 21 and the proposed arts center. The non-Federal share of the project element authorized by this subparagraph shall be 25 percent. The value of the lands, easements, and rights-of-way provided by non-Federal interests shall be credited to the non-Federal share. Construction of the project element authorized by this subparagraph shall be undertaken in advance of the other project features and shall not await implementation of the overall project.

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TITLE III—GENERALLY APPLICABLE PROVISIONS

* * * * * * *

SEC. 308. FLOOD PLAIN MANAGEMENT.

(a) *ELEMENTS EXCLUDED FROM* BENEFIT-COST ANALYSIS.—The Secretary shall not include in the benefit base for justifying Federal flood damage reduction projects—

(1) * * *

* * * * * * *

(b) FLOOD DAMAGE REDUCTION BENEFITS.—In calculating the benefits of a proposed project for nonstructural flood damage reduction, the Secretary shall calculate benefits of nonstructural projects using methods similar to structural projects, including similar treatment in calculating the benefits from losses avoided from both structural and nonstructural alternatives. In carrying out this subsection, the Secretary should avoid double counting of benefits.

[(b)**]** *(c)* COUNTIES SUBSTANTIALLY LOCATED WITHIN 100-YEAR FLOOD PLAIN.—For the purposes of subsection (a), a county is substantially located within the 100-year flood plain—

(1) if the county is comprised of lands of which 50 percent or more are located in the 100-year flood plain; and

(2) if the Secretary determines that application of the requirement contained in subsection (a)(1)(A) with respect to the county would unreasonably restrain continued economic development or unreasonably limit the availability of needed flood control measures.

[(c)**]** *(d)* COST SHARING.—Not later than January 1, 1992, the Secretary shall transmit to Congress a report on the feasibility and advisability of increasing the non-Federal share of costs for new projects in areas where new or substantially improved structures and other constrictions are built or placed in the 100-year flood plain or the 10-year flood plain, as the case may be, after the initial date of the affected governmental unit's entry into the regular program of the national flood insurance program of the National Flood Insurance Act of 1968.

[(d)**]** *(e)* REGULATIONS.—Not later than 6 months after the date on which a report is transmitted to Congress under subsection (b), the Secretary, in consultation with the Director of the Federal Emergency Management Agency, shall issue regulations to implement subsection (a). Such regulations shall define key terms, such as new or substantially improved structure, constriction, 10-year flood plain, and 100-year flood plain.

[(e)**]** *(f)* APPLICABILITY.—The provisions of this section shall not apply to any project, or separable element thereof, for which a final report of the Chief of Engineers has been forwarded to the Secretary before the last day of the 6-month period beginning on the date on which regulations are issued pursuant to subsection (a) but not later than July 1, 1993.

* * * * * * *

SEC. 312. ENVIRONMENTAL DREDGING.

(a) * * *

(b) NONPROJECT SPECIFIC.—

(1) IN GENERAL.—The Secretary may remove and remediate contaminated sediments from the navigable waters of the United States for the purpose of environmental enhancement and water quality improvement if such removal and remediation is requested by a non-Federal sponsor and the sponsor

agrees to pay [50] *35* percent of the cost of such removal and remediation.

* * * * * * *

(d) DISPOSAL COSTS.—Costs of disposal of contaminated sediments removed under this section shall be a [non-Federal responsibility] *shared as a cost of construction*.

* * * * * * *

TITLE IV—MISCELLANEOUS PROVISIONS

SEC. 401. GREAT LAKES REMEDIAL ACTION PLANS AND SEDIMENT REMEDIATION.

(a) GREAT LAKES REMEDIAL ACTION PLANS.—

(1) * * *

(2) NON-FEDERAL SHARE.—Non-Federal interests shall contribute, in cash or by providing in-kind contributions, 50 percent of costs of activities for which assistance is provided under paragraph (1). *Nonprofit public or private entities may contribute all or a portion of the non-Federal share.*

* * * * * * *

SECTION 8 OF THE FLOOD CONTROL ACT OF MAY 15, 1928

SEC. 8. * * *

The salary of the president of the Mississippi River Commission shall hereafter be $10,000 per annum, and the salary of the other members of the commission shall hereafter be [$7,500] *$21,500* per annum. The official salary of any officer of the United States Army or other branch of the Government appointed or employed under this Act shall be deducted from the amount of salary or compensation provided by, or which shall be fixed under, the terms of this Act.

SECTION 102 OF THE MARINE PROTECTION, RESEARCH, AND SANCTUARIES ACT OF 1972

ENVIRONMENTAL PROTECTION AGENCY PERMITS

SEC. 102. (a) * * *

* * * * * * *

(c) DESIGNATION OF SITES.—

(1) * * *

* * * * * * *

(4) GENERAL SITE MANAGEMENT PLAN REQUIREMENT; PROHIBITIONS.—After January 1, 1995, no site shall receive a final designation unless a management plan has been developed pursuant to this section. Beginning on January 1, 1997, no permit for dumping pursuant to this Act or authorization for dumping

under section 103(e) of this Act shall be issued for a site (other than the site located off the coast of Newport Beach, California, which is known as "LA–3") unless such site has received a final designation pursuant to this subsection or an alternative site has been selected pursuant to section 103(b). Beginning January 1, [2000] *2005*, no permit for dumping pursuant to this Act or authorization for dumping under section 103(e) shall be issued for the site located off the coast of Newport Beach, California, which is known as "LA–3", unless such site has received a final designation pursuant to this subsection or an alternative site has been selected pursuant to section 103(b).

* * * * * * *

MINORITY VIEWS

There are two major flaws in the reported bill. First, the bill fails to give Sacramento, the capital city of the world's sixth largest economy, the flood control it needs and deserves. Second, the reported bill authorizes nearly $300 million in water supply infrastructure projects upriver from Sacramento. These projects are strongly opposed by the Administration on the grounds that they "would overturn the existing balance among environmental, irrigation, and other Central Valley Project water usage established in the Central Valley Project Improvement Act, would undermine plans to restore California Bay—Delta, and would not be fair to taxpayers." If these projects are included in the bill, the Secretary of the Interior will recommend a veto. In addition, the Governor of California has asked that these projects be stricken from the bill.

1. Adequate Flood Protection for Sacramento

The reported bill guarantees Sacramento only 140 years old flood protection. This is considerably less than the 200–500 years or more of protection we have given cities of comparable size, such as Santa Ana, Tacoma, New Orleans, St. Louis, Dallas, Kansas City and Omaha. There is no reason that Sacramento should not receive the same level of flood protection as these cities.

Today, in Sacramento, 400,000 residents face an unacceptable risk from flooding. Located in that floodplain are the state capitol, 160,000 residential structures, 5,000 businesses, and 1,200 governmental facilities, with an estimated value of $37 billion. The 55,000–acre floodplain includes seven of the region's nine major hospitals and 130 schools.

Potential economic losses from a flood in Sacramento range from $7 billion to $16 billion depending upon the size of the flood. Even at the lower end of the scale, the potential flood losses in Sacramento are comparable to those suffered from the Northridge earthqake—which to date is the largest single disaster in U.S. history.

Sacrameto deserves the maximum amount of flood protection which can be provided without construction of Auburn Dam. There are affordable ways to give Sacramento that level of protection.

The United States Army Corps of Engineers has proposed such a plan, which includes modifications to Folsom Dam to improve the ability to release water from the dam sooner, strengthening of levees, and modifications to the levees downstream from Folsom to handle the increased flows.

In Committee, Congressman Oberstar offered an amendment to adopt this plan plus other measures to give Sacramento 200 years of flood protection. The amendment was rejected on a party-line vote.

The rationale advanced by opponents of the amendment was that the levee strengthening proposed by the amendment created unacceptable risks to areas downstream. This objection cannot withstand scrutiny. The Army Corps of Engineers has analyzed this contention and rejected it. In fact, the Army Corps of Engineers has specifically stated that this additional protection can be provided, "without adversely affecting the reaches below the mouth of the American River without project conditions." The Corps' plan includes several different structural and operational modifications that will ensure that no additional flood threat is transferred downstream. In addition, the City of Sacramento has committed to spend $100 million to mitigate any adverse effects downstream. Finally, the Oberstar amendment specifically required that measures to increase the capacity of the levees be undertaken only after downstream mitigation features have been constructed.

We believe that the real reason for the objection to adequate flood protection for Sacramento is to desire to link flood protection to the reallocation of water, for the benefit of development upriver from Sacramento. This linkage has delayed adequate flood protection for Sacramento for more than a decade. In evaluating this issue it is essential to bear in mind that in California, water is scarce, and water allocation is a zero-sum game. Allocating water for new development upstream means less water downstream.

The linkage of flood protection for Sacramento and reallocation of water was embodies in a proposal for a new dam at Auburn which would have provided both flood protection and increased water supply upriver. Members strongly opposed the Auburn Dam because of its excessive cost (more than $1 billion) and unacceptable damage to to the environment. The Auburn Dam was rejected by the House of Representatives in 1992 by a vote of 273–140, and by this Committee in 1996 by a vote of 35–28. There is no reason to believe that the result would be any different today.

Unfortunately, the proponents of development upstream have refused to accept the Congressional verdict, and have refused to allow proposals for adequate flood control at Sacramento to go forward, unless these proposals were linked to reallocation of water, *and* kept alive hopes for Auburn Dam. The most recent proposal, basically embodied in the reported bill, provided for reallocation of water for upstream development, coupled with 140 years of flood protection for Sacramento. Why are the supporters of this proposal unwilling to give Sacramento flood protection of 200 years? The only credible explanation is that they want to hold down flood protection for Sacramento in the hopes that Auburn Dam can be revived to provide the final level of protection.

We strongly dissent from the Committee's decision to deny Sacramento adequate flood protection to keep alive futile hopes for the fiscally unsound, environmentally irresponsible Auburn Dam project.

2. American River Water Supply Provisions

We oppose sections 581 and 582 of the Water Resources Development Act of 1999, which authorize water supply projects on the American River of California for several reasons. We believe these projects disrupt California water policy, contradict California and

Federal water law, are fiscally irresponsible, and will damage the aquatic environment of California. We also wish to ensure swift enactment of H.R. 1480, which will not occur if sections 581 and 582 remain in the bill.

Sections 581 and 582 would authorize the construction of water supply projects for local communities along the American River, thereby providing senior water rights to users who are currently junior to the Central Valley Project and other State and federal water contract holders. The Central Valley Project and the State and federal water project are key sources of municipal and industrial water supply. In addition, these projects provide the critical water supply for the State artricultural economy. We are concerned with how these provisions will damage the CAL/FED process, and how they will affect the Central Valley Project and those who depend on the Federal and State water projects. As a result of sections 581 and 582, H.R. 1480 would disrupt the consensus-building objectives of the CAL/FED process and the Sacramento River Forum discussions, as well as the delicate balance which is California water policy today.

We are greatly concerned that sections 581 and 582 would redistribute American River water rights to junior water holders in California to the detriment of the rest of the State. Under the "area of origin" doctrine in California, which is based on several key California laws, including: the County of Origin Statute (CA Water Code section 10505), the Watershed of Origin Statute (CA Water Code section 11460), and the Delta Protection Act (CA Water Code section 12201), language included in the bill purporting to protect current water rights will not achieve its desired goal. In fact, Placer, El Dorado and San Joaquin Counties would be able to make claims to a large portion of the water of the American and Sacramento Rivers once the water supply diversion facilities authorized by the bill are built.

Because these new provisions were only included in the bill at the last minute, they have not been thoroughly vetted to account for the potential damage they could cause. During Subcommittee consideration of the bill, Members asked specific questions regarding the impact of these water supply projects on California water law. Majority Staff Counsel responded ". . . to the extent that the committee staff has any expertise, it is certainly not in the area of California water law . . . we are not competent in the area of California water law." Although Committee staff may not know California water law, those who do know the law have serious concerns regarding the impact of these provisions. We have heard from authorities around the state that they have numerous questions and concerns about what these provisions will mean for the quality and quantity of water for families throughout California. Water agencies from Los Angeles to the Central Valley, to the Delta are expressing reservations over the the American River water supply provisions.

In the zero-sum game that is California water, due time and expertise must be considered before the actions authorized in this bill become law. Representative Tauscher, a Member of the Committee from California, sent letters to many of the stakeholders in the CAL/FED process asking for their input on the implications of the

American River projects. Some of those stakeholders include the California State Water Resources Control Board, the U.S. Fish and Wildlife Service, the California Environmental Protection Agency, the California Department of Water Resources, the U.S. Department of the Interior, and the California Urban Water Users Association. We believe we must consider the findings of the experts and interest groups in California before we authorize these provisions.

The American River water supply provisions can and very well may disrupt CAL/FED, as well as the Central Valley Project Improvement Act (CVPIA). These projects represent a major depletion of the Delta pool, which is the major focus of CAL/FED's restoration efforts and the central hub of California's water distribution system. CAL/FED is attempting to develop a consensus-based statewide program to address statewide water issues, while the Sacramento River Forum is working to address regional issues. Yet we understand that neither of these group were contacted during the drafting of this legislation. And this is happening just when the future of California's water development seemed to have hope for success, and the water wars which have dominated California for nearly a century could finally be a thing of the past.

These municipal water supply projects are also fiscally irresponsible. Although there is usually no federal cost-share for municipal water supply projects, these American River projects will receive a 65 percent federal cost-share. Typically, the cost of municipal water supply projects is fully reimbursed with interest for capital costs by local and state water users pursuant to the 1958 Water Supply Act. Of even greater concern is the fact that these municipal water supply projects would be transferred to local water districts free-of-charge upon completion. In addition, the Department of Interior has already determined that there is no interest in further federal involvement in local water supply projects in the American River watershed. Also included in this proposal is a $100 million water supply project for San Joaquin County in California to extract additional water from the American River to the detriment of other water rights holders, despite the fact that San Joaquin County does not currently hold a contract for any such water. We should not be spending $65 million of the Federal taxpayers' dollars for a county which does not hold a right to water from the American River.

Furthermore, these diversions will cause further damage to the fragile American River ecosystem—one of the few remaining free-flowing stretches of river in California and the western United States. Thousands of river rafters, hikers, and other recreationists enjoy the scenic beauty of this River, and efforts must be made to protect and preserve this vital section of America's wild heritage. This water supply grab will also make it more difficult to achieve the anadramous fish recovery goals of the CVPIA, and is also inconsistent with the State and Federal Wild and Scenic Rivers Acts.

We are adamantly opposed to any water supply provisions that obviate the National Environmental Policy Act (NEPA). H.R. 1480 authorizes and directs the construction of these projects regardless of what the NEPA process concludes—making the environmental review process ineffective. No project-level federal feasibility study and review of the environmental and water supply impacts to other

water users has been undertaken, and no environmental review of these projects has been initiated, let alone concluded, before Congressional deliberation on the authorization decision. Authorization before feasibility reports and environmental review violates authorization procedure policies established in the Reagan-era Water Resources Development Act of 1986.

Finally, the carefully negotiated Sacramento Area Water Forum Action Plan regional water development plan draft environmental impact report (EIR) identified significant adverse impacts to regional river and biological resources. The proposals in H.R. 1480 would authorize and direct dramatically larger and more environmentally destructive projects than envisioned in the regional water development plan which is still being produced.

In California and nationwide, opponents to sections 581 and 582 are lining up to express their concerns, including water agencies, taxpayer groups, environmentalists, agricultural interests, newspaper editorial boards, other stakeholders in the CAL/FED process, as well as California Governor Gray Davis, Senators Barbara Boxer and Dianne Feinstein, many Members from the California Congressional Delegation, and the Clinton Administration. For all of these reasons, we strongly dissent from the Committee's decision to authorize the controversial and ill-conceived water supply projects on the American River.

In conclusion, we believe that these two major flaws in the reported bill, both the inadequate flood protection for Sacramento and the American River water supply provisions, threaten swift passage of the Water Resources Development Act of 1999. This legislation has been stalled for too long already over these controversial and ill-conceived provisions. It is time for the national interest to rise above party politics to enable us to pass a Water Resources Development Act that will better protect all of our communities, including the endangered inhabitants of the Sacramento floodplain.

JIM OBERSTAR.
JAMES A. TRAFICANT, Jr.
EARL BLUMENAUER.
BOB FILNER.
BOB BORSKI.
BOB WISE.
BOB CLEMENT.
ELEANOR H. NORTON.
PAT DANNER.
CORRINE BROWN.
EDDIE BERNICE JOHNSON.
ELLEN TAUSCHER.
ELIJAH E. CUMMINGS.
BILL PASCRELL, Jr.
NICK RAHALL.
WILLIAM O. LIPINSKI.
PETER A. DEFAZIO.
JERRY F. COSTELLO.
JERROLD NADLER.
ROBERT MENENDEZ.
JIM BARCIA.
FRANK MASCARA.

JUANITA MILLENDER-MCDONALD.
LEONARD BOSWELL.
TIM HOLDEN.
JOHN BALDACCI.
RONNIE SHOWS.
SHELLEY BERKLEY.
MAX SARDIN.
JIM P. MCGOVERN.
NICK LAMPSON.
MARION BERRY.
BRIAN BAIRD.

COMMITTEE CORRESPONDENCE

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, DC, April 26, 1999.

Hon. BUD SHUSTER,
Chairman, Committee on Transportation and Infrastructure, Rayburn House Office Building, Washington, DC

DEAR MR. CHAIRMAN: Thank you for your April 26, 1999 letter regarding H.R. 1480, the Water Resources Development Act of 1999, which was ordered reported by the Transportation and Infrastructure Committee on April 22, 1999.

As you point out, section 501 of the bill does affect the Agriculture Committee's jurisdiction over the Natural Resources Conservation Service (NRCS) small watershed projects and activities of the Secretary of Agriculture relating to such projects.

Recognizing the need to move this legislation to the House floor this week, I do not intend to seek a referral on H.R. 1480. This agreement does not waive the Agriculture Committee's jurisdiction over any provision of H.R. 1480 or similar provisions in other bills. In addition, I ask that you support my request to have the Committee on Agriculture represented on the conference on this bill if a conference is necessary. Finally, I ask that you include this letter in the Committee on Transportation and Infrastructure's bill report.

Thank you for your cooperation in this matter.

Sincerely,

LARRY COMBEST, *Chairman.*

HOUSE OF REPRESENTATIVES,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
Washington, DC, April 26, 1999.

Hon. LARRY COMBEST,
Chairman, Committee on Agriculture, Longworth House Office Building, Washington, DC

DEAR LARRY: Thank you for your expeditious review of H.R. 1480, the Water Resources Development Act of 1999, and your Committee's willingness to be discharged from further consideration so as to help advance the bill to the House Floor as quickly as possible.

Section 501 of H.R. 1480 includes two provisions that involve your Committee's jurisdiction over the Natural Resources Conservation Service (NRCS) and our shared jurisdiction over the NRCS's P.L. 566 small watershed program. Subsection (a) authorizes the Secretary of the Army to complete the NRCS's flood control project at Llagas Creek, California. Subsection (b) modifies the

Thorton Reservoir project to include provisions affecting the NRCS small watershed project and activities of the Secretary of Agriculture.

If a conference becomes necessary, I will support your request to be represented on the conference bill for those provisions falling within your jurisdiction. In addition, our letter will be included in the Committee on Transportation and Infrastructure's report on the bill.

I appreciate your cooperation and look forward to your continued support of H.R. 1480.

Sincerely,

BUD SHUSTER, *Chairman.*

HOUSE OF REPRESENTATIVES,
COMMITTEE ON RESOURCES,
Washington, DC, 26 April 1999.

Hon. BUD SHUSTER,
Chairman, Committee on Transportation and Infrastructure,
Washington, DC.

DEAR MR. CHAIRMAN: I have reviewed H.R. 1480, the Water Resources Development Act of 1999. This bill was originally referred to the Committee on Resources, based on provisions affecting fish and wildlife (including restoration, refuges and conservation), Bureau of Reclamation and other irrigation projects and facilities, water rights, marine affairs, use of Outer Continental Shelf sand and gravel resources, the National Environmental Policy Act, Everglades ecosystem restoration, Salton Sea restoration, sea lamprey control, wetlands, Indians, public land conveyances, and mine reclamation.

Recognizing the importance of moving the bill along and that an opportunity for Floor deliberations exists this week, I will not object to releasing the Committee on Resources from further consideration of this measure. By waiving the time remaining on the Resources Committee's additional referral in this case does not waive our jurisdiction over any provision in H.R. 1480 or similar provisions in other bills. In addition, I ask that you support my request to have the Committee on Resources represented on the conference on this bill, if a conference is necessary. Finally, I ask that you include this letter in the Committee on Transportation and Infrastructure's bill report.

I appreciate your leadership on this bill and I look forward to working with you again.

Sincerely,

DON YOUNG, *Chairman.*

HOUSE OF REPRESENTATIVES,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC, April 26, 1999.

Hon. DON YOUNG,
Chairman, Committee on Resources, 1324 Longworth House Office Building
Washington, DC.

DEAR DON: Thank you for your expeditious review of H.R. 1480, the Water Resources Development Act of 1999, and your Committee's willingness to be discharged from further consideration so as to help advance the bill to the House Floor as quickly as possible.

Upon introduction, H.R. 1480 was referred to the Transportation and Infrastructure Committee and, in addition, the Resources Committee. This referral of an Army Corps of Engineers water resources development bill should in no way establish a precedent for future referrals of water resources development bills to the Resources Committee. As you know, the reason for H.R. 1480's initial referral to your Committee was the inclusion of directives to the Secretary of the Interior and related provisions regarding water contracts and allocations relating to the American and Sacramento Rivers and Folsom Dam and Reservoir.

As with previous water resources development bills, H.R. 1480 also contains various other provisions of a jurisdictional interest to your Committee. Such areas include, but are not limited to, fisheries and wildlife, marine affairs and wetlands, mining, native American and Pacific territories responsibilities, the Endangered Species Act and the National Environment Policy Act.

If a conference becomes necessary, I will support your request to be represented on the conference bill for those provisions falling within your jurisdiction. In addition, our letter will be included in the Committee on Transportation and Infrastructure's report on the bill.

I appreciate your cooperation and look forward to your continued support for H.R. 1480.

Sincerely,

BUD SHUSTER, *Chairman.*

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