U.S. ARMY CORPS OF ENGINEERS
CIVIL WORKS PROGRAM

CONGRESSIONAL SUBMISSION
FISCAL YEAR 2005

SOUTH ATLANTIC DIVISION

Budgetary information will not be released
Outside the Department of the Army until
2 February 2004

Justification of Estimates for Civil Function Activities
Department of the Army, Fiscal Year 2005
SOUTH ATLANTIC DIVISION

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Justification of Estimates for Civil Function Activities
Department of the Army, Corps of Engineers
Fiscal Year 2005

SUMMARY SOUTH ATLANTIC DIVISION

General Investigations	FY 2004 Allocation	FY 2005 Request	Increase or Decrease
Surveys	$ 4,909,000	$ 4,118,000	- $ 791,000
Preconstruction Engineering and Design	$ 1,017,000	$ 200,000	- $ 817,000
Subtotal General Investigations	($ 5,926,000)	($ 4,318,000)	(-$ 1,608,000)
Construction, General			
Construction	$ 187,945,000	$ 213,944,000	+ $ 25,999,000
Major Rehabilitation	$ 24,271,000	$ 32,178,000	+ $ 7,907,000
Dam Safety Assurance	$ 0	$ 3,800,000	+ $ 3,800,000
Subtotal Construction, General	($ 212,216,000)	($ 249,922,000)	(+ $ 37,706,000)
Operation and Maintenance, General			
Project Operation & Maintenance	$ 316,926,000	$ 290,530,000	- $ 26,396,000
Subtotal Operation and Maintenance	($ 316,926,000)	($ 290,530,000)	(- $ 26,396,000)
GRAND TOTAL SOUTH ATLANTIC DIVISION	$ 535,068,000	$ 544,770,000	+ $ 9,702,000

APPROPRIATION TITLE: General Investigations, fiscal year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
1. SURVEY - NEW					
a. Navigation Studies					
Florida					
Mile Point, Florida Jacksonville District	784,500	165,500	0	500,000	119,000

Mile Point is located on the north bank of the St. Johns River in Duval County. The shoreline in the Mile Point area has experienced severe erosion, including a number of sinkholes, within the last few years. These sinkholes have engulfed hundreds of feet of property. Local interests have documented these occurrences and maintain that Corps of Engineers dredging of the federal navigation channel at Jacksonville Harbor has resulted in this erosion problem. Non-Federal efforts to stabilize the banks have proven to be useless. Regular and continued loss of significant amounts of property in the area warrants investigation of the cause of the shoreline and bank erosion as soon as possible. The Study would also address high velocities in the area, which restrict deep draft ship traffic. The study was authorized by Resolution adopted March 24, 1998 by the Committee on Transportation and Infrastructure of the United States House of Representatives. The sponsor for the study is Jacksonville Harbor Port Authority and understands the requirements for study cost sharing. A Feasibility Cost Sharing Agreement was executed on 12 March 2003.

No FY 2004 funds were appropriated. FY 2005 funds will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,330,000, which is to be cost shared on a 50-50 percent basis Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,449,500
Reconnaissance Phase (Federal)	119,500
Feasibility Phase (Federal)	665,000
Feasibility Phase (Non-Federal)	665,000

The reconnaissance phase was completed in March 2003. The feasibility phase completion is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
2. SURVEYS – CONTINUING					
a. Navigation Studies					
Florida					
Lake Worth Inlet Jacksonville District	1,200,000	105,000	241,000	100,000	754,000

Lake Worth Inlet is located in Palm Beach County on the lower east coast of Florida. The existing Federal project includes an entrance channel 400 feet wide and 35 feet deep, leading to an interior channel 300 feet wide and 33 feet deep. The turning basin is 1,400 by 1,210 feet and 33 feet deep. A northern extension to the turning basin is maintained at 25 feet. According to a 1999 tonnage report, freight tonnage increased by approximately 8 percent above previous years. Total vessel port calls grew by 7.2 percent. Some of the larger vessels are having difficulty negotiating the interior channel. Tugboat assistance is increasing. The study effort will focus on deepening the existing Federal project at Lake Worth Inlet. The inlet and turning basin serve Palm Beach Harbor. The last deepening to the entrance channel and turning basin was completed in 1967. A study by the U.S. Coast Guard in 1997 recommended widening the interior channel to 400 feet. The Port of Palm Beach is the potential non-Federal sponsor and understands the requirements for study cost sharing and continues to express strong support for project improvements. The Feasibility Cost Share Agreement is scheduled to be signed March 2004. The study was authorized by Resolution adopted March 11, 1998 by the Committee on Transportation and Infrastructure of the United States House of Representatives.

Fiscal Year 2004 funds will be used to initiate the feasibility phase of the study. Fiscal Year 2005 funds will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,200,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,300,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,100,000
Feasibility Phase (Non-Federal)	1,100,000

The reconnaissance phase is scheduled to be completed in March 2004. The feasibility phase completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
b. Flood Damage Prevention Studies					
Alabama					
Brewton and East Brewton Mobile District	787,000	294,000	195,000	145,000	153,000

The study area is in Escambia County in the south central part of the state of Alabama. It is a part of the Escambia-Conecuh River Basin. Because of rapid growth in the area, considerable development has occurred. This commercial, industrial, and residential expansion in and adjacent to the flood plains in the Brewton and East Brewton area has resulted in recent widespread flood problems. The March 1998 flood and the September 1998 Hurricane Georges flood resulted in extensive loss of property including water lines, roads and bridges, wastewater systems, residences and automobiles. Discussions with the City of Brewton and Escambia County officials indicate an urgent need to conduct a study of the area, focusing on identifying flood damage problems. The study will include investigations of alternatives to reduce flooding along Burnt Corn and Murder Creeks. The City of Brewton is the Non-Federal sponsor and understands the requirements for study cost sharing. The Feasibility Cost Sharing Agreement was executed in May 2002.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $1,350,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,462,000
Reconnaissance Phase (Federal)	112,000
Feasibility Phase (Federal)	675,000
Feasibility Phase (Non-Federal)	675,000

The reconnaissance phase was completed in May 2002. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Florida					
Hillsborough River Basin Jacksonville District	1,656,000	568,000	221,000	200,000	667,000

The Hillsborough River has its headwaters in the Green Swamp and drains approximately 690 square miles. The river flows in a southwesterly direction through Temple Terrace, Sulphur Springs and the center of downtown Tampa into Tampa Bay. The counties within Hillsborough River Basin are Hernando County, Pasco County, and Hillsborough County. According to the U.S. Census Bureau, the population increase from 1985 to 1997 within the river basin was 26 percent. Continued residential development in the Tampa area has led to increasing demands for better flood control as well as a growing concern over environmental protection and restoration. Development pressures have significantly changed the physical, biological, demographic, and economic conditions in the area. The study will determine comprehensive watershed planning to address flood control, environmental restoration and protection, aquifer storage and retrieval, and other water resource related problems. Hillsborough County is the non-Federal sponsor and understands the requirements for study cost sharing. Feasibility Cost Sharing Agreement was executed 15 January 2003. The study was authorized by Resolution adopted March 11, 1998, by the Committee on Transportation and Infrastructure of the United States House of Representatives.

Fiscal Year 2004 funds will be used to continue the feasibility phase of the study. Fiscal Year 2005 funds will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,902,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,107,000
Reconnaissance Phase (Federal)	205,000
Feasibility Phase (Federal)	1,451,000
Feasibility Phase (Non-Federal)	1,451,000

The reconnaissance phase was completed in January 2003. The

APPROPRIATION TITLE: General Investigations, fiscal year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Withlacoochee River Basin					
Jacksonville District	1,901,000	525,000	221,000	100,000	1,055,000

The Withlacoochee River has its headwaters in the Green Swamp and drains approximately 2,000 square miles within a corridor 30 miles wide and 90 miles long. It flows in a northwesterly direction for some 157 miles to the Gulf of Mexico at Yankeetown. The counties within the Withlacoochee River Basin are Citrus County, Hernando County, Lake County, Levy County, Marion County, Pasco County, Polk County, and Sumter County. According to the U.S. Census Bureau, the population increase from 1985 to 1997 within the river basin was 39 percent. The headwaters of the basin are largely undeveloped and are an asset unique to the region. Downstream of the headwaters region, the river flows through a rapidly growing population area near Inverness, located in central Florida. Continued residential development in this area has led to increasing public demands for better flood control and water supply, as well as growing concern over environmental protection and restoration. Since 1990 public interests in the watershed management has grown rapidly. The study will provide a comprehensive watershed planning to address flood control, environmental restoration and protection, aquifer storage and retrieval, and other water resource related problems. The Southwest Florida Water Management District (SWFWMD) is the Non-Federal sponsor and understands the requirements for study cost sharing. The study was authorized by Resolution adopted March 11, 1998, by the Committee on Transportation and Infrastructure of the United States House of Representatives. The Feasibility Cost Sharing Agreement was signed in December 2002.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Fiscal Year 2005 funds will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $3,452,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,627,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	1,726,000
Feasibility Phase (Non-Federal)	1,726,000

The reconnaissance phase was completed in December 2002. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic Division

Study	Total Estimated Federal Cost	Allocation Prior to FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional to complete After FY 2005
North Carolina	$	$	$	$	$
Neuse River Basin Wilmington District	1,122,000	180,000	65,000	120,000	757,000

The study area is located in the eastern part of North Carolina. The Neuse River basin amounts to about 11 percent of the entire State of North Carolina and consists of all or portions of 16 counties. The basin is roughly oblong in shape, approximately 180 miles long, with a maximum width of about 46 miles. The Neuse River is formed by the confluence of the Eno and Flat Rivers, about 8 miles north of the city of Durham, and has a drainage area of approximately 5,710 square miles. The basin is primarily an agricultural region, but contains many small towns and several cities which are important commercial centers. Considerable flooding occurred during and after Hurricane Fran below Smithfield where the flood plain is broad and flat. The city of Kinston suffered the most flooding damages. Estimated flood damages from Hurricane Fran below Falls Lake amounted to $17,300,000 at September 1996 price levels and October 1993 levels of development. The estimated damages would have been $275,700,000 without Falls Lake in operation. This entire area suffered significant damages as a result of Hurricane Floyd in 1999. Total flood damages were in excess of $297,000,000. There have also been considerable water quality problems due to high levels of nutrients, particularly nitrogen. This has resulted in severe impacts to fisheries. The Feasibility study will include a comprehensive plan to address measures to improve flood control, ecosystem improvements, environmental protection and restoration and related purposes. The sponsor is the State of North Carolina and they understand the cost share requirements of the feasibility study. The Feasibility Cost Sharing Agreement was signed on 9 May 2002.

Fiscal Year 2004 funds will be used to continue the feasibility phase of the study. Fiscal Year 2005 funds will be used to continue the feasibility phase including problem identification and identification of environmental restoration and flood control opportunities. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,122,000
Reconnaissance Phase (Federal)	122,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase was completed in May 2002. The feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic Division

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to complete After FY 2005 $
Tar River and Pamlico Sound, NC Wilmington District	150,000	0	65,000	66,000	19,000

The study area is located in the eastern part of North Carolina. The Tar River Basin consists of all or portions of 12 counties. The river rises in Person County near the northern State boundary, and flows southeasterly about 190 miles to Washington, NC, draining an area of 3,081 square miles. The basin has a maximum width near its center of about 42 miles. The basin is primarily an agricultural region, but contains many small towns and several cities which are important commercial centers. The basin has suffered many severe floods since the late 1800's with the worst resulting from Hurricane Floyd in 1999. The cities of Greenville, Tarboro, Rocky Mount, Princeville, and Washington suffered severe flooding damages. The average annual rainfall for the basin is 46 inches. The rainfall from Hurricane Floyd averaged 20 inches over the entire basin. The total flood damages exceeded $350,000,000. There are also considerable water quality problems resulting from the storm water run off. Local interests desire both structural and non-structural measures to provide flood protection to structures and infrastructure located in their communities and also to protect the aquatic habitat of the basin. The State of North Carolina would be the potential sponsor and understands the cost share requirements on the feasibility study. The Reconnaissance Phase will address flood control and habitat restoration alternatives. The study will determine whether or not the problems warrant Federal participation and the Federal interest in potential alternatives, as well as develop a Project Management Plan (PMP), which would include scopes, schedules and cost estimate for the feasibility phase. A feasibility cost sharing agreement will also be developed. Fiscal year 2004 funds will be used to initiate the Reconnaissance Phase of the study. Fiscal year 2005 funds will be used to continue the Reconnaissance Phase. The estimated cost of the Reconnaissance Phase is $150,000 based on heavy sponsor involvement and the size of the basin. The Reconnaissance Phase completion date is being determined.

This study is authorized by House Committee on Transportation and Infrastructure Resolution adopted 11 April 2000.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional To Complete After FY 2005 $
Puerto Rico					
Rio Yagüez in Mayagüez, PR Jacksonville District	100,000	40,000	25,000	35,000	0

The Rio Yagüez watershed is located entirely within the municipality of Mayagüez, currently the largest city on the west coast of Puerto Rico. The Rio Yagüez basin is relatively long and narrow, 8 miles long by 2 miles wide, and drains an area of 14 square miles into the Mayagüez Bay. Rio Yagüez was partially channelized by the Commonwealth of Puerto Rico during the 1960's. The existing concrete channel does not have adequate hydraulic capacity as witnessed by recent floods. The feasibility study will include engineering, economic, and environmental investigations to address flooding associated with storm water runoff and to identify flood damage reduction needs. The Department of Natural and Environmental Resources is the potential Non-Federal Sponsor and understands the requirements for study cost sharing. FY 2005 funds will be used to complete the reconnaissance phase of the study. The reconnaissance phase is scheduled to be complete in July 2005.

The study is authorized by Resolution adopted September 28, 1994 by the House Committee on Public Works and Transportation.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic Division

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional To Complete After FY 2005 $
South Carolina					
Waccamaw River Charleston District	600,000	74,000	33,000	50,000	443,000

The Waccamaw River spans the coastal plain region of North Carolina and South Carolina and has a drainage area of approximately 1,530 square miles. Flooding has occurred throughout the basin resulting in the construction of ten Army Corps of Engineers flood control projects over the past 40 years. The most recent flooding occurred as a result of Hurricanes Floyd and Irene in the Fall of 1999 when the Waccamaw crested at 6.2 feet over flood stage. Approximately 1,200 homes were affected by the flooding with approximately 850 incurring structural damage. Septic systems and wells were flooded and many of the roads throughout Horry County were impassable. Raw sewage from flooded septic tanks contaminated the Waccamaw River and adjoining tributaries, causing health threats to the populace. Annual flood damages are estimated at $800,000. As development progresses in the eastern portion of the basin, flood problems may intensify near the cities of Conway, Myrtle Beach, and North Myrtle Beach, the primary growth areas. The reconnaissance study will identify water resource problems, identify Federal interests within the basin with particular attention on opportunities for flood damage reduction and opportunities to restore fish and wildlife habitat. Horry County, the City of Conway, and Coastal Carolina University are the prospective cost-sharing partners and understand the cost-sharing requirements of the feasibility phase. A Feasibility Cost Sharing Agreement is scheduled to be signed in August 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase at full Federal expense and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$1,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	500,000
Feasibility Phase (Non-Federal)	500,000

The reconnaissance phase is scheduled for completion in August 2004. The feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic Division

Study	Total Estimated Federal Cost	Allocation Prior to FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional to complete After FY 2005
Virginia and North Carolina	$	$	$	$	$
John H. Kerr Dam and Reservoir Wilmington District	1,675,000	208,000	163,000	290,000	1,014,000

John H. Kerr Dam and Reservoir is located in the Roanoke River Basin which extends into north-central North Carolina and south-central Virginia. The project was completed in 1952 and provides hydropower, flood control, water supply, and recreation. Two downstream non-Federal hydropower reservoirs, Gaston and Roanoke Rapids, operated by the Dominion Power Company have minimal active storage for daily hydropower peaking. The Kerr, Gaston and Roanoke Rapids projects operate cooperatively generating power, controlling flooding, and ensuring adequate downstream flows. The lower Roanoke River basin is one of the finest remaining swamp forest ecosystems within the eastern United States. These bottomland hardwood forests, wetlands, uplands, and streams provide a high quality habitat for fish and wildlife, including waterfowl. Federal and State agencies have expressed concern that there is a probable correlation between fish kills and low dissolved oxygen in the lower Roanoke River basin and the operation of Kerr Reservoir. Resource concerns for the Lower Roanoke center on the need for restoration and enhancement of extensive swamp and flood plain forests and fisheries through improvements to the hydrologic regime. The State of North Carolina and the Commonwealth of Virginia are the sponsors and they understand the cost share requirements on the feasibility study. The reconnaissance report was approved in May 2001. The Feasibility Cost Sharing Agreement (FCSA) was signed on 17 June 2003.

Fiscal Year 2004 funds will be used to continue the feasibility phase of the study. Fiscal year 2005 funds will be used to continue the feasibility phase including identifying model requirements, and beginning data collection. The preliminary estimated cost of the feasibility phase is $3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,175,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase was completed in June 2003. The feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic Division

	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	FY 2004 $	Tentative Allocation FY 2005 $	Additional Allocation After FY 2005 $	to Complete Study
c. Shoreline Protection Studies						
Florida						
Walton County	1,430,000	100,000	195,000	100,000	1,035,000	Mobile District

The study area is located on the coast of the Gulf of Mexico in Walton County, in the northwest Florida panhandle. Walton County Beaches extend from Destin, Florida, on the west, to Philips Inlet on the east, a distance of 26 miles. The area is highly developed, with infrastructure valued at about $450 million, and has experienced beach erosion and storm damage over the last 25 to 30 years. In October 1995, Hurricane Opal caused extensive damage in Walton County. A restored beach would provide hurricane and storm damage protection for residential and commercial structures, assist in the protection and recovery of Federal or state listed threatened or endangered species, and provide additional opportunities for public use of the beach. The study will investigate the severe erosion problems to determine if solutions can be formulated to reduce storm damages and improve the coastal environment. The Walton County Board of Commissioners is the non-Federal sponsor and understands the cost-sharing requirements of the feasibility phase. The Feasibility Cost Sharing Agreement was signed in December 2003.

Fiscal Year 2004 funds are being used to initiate the feasibility phase. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,660,000, which is to be shared on a 50-50 basis by the Federal and non-Federal interests. A summary of the study cost-sharing is as follows:

Total Estimated Study Cost	$2,760,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,330,000
Feasibility Phase (Non-Federal)	1,330,000

The reconnaissance phase was completed December 2003. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Mississippi					
Hancock County Mobile District	805,000	250,000	97,000	200,000	258,000

The study area is located along the Gulf Coast in western Hancock County, Mississippi near the Louisiana State Line. Beach Boulevard is the main thoroughfare along the waterfront of both the cities of Bay St. Louis and Waveland. Historical as well as current wave attack against the shoreline of Hancock County has caused severe beach erosion and undermining or failure of the more than 70-year old seawall in various locations. The existing seawall has deteriorated to the point whereby the footings, especially along the toe, have rotted out in many reaches. Fill material from beneath Beach Boulevard flows into either St. Louis Bay or Mississippi Sound. Accordingly, sections of the highway have collapsed from time to time, disrupting and damaging utilities, causing hazards and delays for residents and vehicular traffic, and increasing the risk of flooding for residence and businesses along the study area. The study will be conducted for the purpose of determining if improvements for flood damage reduction, shoreline erosion, beach nourishment, and environmental restoration, conservation and protection are economically feasible and environmentally acceptable. Hancock County is the sponsor and understands the cost-share requirements of the feasibility phase. The Feasibility Cost Sharing Agreement was signed in April 2003.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $1,410,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,510,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	705,000
Feasibility Phase (Non-Federal)	705,000

The reconnaissance phase was completed in April 2003. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic Division

Study	Total Estimated Federal Cost	Allocation Prior to FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional to complete After FY 2005
North Carolina	$	$	$	$	$
Dare County Beaches (Hatteras & Ocracoke Islands) Wilmington District	5,850,000	0	195,000	250,000	5,405,000

The study area is approximately 80 miles long and covers the southern limits of Dare County from Oregon Inlet to Hatteras Inlet (Pea Island and Hatteras Island) and the northern limits of Hyde County from Hatteras Inlet to Ocracoke Inlet (Ocracoke Island). The area is primarily part of the Cape Hatteras National Seashore; however, there are a number of small resort towns located in the area including: Rodanthe; Waves; Salvo; Avon; Buxton; Frisco; Hatteras: and Ocracoke Village. Development consists of residences, lodging, and businesses engaged in sales and services to satisfy the needs of tourists and year-round residents. In recent years the area has experienced considerable erosion and damages to the NC12 transportation system as a result of storms. Local interests would like protection for the NC12 transportation system to reduce damages from storms and prevent long-term erosion impacts. The State of North Carolina would be the potential sponsor and understands the cost share requirements on the feasibility study. NC12 is the only transportation corridor for hurricane evacuation. The Sponsor has already invested $1,500,000 to identify sand sources. A partnership has been formed for the protection of NC12 and includes NCDOT, NPS, F&WL Service, NMFS, Corps, Dare County, and Hyde County. A Feasibility Cost Sharing Agreement was signed on 3 November 2003.

Fiscal Year 2004 funds will be used to initiate the feasibility phase of the study. Fiscal Year 2005 funds will be used to continue the feasibility phase including economic, environmental and coastal analysis and geotechnical engineering requirements. The preliminary estimated cost of the feasibility phase is $11,700,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$11,700,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	5,850,000
Feasibility Phase (Non-Federal)	5,850,000

The reconnaissance phase was completed in November 2003 as part of the Dare County Beaches, NC (Bodie Island) study. The feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic Division

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to complete After FY 2005 $
Surf City and North Topsail Beach Wilmington District	2,188,000	688,000	185,000	214,000	1,101,000

The towns of Surf City and North Topsail Beach are located on Topsail Island. Topsail Island is a barrier island located about 25 miles northeast of Wilmington, NC. It is between New Topsail Inlet and New River Inlet. From north to south the communities of North Topsail Beach, Surf City and Topsail Beach are located on Topsail Island. As a result of Hurricane Fran in 1996, the damage to publicly owned properties exceeded $5,000,000 and the total losses paid to privately owned property by FEMA was about $32,000,000. In 1996 Hurricanes Bertha and Fran produced an erosion of at least 25 feet of shoreline leaving 66 percent of the Surf City and North Topsail Beach shoreline without its natural vegetation. This erosion, along with recent hurricanes has either severely damaged or destroyed the primary dune system and the structures along the ocean shoreline leaving the towns vulnerable to damage from future storm events. Topsail Island, of which Surf City and North Topsail Beach are a major part, is an established rookery for the Loggerhead Turtle. The towns of Surf City and North Topsail Beach have established a beach renourishment committee that has been meeting with property owners. They have determined that property owners are willing to support a shore protection study and project. Both communities are sponsors and they understand the cost share requirements on the feasibility study. A feasibility cost sharing agreement was signed on 13 February 2002.

Fiscal Year 2004 funds will be used to continue the feasibility phase. Fiscal Year 2005 funds will be used to continue the feasibility phase including continuing real estate coordination, coastal, economic and environmental studies. The preliminary cost of the feasibility phase is $4,200,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the cost sharing is as follows:

Total Estimated Study Cost	$4,288,000
Reconnaissance Phase (Federal)	88,000
Feasibility Phase (Federal)	2,100,000
Feasibility Phase (Non-Federal)	2,100,000

The reconnaissance phase was completed in February 2002. The feasibility study completion is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
d. Special Studies					
Alabama					
Cahaba River Watersheds Mobile District	1,017,000	299,000	33,000	50,000	635,000

The study area encompasses the Cahaba River Watershed in Jefferson and Shelby Counties in Northern Alabama. The watershed has a total drainage area of 270 square miles. The June 1999 flooding caused damages to businesses and homes in several Jefferson County municipalities, especially Birmingham, Irondale, and Mountain Brook. Mountain Brook had six inches and Irondale had 4.5 inches of rain within 1.5 hours. There is an urgent need to address the flooding associated with storm water runoff, and to identify flood damage reduction needs. The Section 905(b) Analysis concluded that there is adequate justification to proceed to the feasibility phase. Reconnaissance phase efforts are underway to identify willing non-Federal sponsors and to develop a Project Management Plan and Feasibility Cost Sharing Agreement. The feasibility study will include engineering, economic, and environmental investigations to address flooding associated with storm water runoff and to identify flood damage reduction needs. Jefferson County and the City of Mountain Brook are the potential non-Federal sponsors and they understand the requirements for study cost sharing. The Feasibility Cost Sharing Agreement is scheduled to be signed in April 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase at full Federal expense and to initiate the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,414,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study costs sharing is as follows:

Total Estimated Study Cost	$1,724,000
Reconnaissance Phase (Federal)	310,000
Feasibility Phase (Federal)	707,000
Feasibility Phase (Non-Federal)	707,000

The reconnaissance phase is scheduled for completion in April 2004. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Village Creek, Jefferson County (Birmingham Watershed) Mobile District	1,463,000	1,030,000	130,000	233,000	70,000

The study area encompasses the watersheds in metropolitan Birmingham, Alabama that are located in the Black Warrior River Basin, including Village Creek and Valley Creek, in Jefferson County in northern Alabama. Due to recent flooding, there is an urgent need to examine the area for flood damage prevention. Floods in October 1995, January 1996, and March 1996 damaged over 1,000 residential and commercial properties, and the Birmingham International Airport, in the Village Creek watershed with damages estimated to be about $5,000,000. The feasibility study will include engineering, economic, and environmental investigations to identify potential alternatives that would alleviate flood damages. The City of Birmingham is the local sponsor and understands the requirements for study cost sharing. Feasibility Cost Sharing Agreement was signed in March 1999.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,686,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,806,000
Reconnaissance Phase (Federal)	120,000
Feasibility Phase (Federal)	1,343,000
Feasibility Phase (Non-Federal)	1,343,000

The reconnaissance phase was completed in March 1999. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
e. Ecosystem Restoration Studies					
Georgia					
Allatoona Lake Watershed Mobile District	3,015,000	740,000	97,000	150,000	2,028,000

Allatoona Lake is a federal project located on the Etowah River, a tributary to the Coosa River, 48 miles above Rome, Georgia. The project includes a dam, hydroelectric powerhouse, gated spillway, a flood control reservoir and 31 recreational areas over 37,000 acres. The “Clean Lake Study” commissioned by local water authorities and undertaken by the A. L. Burris Institute of Public Service at Kennesaw State University sought to identify environmental problems within Lake Allatoona. The study notes that pollution has affected a tributary of the lake known as the Little River area. The study also concluded that erosion and sedimentation could contribute unwanted loads into the Etowah River and downstream into Lake Allatoona. The study will be conducted to evaluate environmental problems and recommend environmental restoration measures, including structural and non-structural approaches, for the Little River Watershed, which drains into Lake Allatoona. The study will also identify and recommend measures to alleviate shoreline erosion and sedimentation problems, including structural and non-structural solutions, along Lake Allatoona, Little River, and the Etowah River. The original Feasibility Cost Sharing Agreement was signed with one sponsor, in May 2002, but the sponsor was unable to fulfill their financial obligations. The Upper Etowah River Basin Group is the new sponsor and they understand the cost-share requirements of the feasibility phase. The revised Feasibility Cost Sharing Agreement was signed in October 2003. The Upper Etowah River Basin Group includes two counties and seven water/sewer authorities.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $5,400,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,715,000
Reconnaissance Phase (Federal)	315,000
Feasibility Phase (Federal)	2,700,000
Feasibility Phase (Non-Federal)	2,700,000

The original reconnaissance phase was completed in May 2002. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Arabia Mountain Savannah District	1,100,000	91,000	20,000	100,000	889,000

The Davidson-Arabia Mountain Nature Preserve is located on the southeast quadrant of DeKalb County in Lithonia, Georgia. It is approximately 25 miles southeast of downtown Atlanta, Georgia. Stevenson Creek, a tributary of the South River, runs through the Davidson-Arabia Mountain Nature Preserve. The Preserve is comprised of 535 acres of granite outcrop with wetlands, pine and oak forests, streams, and a lake. It sustains two federally protected and endangered plant species and one federally listed threatened species. The unique and rare vernal pools, which are considered wetlands, are critical habitat for these species. The Davidson-Arabia Mountain Nature Preserve has received the Nature Conservancy's most urgent priority preservation rating. Past mining has contributed to the degradation of this unique ecosystem. An earthen dam within the Preserve was built on Stevenson Creek over 75 years ago and some portions are structurally degrading. The earthen dam and lead residue from a firing range within the Stevenson Creek watershed are potentially contributing to the degradation of this ecosystem. DeKalb County is the potential sponsor and understands the requirements for study cost sharing. The Feasibility Cost Sharing Agreement is scheduled for execution in March 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase of the study, and if the report is certified to be in accord with policy, to initiate the feasibility phase. The funds requested for FY 2005 will be used to continue feasibility work. The preliminary estimated cost of the feasibility phase is $2,000,000, which would be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in March 2004. The feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Indian, Sugar, Intrenchment, and Federal Prison Creeks Mobile District	2,400,000	187,000	100,000	100,000	2,013,000

Indian, Sugar, Intrenchment, and Federal Prison Creeks are located within the metropolitan Atlanta watershed in portions of DeKalb County, Fulton County and the City of Atlanta. Fulton County and DeKalb County, Georgia and the City of Atlanta have passed floodplain regulations, resolutions, or ordinances to restrict development in flood-prone areas; however, the rapid urbanization of the metropolitan Atlanta area prior to their passage resulted in the development of many areas subject to periodic flooding. Both scarcity of land and attractiveness of streamside areas contributed to encroachment on the floodplain. Local drainage patterns have also been greatly altered by urbanization. At many locations, extensive storm drain systems have been used to substantially alter natural drainage patterns in order to remove water quickly. Rapid urbanization in the metropolitan Atlanta area over the last few decades has resulted in increases in the magnitude and frequency of severe floods; increased streambank erosion; depreciated water quality; a reduction in diversity and abundance of aquatic insects and fish; and destruction of wetlands, riparian buffers, and springs. The study will be conducted to develop portions of a comprehensive watershed plan for metropolitan Atlanta, including Indian, Sugar, Intrenchment, Federal Prison, and Snapfinger Creeks. Development of portions of the master plan will be based on a thorough assessment of the changes in stream hydrology, morphology, water quality and habitat and ecology. DeKalb County is the sponsor and they understand the cost-share requirements of the feasibility phase. The Feasibility Cost Sharing Agreement was signed in June 2003.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $4,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,650,000
Reconnaissance Phase (Federal)	150,000
Feasibility Phase (Federal)	2,250,000
Feasibility Phase (Non-Federal)	2,250,000

The reconnaissance phase was completed in June 2003. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Long Island, Marsh, Johns Creeks Mobile District	1,423,000	207,000	86,000	122,000	1,008,000

Long Island, Marsh and Johns Creeks are located within the metropolitan Atlanta watershed principally in Fulton County. Fulton County, Georgia has passed floodplain regulations, resolutions, or ordinances to restrict development in flood-prone areas; however, rapid urbanization prior to their passage resulted in the development of many areas subject to periodic flooding. Both scarcity of land and attractiveness of streamside areas contributed to encroachment on the floodplain. Local drainage patterns have also been greatly altered by the urbanization of the metropolitan area. At many locations, extensive storm drain systems have been used to substantially alter natural drainage patterns in order to remove water quickly. Rapid urbanization in the metropolitan Atlanta area over the last few decades has resulted in increases in the magnitude and frequency of severe floods; increased streambank erosion; depreciated water quality; a reduction in diversity and abundance of aquatic insects and fish; and destruction of wetlands, riparian buffers, and springs. The study will be conducted to develop portions of a comprehensive watershed plan for metropolitan Atlanta, including Long Island, Marsh and Johns Creeks. Development of portions of the master plan will be based on a thorough assessment of the changes in stream hydrology, morphology, water quality and habitat and ecology. Fulton County is the sponsor and understands the cost-share requirements of the feasibility phase. The Feasibility Cost Sharing Agreement was signed in May 2003 for Johns Creek. The Feasibility Cost Sharing Agreement is to be amended to include Long Island and Marsh Creeks in March 2004.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,600,000, which is to be cost-shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing follows:

Total Estimated Study Cost	$2,723,000
Reconnaissance Phase (Federal)	123,000
Feasibility Phase (Federal)	1,300,000
Feasibility Phase (Non-Federal)	1,300,000

The reconnaissance phase was completed in May 2003. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Savannah Harbor Ecosystem Savannah District	1,690,000	749,000	97,000	250,000	594,000

The Savannah River Basin encompasses an area of 11,000 square miles in Georgia and South Carolina. Major cities in the basin are Savannah and Augusta, Georgia, and Aiken, South Carolina. Recent studies by the Corps of Engineers, the states of Georgia and South Carolina, and Federal and State agencies have highlighted that there are current water resource problems and needs being encountered in the Savannah River Basin that need to be investigated. A critical need to address dissolved oxygen levels in Savannah Harbor was identified by several major stakeholders. Although the focus of this problem is Savannah Harbor, modeling and technical work will extend to Augusta, Georgia to evaluate upstream contributions to point and non-point source loads. Evaluation of dissolved oxygen in Savannah Harbor is a complex issue due to the dynamic nature of the tidal estuary, the complicated hydraulic processes in the harbor, and uncertainties associated with related biological components. The historical seasonal lowering of dissolved oxygen in Savannah Harbor is well documented and illustrates an annual impairment of the estuary's ecosystem. Two endangered species, the Shortnose Sturgeon and the Manatee, are common in the estuary. The Sturgeon can be affected by low levels of dissolved oxygen. Channel deepenings have impacted the geography and thus the hydrology of the river channel. Increased channel depths have reduced vertical mixing. Higher salinity levels and lower dissolved oxygen have resulted. Data from sampling during summer low flow periods indicate dissolved oxygen levels below 1.0 in the navigation channel. These levels are not supportive of a healthy, productive, aquatic ecosystem. The local sponsor, the City of Savannah, signed the Feasibility Cost Sharing agreement in August 1999.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $3,220,000, which is cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,300,000
Reconnaissance Phase (Federal)	80,000
Feasibility Phase (Federal)	1,610,000
Feasibility Phase (Non-Federal)	1,610,000

The reconnaissance phase was completed in August 1999. The feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Utoy, Sandy and Proctor Creeks Mobile District	2,625,000	126,000	15,000	50,000	2,434,000

Utoy, Sandy and Proctor Creeks are located within the metropolitan Atlanta watershed in middle western portions of Fulton County and the City of Atlanta. Fulton County, Georgia and the City of Atlanta have passed floodplain regulations, resolutions, or ordinances to restrict development in flood-prone areas; however, the rapid urbanization of the metropolitan Atlanta area prior to passage of these regulations, resolutions, or ordinances resulted in the development of many areas subject to periodic flooding. Both the scarcity of land and attractiveness of streamside areas contributed to encroachment on the floodplain. Local drainage patterns have also been greatly altered by the urbanization of the metropolitan area. At many locations, extensive storm drain systems have been used to substantially alter natural drainage patterns in order to remove water quickly. Rapid urbanization in the metropolitan Atlanta area over the last few decades has resulted in increases in the magnitude and frequency of severe floods; increased streambank erosion; depreciated water quality; a reduction in diversity and abundance of aquatic insects and fish; and destruction of wetlands, riparian buffers, and springs. The study will be conducted for the purpose of developing portions of a comprehensive watershed plan for metropolitan Atlanta, including Utoy, Sandy and Proctor Creeks. Development of portions of the master plan will be based on a thorough assessment of the changes in stream hydrology, morphology, water quality and habitat and ecology. The City of Atlanta is a potential sponsor and understands the cost-share requirements of the feasibility phase. The Feasibility Cost Sharing Agreement is to be signed in June 2004.

Fiscal Year 2004 funds are being used to initiate the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $5,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,125,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	2,500,000
Feasibility Phase (Non-Federal)	2,500,000

The reconnaissance phase completion date is scheduled for June 2004. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic Division

Study	Total Estimated Federal Cost	Allocation Prior to FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional to complete After FY 2005
North Carolina	$	$	$	$	$
Currituck Sound	1,125,000	125,000	97,000	210,000	693,000
Wilmington District					

The study area is located in Currituck and Dare Counties in the northeastern part of North Carolina. Currituck Sound is a 153 square mile brackish water estuary separated from the Atlantic Ocean by thin barrier islands known as the Outer Banks. The most significant freshwater inputs to Currituck Sound include North Landing River and Northwest River, both originating in the Great Dismal Swamp of North Carolina and Virginia. Back Bay, a 35 square mile estuary located in Virginia, also discharges water into the sound through shallow water channels along the eastern shore. Water level fluctuations in Currituck Sound are a function of prevailing winds from Albemarle Sound. Southerly winds force water into Currituck Sound, whereas northerly winds force water out. The cumulative effects of prevailing winds and possible point source inputs of brackish water from Federal canals influence sound salinity. The local interests are concerned about increased salinity levels which have frequently exceeded the threshold for many freshwater fisheries and have caused a severe decline in these fisheries. In addition, the increased salinity regime has contributed to the loss of extensive submerged aquatic vegetation (SAV). SAV provides a food source for various fish stocks, creates an ideal habitat for numerous migrating waterfowl species, and maintains the stability of the sound bottom. The study will address these water quality issues and explore environmental protection and restoration alternatives. The State of North Carolina is the potential sponsor and understands the cost share requirements on the feasibility study. The feasibility cost sharing agreement is scheduled for execution in February 2004.

Fiscal Year 2004 funds are being used to begin the feasibility phase of the study. Fiscal Year 2005 funds will be used to continue the feasibility phase including identifying data needs, evaluation methods and model requirements, and beginning data collection. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,125,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in February 2004. The feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic Division

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional To Complete After FY 2005 $
Reedy River Charleston District	600,000	73,000	111,000	194,000	222,000

Located in northwestern South Carolina, the Reedy River flows approximately 73 miles from the foothills of the Blue Ridge Mountains in Greenville County to its confluence with the Saluda River at Lake Greenwood in Laurence County. The watershed includes a total drainage area of 352 square miles and 325 miles of stream channel. The upper (northern) portion of the watershed includes the city of Greenville, which is considered to be one of the fastest growing regions in the United States. The increase in urban and industrial development over the past century has altered drainage conditions and has adversely impacted riparian zones along the river channel and its tributaries. This development has contributed to flash flooding, stream channelization, severe stream bank erosion and the resulting sedimentation, loss of riparian zone vegetation, and the filling and/or isolation of wetlands within the floodplain. As a result, the ecosystem has been significantly degraded. The Saluda-Reedy Watershed Consortium has expressed interest in sponsoring a feasibility study to address comprehensive measures to reduce flood damages, stabilize stream banks and restore ecosystems associated with wetlands, riparian and aquatic systems. Negotiations are currently underway to execute the Feasibility Cost Sharing Agreement in April 2004.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase at full Federal expense and initiate the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$1,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	500,000
Feasibility Phase (Non-Federal)	500,000

The reconnaissance phase is scheduled for completion in April 2004. The feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic Division

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional To Complete After FY 2005 $
Santee Delta Env Restoration Charleston District	100,000	62,000	15,000	23,000	0

The Santee River below Lake Marion extends 87 miles to the ocean, bordering Williamsburg, Berkeley, Georgetown and Charleston Counties. The Santee River splits approximately 18 miles upstream of the ocean into the North and South Santee Rivers. The area below Highway 17, approximately river mile 12, is generally considered the Santee Delta. The delta consists of coastal islands composed of tidal marsh, managed wetlands, forest openings, virgin barrier island beaches and maritime forests. The Tom Yawkey Wildlife Center and the Santee Coastal Reserve managed by the South Carolina Department of Natural Resources, make up a large portion of the Santee Delta. The Yawkey Wildlife Center and the Santee Coastal Reserve contain approximately 42,000 acres of managed wetlands, barrier islands, and maritime forests. Damming of the Santee River in the early-mid 1900's cutoff the sediment supply to the delta, which may have resulted in loss of wetlands and coastal barrier island habitats. Management of the existing wetlands has helped compensate for these losses; however, because of the rapid loss of coastal habitat caused by development, additional wetland restoration and protection is needed within the Santee Delta. The reconnaissance phase is scheduled for completion in October 2004.

The study was authorized by Section 444, P.L. 106-53 dated 17 Aug 99.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
f. Watershed/Comprehensive Studies					
Georgia					
Savannah River Basin Comprehensive Savannah District	2,548,000	1,183,000	130,000	250,000	985,000

The Savannah River Basin encompasses an area of 11,000 square miles in 44 Georgia and South Carolina counties serving over 500 major water users. Major cities in the basin are Savannah and Augusta, Georgia, and Aiken, South Carolina. Recent studies by the Corps of Engineers, the states of Georgia and South Carolina, and Federal and state agencies have highlighted that there are current water resource problems and needs being encountered in the Savannah River Basin that need to be investigated. Changes in land use below the J. Strom Thurmond, Hartwell and Richard B. Russell reservoirs have prompted the need to reexamine flood control needs in the basin. A review of the quality of habitat below the reservoirs will be conducted to determine restoration measures needed to address adverse impacts on wetlands and fish and wildlife resources. Continued rapid growth in the basin is increasing pressures to develop new sources of surface water supply in the upper watershed. Pressures are also being felt in the lower watershed since Georgia and South Carolina are now restricting further use of the Floridian Aquifer. The feasibility study is focusing on review of the operation of the major reservoirs in the basin, the need for additional flood control measures, environmental restoration, surface water supply and other allied water resources problems. In addition, the study is reviewing the results of various state and Federal efforts conducted to date to identify problems, needs, and potential alternative plans. Goals and objectives for subsequent planning efforts and planning constraints were developed in coordination with the states, affected agencies, and local interest groups. The states of Georgia and South Carolina are the local sponsors and are participating in a 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement was signed in June 2000.

The study authorization requires that the study be coordinated with EPA and its ongoing Watershed Study of the basin. Corps efforts have been coordinated with the EPA study through participation on eight policy, management, and resource committees. The Policy committee developed a "Watershed Strategy" to implement priority recommendations. One priority recommendation is the conduct of the Savannah River Basin Comprehensive study. A number of the priority recommendations are dependent upon the comprehensive study for their resolution.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

Savannah River Basin
Comprehensive
Savannah District
(continued)

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility phase into phase II, with Phase I recommendations and decisions. The estimated cost of the feasibility phase is $4,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,548,000
Reconnaissance Phase (Federal)	548,000
Feasibility Phase (Federal)	2,000,000
Feasibility Phase (Non-Federal)	2,000,000

The reconnaissance phase was completed in June 2000. The feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic Division

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional To Complete After FY 2005 $
South Carolina					
Broad River Basin Charleston District	200,000	174,000	10,000	16,000	0

The Broad River Basin includes portions of 20 counties in both North and South Carolina, encompassing an area of 5,420 square miles. A reconnaissance study of the Santee, Cooper, and Congaree River Basin, completed in May 1997, recommended site specific investigations on each of its four sub-basins, which includes the Broad River sub-basin. The purposes of the study were to identify water resource related problems and opportunities within the basin and determine a Federal interest to participate in follow-on feasibility studies. Water resource problems identified include: flooding in the upper reaches of the basin; inadequate floodplain delineation mapping; degraded water quality and aquatic ecosystems basin wide; lack of reliable water supply in several northern counties of the basin; prevention of migratory fish passage through the Columbia Diversion Dam; and limited public stream access for recreation. Continued flooding and environmental degradation in these areas warrant investigation and resolution as quickly as possible. The reconnaissance phase is scheduled for completion in October 2004.

A study resolution titled Santee, Cooper and Congaree Rivers, Charleston to Columbia, South Carolina was adopted on 1 August 1990 by the Committee on Public Works and Transportation of the House of Representatives.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Savannah Harbor Expansion Savannah District	4,387,000	1,655,000	328,000	200,000	2,204,000

The Savannah Harbor area includes the lower 21.3 miles of the Savannah River, which is the principal boundary between the states of Georgia and South Carolina. The city of Savannah is located about 18 miles from the river mouth. Results of the South Atlantic Cargo Traffic Container Study indicate the current 1.9 million twenty-foot equivalent units (TEU) through South Atlantic Ports is projected to exceed 13 million TEU by the year 2050; this volume is greater than today's total U.S. containerized trade. With this growth, the capacity of the port of Savannah container cargo facilities is expected to be exceeded by 2005. The non-Federal interest, Georgia Ports Authority (GPA), conducted the Feasibility Study under the authority of Section 203 of the Water Resources Development Act of 1986 (WRDA 86) and was responsible for funding all associated Feasibility Study costs. The Feasibility Report was submitted to the Secretary of the Army in August 1998. The project, authorized in WRDA 99, is estimated to cost $246,400,000, with an estimated Federal cost of $142,063,000 and an estimated non-Federal cost of $104,337,000 includes deepening the harbor channel from 42 feet up to 48 feet (2001 price levels). The average annual benefits amount to $35.2 million, all for commercial navigation. The benefit-cost ratio is 3.0 to 1 at 7-1/8 percent based on the latest economic analysis dated August 1998. The Georgia Ports Authority is aware of project cost sharing requirements. PED may ultimately be cost shared under the authority of Section 204 of WRDA 86 (at the rate for the project to be constructed), but will be financed through the PED period at 82 percent non-Federal and 18 percent Federal. Upon completion of construction, credit will be given to the local sponsor for the Federal share of the PED cost.

Total Estimated Preconstruction Engineering and Design Costs	$24,350,000	Total Estimated Preconstruction Engineering and Design Costs	$24,350,000
Initial Federal Share	4,387,000	Ultimate Federal Share	18,263,000
Initial Non-Federal Share	19,963,000	Ultimate Non-Federal Share	6,087,000

In accordance with the cost sharing and financing concepts reflected in WRDA 86, non-Federal interests will be required to provide lands, easements, rights of way, and dredged material disposal areas; modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary, for the construction of the project; pay 25 percent of the cost of construction of the portion of the project which has a depth in excess of 20 feet but not in excess of 45 feet; pay 50

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005
Division: South Atlantic

Study/Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $

Savannah Harbor Expansion
Savannah District
(continued)

percent of the cost of construction of the portion of the project which has a depth in excess of 45 feet; and reimburse an additional 10 percent of the cost of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction, as partially reduced by a credit allowed for the value of lands, easements, rights of way, relocations, and dredged material disposal areas provided for commercial navigation.

Fiscal Year 2004 funds are being used to continue Federal oversight and participation in a Stakeholders Evaluation Group (SEG) and begin the development of the Tier II Environmental Impact Statement (EIS) (including funding the other Federal Cooperating Agencies for their work and involvement with the Tier II EIS). GPA , via the SEG, is seeking to develop a consensus, incorporating input from local government, resource agencies, non-governmental organizations (NGO) and the Federal government on the optimum project scope, not exceeding 48 feet deep. Fiscal Year 2005 funds will be used to continue Federal oversight and Tier II EIS development (as well as continue to fund the other Federal Cooperating Agencies).

Scheduled completion date for the Tier II EIS and General Reevaluation Report (GRR) is September 2010.

APPROPRIATION TITLE: Construction, General - Navigation

PROJECT: Canaveral Harbor, Florida (Continuing)

LOCATION: Canaveral Harbor is located in Brevard County on the shore of Cape Canaveral in an area known as Canaveral Bight.

DESCRIPTION: The project provides for a 44-foot entrance channel, 35-foot turning basin, 12-foot barge channel, 400 foot lock, a sand bypassing system, and south jetty extension of 500 feet.

AUTHORIZATION: Rivers and Harbor Act of 23 October 1962 (Public Law 87-874)

REMAINING BENEFIT-REMAINING COST RATIO: to 1 at 5-7/8 percent

TOTAL BENEFIT-COST RATIO: to 1 at 5-7/8 percent

INITIAL BENEFIT-COST RATIO: 1.7 to 1 at 6-3/8 percent (FY 1964)

BASIS OF BENEFIT-COST RATIO: Benefits are included in the Canaveral Harbor, Florida General Reevaluation Report completed in December 1992 at November 1992 price level.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST. FED COST
Total Estimated Federal Cost		111,200,000	
Estimated Federal Cost (COE)	111,153,000		
Estimated Federal Cost (USCG)	47,000		
Estimated Non-Federal Cost		4,900,000	
Cash Contributions	$ 348,000		
Other Costs	4,552,000		
Total Estimated Project Cost		116,100,000	
Allocations to September 2003		33,624,000	
Conference Allowance for FY 2004		2,500,000	
Allocation for FY 2004		1,932,000	1/
Allocation through FY 2004		35,556,000	32
Allocation Requested for FY 2005		3,016,000	36
Programmed Balance to Complete After FY 2005		72,581,000	
Unprogrammed Balance to Complete After FY 2005		0	

STATUS (1 Jan 2002)	PCT COMPL	PHYSICAL COMPLETION SCHEDULE
Locks	100	Mar 1966
Channels & Canals		
Barge Canal	100	Aug 1965
Harbor Ext. Mi 1.2 To Mi 1.5	100	Sep 1974
Harbor Ext. Mi 1.5 to Mi 2.3 including Mitigation	100	Jun 1992
Breakwaters and Seawalls		
Jetty Extension	71	Feb 2003
Beach Replenishment		
Sand Transfer System	12	TBD
Entire Project	29	TBD

1/ Reflects $553,000 reduction assigned as savings and slippage, and $15,000 as rescission.

PHYSICAL DATA

Entrance Channel	35-foot Depth
Turning Basin	44-foot Depth
Barge Channel	12-foot Depth
Lock	400-foot Length
Jetty Extension	500 Feet
Sand Transfer System	

JUSTIFICATION: Development and operation of the Rocket-Launching Facility on Cape Kennedy and the development of Patrick Air Force Base, 10 miles south of Canaveral Harbor, and tracking stations on islands offshore have resulted in a population increase in the tributary area from 162,000 in 1940 to about 570,000 in 1980. During the 1960's, there was a major expansion of the Rocket-Launching Facility on Cape Kennedy to accommodate the space program. Commerce for the harbor was 2,175,000 tons in 1987.

The mitigation project completed the western harbor extension. The sand transfer system would reduce the required maintenance dredging of the Canaveral Harbor navigation project by approximately 106,000 cubic yards on an annual basis. In addition, material placed on the beach by the sand transfer system will prevent the loss of 136,000 square feet over a length of 2.8 miles due to erosion. Average annual benefits are:

Annual Benefits	Amount
Navigation	$ 599,000
Storm Damage Prevention	817,000
Loss of Land	534,000
Total Average Annual Benefits	1,950,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Complete S. Jetty Extension	2,523,000
Lands	103,000
Construction Management	390,000
Total	3,016,000 1/

1/ Does not included any funds for the sand bypass.

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance Repair, Rehabilitation, and Replacement Costs
Provide 1.4 percent of the costs allocated to deepening of the West Turning Basin.	$ 348,000	0
Provide lands, easements, rights of way, and dredged material disposal areas.	4,552,000	0
Total Non-Federal First Cost	4,900,000	0

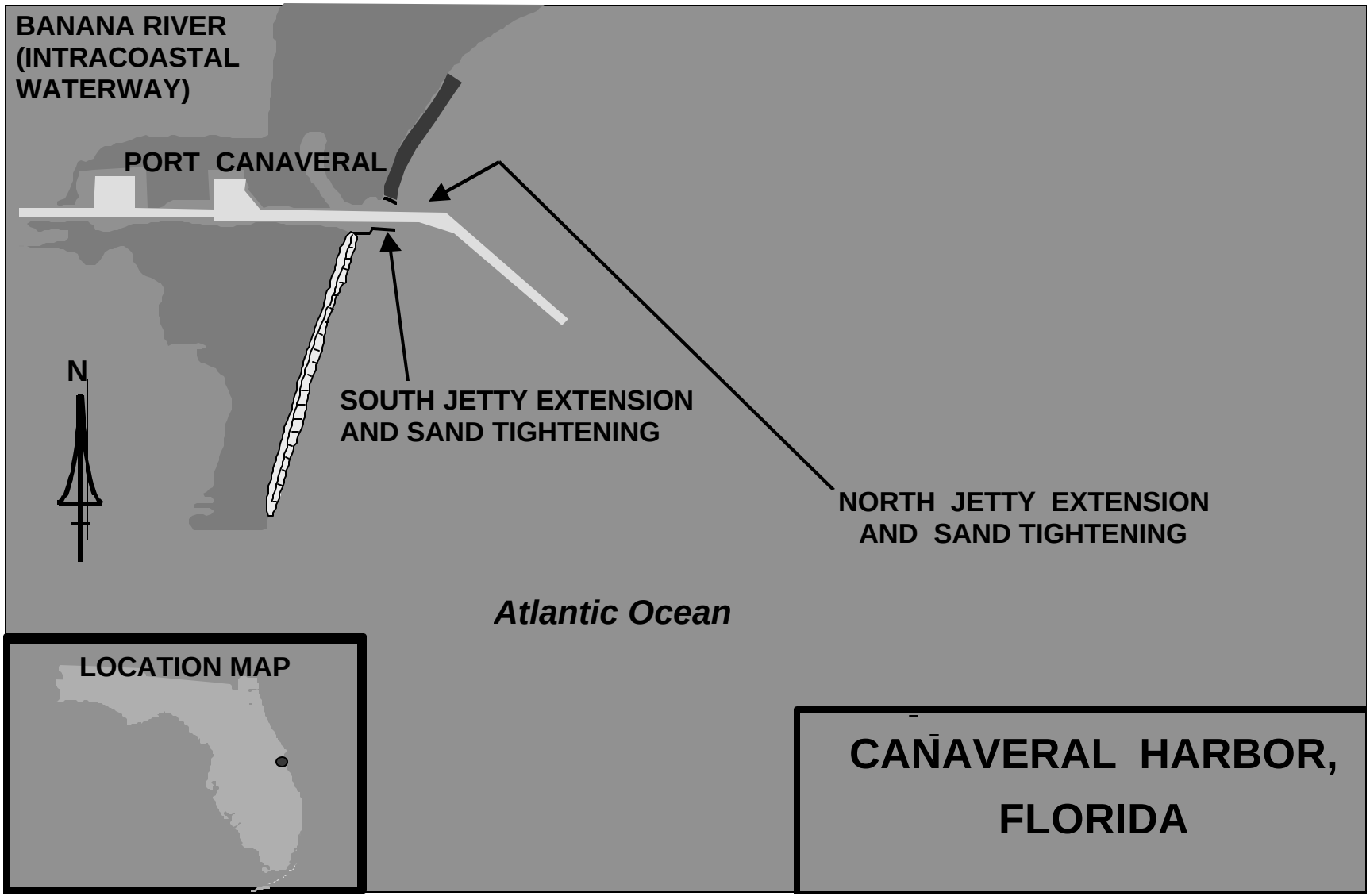
STATUS OF LOCAL COOPERATION: The local sponsor is the Canaveral Port Authority. A Project Cooperation Agreement was executed in March 1994.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $111,200,000 is a $25,040,000 decrease from the estimate ($136,240,000) last presented to Congress (FY 2004). This change includes the following:

Item	Amount
Price Escalation on Construction Features	-$25,040,00
Total	-$25,040,00

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment with a Finding of No Significant Impact was completed in May 1993.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1964. Schedule was established by a Congressional add in FY 1994 Appropriation Bill. The jetty extension and initial sand bypassing were completed in FY 1995. However, strong storms in the area have caused significant damage to the jetty head. Additional funds were received to repair the jetty, and to pursue temporary sand tightening of the north jetty. Temporary sand tightening of north jetty was completed in FY 1998. A permanent solution to the north jetty is scheduled for award in FY 2004. A Court Settlement Agreement dated 29 October 1999 requires the Canaveral sand bypassing to continue. This settlement requires the sand bypassing to continue at (6) year intervals (+/- 24 months). The last bypassing effort was completed in 1997. Therefore bypassing is required in 2005 to be in compliance with the court settlement.


BANANA RIVER
(INTRACOASTAL
WATERWAY)
PORT CANAVERAL
N
SOUTH JETTY EXTENSION
AND SAND TIGHTENING
NORTH JETTY EXTENSION
AND SAND TIGHTENING
Atlantic Ocean
LOCATION MAP
CANAVERAL HARBOR,
FLORIDA

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Jacksonville Harbor, Florida (Continuing)

LOCATION: The project area is located at the mouth of the St. Johns River where it empties into the Atlantic Ocean in Duval County on the east coast of Florida.

DESCRIPTION: The project continues deepening the main channel to a project depth of 40 feet from river mile 14.7 to mile 20.0. The initial project consisted of deepening the main channel to a project depth of 40 feet from the 40-foot contour in the Atlantic Ocean to about mile 14.7; realignment of Cuts 39-41 of the main channel; deepening the West Blount Island Channel along Cuts F and G to 38-foot depth over the existing project width of 300 feet from the main channel to the JEA/JPA petroleum terminal; and raising the existing dikes on the east end of Bartram Island to accommodate the material from deepening of the West Blount Island Channel. In addition, a second GRR will study deepening to 45 feet from the mouth to river mile 20.0.

AUTHORIZATION: Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 1.7 TO 1 at 5-7/8 percent.

TOTAL BENEFIT - COST RATIO: 1.7 to 1 at 5-7/8 percent.

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 6-3/8 percent (FY99).

BASIS OF BENEFIT-COST RATIO: Benefits are included in the Jacksonville Harbor Final Feasibility Report completed in September 1998 at October 1998 price levels and the Jacksonville Harbor General Reevaluation Report approved in July 2003 at October 2002 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		35,900,000		Channel Deepening	70	TBD
				Berthing Areas	60	TBD
Estimated Non-Federal Cost		30,600,000				
Cash Contributions	24,160,000			Total Project	60	TBD
Other Costs	6,440,000					
Total Estimated Project Cost		66,500,000				
Allocation to 30 September 2003		19,154,000				
Conference Allowance for FY 2004		2,500,000				
Allocations for FY 2004		1,932,000	1/			
Allocations through FY 2004		21,086,000	59%			
Allocations Requested for FY 2005		900,000	61%			
Scheduled Balance to Complete After FY 2005		13,914,000				
Unscheduled Balance to Complete After FY 2005		0				

1/ Reflects $553,000 reduction assigned as savings, slippage and $15,000 for rescission in accordance with the Consolidated Appropriations Act of 2004.

JUSTIFICATION: Jacksonville Harbor in 1988 and 1989 averaged about 15.4 million tons of cargo per year, 53 percent of which is bulk petroleum and coal. Port Authority representatives would like the channel deepened to accommodate larger vessels now being utilized by the world's commercial fleet. Various types of vessels carrying containers, coal, and fuel must light load instead of using full cargo carrying capacity. Average annual benefits amount to $3,027,000, all for commercial navigation. The Port also supports military activities such as the deployment of equipment and materials to Iraq.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Channels construction	847,000
Supervision and Administration	53,000
Total	900,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way.	11,000	
Pay 35 percent of the costs allocated to deep draft navigation during construction.	6,594,000	
Pay 100 percent of the costs associated with dredging berthing areas, 40' Deepening and mitigation	23,995,000	
Total Non-Federal Cost	30,600,000	

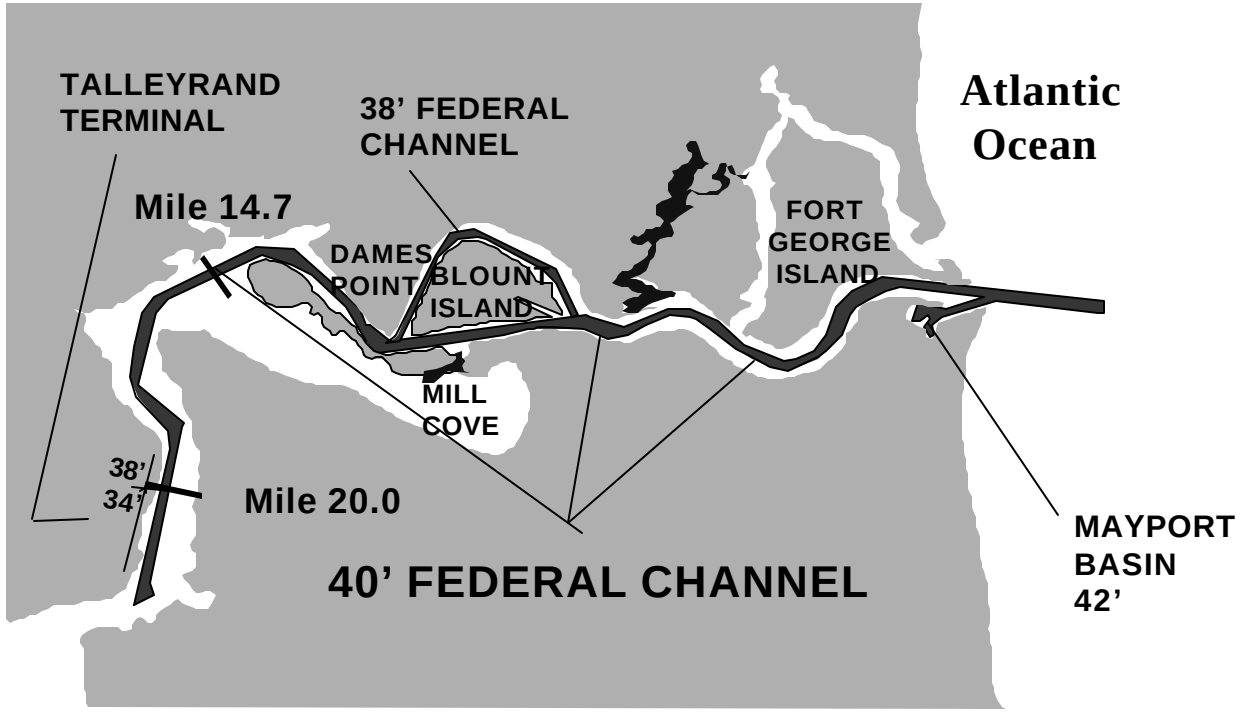
STATUS OF LOCAL COOPERATION: The Jacksonville Harbor Port Authority strongly supports this project. The Project Cooperation Agreement was executed in March 2001 and a Cost Sharing Agreement for the second GRR will be executed in FY04.

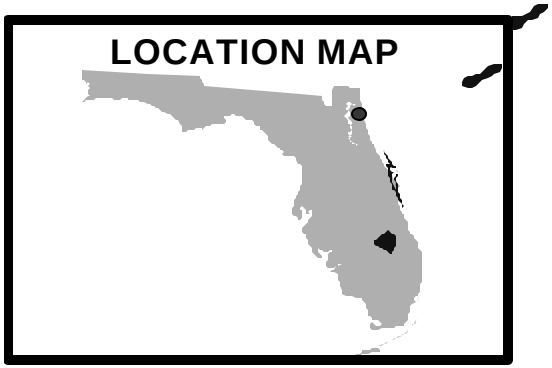
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of $35,900,000 is a $16,300,000 increase over the estimate ($19,600,000) last presented to Congress (FY 2004). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	700,000
Contract 3 Add'l Work	13,000,000
Contract 4 Study Efforts	1,750,000
Post Contract Award and Other Adj	850,000
Total	16,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Assessment for Contract I and II was completed in September 1998 and the Final Environmental Assessment for the GRR was completed in October 2002.

OTHER INFORMATION: Several claims are outstanding on Contract I and II and are not anticipated to be resolved in FY04. The GRR to deepen the remainder of Jacksonville Harbor was approved by Chief of Engineer's Report issued on 22 July 2003 and is in place for authorization in the next WRDA.





JACKSONVILLE HARBOR, FLORIDA

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Tampa Harbor - Big Bend Channel (Continuing)

LOCATION: The project area is located in central Florida on the west coast.

DESCRIPTION: The project provides for widening of the existing entrance channel from 200 to 250 feet, enlarging the turning basin, and deepening the 2.2 mile entrance channel from 34 to 41 feet.

AUTHORIZATION: Water Resources Development Act of 1999.

REMAINING BENEFIT-REMAINING COST RATIO: 3.1 to 1 at 5 7/8 percent.

TOTAL BENEFIT-COST RATIO: 3.1 to 1 at 6 1/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are included in the Tampa Harbor - Big Bend Channel Feasibility Report and Environmental Assessment completed in September 1996 (Revised September 1997) at April 1998 price level.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 January 2004)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (COE)		9,362,000		Channels & Canals		
Estimated Appropriation Requirement (USCG)		438,000		Main Channels & Turning Basin	2	TBD
Estimated Total Appropriation Requirement		9,800,000		Entire Project	2	TBD
Future Non-Federal Reimbursement		1,251,800				
Estimated Federal Cost (Ultimate)		8,548,200				
Estimated Non-Federal Cost		6,951,800				
Cash Contributions	2,544,000					
Other	3,156,000					
Reimbursement Navigation	1,251,800					
Total Estimated Project Cost		15,500,000				
Allocation to 30 September 2003		238,000				
Conference Allowance for FY 2004		4,000,000				
Allocations for FY 2004		3,090,000	1/			
Allocations through FY 2004		3,328,000	36%			
Allocations Requested for FY 2005		500,000	41%			
Scheduled Balance to Complete After FY 2005		5,534,000				
Unscheduled Balance to Complete After FY 2005		0				

1/ Reflects $886,000 reduction assigned as savings and slippage and $24,000 as rescission in accordance with the Consolidated Appropriations Act of 2004..

JUSTIFICATION: Tampa Harbor is among the nation's leading exporters of phosphate rock and chemicals. The main Federal ship channel in Tampa Harbor is 43 feet in depth. The Big Bend channel is maintained by local interests to a depth of 34 feet, and connects the Tampa Harbor main ship channel to terminals at Big Bend, a distance of 2.2 miles. The channel supports bulk movements of coal, phosphate rock, and phosphate chemicals at the Big Bend terminals.

Annual Benefits	Amount
Deep Draft Navigation	3,604,000
Total	3,604,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue channels & turning basin	386,000
Continue disposal area	23,000
Environmental Monitoring	45,000
Planning, Engineering and Design	0
Construction management	46,000
Total	500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

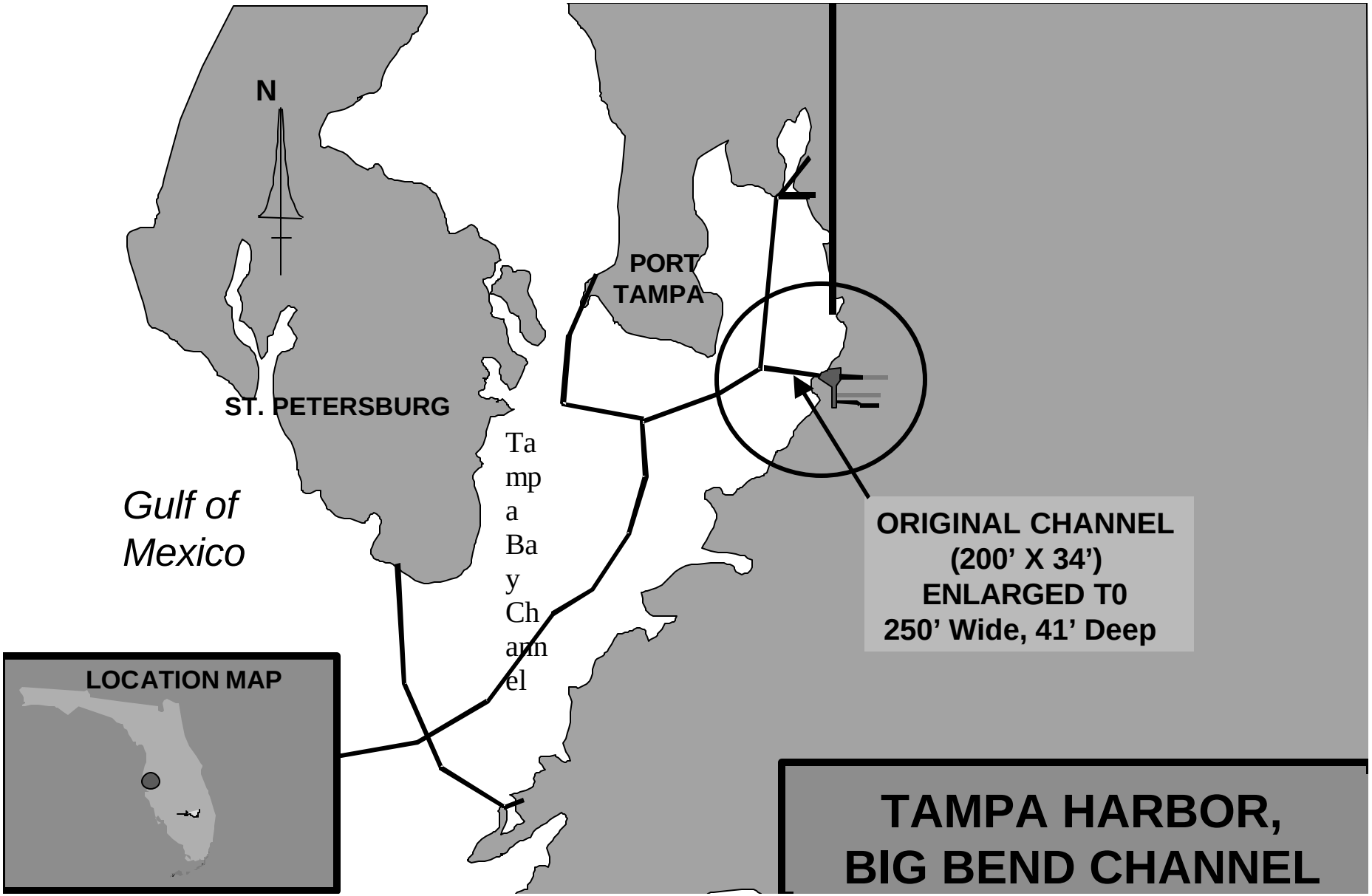
Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 25 percent of the costs allocated to deep draft navigation during construction	2544,000	0
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction as reduced by a credit allowed for the value of lands, easements, rights of way, relocations, and dredged or excavated material disposal areas provided for commercial	1,251,800	0
Pay 100% of the costs associated with dredging berthing areas and Mitigation provisions.	3,156,000	0
Total Non-Federal Cost	6,951,800	0

STATUS OF LOCAL COOPERATION: The Tampa Port Authority strongly supports this project. The Project Cooperation Agreement is scheduled for execution in August 2004.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps of Engineers) cost estimate of $9,362,000 remains unchanged.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment has been completed and the FONSI was signed September 1996. The draft was prepared August 1994 and the DE Public Notice was issued September 1996.

OTHER INFORMATION: Preconstruction, Engineering, and Design was initiated in September 1997.


N
PORT TAMPA
ST. PETERSBURG
Gulf of Mexico
Tampa Bay Channel
ORIGINAL CHANNEL
(200' X 34')
ENLARGED T0
250' Wide, 41' Deep
LOCATION MAP
TAMPA HARBOR,
BIG BEND CHANNEL

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Brunswick Harbor, Georgia (Continuing)

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. An entrance channel 9 miles in length is maintained from the mouth of the harbor, Station 0+000 to Station –52+500B. The port's primary docks and terminals are located on the east bank of East River in the City of Brunswick. The remaining docks and terminals are situated along the south bank of South Brunswick River on Colonel's Island, located in Glynn County.

DESCRIPTION: The recommended project consists of deepening the Bar Channel from –32 feet mlw to –38 feet mlw; deepening the Inner and Upper Harbor Channels from -30 feet mlw to-36 feet mlw; constructing a new turning basin in the Upper East River Channel approximately 1,100 feet by 1,100 feet and deauthorizing the existing East River turning basin; raising the dikes at Andrews Island disposal site from approximately +26 feet mlw to approximately +35 feet mlw; widening the channel at the new Sidney Lanier Bridge from 200 to 400 feet; widening approximately 10,000 feet of the Turtle River Lower Range from 300 to 400 feet; widening approximately 5,750 feet in the Upper East River Channel from 350 to 400 feet; and expanding the Lower Turtle River turning basin to approximately 2,500 feet by 1,150 feet.

AUTHORIZATION: Water Resources Development Act of 1999 and Energy and Water Development Appropriations Act 2004.

REMAINING BENEFIT - REMAINING COST RATIO: 1.5 to 1 at 6 7/8 percent

TOTAL BENEFIT - COST RATIO: 1.2 to 1 at 6 7/8 percent

INITIAL BENEFIT - COST RATIO: 1.9 to 1 at 6 7/8 percent (FY 2001).

BASIS OF BENEFIT - COST RATIO: Benefits are derived from the Brunswick Harbor Deepening Feasibility Report dated March 1998 at October 1998 price levels and reflective of cost increases contained in the Post Authorization change Report dated September 2003.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		75,093,900		Entire Project	16	TBD
Future Non-Federal Reimbursement		9,984,900				
Estimated Federal Cost (Ultimate)		65,109,000				
Estimated Non-Federal Cost		36,472,000				
Cash Contributions	26,487,100					
Other Costs	0					
Reimbursements	9,984,900					
Total Estimated Project Cost		101,581,000				
Allocations to 30 September 2003		12,258,000				
Conference Allowance for FY 2004		7,200,000				
Allocation for FY 2004		5,564,000	1/			
Allocations through FY 2004		17,822,000				
Allocation Requested for FY 2005		9,267,000				
Programmed Balance to Complete after FY 2005		38,020,000				
Unprogrammed Balance to Complete after FY 2005		0				

1/ Reflects $1,593,000 reduction assigned as savings and slippage, $43,000 rescinded in accordance with the Consolidated Appropriations Act of 2004

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PHYSICAL DATA

Channels:

Deepen Inner and Upper Harbor Channels from –30’ mlw to -36’ mlw. Deepen Bar Channel from –32’ mlw to –38’ mlw. Widen the Channel at new Sidney Lanier Bridge from 200’ to 400’. Widen 10,000’ of Turtle River Lower Range from 300’ to 400’. Widen 5,750’ in Upper East River Channel from 350’ to 400’.

Turning Basin: Construct new turning basin in Upper East River Channel 1,100’ by 1,100’. Expand Lower Turtle River turning basin 2,500’ by 1,150’.

Disposal Site:

Raise dikes at Andrews Island from approximately +26’ mlw to approximately +35’ mlw.

JUSTIFICATION: The harbor consists of 28 miles of channel, including nine miles of entrance channel and two turning basins. Existing authorized project depths consist of –30 feet mlw in the Inner Harbor and –32 feet mlw in the Bar Channel. Overall tonnage has increased for the fifth consecutive year. A total of 2.3 million tons in fiscal year 1997 reflects a 24 percent increase over the previous fiscal year. However, current imports and exports through the port continue to be limited by insufficient channel depth in the form of tidal delays and light loading. This problem is most acute with bulk and breakbulk carriers, although the automobile carriers experience some tidal delay. As traffic continues to increase and as vessels in the world fleet continue to grow in size due to the retirement of smaller ships, the problem will be exacerbated in the future. Average annual benefits for commercial navigation are $6,651,000.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Construct Inner Harbor	8,986,000
Precon, Engineering & Design	108,000
Construction Management	173
Total	$9,267,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.	0	0
Pay 25 percent of the costs allocated to general navigation facilities during construction	26,487,000	0
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction as partially reduced by a credit allowed for the value of lands, easements, rights of way, relocations, and dredged material disposal areas provided for commercial navigation.	9,981,000	0
Total	36,472,000	0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and reimburse its share of construction costs within a period of 30 years following completion of construction.

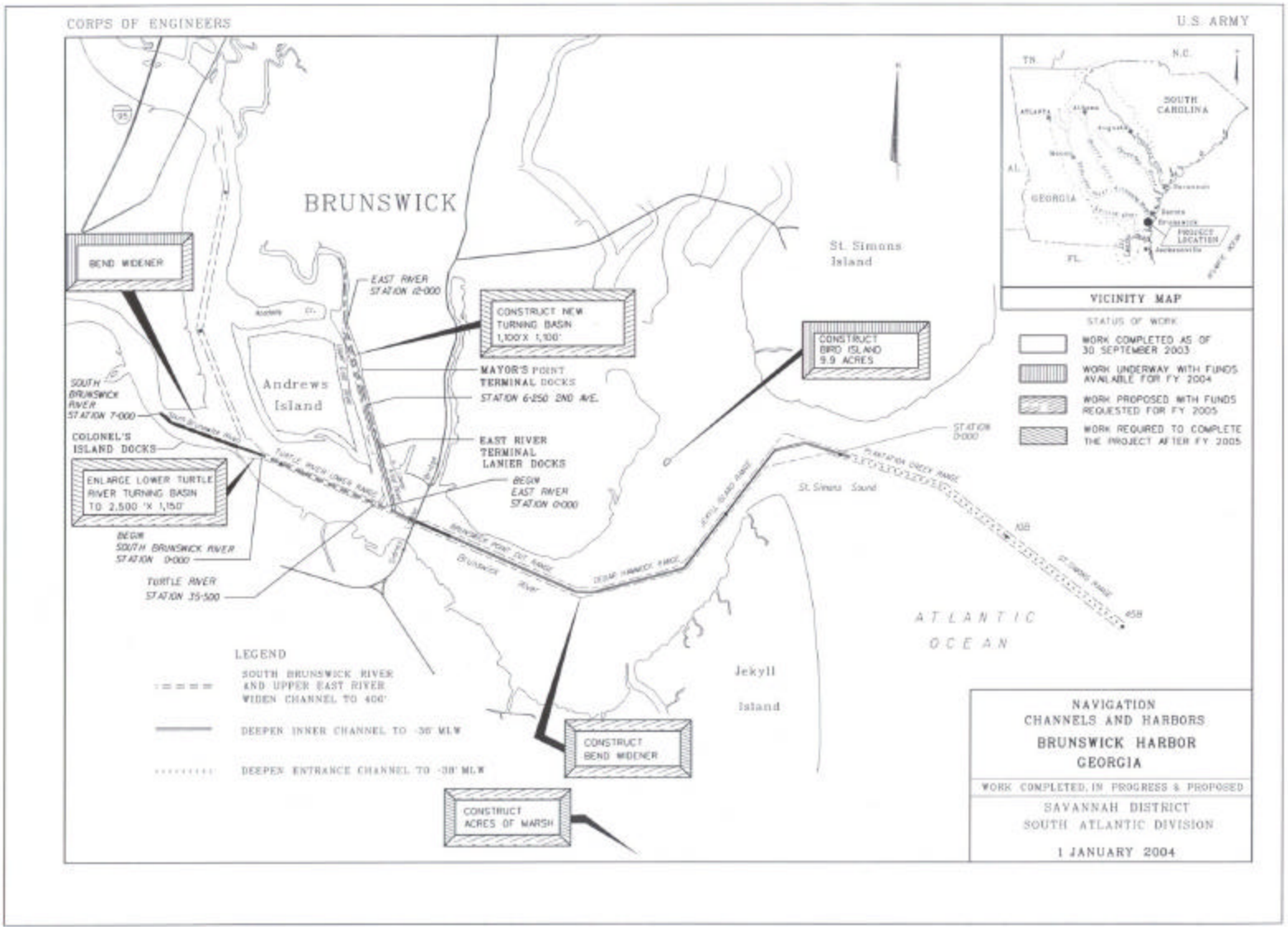
STATUS OF LOCAL COOPERATION: The Georgia Ports Authority (GPA) has been the local sponsor for the Feasibility and PED phases and will provide funds through the local sponsor, GA DOT for the construction phase. The GPA expects to fund its share of project construction with monies provided by a letter of credit. The Project Cooperation Agreement was executed in April 2002.

COMPARISON OF FEDERAL COST ESTIMATES: The new Congressionally authorized project cost is $96,277,000 based on the Post Authorization change Report submitted in September 2003. The new cost was approved in the House/Senate Conference Report of November 2003. The current Federal (Corps) cost estimate of $75,093,900 is an increase of $33,632,900 over the estimate ($41,461,000) submitted to Congress (FY 2003). This change includes the following items:

Item	Amount
Design Changes	$2,840,000
Post contract award and other estimating adjustments	$30,792,900
TOTAL	$33,632,900

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with EPA on 12 June 1998.

OTHER INFORMATION: Construction General funds to initiate construction were appropriated in FY 2001. A mitigation plan was developed to compensate for the unavoidable losses of 18.1 acres of spartina saltmarsh due to the project. The plan calls for restoration of 59 acres of non-functioning wetlands at an estimated cost of $4,700,000. A monitoring program will be implemented to ensure that the restoration action will function as intended.


CORPS OF ENGINEERS
U.S. ARMY
BRUNSWICK
BEND WIDENER
EAST RIVER STATION 12-000
CONSTRUCT NEW TURNING BASIN 1,100'X 1,100'
MAYOR'S POINT TERMINAL DOCKS STATION 6-250 2ND AVE.
EAST RIVER TERMINAL LANIER DOCKS
BEGIN EAST RIVER STATION 0-000
Andrews Island
SOUTH BRUNSWICK RIVER STATION 7-000
COLONEL'S ISLAND DOCKS
ENLARGE LOWER TURTLE RIVER TURNING BASIN TO 2,500 'X 1,150'
BEGIN SOUTH BRUNSWICK RIVER STATION 0-000
TURTLE RIVER STATION 35-500
St. Simons Island
CONSTRUCT BIRD ISLAND 9.9 ACRES
STATION 0-000
St. Simons Sound
ATLANTIC OCEAN
Jekyll Island
CONSTRUCT BEND WIDENER
CONSTRUCT ACRES OF MARSH
LEGEND
SOUTH BRUNSWICK RIVER AND UPPER EAST RIVER WIDEN CHANNEL TO 400'
DEEPEN INNER CHANNEL TO -36' MLW
DEEPEN ENTRANCE CHANNEL TO -38' MLW
TN.
N.C.
SOUTH CAROLINA
AL.
GEORGIA
FL.
PROJECT LOCATION
VICINITY MAP
STATUS OF WORK
WORK COMPLETED AS OF 30 SEPTEMBER 2003
WORK UNDERWAY WITH FUNDS AVAILABLE FOR FY 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005
NAVIGATION CHANNELS AND HARBORS
BRUNSWICK HARBOR
GEORGIA
WORK COMPLETED, IN PROGRESS & PROPOSED
SAVANNAH DISTRICT
SOUTH ATLANTIC DIVISION
1 JANUARY 2004

APPROPRIATION: Construction, General - Channels and Harbors (Navigation)

PROJECT: Pascagoula Harbor, Mississippi (Continuing)

LOCATION: Pascagoula Harbor project is located on the Gulf Coast, at Pascagoula, in Jackson County, Mississippi, about 100 miles east of New Orleans, Louisiana, and 32 miles west of the entrance to Mobile Harbor, Alabama. The deep draft ship channel runs southward from Pascagoula through Mississippi Sound into deep water in the Gulf of Mexico.

DESCRIPTION:

PHASE I (COMPLETED): Constructed a new turning basin at the present project depth of 38 feet at the mouth of Bayou Casotte, widened the Gulf approach channel to 450 feet and the Horn Island Pass Channel to 600 feet, and relocated the Horn Island Pass 300 feet to the west.

PHASE II (COMPLETED): Widened the Bayou Casotte Channel from the junction with the Lower Pascagoula Channel to the mouth of Bayou Casotte to 350 feet; deepened the Bar Channel from its origin in the Gulf, the 44 foot contour (MLLW), to the transition at the north end of Horn Island Pass to 44 feet, the nominal 42-foot project depth with 2 feet of additional depth as an allowance for wave action; deepened the Lower Pascagoula and Bayou Casotte Channels to 42 feet; deepened the turning basin located at the mouth of the Bayou Casotte Harbor and the 1,200-foot project extension north of the turning basin to 42 feet; and deepened the two impoundments along the east side of Horn Island Pass and the Bar Channel to 44 feet.

PHASE II CONFINED DISPOSAL FACILITY: Construct a 168 acre dredged material disposal facility at the Tenneco Site.

PASCAGOULA RIVER CONFINED DISPOSAL FACILITY: The river segment disposal plan consists of several components two of which will require construction. The semi-confined disposal site consists of 150 acres of created wetlands and will require a 14,000 square foot dike in the open waters of the Mississippi Sound. The upland site utilizing the existing Triple Barrel disposal site will require major dike raising.

An additional phase (Phase III) of the authorized project will be constructed as related to priority of needs and the non-federal sponsor's willingness and capability to participate. The additional phase of work is currently unprogrammed.

AUTHORIZATION: Water Resources Development Act of 1986 and 1996.

REMAINING BENEFIT-REMAINING COST RATIO: Phase I: N/A; Construction Complete; Phase II Dredging: N/A; Construction Complete.
Phase II CDF: N/A ; Pascagoula River CDF; N/A

TOTAL BENEFIT-COST RATIO: 1.14 to 1 at 8 ½ percent for Phase I; 0.90 to 1 at 7 5/8 percent for Phase II.

INITIAL BENEFIT-COST RATIO: 1.14 to 1 at 8 ½ (FY 1994) for Phase I; 1.2 to 1 at 7 5/8 percent (FY 1998) for Phase II.

BASIS OF BENEFIT-COST RATIO: Benefits for Phase I are from the General Design Memorandum approved in June 1992 at October 1991 price levels.
Benefits for Phase II are from the Limited Reevaluation Report prepared in April 1997 at October 1997 price levels.

SUMMARIZED FINANCIAL DATA

Estimated Appropriation Requirements (COE)			$73,092,000
Programmed Construction		64,228,000	
Unprogrammed Construction		8,864,000	
Estimated Appropriation Requirement (USCG)			732,000
Programmed Construction		682,000	
Unprogrammed Construction		50,000	
Estimated Total Appropriation Requirement			73,824,000
Programmed Construction		64,910,000	
Unprogrammed Construction		8,914,000	
Non-Federal Reimbursement			9,955,000
Programmed Construction		8,773,000	
Unprogrammed Construction		1,182,000	
Estimated Federal Cost (Ultimate)(COE)			63,137,000
Programmed Construction		55,455,000	
Unprogrammed Construction		7,682,000	
Estimated Non-Federal Cost			47,131,000
Programmed Construction		42,994,000	
Cash Contributions	21,036,000		
Other Costs	13,185,000		
Reimbursements	8,773,000		
Unprogrammed Construction		4,137,000	
Cash Contributions	2,955,000		
Other Costs	0		
Reimbursements	1,182,000		
Total Est. Programmed Construction Cost			99,131,000
Total Est. Unprogrammed Construction Cost			11,869,000
Total Estimated Cost			111,000,000

		ACCUM PCT OF EST FED COST
Allocation to 30 September 2003	$33,988,000	
Conference Allowance for FY 2004	2,989,000	
Allocation for FY 2004	2,309,000	1/
Allocation Through FY 2004	36,297,000	50%
Allocation Requested for FY 2005	1,981,000	51%
Programmed Balance to Complete after FY 2005	34,814,000	
Unprogrammed Balance to Complete after FY 2005	8,864,000	

1/Reflects $662,000 reduction assigned as savings and slippage and $18,000 rescinded from the project.

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION
Construction		
Phase I	100	Sep 1996
Phase II	85	TBD
Pascagoula River CDF	0	TBD
Phase III	0	Indefinite
Entire Project	50	Indefinite

PHYSICAL DATA:

Phase I (Complete) – Construct new turning basin at 38 feet depth at Bay of Casotte, widen the Gulf approach channel to 450 feet and the Horn Island Pass Channel to 600 feet, and relocate Horn Island Pass 300 feet to the west.

Phase II (Complete) – Deepened and widened Bayou Casotte Channel from 38 feet by 225 feet to 42 feet by 350 feet, deepened Lower Pascagoula Channel from 38 feet to 42 feet, deepened Horn Island Pass and Bar Channel from 40 feet to 44 feet.

Phase II Confined Disposal Facility: Construct a 168 acre dredged material disposal facility at the Tenneco Site.

Pascagoula River Confined Disposal Facility: The river leg disposal plan consists of several components two of which will require construction. The semi-confined site will require a 14,000 square foot dike in the open waters of the Mississippi Sound. The upland site will require major dike raising.

Phase III – Deepen Pascagoula River Channel from 38 feet to 42 feet.

JUSTIFICATION:

Pascagoula Harbor is located on the Gulf Coast at Pascagoula, Mississippi, in Jackson County. This deep-draft ship channel has a total length of 17.5 miles from the Pascagoula Inner Harbor to deep water in the Gulf of Mexico. The port is essential to the economy of the state and to Jackson County, the state's most industrialized county. The Pascagoula River channel serves Ingalls Shipbuilding, a grain elevator, the Navy Homeport and numerous lumber and breakbulk shippers. The Bayou Casotte Channel serves the Chevron refinery, the nation's seventh largest crude oil refinery. The channel also serves Mississippi Phosphates, and numerous breakbulk shippers from port facilities in the inner harbor. The Phase II evaluation includes deepening the entrance channel and Horn Island Pass including associated impoundment basins to 44 feet, deepening the Lower Pascagoula Channel to 42 feet, deepening and widening the Bayou Casotte Channel to 42 feet and 350 feet, respectively, terminating approximately 1,200 feet north of the southern turning basin which will also be deepened to 42 feet. Recommended project modifications would allow crude oil and petroleum coke vessels to load to deeper drafts realizing economies of scale. In addition, Halter Marine and Ham Marine, whose facility located at Bayou Casotte Harbor is dependent upon channel widening, will be able to service/build larger oil drilling rigs which are increasingly becoming industry standard. Benefits attributed to channel deepening and widening total $2,571,998 annually. Crude oil imports benefiting from channel deepening will total 13,839,874 short tons annually, while petroleum coke exports will total 1,317,650 short tons annually. With a 350-foot wide Bayou Casotte Channel, the number of drill rigs serviced/built annually will range from 18 in the year 2000 to 23 by the year 2050.

Maintenance dredging of those segments of the federal project within Mississippi Sound is performed by pipeline or mechanical dredge. The disposal area at Greenwood Island has been determined to be unsuitable for continued use and a new site is currently being developed at the former Tenneco Site on the eastern shore of Bayou Casotte. This new site will replace all the functions of the Greenwood Island site. Material dredged from the mouth of Pascagoula River and Bayou Casotte southward is placed in open water disposal areas west of the channels. Provisions have also been made for placing this material in the Pascagoula Ocean Dredged Material Disposal Site (ODMDS) in the Gulf of Mexico on an as needed basis. Maintenance dredging in the Horn Island Pass is performed on an as needed basis with maintenance material being placed in adjacent Disposal Area 10, the littoral zone disposal area, and in the ODMDS. The average annual benefits for the Phase II project are $2,571,998 all for commercial navigation.

The Pascagoula River channel serves Ingalls Shipbuilding, a grain elevator, the Navy Homeport and numerous lumber and breakbulk shippers. The Bayou Casotte Channel serves the Chevron refinery, the nation's seventh largest crude oil refinery. The channel also serves Mississippi Phosphates, and numerous breakbulk shippers from port facilities in the inner harbor. The maintenance of a portion of the River Leg and River Inner Harbor requires additional disposal facilities to continue to maintain the channel depth over the next 40 years. A semi-confined disposal site in the Mississippi Sound utilizing a 14,000 square foot geotube dike for

confinement of the dredged material and a major dike raising effort at the existing upland site will be constructed.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction of Confined Disposal Facility	$ 1,781,000
Planning, Engineering and Design	100,000
Construction Management	100,000
Total	$ 1,981,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
PHASE I:		
Pay 25% of the cost allocated to general navigation facilities during construction.	$ 3,352,000	$ 0
Reimburse an additional 10% of the costs allocated to general navigation facilities within a period of 30 years following completion of construction.	1,341,000	0
PHASE II:		
Modify or relocate pipeline facility where necessary for the construction of the project	2,744,000	0
Pay 25% of the costs allocated to general navigation facilities during construction.	9,401,000	0
Pay 10.5% of the costs allocated to general navigation facilities during construction.	957,000	0
Pay 100% of the cost allocated to berthing area dredging (without credit).	510,000	0
Provide lands, easements and rights of way.	602,000	0

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Reimburse an additional 10 % of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction, as entirely reduced by a credit allowed for the value of relocations provided for commercial navigation.	3,760,000	0
PASCAGOULA RIVER CONFINED DISPOSAL FACILITY:		
Pay 25% of the cost allocated to general navigation facilities during construction.	8,283,000	0
Pay 18% of the costs allocated to general navigation facilities during construction.	3,386,000	0
Reimburse an additional 10% of the costs allocated to general navigation facilities within a period of 30 years following completion of construction.	3,672,000	0
Provide lands easements, rights of way, for dredged material disposal facility.	4,986,000	0
REMAINDER:		
Pay 25% of the cost allocated to general navigation facilities during construction.	2,955,000	0
Reimburse an additional 10% of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction, partially reduced by a credit allowed for the value of relocations provided for commercial navigation.	1,182,000	0
Total Non-Federal Costs	$ 47,131,000	0

The non-Federal sponsor has agreed to make all required payments concurrently with project construction and reimburse its share of construction costs within a period of 30 years following completion of construction.

STATUS OF LOCAL COOPERATION: The local sponsor for Phase II is the Jackson County Port Authority (JCPA) at Pascagoula, Mississippi. The Project Cooperation Agreement (PCA) for dredging was signed in April 1999. The Mississippi State Legislature passed House Bill 1681 to issue general obligation bonds for improvements at the Port of Pascagoula to be used towards the Non-Federal share of the project.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of $73,092,000 is a $26,574,000 increase over the estimate of ($46,518,000) last presented to Congress (FY 2004). This change includes the following items:

Item	Amount
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	$26,574,000
Total	$26,574,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: In accordance with the requirements of the National Environmental Policy Act (NEPA) the Final Environmental Impact Statement (FEIS) for Pascagoula Harbor, Mississippi Navigation Improvements was filed with the Council on Environmental Quality on July 12, 1985. The State of Mississippi, Office of the Governor concurred with the FEIS by letter dated August 20, 1985. The Record of Decision (ROD) for commercial navigation improvements, Pascagoula Harbor, was signed by the U.S. Army Corps of Engineers, Director of Civil Works, July 24, 1992.

The FEIS addressed impacts associated with proposed channel improvements consisting of dredging approximately 14 million cubic yards of material for new work activities including deepening and widening the entrance channel to 44 feet by 550 feet from the Gulf of Mexico to the southern end of Horn Island Pass, then continuing the 44-foot depth through Horn Island Pass at a width of 600 feet with reconfiguration of the impoundment basin on Horn Island Pass to provide a 56-foot deep by 1500-foot long section within the channel limits. Within the Mississippi Sound and into the Pascagoula River, the channel would be deepened to 42 feet at the existing width of 350 feet. The channel into Bayou Casotte would be widened to 350 feet and deepened to 42 feet. Also included was a new 1,150-foot diameter turning basin just inside the mouth of Bayou Casotte.

New work material from the Pascagoula River inner harbor would be deposited in the Environmental Protection Agency (EPA) designated ocean dredged material disposal site (ODMDS) located approximately 3 miles south of Horn Island. New work material from the mouth of the Pascagoula River to the north end of Horn Island Pass and all of the Bayou Casotte channel material would also be disposed in the ODMDS. New work and maintenance material dredged from the entrance channel, including Horn Island Pass, would be disposed in a near-shore area between the -15 and -30 foot depth contours south of Horn Island and in the ODMDS.

The FEIS stipulated that maintenance material from the Pascagoula River channel would be placed in existing Triple Barrel disposal site and the expanded disposal area on Singing River Island. Maintenance material from Bayou Casotte would be placed in the Bayou Casotte Dredged Material Placement Site. Maintenance material from all channel segments within Mississippi Sound would be placed in previously used open water placement sites in Mississippi Sound.
Since completion of the FEIS, the disposal area at Singing River Island has been utilized for the development of Naval Station Pascagoula. Future use of this area has been determined to best be associated with the expansion of the Naval Station or other military related uses. Placement of material from the channel segment that previously was deposited on Singing River Island is currently scheduled for the ocean dredged material disposal site until the dredged material management plan is revised. Greenwood Island was determined to be unsuitable for the continued placement of dredged material due to site contamination issues. This site has been replaced by the Bayou Casotte Dredged Material Placement Site on the former TENNECO site located directly across the channel from Greenwood Island. The dredged material management plan has been modified to accommodated this change.

The U.S. Environmental Protection Agency completed an FEIS in July 1991 designating the Pascagoula Ocean Dredged Material Disposal Site.

This FEIS addressed impacts for the designation and use of the ODMDS and the transportation and placement of approximately 1 million cubic yards of maintenance material to be dredged by the U.S. Navy from the Upper Pascagoula segment of the Pascagoula Harbor navigation project (prior to channel improvements) and the

approximately 12 million cubic yards of new work to be dredged from the construction of authorized improvements for the project.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design for the total project were appropriated in FY 1987. A Limited Reevaluation Report for Phase II was completed in July 1997. There are Fish and Wildlife Facilities scheduled to be constructed with the Phase II portion of the project. Their cost will be $3,325,000. These funds will be used for wetland mitigation, specifically for geotubes for bank protection and wetland creation.

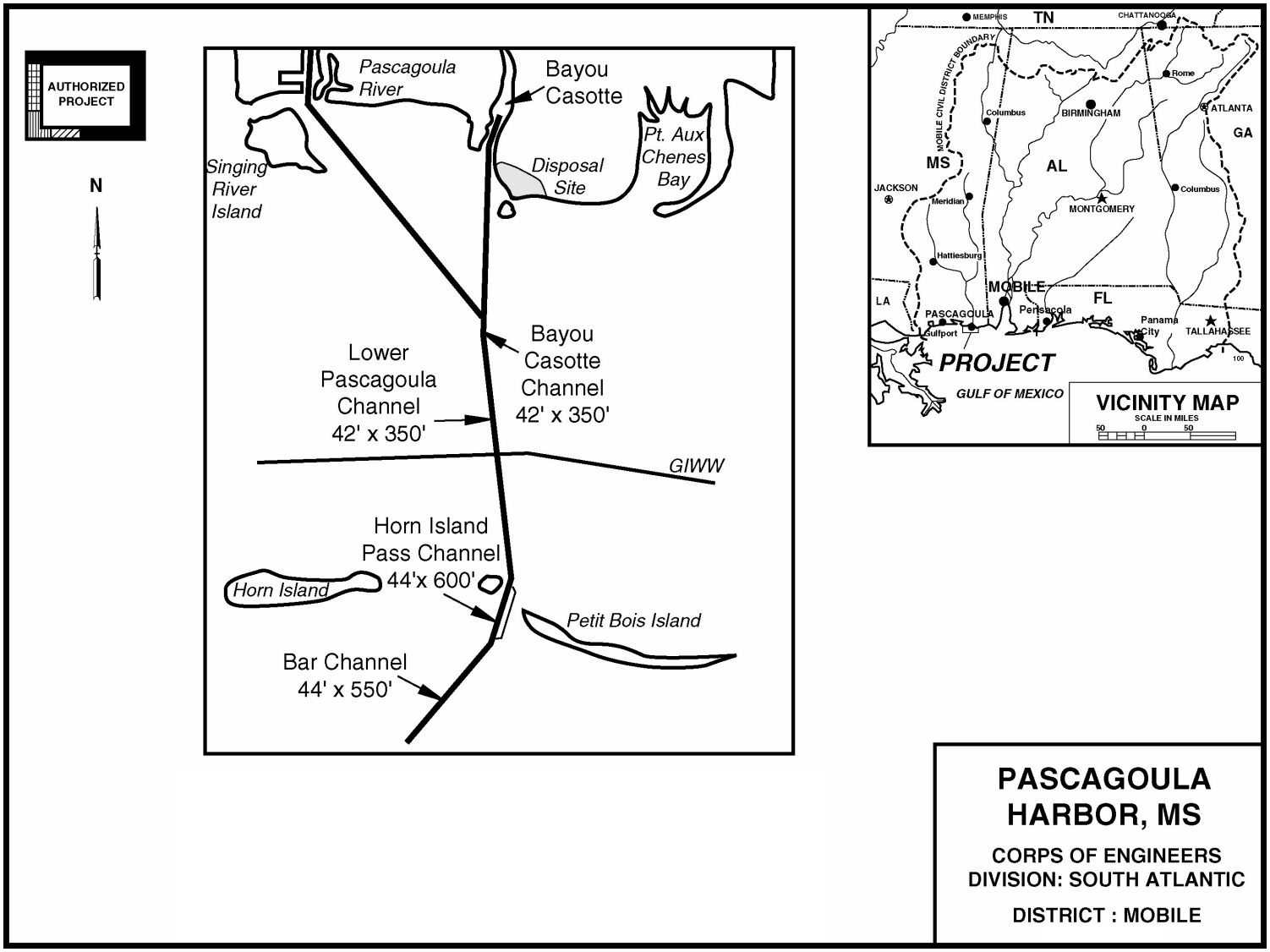
Phase II:

SUMMARIZED FINANCIAL DATA FOR PHASE II:

Estimated Appropriation Requirements (COE)		$ 28,203,000
Estimated Appropriation Requirements (U.S.C.G.)		46,000
Estimated Total Appropriation Requirements		28,249,000
Future non-Federal Reimbursement		3,760,000
Estimated Federal Cost (Ultimate)(COE)		24,489,000
Estimated Non-Federal Cost		17,973,000
Cash Contributions	9,401,000	
Other Costs	4,812,000	
Reimbursements	3,760,000	
Total Estimated Project Cost		$ 42,462,000

REMAINING BENEFIT-REMAINING COST RATIO: 4.3 to 1 at 7 5/8 percent.

TOTAL BENEFIT-COST RATIO: 0.9 to 1 at 7 5/8 percent.


AUTHORIZED PROJECT
N
Pascagoula River
Bayou Casotte
Singing River Island
Disposal Site
Pt. Aux Chenes Bay
Lower Pascagoula Channel 42' x 350'
Bayou Casotte Channel 42' x 350'
GIWW
Horn Island Pass Channel 44'x 600'
Horn Island
Petit Bois Island
Bar Channel 44' x 550'
MEMPHIS
TN
CHATTANOOGA
MOBILE CIVIL DISTRICT BOUNDARY
Rome
Columbus
BIRMINGHAM
ATLANTA
GA
MS
AL
JACKSON
Meridian
MONTGOMERY
Columbus
Hattiesburg
MOBILE
LA
PASCAGOULA
Gulfport
Pensacola
FL
Panama City
TALLAHASSEE
PROJECT
GULF OF MEXICO
VICINITY MAP
SCALE IN MILES
50 0 50
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PASCAGOULA HARBOR, MS
CORPS OF ENGINEERS
DIVISION: SOUTH ATLANTIC
DISTRICT : MOBILE

APPROPRIATION TITLE: Construction, General - Channel and Harbors (Navigation).

PROJECT: Wilmington Harbor, North Carolina (Continuing).

LOCATION: The project is located at Wilmington on the southeastern coast of North Carolina in New Hanover and Brunswick Counties.

DESCRIPTION: The project consists of two separable elements, the portion for deepening of the existing project and the portion for raising the dikes on Eagle Island dredged material disposal facility (DMDF) for maintenance of the existing project until the deepening is completed. The plan of improvement consists of deepening the ocean bar and entrance channels from the authorized depth of 40 feet to 44 feet; deepening the authorized 38-foot project to 42 feet up to and including the anchorage basin immediately upriver from the State Ports Authority dock, and extending the anchorage basin northward by 300 feet; widening the existing 400-foot wide channel to 600 feet over a total length of 6.2 miles including Lower and Upper Midnight and Lower Lilliput reaches; widen five turns and bends by 100 to 200 feet providing a total average channel width of 500 to 675 feet; widening the Fourth East Jetty Channel to 500 feet over a total length of 1.5 miles; deepening the 32-foot channel between Castle Street and the Hilton Railroad Bridge, the 32-foot turning basin just above the mouth of the Northeast Cape Fear River on the west side, and the 25-foot channel from the Hilton Railroad Bridge to 750 feet upstream all to a depth of 38 feet; deepening the 25-foot channel from 750 feet upstream of the Hilton Railroad Bridge to the turning basin near the upstream limits of the project to 34 feet, along with widening of the channel from 200 to 250 feet; and widening the turning basin from 700 to 800 feet; mitigation to include acquiring, by fee title, 30 acres of upland and construction of an embayment, acquisition of about 700 acres of existing marsh and upland areas for preservation of habitat to offset losses of wetlands and primary nursery areas and construct a fish passage structure at Lock and Dam Number 1. A separate Section 933 project was added in FY 2001 to place sand on Brunswick County Beaches. The plan of improvement for the dredged material disposal facility consists of incrementally raising the dikes of three cells on Eagle Island confined disposal facility from their current elevations to 25, 29, 32, 35, 38 and 40 feet.

AUTHORIZATION: Water Resources Development Acts of 1986 and 1996, Rivers and Harbors Acts of 1945 and 1962 and the River and Harbor Act of 1960, as amended (Section 107).

REMAINING BENEFIT-REMAINING COST RATIO: 3.9 to 1 at 7-5/8 percent (deepening portion); N/A (DMDF Portion).

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 7-5/8 percent (deepening portion); N/A (DMDF Portion).

INITIAL BENEFIT - COST RATIO: 1.3 to 1 at 7-5/8 percent (deepening portion); N/A (DMDF Portion).

BASIS OF BENEFIT-COST RATIO: Benefits for the deepening portion are from the latest available evaluation contained in the feasibility report dated June 1996 at October 1995 price levels for the previous Cape Fear-Northeast Cape Fear River project, in the General Design Memorandum Supplement dated February 1994 at October 1993 price levels for the previous Wilmington Harbor-Northeast Cape Fear River project and in the feasibility report dated March 1994 at October 1992 price levels for the previous Wilmington Harbor Channel Widening project. Project feasibility for the DMDF portion is based on the original project authorization and the method of disposal of the dredged material is based on the least cost alternative as shown in the decision report approved 1 September 1998.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	PHYSICAL STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (COE)			$306,309,000		Deepening Portion	71	TBD
Estimated Appropriation Requirement (OFA)			1,691,000		Dredged Material Disposal Facility (DMDF) Portion	11	TBD
Estimated Total Appropriation Requirement			308,000,000		Entire Project	63	TBD
Future Non-Federal Reimbursement			37,700,000				
Estimated Federal Cost (Ultimate)			270,300,000				
Estimated Non-Federal Cost			188,700,000				
Cash Contributions		104,349,000					
Other Costs		46,651,000					
Reimbursements		37,700,000					
Navigation	37,700,000						
Total Estimated Project Cost			$459,000,000				
Allocations to 30 September 2003			183,570,000				
Conference Allowance for FY 2004			17,500,000				
Allocation for FY 2004			13,524,000	1/			
Allocations through FY 2004			197,094,000				
Allocation Requested for FY 2005			25,000,000				
Programmed Balance to Complete After FY 2005			84,215,000				
Unprogrammed Balance to Complete After FY 2005			0				

1/ Reflects $3,872,000 reduction assigned as savings and slippage, $104,000 rescinded in accordance with the Consolidated Appropriations Act of 2004.

PHYSICAL DATA

Channels and Basins	Length	Width	Depth
Ocean Bar and Entrance Channel	8.5 miles	500 feet	44 feet
River Channel to mile 27.5	24.8 miles	400 feet	42 feet
Passing Lane	6.2 miles	200 feet	42 feet
Turns and Bends – widen five turns and bends by 100 to 200 feet providing a total average navigation channel width of 500 to 675 feet.			
Anchorage Basin	1600 feet	1,200 feet	42 feet
Fourth East Jetty	1.5 miles	500 feet	42 feet
Castle Street to NC 133 Bridge	1.7 miles	400 feet	38 feet
NC 133 Bridge to Hilton RR Bridge	0.5 miles	300 feet	38 feet
Hilton RR Bridge Upstream	750 feet	200 feet	38 feet
Turning Basin #1	750 feet	750 feet	38 feet
Channel from 750 feet upstream of Hilton RR Bridge to mile 30.5	1.3 miles	250 feet	34 feet
Turning Basin #2	550 feet	800 feet	34 feet

Mitigation - Acquire 30 acres of upland and construction of an embayment, acquisition of 700 acres to offset losses of wetlands and primary nursery area and install a fish ladder at Lock and Dam No. 1 on the Cape Fear River.

Incremental dike raising of cells 1,2, and 3 on Eagle Island to elevations 25, 29, 32, 35, 38 and 40 feet.

JUSTIFICATION: The existing Wilmington Harbor project averaged 7,768,000 tons of waterborne commerce for the period 1997-2001. The recommended project would result in substantial savings ranging from $0.57 to $13.00 per ton in transportation and handling costs on certain commodities. The largest savings would be $13.00 per ton on liquefied gas followed by chrome ore at $6.88. The major commodities imported through the port are salt, chrome ore, fertilizer materials, basic chemicals, asphalt, alcohols and cement with major exports being tobacco, wood pulp and DMT fibers. It is estimated that each passing situation necessitates an average delay of approximately 25 minutes for each vessel in order to pass in the safest reaches of the river resulting in increased costs of vessel operation. Construction of the 6.2 mile passing lane will eliminate 85 percent of such delays and provide increased speeds in transit. Widening the five turns will result in an average savings of 15 minutes in vessel operating time for each transit of the river. The current 38-foot project could handle vessels in the 25,000 to 40,000 ton class while the 42-foot project could handle vessels in the 35,000 to 60,000 ton class. The current 32-foot channel can handle vessels in the 25,000 ton class while the recommended 38-foot channel will handle vessels in the 40,000 ton class. Recently completed investments in container facilities, regional highway improvements, airport facilities, and refrigerated warehouse storage will result in greater opportunities for growth. The Wilmington Harbor Ocean Dredged Material Disposal Site (ODMDS) is available for the lower reaches, an existing disposal site, Eagle Island is available for the middle reach and the upper reach of the project. Eagle Island dikes are being raised to increase capacity.

JUSTIFICATION (continued):

Since these dredging costs would be incurred every year, they represent the equivalent average annual cost of this operation and can therefore be compared directly to the equivalent annual cost associated with the Eagle Island Dike plan. This comparison resulted in the dike raising being the least costly alternative. The recommended improvements are essential to the economic welfare of New Hanover County and the surrounding area. Average annual benefits are as follows:

Annual Benefits	Amount
Commercial Navigation	$39,292,000
Environmental Enhancement	(not quantified)
Total	$39,292,000

FISCAL YEAR 2005: The requested amount of $25,000,000 will be applied as follows:

Continue Channel Dredging Contracts for deepening portion	$20,489,000
Continue Dike Raising Contracts for DMDF portion	1,911,000
Planning, Engineering, and Design for deepening portion	2,011,000
Planning, Engineering, and Design for DMDF portion	114,000
Construction Management for deepening portion	400,000
Construction Management for DMDF portion	75,000
Total	$25,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below:

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Separable Element (Deepening Portion):		
Provide lands, easements, rights of way, and dredged material disposal area lands.	$ 2,031,000	$6,000
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for the construction of the project.	21,522,000	
Pay 25 percent of the costs allocated to deep draft navigation during construction.	86,969,000	
Pay 25 percent of costs allocated to Section 933 portion during construction.	5,380,000	
Provide and maintain, at its own expense, the local service facilities necessary to realize the benefits of the general navigation features.	23,098,000	
Reimburse an additional 10 percent of the costs allocated to general navigation facilities within a period of 30 years following completion of construction, as partially reduced by a credit allowed for the value of lands, easements, rights of way, relocations and dredged material disposal areas.	33,000,000	
Total Non-Federal Costs	$172,000,000	$6,000
Separable Element (DMDF):		
Pay 25 percent of the cost of construction of the facilities	$ 12,000,000	
Reimburse an additional 10 percent of the costs of the facility within a period of 30 years following completion of construction	4,700,000	
Total Non-Federal Costs	$16,700,000	$0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and reimburse its share of construction costs within a period of 30 years following completion of construction.

STATUS OF LOCAL COOPERATION:

The State of North Carolina is the project sponsor. By letters dated 16 May 1996 and 24 April 1997 the State expressed support for the project and provided assurances of their intent to act as project sponsor and to sign a Project Cooperation Agreement (PCA) at the appropriate time. The State of North Carolina intends to seek appropriations from the General Assembly to fund its share of the project cost. The future reimbursement payment will be initiated in the year following completion of construction. The combined PCA was executed on 26 March 1999 for both elements. All work on the dredged material disposal facility prior to FY 00 was accomplished with advanced contributed funds under an agreement executed in July 1997. The future reimbursement for this element will be initiated in the year following the completion of the first dike raising.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of $306,309,000 is a $12,509,000 increase over the estimate ($293,800,000) last presented to Congress (FY 2004).

Item	Amount
Price Escalation on Construction Features	$ 2,479,500
Design Changes	9,333,000
Post Contract Award and other Estimating Adjustments	696,500
Total	$12,509,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The draft EIS for the deepening portion was filed with EPA in February 1996. The final EIS was filed with EPA in July 1996. 401 Certification was completed in October 1996. The final EIS for the DMDF portion was filed with EPA in July 1996. A Record of Decision was signed in December 1996. A Finding of No Significant Impact for design changes was signed in June 2000.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1987. The Wilmington Harbor, NC - 96 Act, and Wilmington Harbor, NC (Dredged Material Disposal Facilities) projects were combined in October 1998 to form this project.

Wilmington Harbor, NC - 96 Act - Deepening Portion

SUMMARIZED FINANCIAL DATA FOR SEPARABLE ELEMENTS:

Estimated Appropriation Requirement (COE)			$271,309,000
Estimated Appropriation Requirement (OFA)			1,691,000
Estimated Total Appropriation Requirement			273,000,000
Estimated Federal Cost (Ultimate)			240,000,000
Estimated Non-Federal Cost			172,000,000
Cash Contributions		92,349,000	
Other Costs		46,651,000	
Reimbursements		33,000,000	
Navigation	33,000,000		
Total Estimated Project Cost			$412,000,000

REMAINING BENEFIT-REMAINING COST RATIO FOR PROGRAMMED SEPARABLE ELEMENTS: 3.9 to 1 at 7 5/8 percent.

TOTAL BENEFIT-COST RATIO FOR PROGRAMMED SEPARABLE ELEMENTS: 1.3 to 1 at 7 5/8 percent.

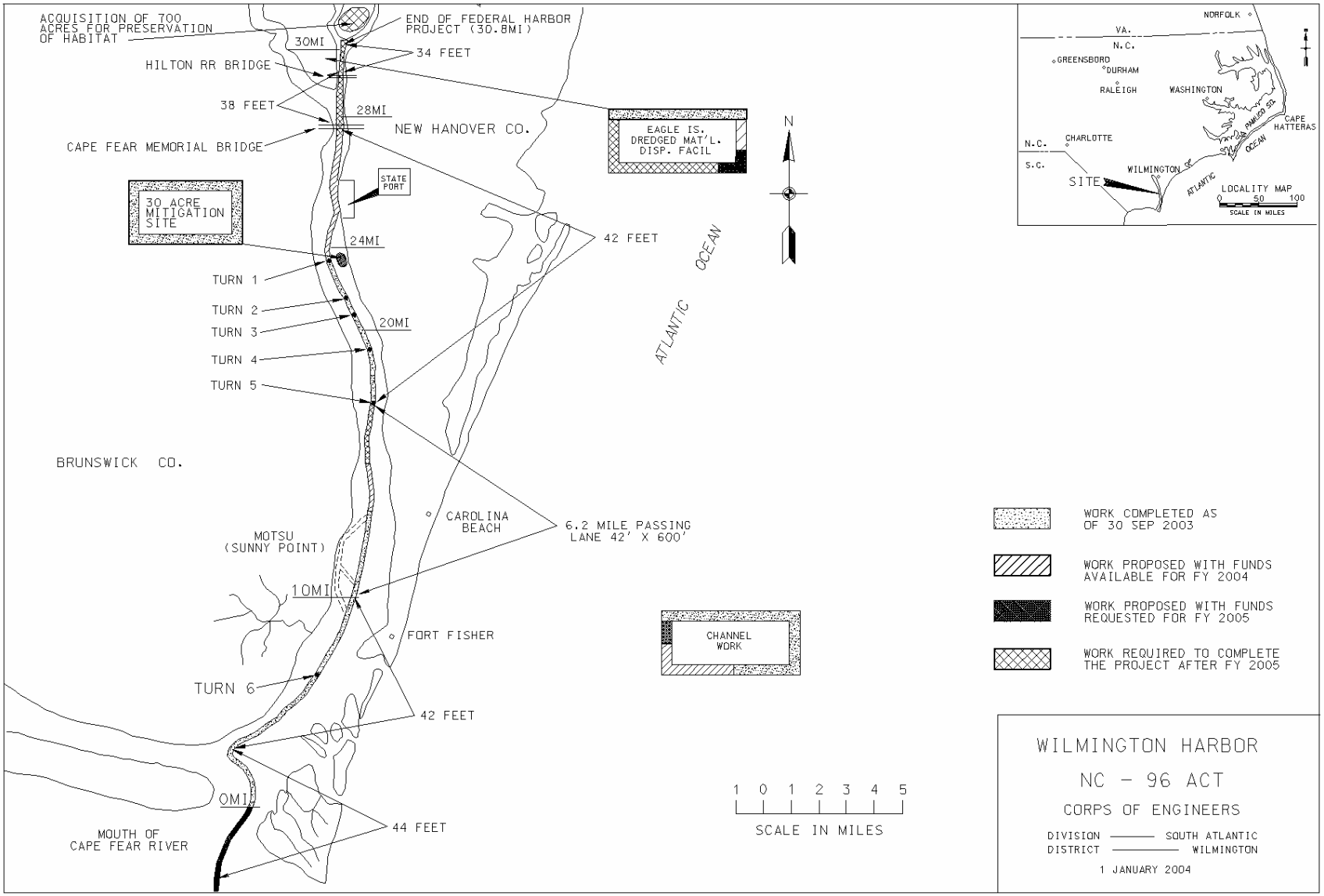
Wilmington Harbor, NC - Dredged Material Disposal Facilities Portion

SUMMARIZED FINANCIAL DATA FOR SEPARABLE ELEMENTS:

Estimated Total Appropriation Requirement			$35,000,000
Estimated Non-Federal Reimbursement			4,700,000
Estimated Federal Cost (Ultimate)			30,300,000
Estimated Non-Federal Cost			16,700,000
Cash Contributions		$12,000,000	
Other Costs		0	
Reimbursements		4,700,000	
Navigation	$4,700,000		
Total Estimated Project Cost			$47,000,000

REMAINING BENEFIT-REMAINING COST RATIO FOR PROGRAMMED SEPARABLE ELEMENTS: Not Applicable.

TOTAL BENEFIT-COST RATIO FOR PROGRAMMED SEPARABLE ELEMENTS: Not Applicable.


ACQUISITION OF 700 ACRES FOR PRESERVATION OF HABITAT
END OF FEDERAL HARBOR PROJECT (30.8MI)
30MI
34 FEET
HILTON RR BRIDGE
38 FEET
28MI
NEW HANOVER CO.
CAPE FEAR MEMORIAL BRIDGE
EAGLE IS. DREDGED MAT'L. DISP. FACIL
STATE PORT
30 ACRE MITIGATION SITE
24MI
42 FEET
TURN 1
TURN 2
TURN 3
20MI
TURN 4
TURN 5
ATLANTIC OCEAN
N
BRUNSWICK CO.
CAROLINA BEACH
6.2 MILE PASSING LANE 42' X 600'
MOTSU (SUNNY POINT)
10MI
FORT FISHER
CHANNEL WORK
TURN 6
42 FEET
0MI
44 FEET
MOUTH OF CAPE FEAR RIVER
1 0 1 2 3 4 5
SCALE IN MILES
NORFOLK
VA.
N.C.
GREENSBORO
DURHAM
RALEIGH
WASHINGTON
CAPE HATTERAS
N.C.
CHARLOTTE
S.C.
WILMINGTON
SITE
ATLANTIC OCEAN
LOCALITY MAP
0 50 100
SCALE IN MILES
WORK COMPLETED AS OF 30 SEP 2003
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005
WILMINGTON HARBOR
NC - 96 ACT
CORPS OF ENGINEERS
DIVISION SOUTH ATLANTIC
DISTRICT WILMINGTON
1 JANUARY 2004

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Charleston Harbor (Deepening/Widening), South Carolina (Continuing)

LOCATION: Charleston Harbor is located on the coast of South Carolina about 15 miles south of the midpoint of the coastline, 165 miles south of Wilmington Harbor, North Carolina and 105 miles north of Savannah Harbor, Georgia.

DESCRIPTION: The plan of improvement is to deepen the Entrance Channel from 42 ft deep by 1000 ft wide to 47 ft deep x 800 ft wide and the inner channels from 40 ft deep to 45 ft deep. Realign/widen various channels/reaches, construct a new turning basin on the Cooper River, construct a new contraction dike, reconstruct two existing contraction dikes and remove the third existing contraction dike. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1996

REMAINING BENEFIT - REMAINING COST RATIO: 3.2 to 1 at 7 5/8 percent.

TOTAL BENEFIT - COST RATIO: 1.8 to 1 at 7 5/8 percent.

INITIAL BENEFIT - COST RATIO: 2.08 to 1 at 7-5/8 percent (FY 1998).

BASIS OF BENEFIT - COST RATIO: Benefits are from the Feasibility Report completed in Feb 1996 at 1995 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST
Estimated Appropriation Requirement(COE)			98,444,000	
Estimated Appropriation Requirement (USCG)			95,000	
Estimated Total Appropriation Requirement			98,539,000	
Future Non-Federal Reimbursement			13,106,000	
Estimated Federal Cost (Ultimate)			85,433,000	
Estimated Non-Federal Cost			53,267,000	
Cash Contributions		32,815,000		
Other Costs		7,346,000		
Reimbursements		13,106,000		
Deep Draft Navigation	13,106,000			
Total Estimated Project Cost			138,700,000	2/
Allocations to 30 September 2003			93,143,000	
Conference Allowance for FY 2004			5,000,000	
Allocation for FY 2004			3,645,000	1/
Allocations through FY 2004			96,788,000	98
Allocation Requested for 2005			1,500,000	99
Programmed Balance to Complete after FY 2005			156,000	2/
Unprogrammed Balance to Complete after FY 2005			0	

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Channels & Canals		
Entrance Channel	100	Sep 01
Inner Channels	90	May 04
Turning Basin	0	TBD
Contraction Dikes	100	May 01
Entire Project	89	TBD

1/ Reflects $1,107,000 reduction assigned as savings and slippage, $30,000 rescinded in accordance with the Consolidated Appropriations Act of 2004 and a reduction via a reprogramming of $218,000.
2/ Project estimate is currently being reworked. Project cost is expected to increase but remain under the approved 902 limit.

PHYSICAL DATA

Entrance Channel - Deepen from 42 ft deep and 1000 ft wide to 47 ft and 800 ft wide for a distance of 16.3 miles. The remaining 200 ft width of the authorized channel will be maintained at 42 ft.

Inner Channels
Harbor and Wando Channel - Deepen from 40 ft to 45 ft.
Shipyard River Entrance Channel and Basin A - Deepen from 38 ft. to 45 ft.
Shutes/Folly Reach - Realign
Daniel Island Reach - Widen from continuous 600 ft to varying 600-875 ft.
Upper Town Creek Channel - Decrease from 40 ft deep by 500 ft wide channel to 16 ft deep by 250 ft wide.

Turning Basin - Dredge a 45 ft deep turning basin 1400 ft x 1400 ft for the new Daniel Island Terminal.

Contraction Dikes - Construct a new contraction dike, reconstruct two existing dikes, and remove the third existing dike.

Disposal of approximately 37.9 million cubic yards of new material will be placed into either existing upland dredged material disposal sites or offshore disposal site. A significant diking effort will be required at the Clouter Creek upland disposal area.

JUSTIFICATION: Charleston Harbor is the largest port in South Carolina and ranks first among container cargo ports on the Southeast and Gulf coasts. The commerce in Charleston Harbor increased from 6,850,000 tons in 1982 to an estimated 11,200,000 tons in 1999. Container volume increased from 835,000 TEU in 1994 to 1,620,000 TEU in 2001. Shipments of containerized cargo have increased about 25 percent from the 1992 traffic base used in the feasibility report and currently exceed the projected traffic levels used in that analysis. Containerized cargo consists of textiles, chemical products, machinery, specialized clays, food products, frozen meats, plastic, and paper products. Charleston Harbor also has a significant amount of coal and petroleum products traffic. Petroleum products, chemicals, bauxite and non-ferrous ores are the major import commodities for Charleston Harbor. The largest ships that stop in Charleston are over 1,100 feet long and 135 feet wide with design drafts up to 47.5 ft and the bulk carriers have design drafts up to 49 ft. The Port's major customers, the shipping lines, are planning container ships as long as 1,100 feet and as wide as 150 feet and have already placed orders for 41 mega-container ships. Existing channel depths, widths, and alignments constrain the ability of vessels to utilize the port to their design capacity, increase transit time due to limited ability to pass except at designated locations, and/or present hazardous conditions. Vessels with deeper draft will be able to take advantage of a deeper channel and reduce transportation costs from tidal delays. Additional transportation savings will result from improved passing areas and alignments. Dredged material will be placed into either existing upland dredged material disposal sites or an offshore disposal site. One major upland disposal site is currently used in Charleston Harbor.

Average annual benefits are as follows:

Annual Benefits	Amount
Deep Draft Navigation	21,634,000
Total	21,634,000

FISCAL YEAR 2005: The request amount will be applied as follows:

Continue construction on Upper Harbor	$1,325,000
Engineering and Design	75,000
Construction Management	100,000
Total	$1,500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas, after reductions for such credit have been made in the required cash payments.	20,000	0
Provide and maintain, at its own expense, the local service facilities. All berthing areas will be maintained at the project depth of 45 ft at all commercial terminals, piers, and docks.	7,326,000	0
Pay 25 percent of the costs allocated to general navigation facilities during construction.	32,815,000	0
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction, as partially reduced by a credit allowed for the value of lands, easements, rights of way, and relocations, provided for commercial navigation.	13,106,000	0
Total Non-Federal Costs	$53,267,000	0

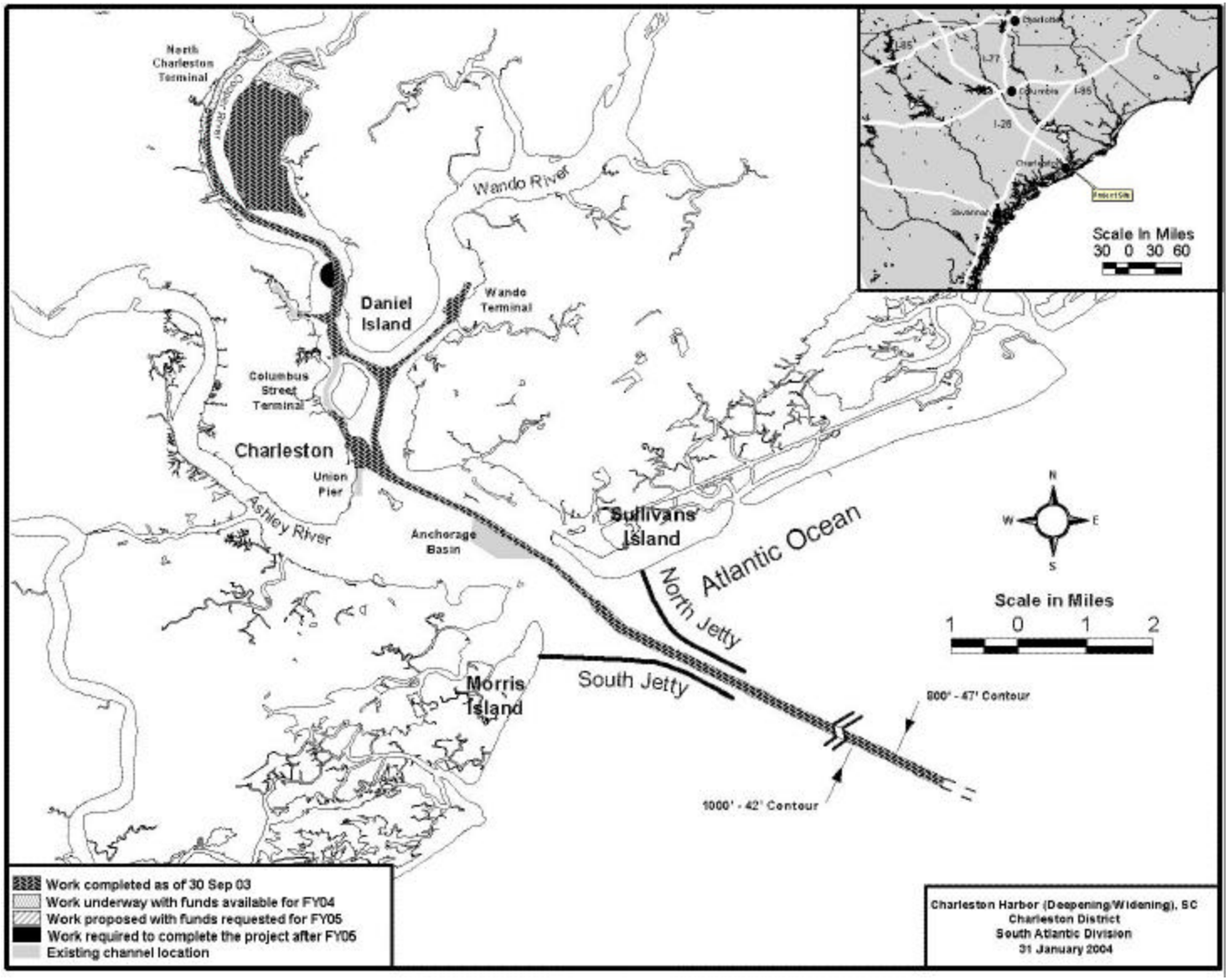
The non-Federal sponsors have also agreed to make all required payments concurrently with project construction and reimburse their share of construction costs within a period of 30 yrs following completion of construction.

STATUS OF LOCAL COOPERATION: The South Carolina State Ports Authority (SPA) is the non-Federal partner. The Project Cooperation Agreement was executed on 5 June 1998. Their financial plan has been reviewed and found to be in compliance with requirements for ensuring that the non-Federal partner has a reasonable and implementable plan for meeting its financial commitment. Their plan is to fund their share of project costs from the South Carolina Legislature. In the event such funds are not available from the South Carolina Legislature, the SPA is prepared to fund their portion of the project construction cost by an accumulation of cash before and during construction plus the sale, if required, of Revenue Bonds. SPA is a state agency that generates revenues through assessment of port fees to shipping firms that use their facilities. The SPA has a positive cash flow and exercises sound management practices.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $98,444,000 remains the same amount that was last presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The proposed action does not constitute a major Federal action significantly affecting the quality of the human environment, therefore, the preparation of an EIS is not required. The Assessment (EA) and Findings of No Significant Impact (FONSI) were signed by the District Engineer on 8 March 1996.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1997 and funds to initiate construction were appropriated in FY 1998. Project estimate is currently being reworked. Project cost is expected to increase but remain under the approved 902 limit.


North Charleston Terminal
Wando River
Daniel Island
Wando Terminal
Columbus Street Terminal
Charleston
Union Pier
Ashley River
Anchorage Basin
Sullivans Island
Atlantic Ocean
North Jetty
South Jetty
Morris Island
800' - 47' Contour
1000' - 42' Contour
Scale in Miles
1 0 1 2
N
W
E
S
Scale In Miles
30 0 30 60
Work completed as of 30 Sep 03
Work underway with funds available for FY04
Work proposed with funds requested for FY05
Work required to complete the project after FY05
Existing channel location
Charleston Harbor (Deepening/Widening), SC
Charleston District
South Atlantic Division
31 January 2004

APPROPRIATION TITLE: Construction, General - Local Protection Project (Flood Control)

PROJECT: Arecibo River, Puerto Rico (Continuing)

LOCATION: The city of Arecibo is located on the northern coast of Puerto Rico, approximately 40 miles west of San Juan. The Rio Arecibo Basin covers a 272 square mile area and has experienced numerous floods over recent years. The upstream towns of Utuado, Jayuya, and Adjuntas have also been subject to the frequent flooding. Extensive floods occurred in May and October 1985 and again in September 1996 with Hurricane Hortense. When Hurricane Georges hit the island in September 1998, the municipality of Arecibo experienced the 100-year flood event, resulting in significant damages to commercial and residential properties and loss of the Victor Rojas Bridge.

DESCRIPTION: The proposed plan includes channel improvements, a floodwall, and a levee along the Arecibo River; a levee along the Tanama River; and a plug, channel improvements, and a diversion channel along the Santiago River.

AUTHORIZATION: Water Resource Development Act 1996, Sec 101(a)(26).

REMAINING BENEFIT - REMAINING COST RATIO: 4.2 to 1 at 5-7/8 Percent

TOTAL BENEFIT - COST RATIO: 4.2 to 1 at 5-7/8 Percent

INITIAL BENEFIT - COST RATIO: 4.2 at 5-7/8 Percent .

BASIS OF BENEFIT - COST RATIO: Benefits are from the economic analyses performed for the July 1998 Limited Reevaluation Report updated at October 2003 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$15,800,000		Relocations – Roads	1	TBD
				Cemeteries/Utilities	1	TBD
Estimated Non-Federal Cost		12,100,000		Levees and Floodwalls	1	TBD
Cash Contributions	$1,637,000			Recreation	1	TBD
Other Costs	10,463,000			Fish/Wildlife Facilities	1	TBD
				Channels & Canals	1	TBD
Total Estimated Project Costs		27,900,000		Breakwaters	1	TBD
Allocations to 30 September 2003		4,798,000		Entire Project	5	TBD
Conference Allowance for FY 2004		1,000,000				
Allocation for FY 2004		773,000	1/			
Allocations through FY 2004		5,571,000	35%			
Allocations Requested for FY 2005		1,200,000	43%			
Programmed Balance to Complete After FY 2005		9,029,000				
Unprogrammed Balance to Complt After FY2005		0				

1/ Reflects savings and slippage of $221,000 and $6,000 as rescission in accordance with the Consolidated Appropriations Act of 2004.

PHYSICAL DATA

Relocations - Bridges (Replacement)	5
Levee	6,325 Meters
Floodwalls	315 Meters
Channels	6,300 Meters
Jetty	30.5 Meters
Wetland Mitigation	7.2 Acres
Recreation Trails	1,465 Meters

JUSTIFICATION: Floods impact over 500 acres of urbanized city area, including 800 residences and over 100 businesses and public facilities. In addition to quantifiable damages, severe disruption of transportation and socio-economic activities result from these floods. Average annual benefits are as follows:

Annual Benefits	Amount
Inundation Reduction	$ 6,609,000
Employment	80,000
Advance Bridge Replacement	161,000
Flood Insurance Cost	9,000
Recreation	236,000
Total	7,095,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Levees,Floodwalls & Structures	360,000
Fish and Wildlife	134,000
Cultural Resources	1,000
Planning, Engineering & Design	200,000
Construction Management	505,000
Total	1,200,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below for programmed work.

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation Maintenance, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas	5,147,000	
Modify or relocate buildings, utilities, roads, bridges, (except railroad bridges), and other facilities, where necessary in the construction of the project	5,316,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	350,000	
Pay 8.17 percent of the first costs allocated to flood control, and bear all cost of operation, maintenance, and replacement of flood control structures.	1,287,000	$ 76,000
Total Non-Federal Costs	12,100,000	$ 76,000

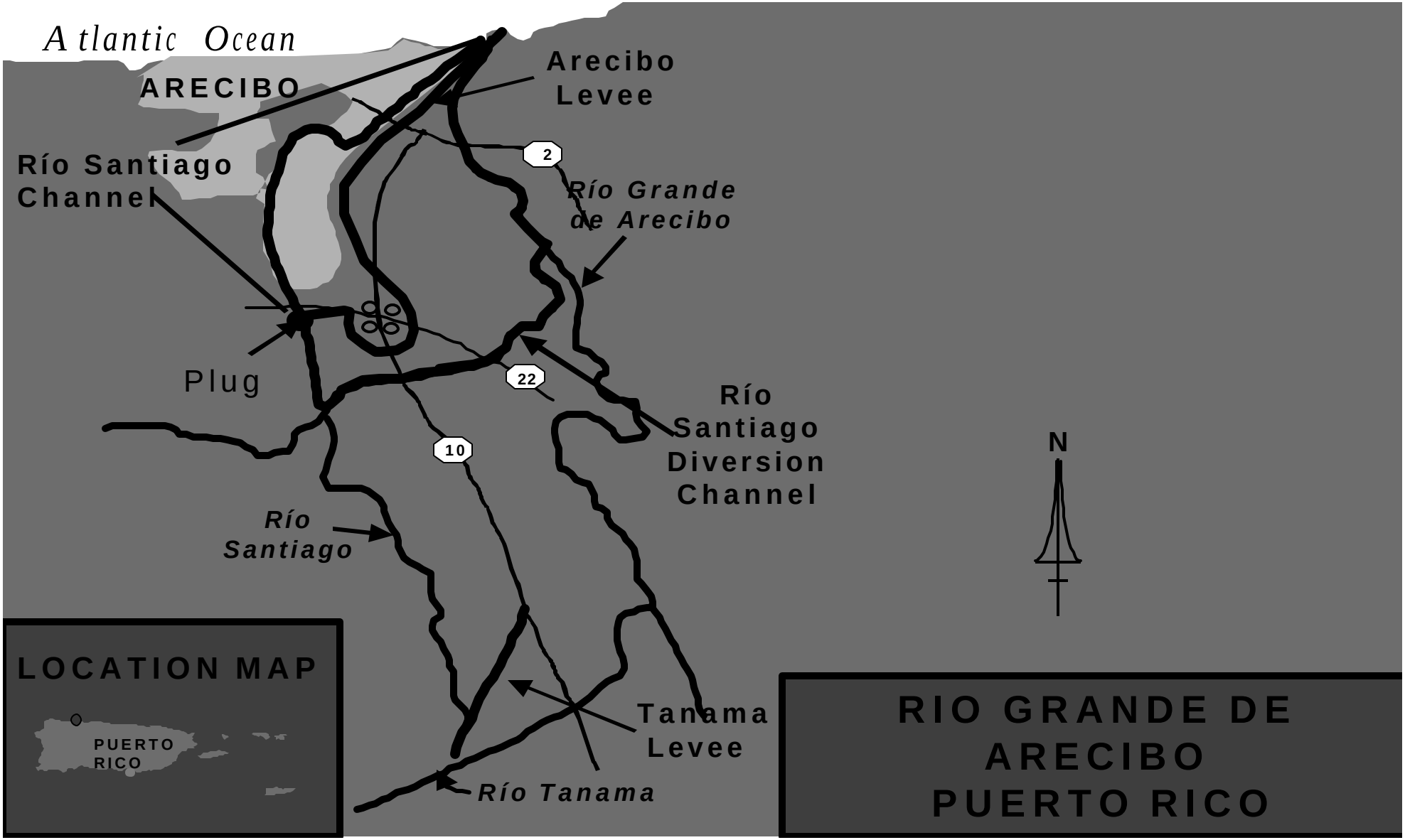
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Puerto Rico Department of Natural and Environmental Resources (DNER), is the local sponsor. The Project Cooperation Agreement was executed in September 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $15,800,000 is the same as the latest estimate of presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement for the project was filed on 10 December 1993.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design (PED) were appropriated in Fiscal Year 1994 and PED was complete in September 1999. Funds to initiate a construction new start were appropriated in Fiscal Year 2000.


Atlantic Ocean
ARECIBO
Arecibo Levee
Río Santiago Channel
2
Río Grande de Arecibo
Plug
22
Río Santiago Diversion Channel
10
Río Santiago
N
LOCATION MAP
PUERTO RICO
Tanama Levee
Río Tanama
RIO GRANDE DE ARECIBO PUERTO RICO

APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

PROJECT: Portugues and Bucana Rivers, Puerto Rico (Continuing)

LOCATION: The improvements are in and near Ponce on the Portugues and Bucana Rivers on the south coast of Puerto Rico.

DESCRIPTION: The project provides for two multiple-purpose reservoirs for flood control, water supply, general recreation, and fish and wildlife enhancement; enlargement of 5.7 miles of Bucana River and 2 miles of Portugues River; a 1.3 mile diversion channel connecting the Portugues River to lower Bucana River; and debris basins at the Bucana and Portugues Rivers. All work is programmed except the water supply increment of Portugues Dam.

AUTHORIZATION: Flood Control Act of 1970 and Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: 1.6 to 1 at 5-7/8 percent.

TOTAL BENEFIT - COST RATIO: 1.6 to 1 at 5-7/8 percent.

INITIAL BENEFIT - COST RATIO: 1.6 to 1 at 5-5/8 percent (FY 1975).

BASIS OF BENEFIT - COST RATIO: Benefits are from the July 1973 Design Memorandum Phase 1, Plan Formulation and Site Selection Report at July 1973 prices levels except for Portugues Dam where benefits are from the March 1990 Economic Reanalysis Report at January 1990 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST
Estimated Total Appropriation Requirement			434,300,000	
Programmed Construction		432,758,000		
Unprogrammed Construction		1,542,000		
Future Non-Federal Reimbursement			213,974,000	
Programmed Construction		213,974,000		
Unprogrammed Construction		0		
Estimated Federal Cost (Ultimate)			220,326,000	
Programmed Construction		218,784,000		
Unprogrammed Construction		1,542,000		
Estimated Non-Federal Cost			360,474,000	
Programmed Construction		336,289,000		
Cash Contributions	26,101,000			
Other Costs	96,214,000			
Reimbursement				
Water Supply	213,974,000			
Unprogrammed Construction		24,185,000		
Cash Contributions	24,185,000			
Other Costs	0			
Reimbursement	0			
Total Estimated Programmed Construction Cost			555,073,000	
Total Estimated Unprogrammed Construction Cost			25,727,000	
Total Estimated Project Cost			580,800,000	

STATUS (1 Jan 2004)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Channels and Canals		
Lower Channels	100	Aug 1978
Upper Bucana Channel	100	Jun 1983
Upper Portugues Channel	95	TBD
Bucana River Debris Basin	100	Jun 1987
Portugues Debris Basin	100	Mar 1987
Dams		
Cerrillos	100	Sep 1994
Portugues (Flood Control)	30	TBD
Portugues (Water Supply)	0	Indefinite
Recreation		
Channels	60	TBD
Cerrillos	42	TBD
Portugues	0	TBD
Entire Project	85	TBD

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF EST FED COST
Allocations to 30 September 2003	400,957,000	
Conference Allowance for FY 2004	4,000,000	
Allocation for FY 2004	3,090,000	1/
Allocation through FY 2004	404,047,000	78%
Allocation Requested for FY 2005	15,786,000	79%
Programmed Balance to Complete After FY 2005	12,925,000	
Unprogrammed Balance to Complete After FY 2005	1,542,000	

1/ Reflects $886,000 assigned as savings & slippage and $24,000 as rescission.

PHYSICAL DATA

Dam	**Portugues**	**Cerrillos**
Type	Roller Compacted Concrete	Earth and rock-fill
Height	220 feet	323 feet
Crest Length	1,317 feet	1,555 feet
Spillway Type	Ungated concrete 150 feet wide	Ungated rock cut 400 feet wide
Reservoir Capacity (Acre-Feet)		
Flood Control	9,484	17,065
		25,200
Sediment	2,841	5,635
Total	25,183	47,900
Portugues River Channel Enlargement		2.1 miles
Bucana River Channel Enlargement		5.7 miles
Diversion Channel Connecting Portugues River to the Lower Bucana River		1.3 miles

JUSTIFICATION: The mountainous terrain above Ponce permits rapid runoff into the rivers which overflow in the lower elevation flood plains in Ponce causing loss of life and extensive property damage. The 1954 flood caused damages of $1,297,000 ($6,991,000 at 1989 price levels). Minor flooding occurs almost yearly and major floods occur every 5 years on the average. Other major damaging floods occurred in 1961 ($4,931,000 at 1989 price levels), 1970 ($2,176,000 at 1989 price levels), 1975 ($35,253,000 at 1989 price levels), and 1985 ($33,517,000 at 1989 price levels). The average degree of protection provided by the completed project will be the standard project flood frequency. Upon completion, 6,415 acres will be protected, including 4,310 agricultural acres, 1,855 urban acres, and 250 acres, which are undeveloped. Present value of property subject to flood damages is $624,069,000. Average annual flood damages prevented are all attributable to existing urban development. Water supply is also a need that will be met by the Portugues and Bucana Rivers project. The water storage capacity in Lake Cerrillos is 25,200 acre-feet while ongoing studies have established a preliminary capacity for Lake Portugues of 14,000 acre-feet. Primary uses of the water supply will be municipal and industrial. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	43,387,000
Water Supply	13,968,000
Recreation	2,418,000
Area Redevelopment	1,116,000
Total	60,939,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Engr & Design	55,000
Reservoirs	37,000
Recreation	57,000
Construction Portugues Dam	13,204,000
Shoal Removal Phase II	1,688,000
Construction Management	745,000
Total	15,786,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Flood Control Act of 1970 and the Water Resources Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, and rights-of-way.	74,676,000	
Modify or relocate buildings, utilities, roads, bridges, and other facilities, where necessary in the construction of the project.	20,188,000	
Pay additional cash required to bring the total Non-Federal share of the flood control costs to 25 percent and bear all costs of operation, maintenance, and replacement of flood control facilities.	20,549,000	249,900
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	6,902,000	258,300
Pay all costs allocated to municipal and industrial water supply and bear all costs of operation, maintenance, and replacement of municipal and industrial water supply facilities.	24,185,000	85,700
Reimbursement for water supply on Cerrillos Dam	213,974,000	
Total Non-Federal Costs	360,474,000	593,900

STATUS OF LOCAL COOPERATION: The Commonwealth of Puerto Rico Department of Natural and Environmental Resources is the local sponsor. The following contract agreements are required pursuant to Section 221 of the River and Harbor and Flood Control Act of 1970 and the Water Resources Development Act of 1986:

Contract	Actual or Anticipated Execution Date
Section 221 – Cerrillos Reservoir	15 Mar 1982
Channels	22 Jul 1974
Water Supply – Cerrillos Reservoir	15 Mar 1982
Recreation – Cerrillos Reservoir	15 Mar 1982
Channels	24 Jun 1987
Project Cooperation Agreement – Portugues Reservoir	9 Aug 1993

STATUS OF LOCAL COOPERATION (Continue):

Portugues Dam is a roller compacted concrete dam. The dam is designed as a multi-purpose dam to be constructed in two phases. The Commonwealth of Puerto Rico has requested that the dam be constructed as soon as possible for flood control and recreation, but to defer the water supply feature to a later date. By letter dated 15 November 1991, the Commonwealth restated their commitment to the full and complete multi-purpose Portugues Dam, and agreed to pay the additional costs required for the phased construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of 434,300,000 is a $300,000 increase over the estimate ($434,000,000) last presented to Congress (FY 2004). This change includes the following items:

Item	Amount
Design Changes	$300,000
Total	$300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with CEQ on 25 February 1974. A Supplemental EIS for the Portugues Dam was submitted in November 1992.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1972. Funds to initiate construction were appropriated in Fiscal Year 1975.

SUMMARIZED FINANCIAL DATA FOR PROGRAMMED SEPARABLE ELEMENTS

Channels and Canals

Estimated Federal Cost			117,674,000	
Programmed Construction		116,132,000		
Unprogrammed Construction		1,542,000		
Estimated Non-Federal Costs				61,960,000
Programmed Construction		60,419,000		
Cash Contributions	2,038,000			
Other Costs	58,381,000			
Unprogrammed Construction		1,541,000		
Cash Contributions	1,541,000			
Other Costs				
Total Estimated Programmed Construction Cost				176,551,000
Total Estimated Unprogrammed Construction Cost				3,083,000
Total Estimated Project Cost				179,634,000

REMAINING BENEFIT - COST RATIO: Not applicable because construction is substantially complete.

SUMMARIZED FINANCIAL DATA FOR PROGRAMMED SEPARABLE ELEMENTS (Continued)

Cerrillos Dam

Estimated Total Appropriation Requirement		224,398,000
Future Non-Federal Reimbursement (Water Supply)		213,974,000
Estimated Federal Cost Ultimate		10,424,000
Estimated Non-Federal Cost Ultimate		242,847,000
Cash Contributions	4,993,000	
Other Costs	23,880,000	
Reimbursement:		
Water Supply	213,974,000	
Total Estimated Project Cost		253,271,000

REMAINING BENEFIT-REMAINING COST RATION: Not applicable because construction is substantially complete.

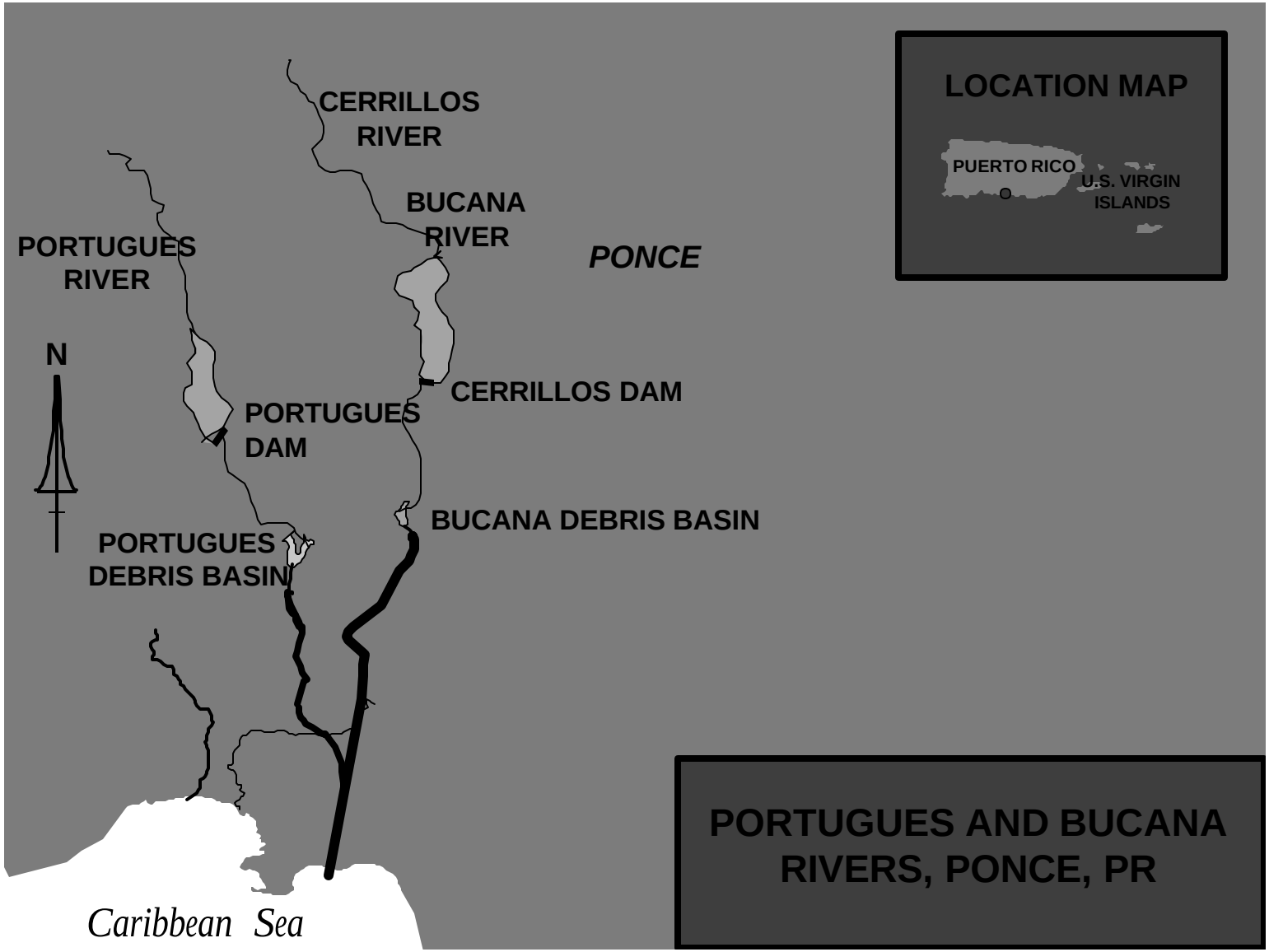
SUMMARIZED FINANCIAL DATA FOR PROGRAMMED SEPARABLE ELEMENTS (Continued)

Portugues Dam

Estimated Total Appropriation Requirement			92,228,000
Programmed Construction		92,228,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			55,667,000
Programmed Construction		33,023,000	
Cash Contribution	19,070,000		
Other Costs	13,953,000		
Unprogrammed Construction		22,644,000	
Cash Contributions	22,644,000		
Other Costs	0		
Total Estimated Programmed Construction Cost			125,251,000
Total Estimated Unprogrammed Construction Cost			22,644,000
Total Estimated Project Cost			147,895,000

REMAINING BENEFIT-REMAINING COST RATION: 6.8 to 1 at 5-7/8 percent.

TOTAL BENEFIT-COST RATIO: 4.1 to 1 at 5-7/8 percent.


CERRILLOS RIVER
BUCANA RIVER
PONCE
PORTUGUES RIVER
N
CERRILLOS DAM
PORTUGUES DAM
BUCANA DEBRIS BASIN
PORTUGUES DEBRIS BASIN
Caribbean Sea
LOCATION MAP
PUERTO RICO
U.S. VIRGIN ISLANDS
PORTUGUES AND BUCANA RIVERS, PONCE, PR

APPROPRIATION TITLE: Construction, General -- Local Protection Project (Flood Control)

PROJECT: Rio Guanajibo, Puerto Rico (New)

LOCATION: The Rio Guanajibo basin is located in the southwest corner of the island of Puerto Rico and includes portions of the municipalities of Mayaguez, Hormigueros, Cabo Rojo, San German, Sabana Grande, and Maricao.

DESCRIPTION: The recommended plan consists of the construction of 3.2 miles of levees, 0.6 mile of concrete floodwall, 0.9 miles of channel improvements, the replacement of 1 bridge, and environmental mitigation consisting of the acquisition of 27.6 acres to be graded and planted with mangroves.

AUTHORIZATION: Water Resources Development Act of 1999

REMAINING BENEFITS – REMAINING COST RATIO – 3.5 to 1 at 5-7/8%

TOTAL BENEFIT – COST RATIO: 3.5 to 1 at 5-7/8%

BASIS OF BENEFITS – COST RATIO: Benefits are from the economic analyses performed for the March 1999 Limited Reevaluation Report (LRR), updated at October 2001 price levels. The LRR was approved March 1999.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		21,400,000	
Estimated Non-Federal Cost		11,700,000	
Cash Contributions	4,391,000		
Other Costs	7,309,000		
Total Estimated Project Cost		33,100,000	
Allocations to 30 September 2003		1,872,000	
Conference Allowance for FY 2004		0	
Allocation for FY 2004		0	
Allocations through FY 2004		1,872,000	9%
Allocation Requested for 2005		2,396,000	20%
Programmed Balance to Complete After FY 2005		17,132,000	

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Relocations	1	TBD
Channels	1	TBD
Levees	1	TBD
Floodway	1	TBD
Entire Project	4	TBD

PHYSICAL DATA

Levee	3.2	Miles
Floodwalls	.6	Miles
Channel Improvements	.9	Miles
Replace Bridge	1	
Environmental Mitigation	27.6	Acres

JUSTIFICATION: The basin contains approximately 133 square miles of coastal plain and mountainous terrain. Heavy rainfall combined with the very steep slopes of the upper basin can produce high discharges in a relative short time.There have been 12 major floods this century, the most severe of which occurred on September 16, 1975 during Hurricane Eloise. Even with early warning, 34 people died and 29 more were reported missing and presumed dead. Damages were in excess of $125,000,000 and over 10,000 people were forced from their homes.

Item	Amount
Inundation Reduction	5,708,000
Others	148,000
Total Annual Benefits	5,856,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Initiate Mitigation	14,000
Levee & Floodwall Construction	2,004,000
Floodway Control & Diversion	5,000
Channels & Canals	7,000
Planning, Engineering & Design	170,000
Construction Management	196,000
Total	2,396,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Chief of Engineers Report dated 27 February 1996 and WRDA 1999, the non-Federal sponsor must comply with the requirements listed below for programmed work.

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	4,711,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	2,598,000	
Pay 17.03 percent of the first costs allocated to flood control, and bear all costs of operation, maintenance, and replacement of flood control structures.	4,391,000	80,000
Total Non-Federal Payments During Construction	11,700,000	80,000

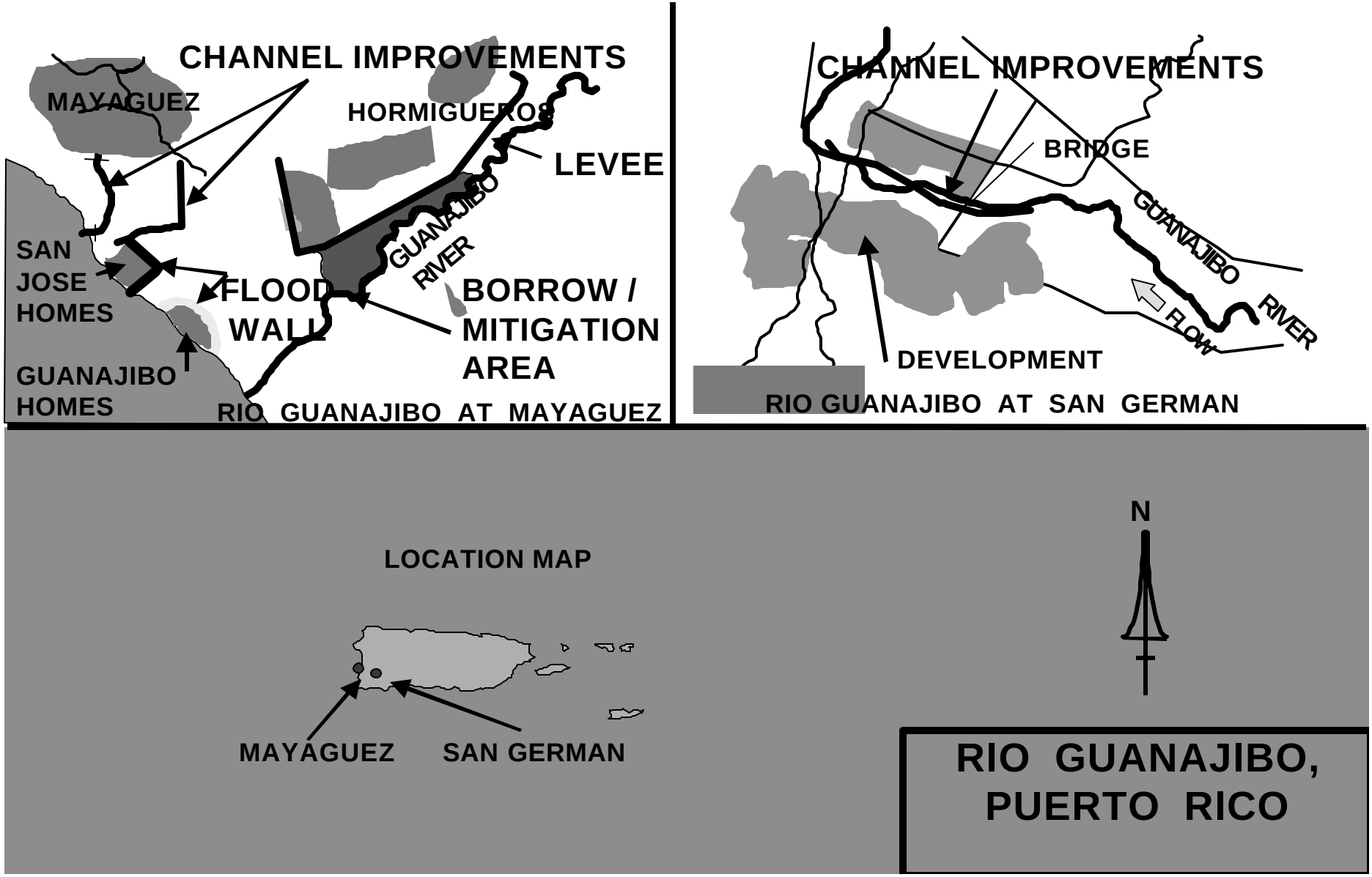
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Commonwealth of Puerto Rico Department of Natural and Environmental Resources (DNER) is the local sponsor. The Project Cooperation Agreement is scheduled for execution January 2005.

COMPARISON OF FEDERAL COST ESTIMATES: This is the first time that the Federal (Corps of Engineers) cost estimate of $21,400,000 is being presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (FEIS) filed November 1994, Record of Decision (ROD) was signed 6 November 1996 and Water Quality Certification was issued October 1998.

OTHER INFORMATION: The PED agreement was executed in June 1997. Under this agreement, the Federal share is 75%. An adjustment will be necessary to bring the non-Federal contribution in line with the project cost sharing. Contract scheduled for advertisement July 2005.


CHANNEL IMPROVEMENTS
MAYAGUEZ
HORMIGUEROS
LEVEE
GUANAJIBO RIVER
SAN JOSE HOMES
FLOOD WALL
BORROW / MITIGATION AREA
GUANAJIBO HOMES
RIO GUANAJIBO AT MAYAGUEZ
CHANNEL IMPROVEMENTS
BRIDGE
GUANAJIBO RIVER
FLOW
DEVELOPMENT
RIO GUANAJIBO AT SAN GERMAN
LOCATION MAP
MAYAGUEZ
SAN GERMAN
N
RIO GUANAJIBO, PUERTO RICO

APPROPRIATION TITLE: Construction, General - Local Protection Project (Flood Control)

PROJECT: Rio Puerto Nuevo, Puerto Rico (Continuing)

LOCATION: The Rio Puerto Nuevo drainage basin is located within the San Juan Metropolitan Area along the northern coast of Puerto Rico. The basin joins the southeast side of San Juan Harbor and extends south and up into the foothills of the central mountains of Puerto Rico. The basin is traversed by the Rio Piedras, Rio Puerto Nuevo, Quebrada Margarita, Quebrada Josefina, Quebrada Dona Ana, Quebrada Buena Vista, and Quebrada Guaracanal.

DESCRIPTION: The proposed plan calls for improvements to 11.2 miles of the existing channels of Rio Puerto Nuevo and Rio Piedras and five tributaries of the Rio Puerto Nuevo drainage basin. The project is designed to provide 100-year flood protection for the areas adjacent to the Puerto Nuevo and its tributaries. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: 2.5 to 1 at 5-7/8 percent.

TOTAL BENEFIT - COST RATIO: 2.5 to 1 at 5-7/8 percent.

INITIAL BENEFIT - COST RATIO: 2.5 to 1 at 6-3/8 percent.

BASIS OF BENEFIT - COST RATIO: Benefits are from the economic analyses performed for the revised General Design Memorandum dated June 1991 at October 1989 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		338,300,000	
Estimated Non-Federal Cost		118,500,000	
Cash Contributions	52,759,000		
Other Costs	65,741,000		
Total Estimated Project Costs		456,800,000	
Allocations to 30 September 2003		96,950,000	
Conference Allowance for FY 2004		12,000,000	
Allocation for FY 2004		27,673,000	1/
Allocations through FY 2004		124,623,000	37%
Allocation Requested for 2005		17,000,000	42%
Programmed Balance to Complete after FY 2005		196,677,000	
Unprogrammed Balance to Complete after FY 2005			

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Relocations	45	TBD
Roads, Railroads, Bridges	45	TBD
Channels and Canals	20	TBD
Recreation	0	TBD
Entire Project	25	TBD

1/ Reflects $2,656,000 assigned as savings and slippage, $71,000 as rescission and $18,400K programmed from other projects.

PHYSICAL DATA

Relocations - Bridges (Replacement)	17
Relocations - Bridges (Modification)	8
Relocations - Bridges (Construction)	5
Canals - Miles	11.2
Debris Basins	2
Stilling Areas	2

JUSTIFICATION: The intense development in the basin has altered the natural discharge patterns, significantly increased the runoff rates and restricted the flows in the flood plain. There are over 240,000 people living in the 25 square mile drainage basin. The area is over 90% developed. Development has progressed to the point where some of the tributary channels are not capable of carrying the two-year storm without causing flooding. In many areas, houses and other buildings are built adjacent to the banks of the channels and further restrict flood flows. Over 5,700 families would be subject to flooding from the 100-year storm under existing conditions. The average annual rainfall is about 71 inches. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	66,750,000
Total	66,750,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Roads, Railroads, Bridges	11,332,000
Channels and Canals	3,884,000
Planning, Engineering, and Design	529,000
Supervision and Administration	1,255,000
Total	17,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below for programmed work.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, right-of-way, and dredged material disposal areas.	25,065,000	0
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	37,204,000	0
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	400,000	0
Pay 12.37 percent of the first costs allocated to flood control, and bear all cost of operation, maintenance, repair, rehabilitation, and replacement of flood control structures.	55,831,000	0
Total Non-Federal Costs	118,500,000	0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

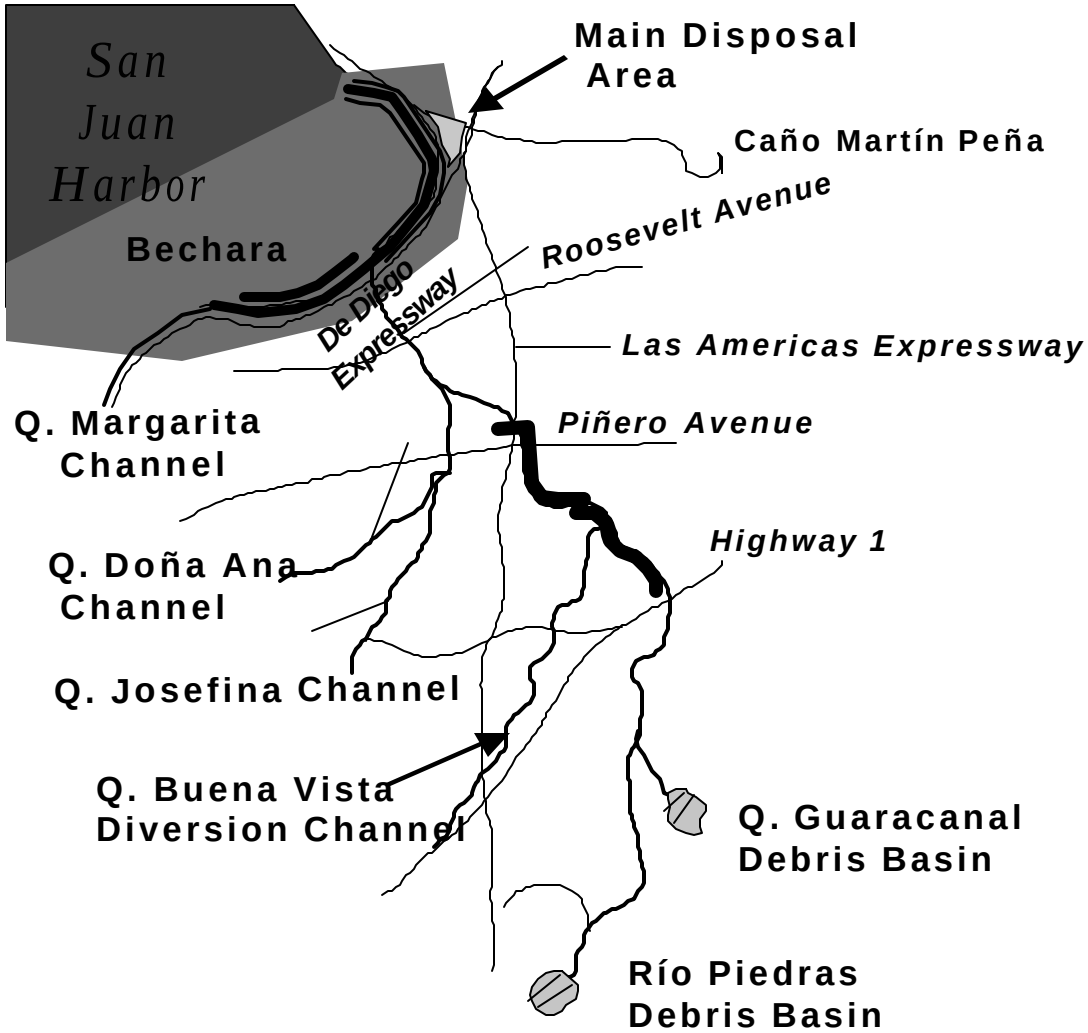
STATUS OF LOCAL COOPERATION: The Commonwealth of Puerto Rico Department of Natural and Environmental Resources is the local sponsor. A Project Cooperation Agreement for the project was executed in March 1994.

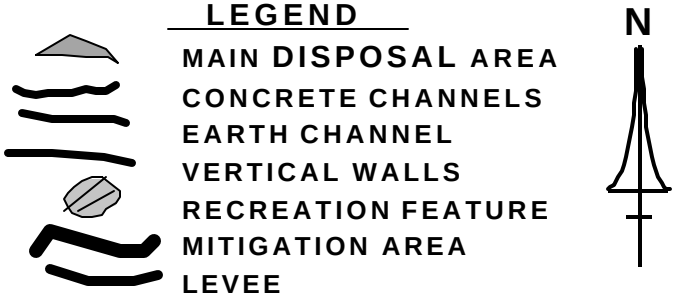
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimates of $338,300,000 is a $3,700,000 increase over the estimate ($334,600,000) last presented to Congress (FY 2004). This change includes the following items:

Item	Amount
Design Changes	$1,000,000
Post contract award and other estimating adjustments	$2,700,000
Total	$3,700,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Environmental Impact Statement for the project was filed on 6 December 1985. The Finding of No Significant Impact (FONSI) was approved in July 1992.

OTHER INFORMATION: Funds to initiate preconstruction, engineering and design were appropriated in Fiscal Year 1987. Funds to initiate construction were appropriated in Fiscal Year 1994.





RIO PUERTO NUEVO PUERTO RICO

APPROPRIATION TITLE: Construction, General - Multiple Purpose Power

PROJECT: Richard B. Russell Dam and Lake, Georgia and South Carolina (Continuing)

LOCATION: The project is located on the Savannah River about 275 miles above the mouth, 16 miles southeast of Elberton, Georgia and between the existing J. Strom Thurmond and Hartwell Lakes.

DESCRIPTION: The project consists of a concrete gravity-type dam, flanked by earth embankments with a maximum height of 200 feet above the river. The total length of 5,616 feet consists of a 1,884-foot concrete section and embankments of 3,732 feet. The gate-controlled spillway has a design capacity of 800,000 c.f.s. The project includes the installation of 328 megawatts of conventional power completed in January 1986 and 320 megawatts of reversible pumped storage power for a total available capacity of 648 megawatts. All work is programmed.

AUTHORIZATION: Flood Control Act of 1966, modified by the Water Resources Development Act of 1976 and the Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable because project construction is substantially complete.

TOTAL BENEFIT - COST RATIO: 1.9 to 1 at 3 1/4 percent.

INITIAL BENEFIT - COST RATIO: 2.0 to 1 at 3 1/4 percent (FY 1972).

BASIS OF BENEFIT - COST RATIO: Benefits are from the cost allocation study completed in December 1991 at October 1991 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement			624,100,000		Entire Project	99	TBD
Future Non-Federal Reimbursement			590,583,000				
Estimated Federal Cost (Ultimate)			33,517,000				
Estimated Non-Federal Cost			592,483,000				
Cash Contributions		1,900,000					
Reimbursements		590,583,000					
Power	590,583,000						
Total Estimated Project Cost			626,000,000				
Allocations to 30 September 2003			609,991,000				
Conference Allowance for FY 2004			8,678,000				
Allocation for FY 2004			3,345,000	1/			
Allocations through FY 2004			613,336,000				
Allocation Requested for FY 2005			4,600,000				
Programmed Balance to Complete after FY 2005			6,164,000				
Unprogrammed Balance to Complete after FY 2005			0				

1/ Reflects $1,920,000 reduction assigned as savings and slippage, $51,000 rescinded in accordance with the Consolidated Appropriations Act of 2004 and planned reprogramming of $3,362,000.

PHYSICAL DATA

Dam	
Type: Concrete Gravity, flanked by earth embankments	
Maximum Height (Feet)	200
Length	
Concrete Section (Feet)	1,884
Embankments (Feet)	23,732
Spillway	
Type: Gate Controlled	
Design Capacity (c.f.s)	800,00
Lands and Damages (Acres)	0
Type: Predominantly timber and Agricultural	53,112
Improvements: Typical farm units	

Relocations-Roads (Miles)	19.5
Railroads (Miles)	9.1
Initial Power Installation	
4 Conventional Units (MW)	82
4 Pump Storage Units (MW)	80
Normal Average Head (Feet)	144
Reservoir Capacity (Acre-feet)	
Flood Control	140,000
Power	126,800
Dead Storage	899,400

JUSTIFICATION: The 648 megawatts installation, including pumped storage, will help meet the increased power requirements and rapid growth demands in this region. The output can be marketed and fully utilized immediately upon project completion in Federal Energy Regulatory Commission (FERC) supply areas 21, 22, and 23. This includes all of South Carolina, most of North Carolina, Georgia, Alabama, and parts of Mississippi and Florida. The FERC has stated repeatedly the need for this power source. This project will be an integral unit of the plan for development of the Savannah River Basin for flood control, navigation, power, and allied purposes. The recreational facilities will serve an area within a large zone of influences surrounding the three-lake complex of J. Strom Thurmond, Hartwell, and Richard B. Russell lakes. The estimated initial visitation at the project was 1,000,000 and should exceed 4,600,000 in the early 2000's. Average annual benefits are as follows:

Annual Benefits	Amount
Power	$ 52,995,000
Flood Control	177,000
Recreation	3,597,000
Fish and Wildlife	71,000
Area Redevelopment	4,212,000
Total	$ 61,052,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue environmental monitoring of pumped storage operation	$1,107,000
Continue work on Static Start & Main Breakers Installation	2,250,000
Fabricate and Install J. Strom Thurmond Lake 0xygen System	403,000
Planning, Engineering and Design	600,000
Construction Management	240,000
Total	$4,600,000

NON-FEDERAL COST: In accordance with Public Law 89-72, agreements for recreation development with the States of Georgia and South Carolina have been executed and were approved by the Secretary of the Army 20 May 1974. The costs allocable to power are reimbursable, and will be reviewed and adjusted, based on construction costs when the project becomes operational.

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Capital Cost allocated to power.	571,810,000	3,557,000
Pay, contribute in kind, or repay (repayment not to exceed 50 years) with interest, one-half of the separable costs allocated to recreation.	20,673,000	0
Bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreation facilities.	0	249,000
Total Non-Federal Costs	592,483,000	3,806,000

STATUS OF LOCAL COOPERATION: The State of Georgia began payments for recreation reimbursements in May 1985. The State of South Carolina began payments in August 1985. Responsibility for repayment of power costs rests with the Southeastern Power Administration pursuant to Federal Laws.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $624,100,000 is a $6,000,000 increase over the estimate ($618,100,000) last presented to Congress (FY 2004). This change includes the following items:

E&D and S&A increases thru FY08	$400,000
Fabrication and Installation of JST 02 system	$500,000
Pumped Storage Environmental Monitoring thru FY10	$5,100,000
Total	$6,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) on conventional installation was submitted to Council on Environmental Quality (CEQ) on 31 May 1974. A supplement on water quality to the final EIS was filed with CEQ in May 1976. The final EIS on pumped storage was filed with the Environmental Protection Agency (EPA) in October 1979. The Supplement on fish and wildlife mitigation to the final EIS was filed with the EPA in December 1981. A supplement to the final EIS on pumped storage was filed in August 1991. A final NEPA document (Environmental Assessment) now based on 4 ½ years of environmental testing is complete. It embodies those technical items that the Corps of Engineers (COE) and South Carolina have reached agreement on, relating to operational measures, construction of a 0_2 system to increase fish habitat and continued environmental monitoring of a commercial operation. The EA for Pumped Storage was completed in FY 1999 and the FONSI was signed in August 1999.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1968. Funds to initiate land acquisition were appropriated in FY 1971 and allocated in FY 1972. Initial construction funds were appropriated in FY 1975.

A preliminary injunction halting the installation of pumped storage was issued on 23 May 1988. A hearing on the merits of our appeal for injunctive relief was held on 8 December 1988 in the 4th Circuit Court of Appeals in Richmond, Virginia. On 24 January 1989, the Richmond 4th Circuit Court of Appeals granted injunctive relief to the COE to only install the reversible pump turbines. Testing and operation was contingent on demonstrating through the supplemental EIS process that units can be operated in a responsible manner without unduly impacting existing fish habitat. With the record-of-decision on the Supplemental EIS, dated 4 September 1991, the Corps completed a settlement with the litigants to proceed forward into a phased testing and monitoring plan to address environmental issues concerning pumped storage. On 6 December 1991, the Federal District Court of Charleston, South Carolina, modified the pump storage injunction to permit testing of the first pumped storage units and permit advertising of the pumped storage conveyance channel.

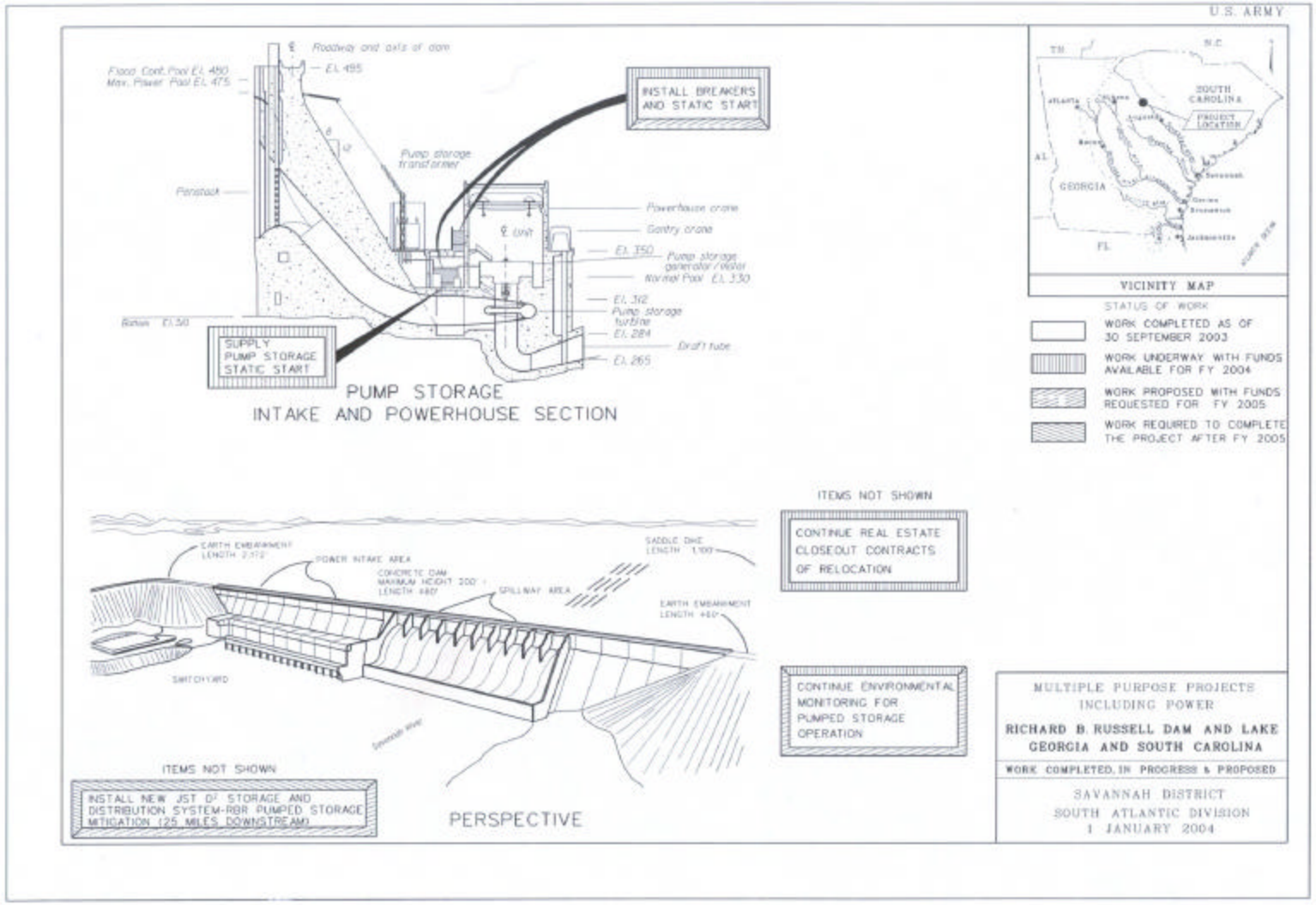
On 8 April 1992, the Charleston District Federal Court granted injunctive relief to allow environmental testing of the pumped storage units from May 1992 through October 1993 (subsequently from March 1993 through October 1996) and allow the award of the dredging of the tailrace channel. This schedule conforms to the Federal Court and the Corps commitment to the resource agencies as stated in the supplement to the final environmental impact statement record-of-decision. Environmental clearance for dredging was attained 27 May 1994. Dredging the tailrace conveyance channel was tied to the phased testing process in accordance with the consent order and it was included in the final EIS on pumped storage. The dredging was completed in March 1995. The Vortex Fix scheduled for unit eight was warded in February 1994 and installation was completed in December 1994. A second contract was awarded in February 1996 and completed in March 1996. This contract, a Rock Jetty Flow Diversion Structure, was fully successful in eliminating the remaining vortex influence on fish entrainment at Unit eight.

After 4 1/2 years, environmental testing is now complete at Richard B. Russell Dam and Lake. The Savannah District completed the Final Phase III Environmental Report for Interagency Review and comment in August 1997. Review of the data from Phase III final testing of full operations (April 1996 through October 1996) indicates minimal environmental impact to the fishery and possible environmental impact to water quality due to thermal warming to 27 degrees centigrade, which exceeds the comfort range of large stripped bass by one degree of the Tailwater Region. This thermal impact can exist in the summer months.

OTHER INFORMATION (Continued):

The South Carolina Department of Natural Resources requested full compensation for fish losses throughout the remaining life of the turbines (45 years) and a four-month moratorium on springtime pumping as an offer to avoid final litigation action in Federal District Court. Limited springtime pumping for the months of March, April, and May was agreed upon and will not impact the dependable annual capacity and marketing of this power, and will further reduce already very low numbers of springtime sport fish entrainment. The Corps and the Department of Justice could not pay compensation for fish losses. The remaining impasse to reaching an agreement rested in the legal arena. The plaintiffs, SCDNR and NWF refused to release USACE from the current injunction, because the Corps of Engineers could not agree to the state's demands for authority to approve any change in operation of the project and for payment to the state for fish killed. The Government also refused to construct recreational facilities demanded by the State of Georgia unrelated to mitigation for this project. The Savannah District is implementing springtime pumping limitations and other agreed upon mitigation measures as described herein, which are appropriate, and within our authorities. The commitment and decision to operate the project in accordance with these measures are contained in the final NEPA documentation signed 17 August 1999. The NEPA decision document and Finding of No Significant Impact (FONSI) was signed by Colonel Joseph K. Schmitt, the Savannah District Commander.

The Pumped Storage was declared commercially available on 1 September 2002 with a favorable decision from U.S. District Court granted 03 May 2002. That hearing on the Corps' request for summary judgement to dismiss the injunction was conducted on 17 October 2000 in the Charleston, SC U.S. District Court.


U.S. ARMY
Roadway and axis of dam
EL 495
Flood Cont. Pool EL 450
Max. Power Pool EL 475
INSTALL BREAKERS AND STATIC START
Pump storage transformer
Penstock
Powerhouse crane
Gantry crane
EL 350
Pump storage generator / motor
Normal Pool EL 330
EL 312
Pump storage turbine
EL 284
Draft tube
EL 265
Basin EL 50
SUPPLY PUMP STORAGE STATIC START
PUMP STORAGE
INTAKE AND POWERHOUSE SECTION
TN
N.C.
SOUTH CAROLINA
PROJECT LOCATION
AL
GEORGIA
FL
VICINITY MAP
STATUS OF WORK
WORK COMPLETED AS OF 30 SEPTEMBER 2003
WORK UNDERWAY WITH FUNDS AVAILABLE FOR FY 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005
ITEMS NOT SHOWN
CONTINUE REAL ESTATE CLOSEOUT CONTRACTS OF RELOCATION
EARTH EMBANKMENT
POWER INTAKE AREA
CONCRETE DAM
SPILLWAY AREA
SADDLE DIKE
EARTH EMBANKMENT
SWITCHYARD
CONTINUE ENVIRONMENTAL MONITORING FOR PUMPED STORAGE OPERATION
ITEMS NOT SHOWN
INSTALL NEW JST D2 STORAGE AND DISTRIBUTION SYSTEM-RBR PUMPED STORAGE MITIGATION (25 MILES DOWNSTREAM)
PERSPECTIVE
MULTIPLE PURPOSE PROJECTS INCLUDING POWER
RICHARD B. RUSSELL DAM AND LAKE
GEORGIA AND SOUTH CAROLINA
WORK COMPLETED, IN PROGRESS & PROPOSED
SAVANNAH DISTRICT
SOUTH ATLANTIC DIVISION
1 JANUARY 2004

APPROPRIATION TITLE: Construction, General - Dam Safety Assurance (Multiple Purpose Power)

PROJECT: Hartwell Lake, Clemson Upper and Lower Diversion Dams, South Carolina (Seismic Deficiency Correction) (Continuing)

LOCATION: The Hartwell project is located on the Savannah River, Georgia and South Carolina, 289 miles above the mouth, 89 miles above Augusta, Georgia, and 67 miles above J. Strom Thurmond Dam. The Clemson Diversion Dams which are a part of the Hartwell project are located adjacent to Clemson, South Carolina, in the Seneca River channel, South Carolina, approximately 20 miles above the confluence of the Seneca River and the Savannah River, and 27 miles above Hartwell Dam.

DESCRIPTION: The Clemson Diversion Dams were constructed in 1960-61 as part of the Hartwell project to prevent flooding of valuable lands, recreation facilities, structures, roads, and athletic facilities of Clemson University by impounded water behind Hartwell Dam. The dams were constructed of mostly random earth fill and founded on alluvium with an inclined chimney drain and horizontal drainage blanket for internal seepage control. Concrete cutoff walls were installed in 1983-84 to alleviate seepage problems, which had occurred since construction. The Upper Diversion Dam has a maximum height of 75 feet and a length of 2,100 feet. The Lower Diversion Dam has a maximum height of 75 feet and a length of 3,000 feet. The design of the dams, which was performed in the late 1950's, did not consider earthquake loading. Both dams were constructed on floodplain alluvium, and exploratory soil borings have revealed the presence of a continuous layer of loose, saturated cohesionless materials in the foundation of each dam.

AUTHORIZATION: The Flood Control Acts of 1950 and 1958.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: Not applicable.

INITIAL BENEFIT - COST RATIO: Benefits are non-monetary.

BASIS OF BENEFIT - COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		8,741,000		Entire Project	13	TBD
Future Non-Federal Reimbursement		1,180,000				
Estimated Federal Cost (Ultimate)		7,561.000				
Estimated Non-Federal Cost						
Cash Contributions	0					
Reimbursements	1,180,000					
Total Estimated Project Cost		8,741,000				
Allocations to 30 September 2003		1,161,000				
Conference Allowance for FY 2004		0				
Allocation for FY 2004		1,162,000	1/			
Allocations through FY 2004		2,323,000	27			
Allocation Requested for FY 2005		3,800,000	70			
Programmed Balance to Complete after FY 2005		2,618.000				
Unprogrammed Balance to Complete after FY 2005		0				

1/Relflects reprogramming to restoration of prior year savings & slippage and revocations.

PHYSICAL DATA

Upper Diversion Dam

Constructed of earth fill on alluvium with inclined chimney drain, horizontal drainage blanket, and concrete cutoff walls. Length is 2,100 feet. Average height is 55 feet.

Lower Diversion Dam

Constructed of earth fill on alluvium with inclined chimney drain, horizontal drainage blanket, and concrete cutoff walls. Length is 3,000 feet. Average height is 55 feet.

JUSTIFICATION: The results of dynamic analyses, including finite element analyses, performed using data obtained from field and laboratory investigations, indicate that upon the occurrence of a maximum credible earthquake (MCE) event, a liquefaction failure of the downstream section of the Clemson Upper and Lower Diversion Dams could occur. The MCE event for the dams has a peak ground acceleration of 0.19g. More critically, additional analyses indicate that the downstream failure could be triggered by lesser earthquake events having acceleration in the range of 0.07 to 0.10g. The earthquake producing this level of shaking has a return frequency of about 475 years. Stated another way, such an event has about a 1 in 10 chance of occurring in any 50-year period. This is a relatively frequent, high probability event. Failure of the downstream slopes would cause severe cracking of the embankments. The highly erodible nature of the silty sands and sandy silts of which the embankments are constructed will lead to rapid erosion through the cracks which will result ultimately in catastrophic failure of the dams. In the event of dam failure, 390 acres of Clemson University would be inundated. This area has a constant low population, which increases to 100,000 people during a football game. Substantial loss of life could occur, in addition to physical and economic damages to the university totaling 1.158 billion dollars. The effects of a dam failure on the local economy would also be devastating and adverse economic impact would extend to the nearby small communities whose economic reliance on the university is considerable. Remediation of the downstream section of each dam is recommended to assure the dams will survive and remain safe during and following the MCE event. The recommended remediation plan utilizes overlapping deep soil mix columns penetrating through the loose alluvium layer to create 50-foot long transverse walls oriented perpendicular to the axis of each dam. The walls would serve as shear walls to resist the earthquake loading. A long wall parallel to the dam axis would be constructed at the upstream end of the transverse walls. This wall would prevent loosened alluvium from squeezing or flowing between the transverse walls. The proposed remediation is designed to prevent catastrophic failure of the dams and preclude loss of life and severe economic consequences to Clemson University and the surrounding region. In accordance with ER 1110-2-1155, Dam Safety Assurance Program, dated 12 September 1997, a South Atlantic Division (SAD) approved dam safety evaluation report was submitted to Headquarters USACE (CECW-EP) on 18 May 2000.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction	3,400,000
Planning, Engineering, and Design	50,000
Construction Management	350,000
Total	$3,800,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the requirements listed below:

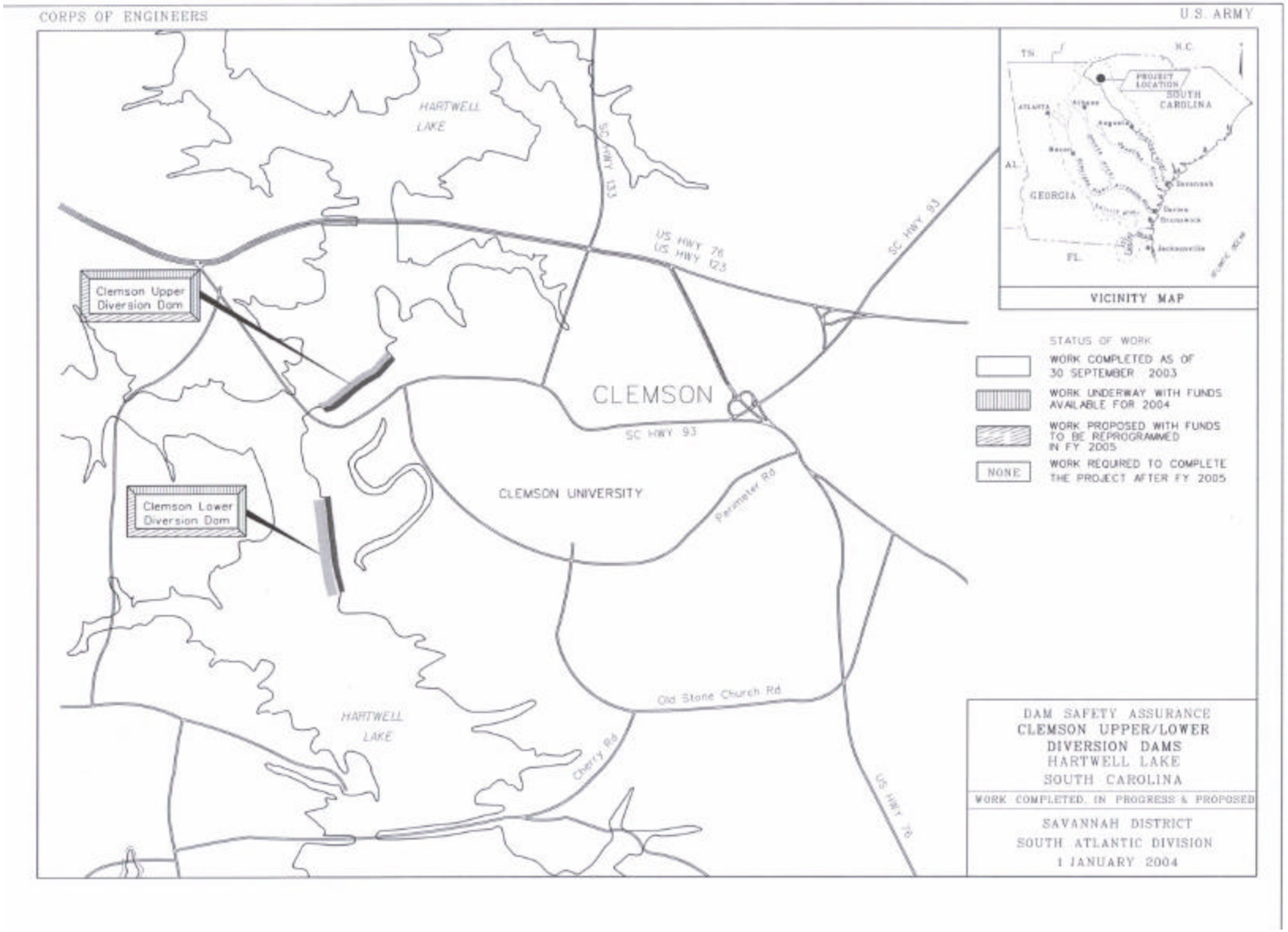
Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 15 percent of the cost allocated to hydropower.	1,169,500	
Pay 15 percent of the cost allocated to water supply.	10,500	
Total Non-Federal Costs	1,180,000	

STATUS OF LOCAL COOPERATION: Not applicable.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $8,741,000 is the same as the latest estimate presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The May 2000 Dam Safety Assurance Program Evaluation Report concluded that no significant adverse environmental impacts would result from the implementation of the proposed recommended remediation plan. Furthermore, implementation of the recommended remediation plan would comply with the Executive Order 12898 concerning environmental justice. In accordance with 33 CFR 230.9(b), the project is categorically excluded from NEPA coordination. No further documentation is required.

OTHER INFORMATION: Initial Construction General Funds were provided in Fiscal Year 2001 from the Dam Safety Assurance Program. Funds for preparing the Dam Safety Assurance Program Evaluation Report were provided by the civil works O&M program.


CORPS OF ENGINEERS
U.S. ARMY
HARTWELL LAKE
SC HWY 133
US HWY 76
US HWY 123
SC HWY 93
Clemson Upper Diversion Dam
Clemson Lower Diversion Dam
CLEMSON
SC HWY 93
CLEMSON UNIVERSITY
Perimeter Rd
Old Stone Church Rd
Cherry Rd
US HWY 76
HARTWELL LAKE
TN.
N.C.
PROJECT LOCATION
SOUTH CAROLINA
ATLANTA
AL.
GEORGIA
FL.
VICINITY MAP
STATUS OF WORK
WORK COMPLETED AS OF 30 SEPTEMBER 2003
WORK UNDERWAY WITH FUNDS AVAILABLE FOR 2004
WORK PROPOSED WITH FUNDS TO BE REPROGRAMMED IN FY 2005
NONE
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005
DAM SAFETY ASSURANCE
CLEMSON UPPER/LOWER
DIVERSION DAMS
HARTWELL LAKE
SOUTH CAROLINA
WORK COMPLETED, IN PROGRESS & PROPOSED
SAVANNAH DISTRICT
SOUTH ATLANTIC DIVISION
1 JANUARY 2004

APPROPRIATION TITLE: Construction, General – Environmental Restoration

PROJECT: Central and Southern Florida, Florida (Continuing)

LOCATION: The project is located in the southeasterly 18 counties of the State of Florida. Principle areas are the Upper St. Johns River Basin, Kissimmee River Basin, Lake Okeechobee, Everglades Agricultural Area, Upper East Coast, Lower East Coast, Water Conservations Areas, Everglades National Park, Southwest Florida, Florida Bay and the Florida Keys.

DESCRIPTION: The Central and Southern Florida Project involves an area of about 18,000 square miles, which includes all or part of 18 counties in central and southern Florida. It embraces Lake Okeechobee, its regulatory outlets, the Florida Everglades, the Upper St. Johns (which is not part of Everglades ecosystem) and Kissimmee River Basins, and the lower east coast of Florida. Original project purposes were flood control; municipal, industrial, and agricultural water supply; prevention of salt water intrusion, water supply for Everglades National Park; fish and wildlife preservation; navigation; and recreation. WRDA 2000, Section 601 modified the Central and Southern Florida Project to include modifications and operational changes needed to restore, preserve, and protect the South Florida ecosystem while providing for other water related needs to the region, including water supply and flood protection. In addition to completed work, portions of the Upper St. Johns River, South Dade County, West Palm Beach Canal, Manatee Pass-Through Gates, and the Comprehensive Everglades Restoration Program separate elements are currently programmed; all remaining separable elements are unprogrammed. Modified Water Deliveries to Everglades National Park is being accomplished with funds transferred to the Corps of Engineers by National Park Service. The restoration of the Kissimmee River Project is being accomplished with a separate appropriation.

AUTHORIZATION: Flood Control Acts of 1948, 1954, 1960, 1962, 1965, and 1968; Authorization in 1970 under Section 201 of the Flood Control Act of 1965, and the Water Resources Development Acts of 1986, 1988, 1990, 1992,1996, 1999, and 2000.

REMAINING BENEFIT - REMAINING COST RATIO: 4.0 to 1 at 2-1/2 percent.

TOTAL BENEFIT - COST RATIO: 4.8 to 1 at 2-1/2 percent.

INITIAL BENEFIT - COST RATIO: 2.1 to 1 at 2-1/2 percent (FY 1950).

BASIS OF BENEFIT - COST RATIO: Benefits are a composite of the latest benefits available from the individual reports of the separable elements of the total project.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (CoE)			2,498,300,000	1/	Misc. Completed Works	100	Oct 1992
Programmed Construction		1,877,025,000			Upper St. Johns River	95	Feb 2005
Unprogrammed Construction		621,275,000			West Palm Beach	70	TBD
					South Dade County	45	TBD
Estimated Federal Cost (OFA)			46,000,000		Manatee Pass Gates	28	Sep 2005
Programmed Construction		46,000,000			Everglades Restoration	5	TBD
Unprogrammed Construction		0					
Estimated Non-Federal Cost			1,831,100,000		Entire Project	23	Indefinite
Programmed Construction		1,470,031,000					
Cash Contributions	109,276,000						
Other Costs	1,360,755,000						
Unprogrammed Construction		361,069,000					
Cash Contributions	177,404,000						
Other Costs	183,665,000						
Total Estimated Programmed Construction Cost			3,393,056,000				
Total Estimated Unprogrammed Construction Cost			982,344,000				
Total Estimated Project Cost			4,375,400,000				
Allocations to 30 September 2003			725,979,000				
Conference Allowance for FY 2004			105,000,000				
Allocation for FY 2004			81,142,000	2/			
Allocations through FY 2004			807,121,000	32%			
Allocation Requested for FY 2005			85,600,000	36%			
Programmed Balance to Complete after FY 2005			984,304,000				
Unprogrammed Balance to Complete after FY 2005			621,275,000				

1/ Reflects only $1,122,600,000 for authorized components of $7.8 billion total CERP.
2/ Reflects $23,236,000 reduction assigned as savings and slippage and $622,000 as rescission.

PHYSICAL DATA

Pumping Plants (Number)	35	Locks (Number)	25
Floodway Control & Diversion Structures (Number)	235	Canals (Miles)	977
Relocations-Highways (Bridges)	2	Levees (Miles)	1,008
Relocations-Railroads (Bridges)	56		

JUSTIFICATION: The Central and Southern Florida project was originally authorized and designed as a flood control project in response to the maximum flood of record in 1947. Existing damages, without the project, were $59,693,000 ($366,903,000 at 1 October 1989 price levels). The 1947 flood frequency averages 1 in 25 years over the project area, with an average duration of 70 days. Minor floods occur almost yearly in the project area and major floods occur frequently. This situation is aggravated by wet antecedent conditions followed by heavy seasonal rainfall. The average degree of protection provided by the completed project is about a 10-year flood frequency protection. Approximately 2,853,700 acres are protected. This encompasses 2,765,100 agricultural acres and 88,600 urban acres. The present value of property subject to flood damages is about $12.3 billion. Property types include residential, commercial, industrial, public, and agricultural.

Average annual damages without the project would be $110,580,000 and $22,536,000 with the project. Damages attributable to urban property are 16.7 percent and 83.3 percent are attributable to rural property. The proportion of average annual damages prevented is 36.8 percent to existing development and 63.2 percent to future development.

Under Public Law 90-483 (River and Harbor Act of 1968), additional project features for the purpose of water supply were added to the Central and Southern Florida project. The storage capacity of the entire project is 2,953,000 average annual acre-feet divided into approximately 1,600,000 acre-feet for urban use by 2020 and 740,000 acre-feet for agricultural use by 2020. The Everglades National Park receives virtually its entire source of water (other than direct rainfall) from the Central and Southern Florida Project. The pumping rate for irrigation of 590 square miles would yield approximately 917,850 acre-feet per year for agricultural use. Recurrent drought conditions with resultant low flows require supplemental irrigation to ensure adequate crops yields.

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	235,213,000
Municipal and Industrial Water Supply	25,664,000
Agricultural Water Supply	27,614,000
Recreation	11,109,000
Fish and Wildlife	238,000
Area Redevelopment	3,012,000
Total	302,850,000

JUSTIFICATION (Continued):

Public Law 90-483 in addition to Public Law 101-229 (Everglades National Park Protection and Expansion Act) has authorized modifications to the project for environmental restoration in the C-111 basin. The South Dade County effort will restore natural hydrologic conditions in Taylor Slough within Everglades National Park for the purpose of restoring the historic diversity and abundance of the native flora and fauna.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue construction of channels, canals, and pumping plants for South Dade County	8,900,000
Continue construction of channels, canals, levees, floodwalls, and flood control structures for Upper St. Johns River Basin	5,036,000
Initiate construction on Programmatic Pilot Projects	1,850,000
Continue construction of locks, channels, and canals for Manatee Pass-Through Gates	1,174,000
Continue the feasibility phase of the Central and Southern Florida Project (CERP)	3,707,000
Engineering and Design for South Dade County	1,857,000
Engineering and Design for Manatee Pass-Through Gates	329,000
Engineering and Design for Comprehensive Everglades Restoration Plan (CERP)	61,205,000
Engineering and design for Upper St Johns	189,000
Construction Management (Includes $375,000 for Upper St. Johns River Basin)	1,353,000
Total	85,600,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the authorizing legislation and the Water Resources Development Act of 1986 and 1996, as applicable, the non-Federal sponsor must comply with the requirements listed below:

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Upper St. Johns River Basin		
Provide lands, easements, rights of way, and dredged material disposal areas.	86,232,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	11,060,000	
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operations, maintenance, repair, and replacement of recreational facilities.	3,308,000	82,000
Total	100,600,000	82,000

Requirements of local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
West Palm Beach Canal		
Provide lands, easements, rights of way, and dredged material disposal areas.	11,129,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	1,400,000	
Pay 12.8 percent of the separable costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of facilities.	13,671,000	289,800
Total	26,200,000	289,800
South Dade County		
Provide lands, easements, rights of way, and dredged material disposal areas.	118,342,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	330,000	
Pay one-half of the cost of the project assigned to flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	18,663,000	845,000
Total	137,335,000	845,000
Manatee Pass-Through Gates		
Pay applicable percentage based upon authorized cost share for each particular project.	2,350,000	
Total	2,350,000	
Comprehensive Everglades Restoration Plan		
Provide lands, easements, rights of way, and dredged material disposal areas.	846,944,000	
Pay one-half of the cost of the project assigned to flood control and bear one half of the cost of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	273,256,000	
Total	1,120,200,000	

Requirements of local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Completed Works		
Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities.	214,921,000	
Cash Contribution/WIK	229,494,000	
Total	444,415,000	
Total Non-Federal Costs	1,831,100,000	

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: Assurances of local cooperation have been accepted from the local sponsor, the South Florida Water Management District, for all works authorized under the Central and Southern Florida project except for the Upper St. Johns River portion of the project. Local interest voluntarily executed a supplemental assurances contract that was approved by the District Engineer on 1 July 1972 for all modifications to the project. Assurances of local cooperation were accepted from the St. Johns River Water Management District for the Upper St. Johns River portion on 30 December 1987. The Project Cooperation Agreement for the South Dade County separable element was executed with the South Florida Water Management District in January 1995. The Design Agreement for the South Florida Water Management District segment of the Comprehensive Everglades Restoration Plan (CERP) was signed on 12 May 2000. Additional Design Agreements for CERP features are scheduled to be executed with Seminole Tribe of Florida, the Miccosukee Tribe of Florida, the Florida Department of Environmental Protection and Miami-Dade County.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $2,498,300,0000 is an increase of $100,400,000 from the latest estimate ($2,397,900,000) submitted to Congress (FY 2003). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	5,429,000
Design Changes	27,200,000
Post Contract Award & Other Estimating Adj	(3,300,000)
Schedule Changes	26,085,000
Additional Functions Added under General Authority	44,986,000
Total	$100,400,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The latest Programmatic Environmental Impact Statement for Central and Southern Florida project was the Comprehensive Review Study in April 1999.

OTHER INFORMATION: Funds to initiate preconstruction planning and construction were appropriated in FY 1950. The Everglades National Park Protection and Expansion Act, signed 13 December 1989, authorizes construction of structural works required for improved water deliveries to Shark River Slough in Everglades National Park, construction of flood protection works for the residential area in the East Everglades, and acquisition of 107,600 acres of privately owned wetlands in the East Everglades. The Department of the Interior and the State of Florida would acquire the land and the Secretary of the Army would construct all project modifications with funds transferred to the Corps of Engineers by the National Park Service for this purpose. All Federal funding for implementation of this project is being appropriated through the Department of Interior appropriations and transfers are made to the Corps of Engineers as needed for modifications to the Central and Southern Florida project. This authorization also included modification of the South Dade County separable element to improve the natural resources in Taylor Slough in Everglades National Park and was funded through the Corps Central and Southern Florida project appropriation.

The Kissimmee Restoration Project was authorized by the Water Resources Development Act of 1992. It is being funded by a separate appropriation. The project cooperation agreement was executed in March 1994. Engineering and design is underway, and construction was initiated in Fiscal Year 1997.

The Water Resources Development Act of 1992 authorizes the Chief of Engineers to review the Central and Southern Florida project to determine whether modifications to the existing project are advisable at the present time due to significantly changed physical, biological, demographic, or economic conditions, with particular reference to modifying the project or its operation for improving the quality of the environment, improving protection of the aquifer, and improving the integrity, capability, and conservation of urban water supplies affected by the project or its operation. The central organizing theme of the study is restoration of the South Florida ecosystem while accommodating other demands for water and related land resources in south Florida. Recognizing the complexity of ecological restoration and the extensive interaction between the ecosystem and other uses of water and related land resources, oversight of the reconnaissance study was provided by a South Florida Ecosystem Restoration Task Force, which will continue to provide policy guidance, study coordination, and appropriate agency participation. The Water Resources Development Act of 1996 (Section 528) required that a report be submitted to Congress, along with a Programmatic Environmental Impact Statement, in July 1999. The Final Integrated Feasibility Report and Programmatic Environmental Impact Statement was submitted to Congress on 01 July 1999. The Energy and Water Appropriations Act of FY 2000, Public Law 106-50 authorized funds for the Government to initiate design of elements of the Comprehensive Plan for the Everglades and South Florida Ecosystem Restoration Project.

The Water Resources Development Act of 1996 also legislatively established the Task Force and expanded its membership to include State and local agency representatives. The Task Force is providing assistance to the Comprehensive Restoration Plan Program.

The Indian River Lagoon South Feasibility Study was initiated in 1996. This study is evaluating potential modifications to the Central and South Florida Project for ecological restoration of Indian River Lagoon system. A final feasibility report was submitted to HQUSACE in FY02. In order to maintain consistency with the Programmatic Regulations, a final project implementation report is currently being prepared.

The Water Resources Development Act 2000 authorized the Comprehensive Everglades Restoration Plan as the framework for modifications and operational changes to the Central & Southern Florida Project. In addition, specific authorization was provided for 10 projects totaling $1.1 billion (including $100 million for adaptive assessment and monitoring programs) and 4 pilot projects totaling $69 million, and to allow for implementation of projects under a programmatic authority, not to exceed $206 million. Two additional pilot projects and part of the Comprehensive Everglades Restoration Plan were authorized in the Water Resources Development Act of 1999 for $29 million.

SUMMARIZED FINANCIAL DATA

Upper St. Johns River Basin

Estimated Federal Cost			106,200,000
Programmed Construction		104,578,000	
Unprogrammed Construction		1,622,000	
Estimated Non-Federal Cost			100,600,000
Programmed Construction		98,642,000	
Cash Contributions	3,308,000		
Other Costs	95,334,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		1,958,000	
Cash Contributions	1,958,000		
Other Costs	0		
Total Estimated Programmed Construction Cost			203,220,000
Total Estimated Unprogrammed Construction Cost			3,580,000
Total Estimated Project Cost			206,800,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA (Continued)

South Dade County

Estimated Federal Cost			137,335,000
Programmed Construction		137,335,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			137,335,000
Programmed Construction		137,335,000	
Cash Contributions	18,663,000		
Other Costs	118,672,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			274,670,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			274,670,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

West Palm Beach Canal

Estimated Federal Cost (COE)			186,900,000
Programmed Construction		186,900,000	
Unprogrammed Construction		0	
Estimated Federal Cost (OFA)			46,000,000
Programmed Construction		46,000,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			26,200,000
Programmed Construction		26,200,000	
Cash Contributions	13,671,000		
Other Costs	12,529,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			259,100,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			259,100,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

Manatee Pass-Through Gates

Estimated Federal Cost			11,650,000
Programmed Construction		11,650,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			2,350,000
Programmed Construction		2,350,000	
Cash Contributions	2,350,000		
Other Costs	0		
Estimated Non-Federal Cost			
Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			14,000,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			14,000,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

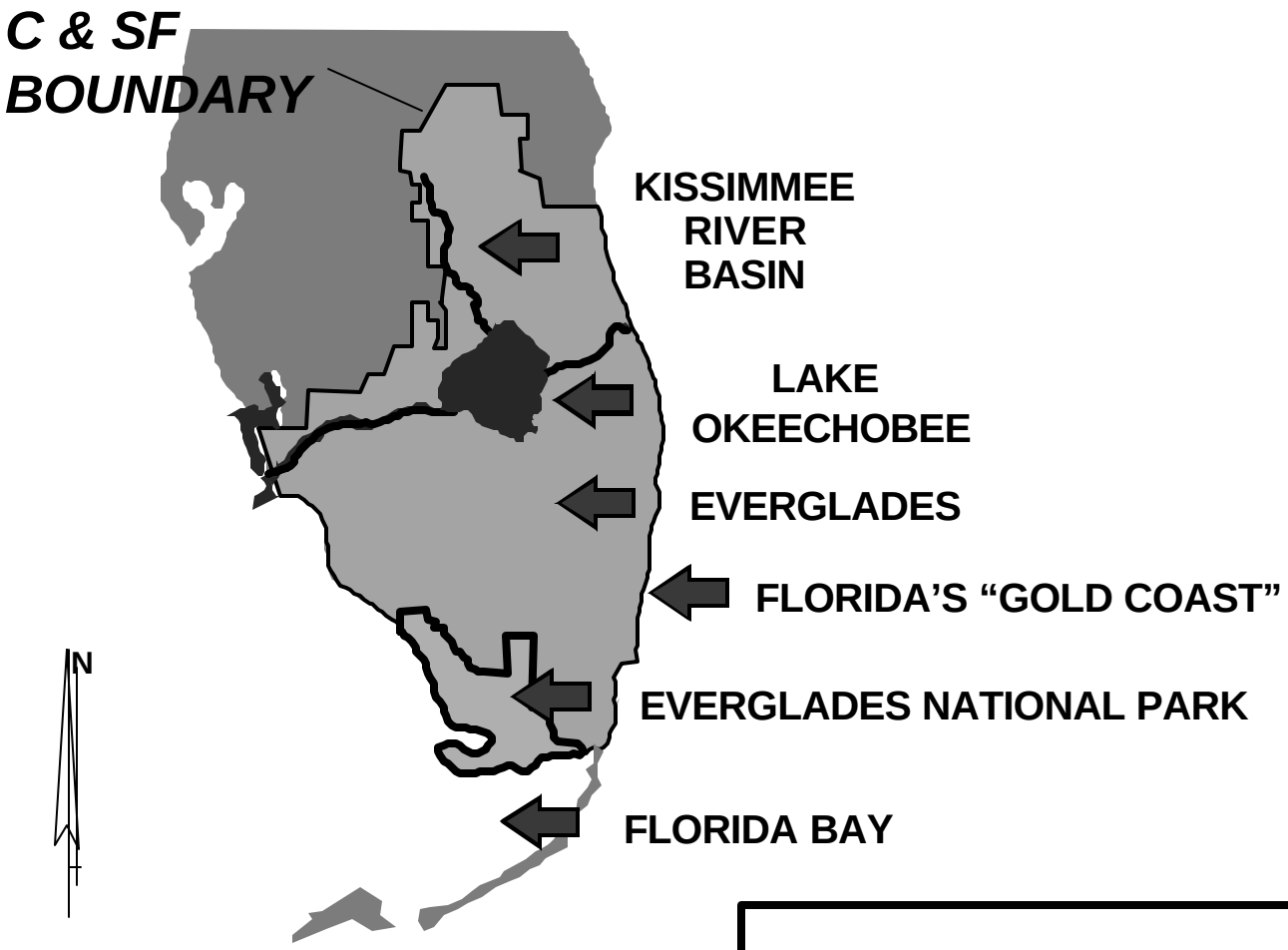
SUMMARIZED FINANCIAL DATA (Continued)

Comprehensive Everglades Restoration Plan

Estimated Federal Cost			1,122,600,000
Programmed Construction		1,122,600,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			1,120,200,000
Programmed Construction		1,120,200,000	
Cash Contributions	17,213,000		
Other Costs	1,102,987,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			2,242,800,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			2,242,800,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable



CENTRAL AND SOUTHERN FLORIDA PROJECT

xAPPROPRIATION TITLE: Construction, General - Environmental Restoration

PROJECT: Everglades and South Florida Ecosystem Restoration, FL (Continuing)

LOCATION: The projects will be within the boundaries of the Central and Southern Florida (C&SF) Project including the Everglades, the Florida Keys and the contiguous and near-shore waters of South Florida. The project is located in the southeasterly 18 counties of the State of Florida. Principle areas are the Kissimmee River Basin, Lake Okeechobee-Everglades Area, East Coast-Everglades Area, and Big Cypress Basin.

DESCRIPTION: Critical Restoration Projects must meet the following criteria: be within the C&SF Project and its near shore waters; provide immediate, independent, and substantial ecosystem restoration, protection, and preservation benefits; cost less than $25 million in Federal funds; be consistent with the Governor's Commission's Conceptual Plan; and have a local sponsor to contribute 50% of the total project cost. Projects underway are: Tamiami Trail Culverts, Western C-11, Seminole Big Cypress, Southern CREW, Lake Okeechobee Water Retention, 10 Mile Creek, and Lake Trafford. Projects completed are Florida Keys Carrying Capacity and East Coast Canal Structures.

AUTHORIZATION: Water Resources Development Act of 1996, as modified by the Water Resources Development Acts of 1999 and 2000.

REMAINING BENEFIT - REMAINING COST RATIO: Each project will be justified based on its ecosystem restoration, preservation, or protection benefits.

TOTAL BENEFIT - COST RATIO: Each project will be justified based on its ecosystem restoration, preservation, or protection benefits.

BASIS OF BENEFIT - COST RATIO: Each project will be justified based on its ecosystem restoration, preservation, or protection benefits.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT OF EST FED COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimate Federal Cost		75,000,000		Total Project	43	TBD
Estimated Non-Federal Cost		141,000,000				
Cash Contributions	113,244,000					
Other Costs	27,756,000					
Total Estimated Project Cost		216,000,000				
Allocations to 30 September 2003		25,948,000				
Conference Allowance for FY 2004		14,835,000				
Allocation for FY 2004		11,464,000	1/			
Allocations through FY 2004		37,412,000	50%			
Allocation Requested for FY 2005		27,000,000	86%			
Programmed Balance to Complete after FY 2005		10,588,000				
Unprogrammed Balance to Complete after FY 2005		0				

1/ Reflects $3,283,000 reduction assigned as savings and slippage and $88,000 as rescission.

PHYSICAL DATA

Pumping Plants (Number) 3

JUSTIFICATION: The C&SF Project has successfully provided flood control, water supply benefits, recreation, and navigation in accordance with its authorized purposes. However, there has been substantial degradation in the region's natural resources associated with the water management system. Furthermore, development in the project area has far surpassed projections in the initial design of the comprehensive plan for the C&SF Project in 1948. WRDA 1996 authorized implementation of Critical Projects that will provide immediate, independent, and substantial ecosystem restoration, protection and preservation benefits. The projects will be justified on the basis of those benefits.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Construction of channels and canals	$ 8,015,000
Construction of reservoirs	13,705,000
Planning, Engineering and Design	1,493,000
Construction Management	3,787,000
Total	27,000,000

NON-FEDERAL COST: The Non-Federal project sponsor(s) will provide at least 50% of the total project cost. The Non-Federal contribution can be through in-kind services, cash contributions, or any combination that is approved in the Project Cooperation Agreement.

STATUS OF LOCAL COOPERATION: PCA's executed 07 January 2000 for East Coast Canal Structures, Tamiami Trail Culverts, Western C-11, Seminole Big Cypress, Southern Crew, Lake Okeechobee Water Retention, 10-Mile Creek, and Lake Trafford. PCA executed Dec 1998 for Florida Keys Carrying Capacity. Local sponsors include: South Florida Water Management District (SFWMD), Seminole Tribe of Florida, and the Department of Community Affairs (DCA).

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of $75,000,000 is no change from the latest estimate ($75,000,000) submitted to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Appropriate NEPA documents were prepared and finalized prior to execution of the PCA.

OTHER INFORMATION: The project authorization limits total federal funding to $75 million, however local sponsors have elected, on some projects, to fund more than 50% of project costs to complete those projects.

SUMMARIZED FINANCIAL DATA

Lake Okeechobee

Estimate Federal Cost		10,841,000
Estimated Non-Federal Cost		12,465,000
Cash Contributions	5,661,000	
Other Costs	6,804,000	
Total Estimated Project Cost		23,306,000

Southern CREW

Estimate Federal Cost		272,000
Estimated Non-Federal Cost		33,040,000
Cash Contributions	29,000,000	
Other Costs	4,040,000	
Total Estimated Project Cost		33,312,000

East Coast Canal Structures

Estimate Federal Cost		1,842,000
Estimated Non-Federal Cost		1,841,000
Cash Contributions	1,616,000	
Other Costs	225,000	
Total Estimated Project Cost		3,683,000

SUMMARIZED FINANCIAL DATA (Continued):

Western C-11 Basin

Estimate Federal Cost		9,130,000
Estimated Non-Federal Cost		9,129,000
Cash Contributions	8,526,000	
Other Costs	603,000	
Total Estimated Project Cost		18,259,000

Seminole Big Cypress

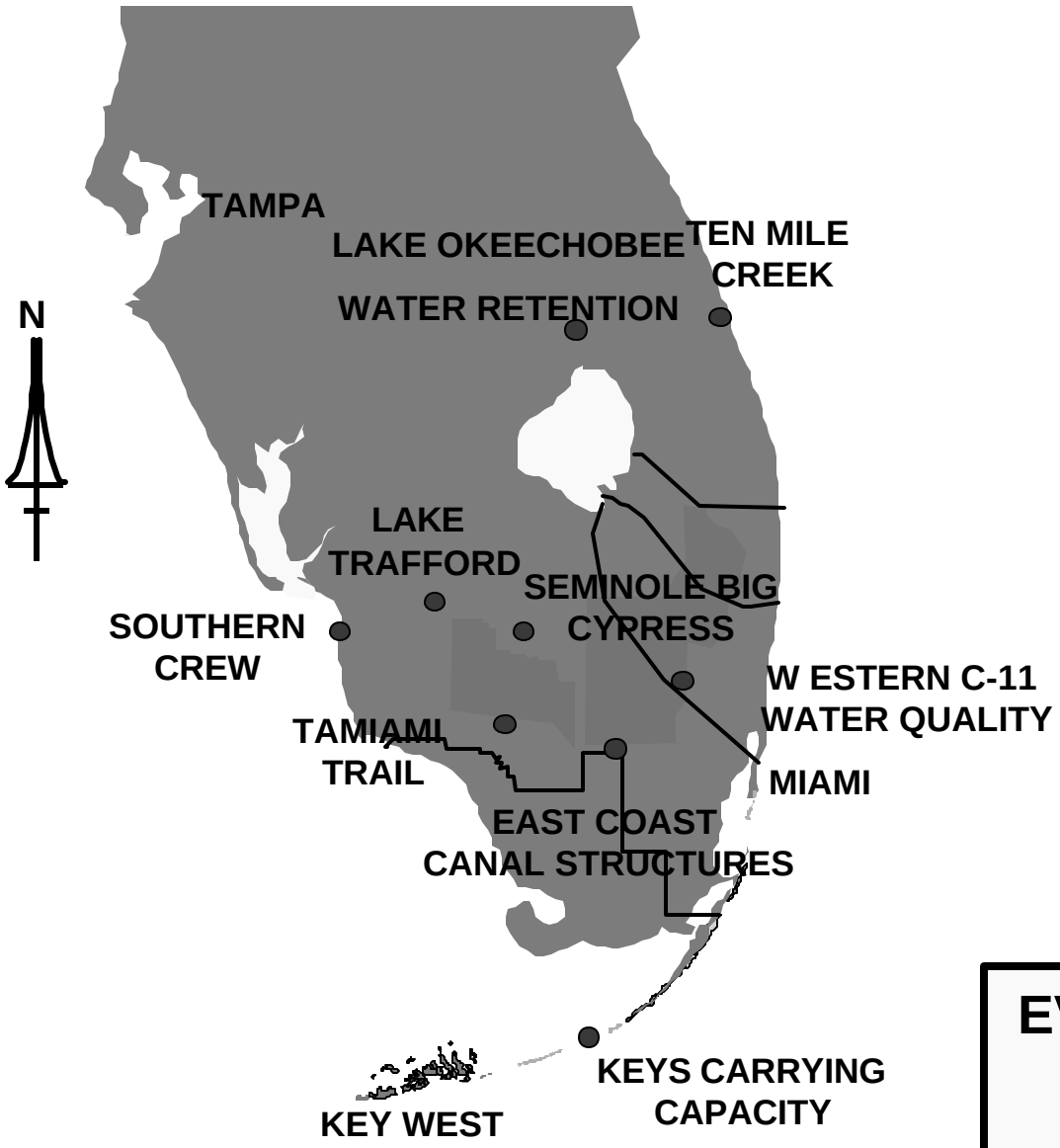
Estimate Federal Cost		24,392,000
Estimated Non-Federal Cost		24,391,000
Cash Contributions	18,149,000	
Other Costs	6,242,000	
Total Estimated Project Cost		48,783,000

Ten-Mile Creek

Estimate Federal Cost		20,295,000
Estimated Non-Federal Cost		20,294,000
Cash Contributions	14,219,000	
Other Costs	6,075,000	
Total Estimated Project Cost		40,589,000

SUMMARIZED FINANCIAL DATA (Continued):

Tamiami Trail		
Estimate Federal Cost		2,601,000
Estimated Non-Federal Cost		12,750,000
Cash Contributions	12,525,000	
Other Costs	225,000	
Total Estimated Project Cost		15,351,000
Lake Trafford		
Estimate Federal Cost		1,588,000
Estimated Non-Federal Cost		24,090,000
Cash Contributions	22,048,000	
Other Costs	2,042,000	
Total Estimated Project Cost		25,678,000
Keys Carrying Capacity		
Estimate Federal Cost		3,000,000
Estimated Non-Federal Cost		3,000,000
Cash Contributions	1,500,000	
Other Costs	1,500,000	
Total Estimated Project Cost		6,000,000



EVERGLADES ECOSYSTEM RESTORATION, FLORIDA

APPROPRIATION TITLE: Construction, General - Environmental Restoration

PROJECT: Kissimmee River, Florida (Continuing)

LOCATION: The Kissimmee River basin is approximately 3,000 square miles in size. It stretches from the southern Orlando area southward to Lake Okeechobee in central Florida. The project to restore the Kissimmee River has two component parts; the upper basin, referred to as the Headwaters Revitalization, and the lower basin, referred to as the Kissimmee River Restoration. The project was authorized in the Water Resources Development Acts of 1988 and 1992.

DESCRIPTION: The upper basin portion of the project consists of water regulation schedule modifications, canal and structure improvements, and land acquisition. This will result in environmental benefits in the upper chain of lakes and in the lower basin. More natural fluctuations of water levels will enhance the peripheral marshes of the lakes. Reestablishing a more natural timing of flows to the lower basin will result in restoration or enhancement of the Kissimmee River ecosystem. Structural improvements will include enlargements of existing canals and existing water control structures. The Kissimmee River project is addressing restoration of natural flooding of the floodplain to reestablish historic wetland conditions. Construction will include backfilling approximately 22 miles of the C-38 canal, excavating approximately 9 miles of new river channel, and removing 2 water control structures and locks in the backfilled sections. The project will also include acquisition of fee title for lands within the 5-year-floodplain and acquisition of flowage easements for lands between the five-year-flood line and the 100-year-flood line.

AUTHORIZATION: Water Resources Development Acts of 1988 (Section 46) and 1992 (Section 101).

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable

TOTAL BENEFIT - COST RATIO: Not applicable

INITIAL BENEFIT - COST RATIO: Not applicable

BASIS OF BENEFIT - COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST FED COST	STATUS (1Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		286,200,000		Lands and Damages	37	TBD
				Relocations - Bridges	50	TBD
Estimated Non-Federal Cost		286,200,000		Channels and Canals	30	TBD
Cash Contributions	84,338,000			Flood Control Structures	88	TBD
Other Costs	201,862,000					
				Entire Project	29	TBD
Total Estimated Project Cost		572,400,000				
Allocations to 30 September 2003		89,179,000				
Conference Allowance for FY 2004		17,706,000				
Allocation for FY 2004		13,683,000	1/			
Allocations through FY 2004		102,862,000	36%			
Allocation Requested for FY 2005		18,000,000	42%			
Programmed Balance to Complete After FY 2005		165,338,000				
Unprogrammed Balance to Complete After FY 2005		0				

1/ Reflects a rescission of $105,000 and a reduction of $3,918,000 assigned as savings and slippage.

PHYSICAL DATA

Relocations - (Bridges)	2
Canals – Miles Backfilled	22
Canals – New River Channel	9
Bridge Construction	1
Water Control Structures Removal	2

JUSTIFICATION: Local water resource development of the Kissimmee River began in the late 1800's. In the 1960's, the river was channelized as part of the comprehensive Central and Southern Florida Project. Although the project has provided continuing navigation and effective flood control, it also resulted in long-term degradation of the natural ecosystem. The 103-mile river that historically meandered across and inundated about 35,000 acres of wetlands over a broad flood plain was reduced to a 56-mile canal that has successfully contained almost all flows since its completion. The channelization coupled with the modifications of the Lower Basin tributary watersheds and efficient control of floodwaters and regulation of inflows from the Upper Basin significantly altered hydrologic characteristics of the ecosystem. Project formulation and scoping was not based on traditional economic benefit-cost analyses and net benefit optimization; rather, the plan was based on the most cost effective plan which would meet fish and wildlife resources objectives for restoring ecological integrity. As a result, project construction will result in the restoration of 52 miles of river; 27,000 acres of wetlands; improved water quality characteristics for the Kissimmee River; and restored conditions for over 300 fish and wildlife species.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue construction of channels, canals, and floodway control structures	$13,860,000
Planning, Engineering, and Design/Monitoring	3,114,000
Construction Management	1,026,000
Total	18,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	$ 191,485,000	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	10,377,000	
Pay 50 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	84,338,000	
Total Non-Federal Costs	286,200,000	

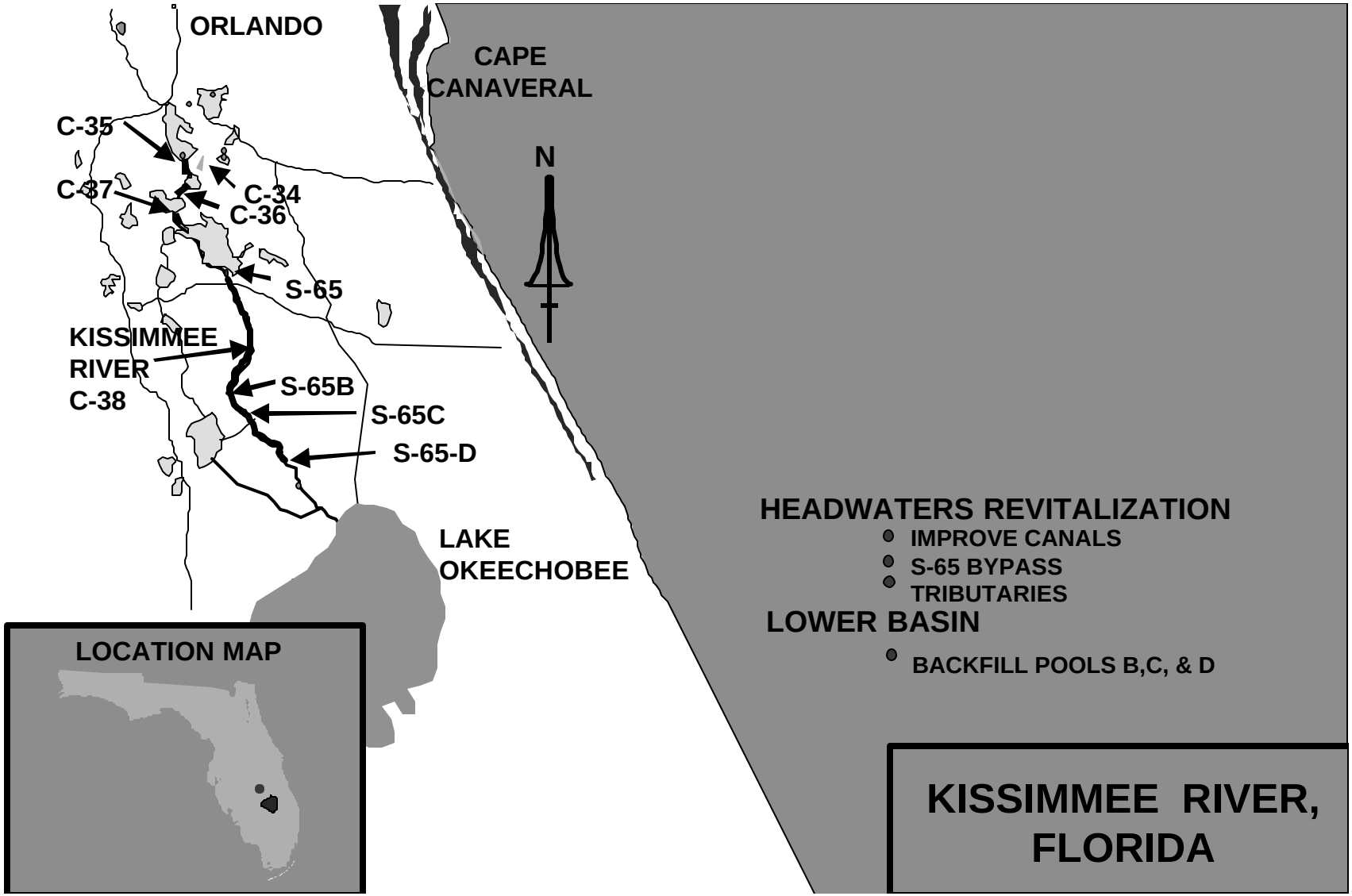
STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement reflecting the cost sharing outlined in House Document 102-286 dated April 7, 1992 was executed with the South Florida Water Management District (SFWMD) in March 1994. The local sponsor will be required to provide a cash contribution of 11.4% (reflecting credit for lands, easements, rights of way, relocations, and disposal areas) of construction costs.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $286,200,000 is a increase of $900,000 from the latest estimate ($285,300,000) submitted to Congress (FY 2004). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	900,000
Total	$900,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with CEQ on April 5, 1992. A supplement to the Environmental Impact Statement was integrated into the Upper Basin project modification report.

OTHER INFORMATION: Funds to initiate preconstruction planning were allocated in Fiscal Year 1992. Funds to initiate construction were allocated in Fiscal Year 1997.


ORLANDO
CAPE CANAVERAL
N
C-35
C-37
C-34
C-36
S-65
KISSIMMEE RIVER C-38
S-65B
S-65C
S-65-D
LAKE OKEECHOBEE
HEADWATERS REVITALIZATION
IMPROVE CANALS
S-65 BYPASS
TRIBUTARIES
LOWER BASIN
BACKFILL POOLS B,C, & D
LOCATION MAP
KISSIMMEE RIVER, FLORIDA

APPROPRIATION TITLE: Construction General - Major Rehabilitation

PROJECT: Herbert Hoover Dike, FL (Continuing)

LOCATION: The Herbert Hoover Dike system encircles Lake Okeechobee entirely, except in the vicinity of Fisheating Creek on the western shore. The existing embankments total about 143 miles in length with typical crest elevations rising about 25 feet above adjacent land elevations. Reach 1 extends 22 miles from the Hillsboro Canal to the St. Lucie Canal in the southeast quadrant of the dike and Reaches 2 and 3 extend from Hillsboro Canal westward to C-43 (Caloosahatchee River).

DESCRIPTION: The recommended plan of major rehabilitation in Reach 1 involves the construction of a seepage/drainage berm along the landside toe of the dike. Features of the rehabilitation plan would include; (a) filter blankets to intercept seepage flowing through the dike, (b) a relief trench to intercept seepage flowing beneath the dike, and (c) a drainage system to collect and convey the seepage flows to appropriate discharge sites. An approved Value Engineering (VE) Report (dtd Jul 02) recommended to modify this plan and a contract has been awarded to analyze the VE recommendations and begin plans and specifications for Reach 1, Sub-Reach A (from Port Mayaca, 4.6 miles southward).

AUTHORIZATION: Herbert Hoover Dike is a component of the Central and Southern Florida (C&SF) Project for Flood Control and Other Purposes. The C&SF Project was authorized in the Flood Control Act of 1948, 1954, 1958, 1960, 1965 and 1968; Authorization in 1970 under Section 201 of the Flood Control Act of 1965, the Water Resources Development Acts of 1986, 1988, 1990, 1992 and 1996 and the Rivers and Harbors Act of 1930.

REMAINING BENEFIT - REMAINING COST RATIO: 0.928 to 1 at 5 7/8 percent.

TOTAL BENEFIT - COST RATIO: 0.928 to 1 at 6 1/8 percent.

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest economic analyses performed for the March 1999 Evaluation Report at February 1999 price levels. While the BCR is below unity, there is a potential for loss of life in communities surrounding the dike. This cannot be quantified nor included in the calculation.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		224,500,000	
Estimated Non-Federal Cost		6,900,000	
Cash Contributions	0		
Other Costs	6,900,000		
Total Estimated Project Cost		231,400,000	
Allocation to 30 September 2003		2,840,000	
Conference Allowance for FY 2004		1,000,000	
Allocations for FY 2004		773,000	1/
Allocations through FY 2004		3,613,000	2%
Allocations Requested for FY 2005		1,896,000	2%
Scheduled Balance to Complete After FY 2005		218,991,000	
Unscheduled Balance to Complete After FY 2005		0	

STATUS (1 January 2004)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Levees	0	TBD
Total Project	0	TBD

1/ Reflects $221,000 reduction assigned as savings and slippage and $6,000 as rescission.

PHYSICAL DATA

Levees – Miles – Reach 1	22.4
Levees – Miles – Reaches 2-3	27.1
Levees – Miles – Reaches 4-8	85.3

JUSTIFICATION: The Major Rehabilitation of Reach 1 involves the construction of an “Inverted Filter with Seepage Trench”, along the landside toe of the dike due to the existence of seepage, piping and erosion problems along the Herbert Hoover Dike system. Currently, there is a serious risk of catastrophic dike failure due to piping. Such an event, with subsequent flooding would result in extreme socio-economic and environmental damages; however, of paramount importance is the real potential for significant human suffering, including loss of life which is not quantified in the benefit-cost analysis..

JUSTIFICATION (continued): The average annual benefits are as follows:

Item	Amount
Flood Damage Reduction	4,986,977
Total Annual Benefits	4,986,977

FISCAL YEAR 2005: The requested amount of $1,896,000 will be applied as follows:

Lands	142,000
Initiate Reach 1	1,187,000
Planning, Engineering, and Design	467,000
Construction Management	100,000
Total	1,896,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights of way	6,900,000	
Total Non-Federal Costs	6,900,000	

STATUS OF LOCAL COOPERATION: Assurances of local cooperation have been accepted from the local sponsor, the South Florida Water Management District, for all works authorized under the Central and Southern Florida project except for the Upper St. Johns River portion of the project. Local interests voluntarily executed a supplemental assurances contract which was approved by the District Engineer on 1 July 1972 for all modifications to the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of $224,500,000 is an increase of $4,300,000 from the latest estimate ($220,200,000) submitted to Congress (FY2003). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	(7,280,000)
Schedule Changes	6,508,000
Design Changes	5,072,000
Total	$4,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The draft Environmental Impact Statement for the project was completed December 1998.

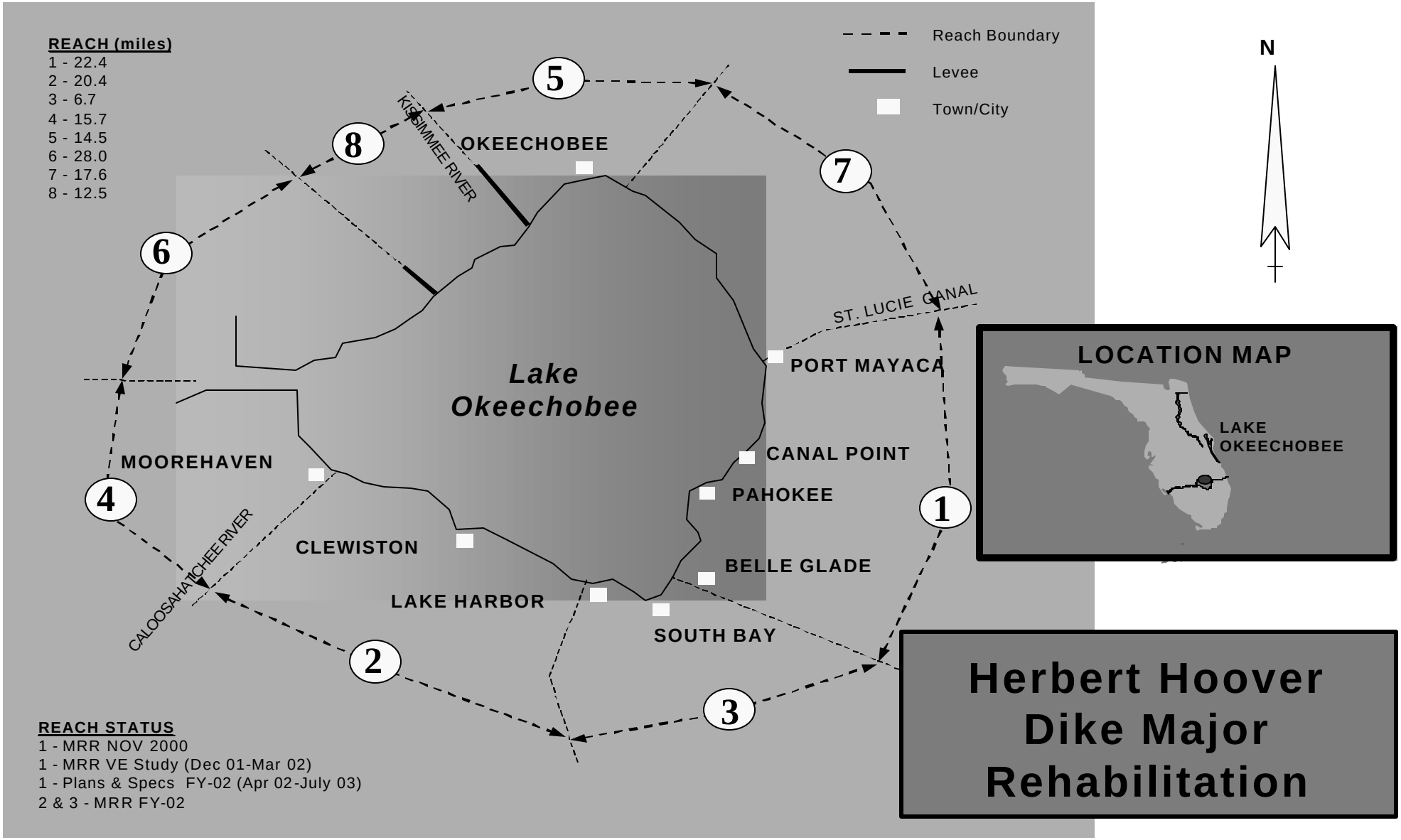
OTHER INFORMATION: Supplemental reports will be prepared to review seepage and stability in other reaches of the dike. Preliminary analyses indicate that similar construction of a seepage/drainage berm may be required in the 27-mile stretch of Reaches 2 and 3 , which would completely rehabilitate the southern boundary. The plan would also implement tailwater control measures in Reaches 5 and 7, and portions of Reaches 4, 6, and 8. The total length of embankment along which tailwater control measures are proposed is 54.5 miles; therefore, the comprehensive rehabilitation plan involves some type of rehabilitation effort along 91 miles of the 142-mile long dike system.

SUMMARIZED FINANCIAL DATA: HHD REACH 1

Estimated Federal Cost		78,553,000
Estimated Non-Federal Cost		6,900,000
Cash Contributions		
Other Costs	6,900,000	
Total Estimated Project Cost		85,453,000

REMAINING BENEFIT-REMAINING COST RATIO: 0.928 to 1 at5 7/8 percent.

TOTAL BENEFIT-COST RATIO: 0.928 to 1 at 5 7/8 percent.


REACH (miles)
1 - 22.4
2 - 20.4
3 - 6.7
4 - 15.7
5 - 14.5
6 - 28.0
7 - 17.6
8 - 12.5
Reach Boundary
Levee
Town/City
N
OKEECHOBEE
KISSIMMEE RIVER
ST. LUCIE CANAL
PORT MAYACA
Lake Okeechobee
CANAL POINT
PAHOKEE
MOOREHAVEN
CLEWISTON
BELLE GLADE
LAKE HARBOR
SOUTH BAY
CALOOSAHATCHEE RIVER
LOCATION MAP
LAKE OKEECHOBEE
REACH STATUS
1 - MRR NOV 2000
1 - MRR VE Study (Dec 01-Mar 02)
1 - Plans & Specs FY-02 (Apr 02-July 03)
2 & 3 - MRR FY-02
Herbert Hoover Dike Major Rehabilitation

APPROPRIATION: Construction, General – Multiple Purpose Project (Major Rehabilitation)

PROJECT: Walter F. George Powerhouse and Dam, AL and GA, (Continuing)

LOCATION: Walter F. George Lock and Dam is located at mile 181.5 on the Chattahoochee River, 50 miles south of Columbus, Georgia, and about 84 miles southeast of Montgomery, AL. The navigation lock and gated spillway are located on the right bank of the river. The powerhouse is on the left bank, across the river from the lock, adjacent to the gated spillway.

DESCRIPTION: The plan of improvement is to construct a concrete, cutoff wall upstream of the dam (powerhouse and spillway sections).

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, further modified by the River and Harbor Act of 1946.

REMAINING BENEFIT-REMAINING COST RATIO: 6.8 to 1 at 7-1/8 percent.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 7-1/8 percent.

INITIAL BENEFIT-COST RATIO: 2.5 to 1 at 7-1/8 percent (FY 2000)

BASIS OF BENEFIT-COST RATIO: Benefits are from the Major Rehabilitation Evaluation Report - Prevention of Potential Structural Failure approved in July 1997 at October 1996 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement			$62,645,000		Entire Project	90	TBD
Future Non-Federal Reimbursement			34,918,323				
Estimated Federal Cost (Ultimate)			27,726,677				
Estimated Non-Federal Cost			34,918,323				
Cash Contributions		0					
Other Costs		0					
Reimbursements		$34,918,323					
Power	$34,918,323						
Total Estimated Project Cost			$62,645,000				
Allocations to 30 September 2003			51,645,000				
Conference Allowance for FY 2004			12,035,000				
Allocation for FY 2004			9,300,000	1/			
Allocation through FY 2004			60,945,000	97%			
Allocation Requested for FY 2005			1,700,000	100%			
Programmed Balance to Complete After FY 2005			0				
Unprogrammed Balance to Complete after FY 2005			0				

1/ Reflects $2,664,000 reduction assigned as savings and slippage and $71,000 rescinded in accordance with the Consolidated Appropriations Act of 2004..

PHYSICAL DATA: Construct a 2040-linear foot, concrete, cutoff wall above dam (powerhouse and spillway).

JUSTIFICATION: The Walter F. George Project has a chronic underground seepage problem, which could impact the integrity of the dam (powerhouse and spillway). Numerous attempts to plug up the sinkholes, as they appear using Operation and Maintenance funds have been unsuccessful or marginally successful. The potential for structural failure requires the construction of the cutoff wall to prevent further undermining and failure of the project structures. Average annual benefits are as follows:

Annual Benefits	Amount
Recreation	$ 4,604,000
Non-recreation	3,675,000
Total	$ 8,279,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction	$1,500,000
Planning, Engineering & Design	100,000
Construction Management	100,000
Total	1,700,000

NON-FEDERAL COST: The costs allocable to power are reimbursable, and will be reviewed and adjusted based on construction costs when the project becomes operational.

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Capital Cost allocated to power	$34,918,323	0
Total Non-Federal Costs	$34,918,323	0

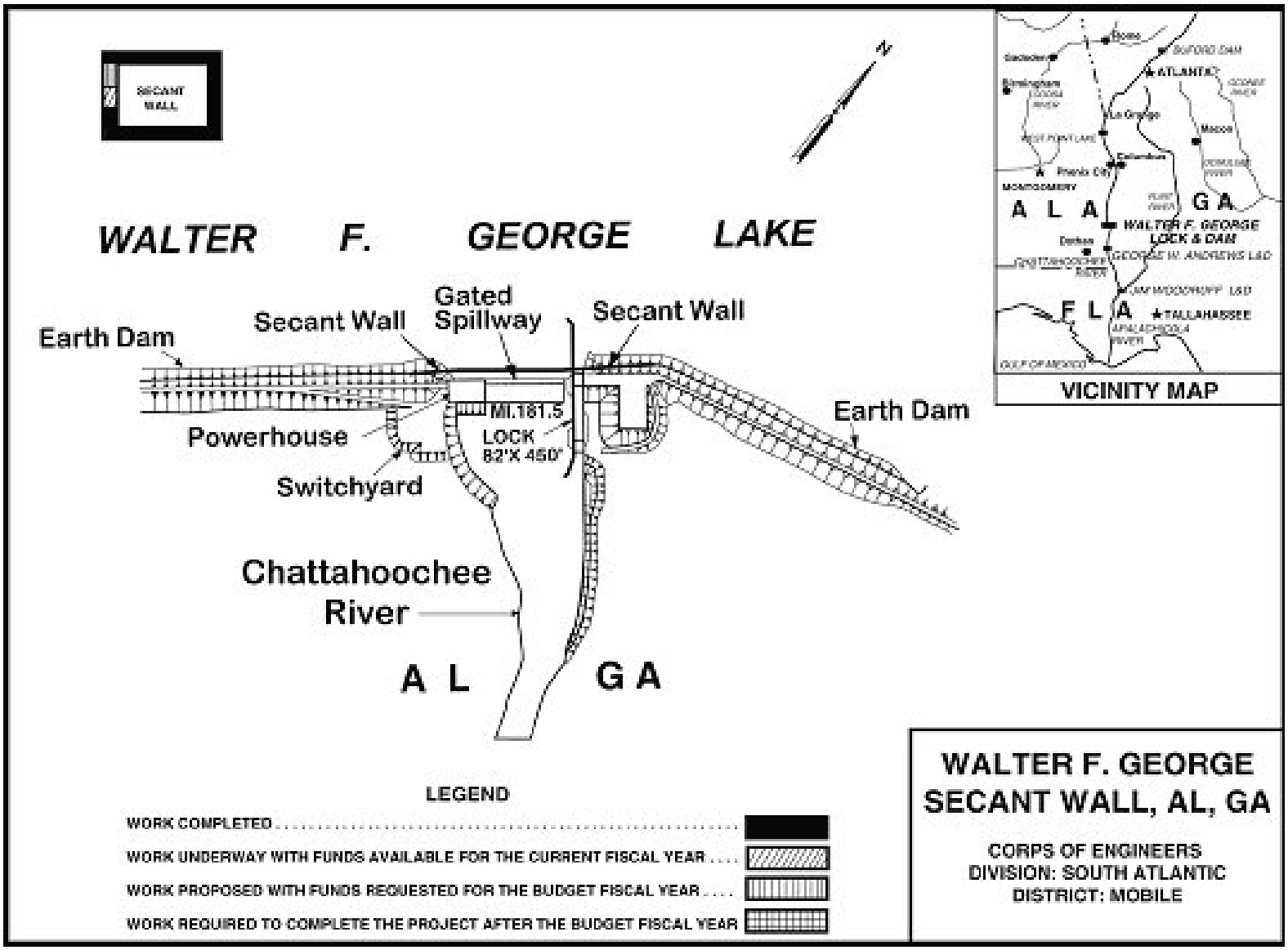
STATUS OF LOCAL COOPERATION: Responsibility for repayment of hydropower costs rests with the Southeastern Power Administration pursuant to Federal law.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of $62,645,000 is a $5,455,000 decreased from the estimate ($68,100,000) last presented to Congress (FY 2004).

Item	
Post Contract Award and Other Estimating Adjustments	- $ 5,455,000
Total	- $ 5,455,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) was prepared which addressed the expected impacts of the recommended alternative as well as other potential alternatives under consideration. The EA concluded with a Finding of No Significant Impact (FONSI). The EA and FONSI were fully coordinated with the public and State and Federal agencies. The commenting agencies/public concurred with the FONSI for the recommended alternative discussed in the environmental documentation. Agency/public comments were then incorporated into the final EA and FONSI, which were signed on 7 March 1997. To provide for a wider review of the document, an additional 30-day comment period was afforded the public (via legal notices placed in local newspapers) starting on 17 March and ending on 18 April 1997. No comments were received during this period.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1999.


SECANT WALL
WALTER F. GEORGE LAKE
Earth Dam
Secant Wall
Gated Spillway
Secant Wall
Powerhouse
Switchyard
MI.181.5
LOCK 82'X 450'
Earth Dam
Chattahoochee River
A L
G A
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
WALTER F. GEORGE
SECANT WALL, AL, GA
CORPS OF ENGINEERS
DIVISION: SOUTH ATLANTIC
DISTRICT: MOBILE
VICINITY MAP
ATLANTA
MONTGOMERY
A L A
G A
WALTER F. GEORGE LOCK & DAM
F L A
TALLAHASSEE

APPROPRIATION: Construction, General - Multiple Purpose Power (Major Rehabilitation)

PROJECT: Walter F. George Power Plant, AL, GA (Continuing)

LOCATION: Walter F. George Lock and Dam is located at mile 181.5 on the Chattahoochee River, 50 miles south of Columbus, Georgia, and about 84 miles southeast of Montgomery, AL. The navigation lock and gated spillway are located on the right bank of the river. The powerhouse is on the left bank, across the river from the lock, adjacent to the gated spillway.

DESCRIPTION: The plan of improvement is to refurbish the four turbines, replace exciters with solid state (static) exciters and rewind the four generators.

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, further modified by the River and Harbor Act of 1946.

REMAINING BENEFIT - REMAINING COST RATIO: 4.3 to 1 at 7-3/4 percent.

TOTAL BENEFIT - COST RATIO: 1.0 to 1 at 7-3/4 percent.

INITIAL BENEFIT - COST RATIO: 1.3 to 1 at 7-3/4 percent (FY 1997).

BASIS OF BENEFIT - COST RATIO: Benefits are from the Major Rehabilitation Evaluation Report approved in August 1995 at October 1994 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement			$31,800,000		Entire Project	64	TBD
Future Non-Federal Reimbursement			31,800,000				
Estimated Federal Cost (Ultimate)			0				
Estimated Non-Federal Cost			31,800,000				
Cash Contributions		$ 0					
Other Costs							
Reimbursements		0					
Power	$31,800,000	31,800,000					
Total Estimated Project Cost			31,800,000				
Allocations to 30 September 2003			20,261,000				
Conference Allowance for FY 2004			3,000,000				
Allocation for FY 2004			2,318,000	1/			
Allocation through FY 2004			22,579,000	71%			
Allocation Requested for FY 2005			6,000,000	90%			
Programmed Balance to Complete After FY 2005			3,221,000				
Unprogrammed Balance to Complete after FY 2005			0				

1/ Reflects $664,000 reduction assigned as savings and slippage and $18,000 rescinded in accordance with the Consolidated Appropriations Act of 2004.

PHYSICAL DATA

Rewind 4 generators
Replace exciters for 4 generators
Replace 4 turbines
Install SCADA system

JUSTIFICATION: The Walter F. George Powerhouse has experienced notable wear and deterioration levels since the early 1970's. The reliability has degraded faster than expected because of increased recurring cavitation problems as well as partial failure of generator coils as they approach 38 years of their 35-year life expectancy. Engineering analysis shows that these problems along with increasing generating outages can be expected to continue into the future. The result of these increased outages, as well as the reduced plant efficiencies, will be increased operation and maintenance costs, increased production costs and loss of generating revenues to the treasury. Average annual benefits for the major rehabilitation project are $3,051,000.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction	$ 5,400,000
Planning, Engineering, & Design	200,000
Construction Management	400,000
TOTAL	$ 6,000,000

NON-FEDERAL COST: The costs allocable to power are reimbursable, and will be reviewed and adjusted based on construction costs when the project becomes operational.

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Capital Cost allocated to power	$31,800,000	0
Total Non-Federal Costs	$31,800,000	0

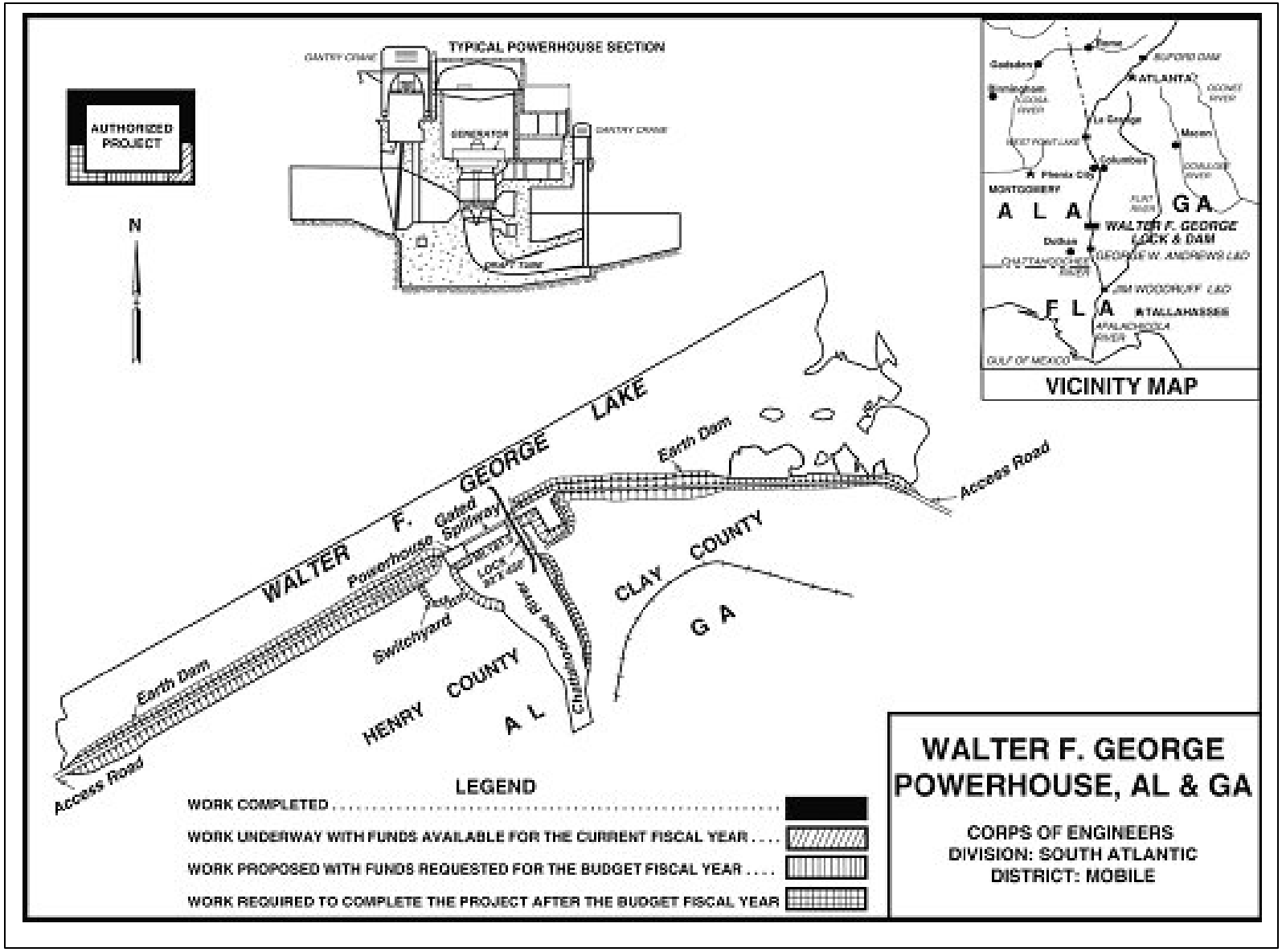
STATUS OF LOCAL COOPERATION: Responsibility for repayment of hydropower costs rests with the Southeastern Power Administration pursuant to Federal law.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of $31,800,000 is a $100,000 increase over estimate ($31,700,000) last presented to Congress (FY 2004).

Item	
Price Escalation on Construction Features	$100,000
Total	$100,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) was prepared which addressed the expected impacts of the recommended alternative as well as other potential alternatives under consideration. The EA concluded with a Finding of No Significant Impact (FONSI). The EA and FONSI were fully coordinated with the public and State and Federal agencies. The commenting agencies concurred with the FONSI for the recommended alternative discussed in the environmental documentation. Agency comments were then incorporated into the final EA and FONSI, which were signed on 1 March 1997.

OTHER INFORMATION: Funds to initiate construction were appropriated in Fiscal Year 1997. Walter F. George has a chronic underground seepage problem, which could impact the integrity of the dam and powerhouse. Numerous attempts over the last few years to solve the problem using O&M funds have been unsuccessful. A major rehabilitation report was prepared which included a detailed analysis of alternatives developed by a panel of independent consultants. Recommendations resulted in a separate major rehabilitation project.


TYPICAL POWERHOUSE SECTION
GANTRY CRANE
GENERATOR
AUTHORIZED PROJECT
N
VICINITY MAP
ATLANTA
MONTGOMERY
A L A
G A
WALTER F. GEORGE LOCK & DAM
F L A
TALLAHASSEE
GULF OF MEXICO
WALTER F. GEORGE LAKE
Earth Dam
Access Road
Gated Spillway
Powerhouse
Switchyard
Lock
Chattahoochee River
CLAY COUNTY
G A
HENRY COUNTY
A L
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
WALTER F. GEORGE POWERHOUSE, AL & GA
CORPS OF ENGINEERS
DIVISION: SOUTH ATLANTIC
DISTRICT: MOBILE

APPROPRIATION: Construction, General - Multiple Purpose Power (Major Rehabilitation)

PROJECT: Jim Woodruff Powerhouse, FL (Continuing)

LOCATION: Jim Woodruff Lock and Dam is located at mile 106.4 on the Apalachicola River, 37 miles northwest of Tallahassee, Florida, in Jackson and Gadsden Counties, Florida. The navigation lock and fixed crest spillway are located on the right bank of the river. The powerhouse is on the left bank, across the river from the lock, adjacent to the gated spillway.

DESCRIPTION: The plan of improvement is to replace the three turbines and rewind the three generators. The plan also includes the replacement of several peripheral electrical components, most notably the transformers, rehab of the inside crane and implementation of the SCADA system.

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, further modified by the River and Harbor Act of 1946.

REMAINING BENEFIT-REMAINING COST RATIO: 20.5 to 1 at 8 percent.

TOTAL BENEFIT - COST RATIO: 1.1 to 1 at 8 percent.

INITIAL BENEFIT - COST RATIO: 1.4 to 1 at 8 percent (FY 1996).

BASIS OF BENEFIT - COST RATIO: Benefits are from the Major Rehabilitation Evaluation Report approved in August 1993 at October 1993 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement			$32,700,000		Entire Project	91	Sep 05
Future Non-Federal Reimbursement							
Estimated Federal Cost (Ultimate)			32,700,000				
Estimated Non-Federal Cost			0				
Cash Contributions		0	32,700,000				
Other Costs		0					
Reimbursements		32,700,000					
Power	$32,700,000						
Total Estimated Project Cost			32,700,000				
Allocations to 30 September 2003			29,523,000				
Conference Allowance to FY 2004			873,000				
Allocation for FY 2004			675,000	1/			
Allocation through FY 2004			30,198,000	92%			
Allocation Requested for FY 2005			2,502,000	100%			
Programmed Balance to Complete After FY 2005			0				
Unprogrammed Balance to Complete After FY 2005							

1/ Reflects $193,000 reduction assigned as savings and slippage and $5,000 rescinded in accordance with the Consolidated Appropriations Act of 2004.

PHYSICAL DATA

Replace main transformers
Rewind 3 generators
Replace 3 turbines including items listed below:
- Runner
- Shaft
- Wicket gate bushings
- Governor
- Piping

Rehab inside crane
Install SCADA system

JUSTIFICATION: The Jim Woodruff Powerhouse has experienced a decaying reliability level since the early 1970's. Contributing factors in the reliability decline are welded turbine blades, age and tail water degradation that has increased hydraulic head and decreased submergence on the turbines. Engineering analysis shows that these problems along with increasing generating outages can be expected to continue into the future. The result of these increased outages, as well as the reduced plant efficiencies, will be increased operation and maintenance costs, increased production costs and loss of generating revenues to the treasury. Continued operation of Jim Woodruff powerhouse in its deteriorated state without rehabilitation, has an impact on total power production costs in North Florida amounting to $3.5 million per year. Average annual benefits for the major rehabilitation project are $3,541,000.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction	$ 2,272,000
Planning, Engineering & Design	100,000
Construction Management	130,000
TOTAL	$ 2,502,000

NON-FEDERAL COST: The costs allocable to power are reimbursable, and will be reviewed and adjusted based on construction costs when the project becomes operational.

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Capital Cost allocated to power	$32,700,000	0
Total Non-Federal Costs	$32,700,000	0

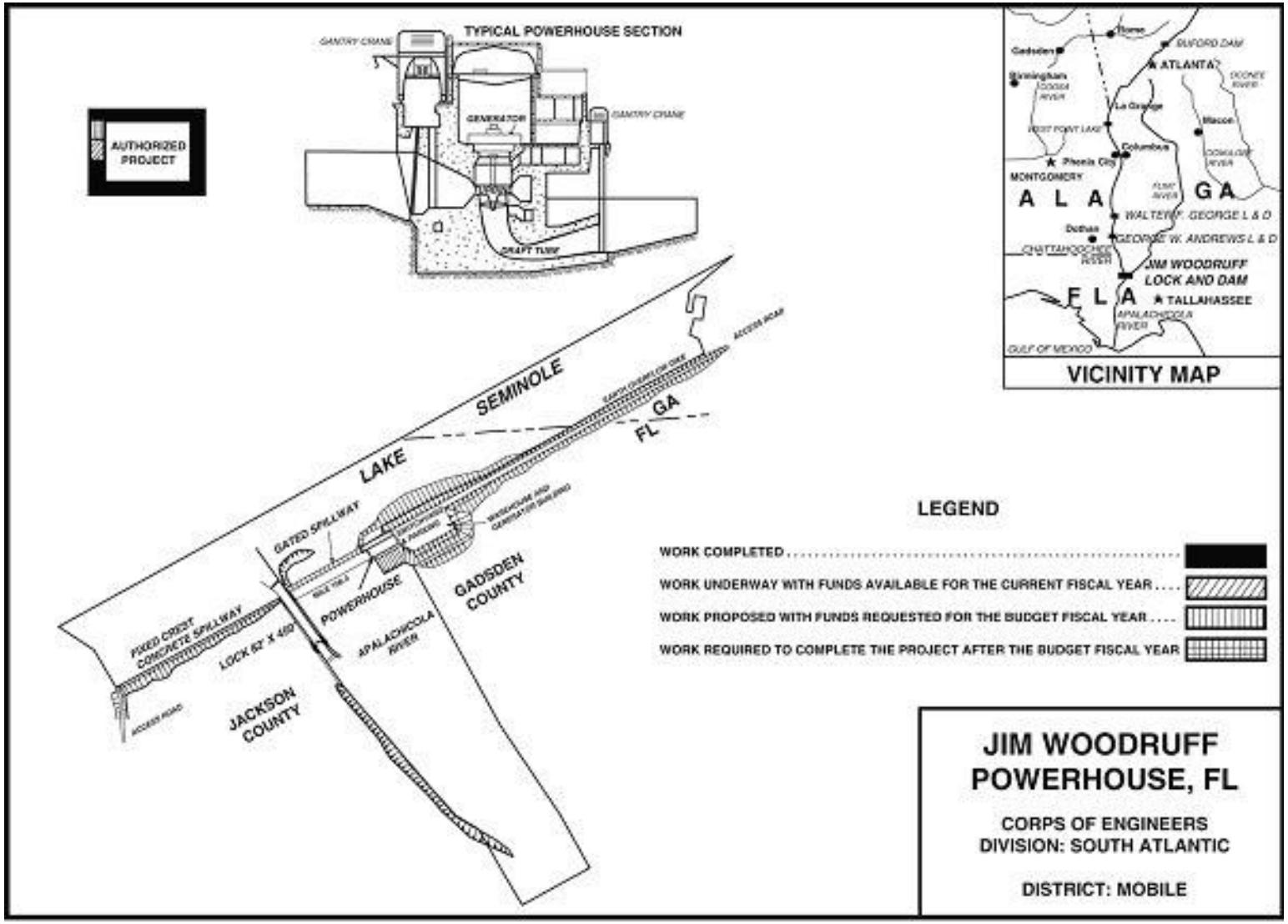
STATUS OF LOCAL COOPERATION: Responsibility for repayment of hydropower costs rests with the Southeastern Power Administration pursuant to Federal law.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of $32,700,000 is a $1,000,000 increase over the estimate ($31,700,000) last presented to Congress (FY 2004). This change includes the following items.

Item	
Price Escalation on Construction Features	$ 135,000
Post Contract Award and Other Estimating Adjustments	$ 865,000
Total	$1,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A draft Environmental Assessment (EA) was prepared which addressed the expected impacts of the recommended alternative as well as other potential alternatives under consideration. The draft EA contained a biological assessment (BA), as required under the Endangered Species Act of 1973, which concluded with a determination of no adverse effect on the Gulf of Mexico sturgeon, a threatened species that occurs in the tailrace area. The draft EA, containing the BA, concluded with a Finding of No Significant Impact (FONSI). The Draft EA and FONSI were fully coordinated with the public and State and Federal agencies. The U.S. Fish and Wildlife Service (USFWS) concurred with the BA determination of no adverse effect on the sturgeon. The State of Florida determined the project to be consistent with the State Coastal Zone Management Program. The commenting agencies concurred with the FONSI for the recommended alternative discussed in the draft environmental documentation. Agency comments were then incorporated into the final EA and FONSI, which were signed on 1 March 1993.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1996.


TYPICAL POWERHOUSE SECTION
GANTRY CRANE
GENERATOR
DRAFT TUBE
AUTHORIZED PROJECT
VICINITY MAP
Gadsden
Birmingham
ATLANTA
La Grange
Macon
Columbus
Phenix City
MONTGOMERY
A L A
G A
Dothan
JIM WOODRUFF LOCK AND DAM
F L A
TALLAHASSEE
GULF OF MEXICO
LAKE
SEMINOLE
GA
FL
GATED SPILLWAY
POWERHOUSE
GADSDEN COUNTY
FIXED CREST CONCRETE SPILLWAY
LOCK 67' X 400'
APALACHICOLA RIVER
JACKSON COUNTY
ACCESS ROAD
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
JIM WOODRUFF POWERHOUSE, FL
CORPS OF ENGINEERS
DIVISION: SOUTH ATLANTIC
DISTRICT: MOBILE

APPROPRIATION: Construction, General - Hydropower (Major Rehabilitation)

PROJECT: Buford Powerhouse, GA (Continuing)

LOCATION: The Buford Dam is located at mile 455 on the Chattahoochee River, 50 miles northeast of Atlanta, Georgia. Buford is a multiple purpose project for flood control, hydropower, recreation, and water supply. Power installation consists of two units of 40,000 kilowatts each and one small unit of 6,000 kilowatts (86,000 kilowatts total).

DESCRIPTION: The plan of improvement is to replace the three turbines and the exciters, and rewind the three generators.

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, further modified by the River and Harbor Act of 1946.

REMAINING BENEFIT - REMAINING COST RATIO: 2.4 to 1 at 7-5/8 percent.

TOTAL BENEFIT - COST RATIO: 1.1 to 1 at 7-5/8 percent.

INITIAL BENEFIT - COST RATIO: 1.3 to 1 at 7-5/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the Major Rehabilitation Evaluation Report approved in July 1996 at October 1995 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement			$ 30,900,000		Entire Project	50	TBD
Future Non-Federal Reimbursement			30,900,000				
Estimated Federal Cost (Ultimate)			0				
Estimated Non-Federal Cost			30,900,000				
Cash Contributions	$ 0						
Other Costs	0						
Reimbursements		30,900,000					
Power	$30,900,000						
Total Estimated Project Cost			30,900,000				
Allocations to 30 September 2003			17,241,000				
Conference Allowance for FY 2004			3,000,000				
Allocation for FY 2004			2,318,000	1/			
Allocations through FY 2004			19,559,000	63%			
Allocation Requested for FY 2005			7,345,000	87%			
Programmed Balance to Complete after FY 2005			3,996,000				
Unprogrammed Balance to Complete after FY 2005			0				

1/ Reflects $664,000 reduction assigned as savings and slippage and $18,000 rescinded in accordance with the Consolidated Appropriations Act of 2004.

PHYSICAL DATA

Rewind 3 generators
Replace exciters with static exciters
Replace 3 turbines with redesigned turbines based on current hydrology
Install SCADA system

JUSTIFICATION: The Buford Powerhouse units are 44 years old and exhibit the deterioration and wear normally expected for units of such age. Contributing factors in the reliability decline in addition to age of the units are that the generator stator coils in the two main units have decayed greatly, and the turbines are experiencing both increased recurring and progressive cavitation problems. These assessments of the Buford units, which have surpassed the mean life expectancy of 35 years, support the concern that the end of their useful life is eminent. Engineering analysis shows that these problems along with increasing generating outages can be expected to continue into the future. The result of these increased outages, as well as the reduced plant efficiencies, will be increased operation and maintenance costs, increased production costs and loss of generating revenues to the treasury. Average annual benefits to the major rehabilitation project are $2,894,000.

FISCAL YEAR 2005: The requested amount will be applied as follows.

Continue Construction	$ 6,445,000
Planning, Engineering, & Design	200,000
Construction Management	700,000
TOTAL	$ 7,345,000

NON-FEDERAL COST: The costs allocable to power are reimbursable, and will be reviewed and adjusted based on construction costs when the project becomes operational.

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Capital Cost allocated to power	$30,900,000	0
Total Non-Federal Costs	$30,900,000	0

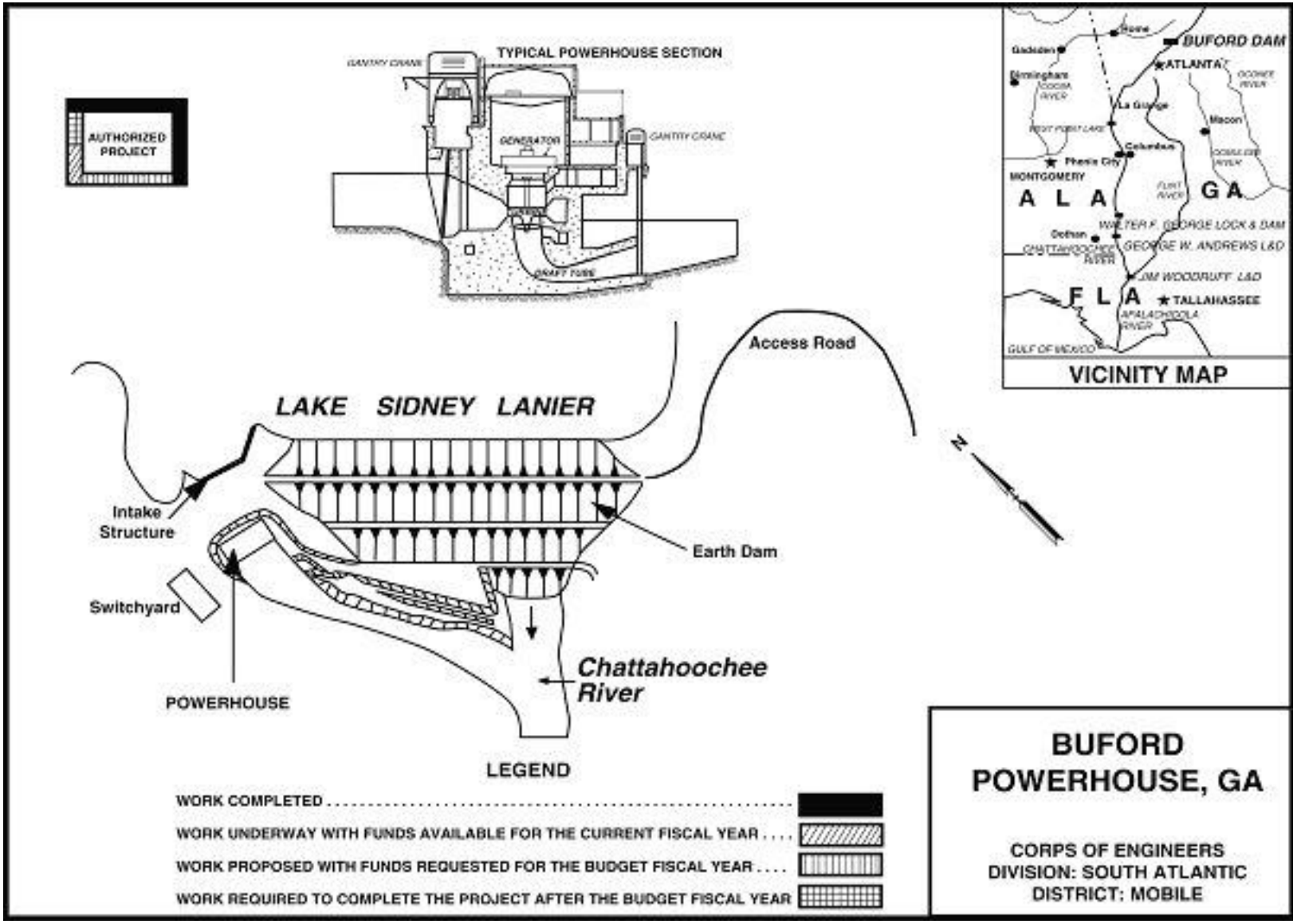
STATUS OF LOCAL COOPERATION: Responsibility for repayment of hydropower costs rests with the Southeastern Power Administration pursuant to Federal law.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of $30,900,000 is a $2,300,000 increase over the estimate ($28,600,000) last presented to Congress (FY 2004).

Item	
Price Escalation on Construction Features	$ 441,000
Post Contract Award and Other Estimating Adjustments	$1,859,000
Total	$2,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) was prepared which addressed the expected impacts of the recommended alternative as well as other potential alternatives under consideration. The EA concluded with a Finding of No Significant Impact (FONSI). The EA and FONSI were fully coordinated with the public and State and Federal agencies. The commenting agencies concurred with the FONSI for the recommended alternative discussed in the environmental documentation. Agency comments were then incorporated into the final EA and FONSI, which were signed on 7 March 1996.

OTHER INFORMATION: Funds to initiate construction were appropriated in Fiscal Year 1998.


AUTHORIZED PROJECT
TYPICAL POWERHOUSE SECTION
GANTRY CRANE
GENERATOR
DRAFT TUBE
BUFORD DAM
ATLANTA
Gadsden
Birmingham
La Grange
Macon
Columbus
Phenix City
MONTGOMERY
A L A
G A
Dothan
F L A
TALLAHASSEE
GULF OF MEXICO
VICINITY MAP
Access Road
LAKE SIDNEY LANIER
Intake Structure
Earth Dam
Switchyard
POWERHOUSE
Chattahoochee River
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
BUFORD POWERHOUSE, GA
CORPS OF ENGINEERS
DIVISION: SOUTH ATLANTIC
DISTRICT: MOBILE

APPROPRIATION TITLE: Construction, General - Multiple Purpose Power (Major Rehabilitation)

PROJECT: Hartwell Lake Powerhouse, Georgia and South Carolina (Continuing)

LOCATION: The project is located on the Savannah River, 89 miles north of Augusta, Georgia and 305 miles north of the mouth of the river.

DESCRIPTION: The recommended plan involves the rewinding of four generator units, the refurbishment of the four older turbines, and the replacement of key electrical/mechanical peripheral equipment to improve the overall reliability of the project, to reduce operation and maintenance costs, and to reduce unscheduled outages and repair costs. All work is programmed.

AUTHORIZATION: Flood Control Act approved 17 May 1950 and Flood Control Act approved 3 July 1958.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable because project construction is substantially complete.

TOTAL BENEFIT - COST RATIO: 1.81 to 1 at 8 percent.

INITIAL BENEFIT - COST RATIO: 3.1 to 1 at 8 percent (FY 1996).

BASIS OF BENEFIT - COST RATIO: Benefits are from the Evaluation Report for New Major Rehabilitation forwarded to HQUSACE in July 1993 at 1993 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		32,700,000		Entire Project	87	TBD
Future Non-Federal Reimbursement		32,700,000				
Estimated Federal Cost (Ultimate)		0				
Estimated Non-Federal Cost						
Cash Contributions	0					
Reimbursements	32,700,000					
Unprogrammed Construction						
Cash Contributions	0					
Other Costs	0					
Total Estimated Project Cost		32,700,000				
Allocations to 30 September 2003		28,293,000				
Conference Allowance for FY 2004		0				
Allocation for FY 2004		2,200,000	1/			
Allocations through FY 2004		30,493,000	93			
Allocation Requested for FY 2005		733,000	95			
Programmed Balance to Complete after FY 2005		1,474,000				
Unprogrammed Balance to Complete after FY 2005		0				

1/ Restoration of prior year savings & slippage and revocations.

PHYSICAL DATA

Rewind Generators	4
Refurbish Turbines	4
Replace Peripherals	4

JUSTIFICATION: The Hartwell Powerplant, which was initially placed into operation in 1962, has over recent years, suffered from frequent unanticipated powerplant shutdowns, an increased level of O&M costs for repair and routine maintenance, and a general decrease in hydropower capacity and power production. These problems have been linked to a once-acceptable practice of running the generators for extended periods of time at levels well past their rated capacity, which was necessary to provide power needs. The proposed plan of improvement will replace the windings of four generators to state-of-the-art condition and replace key turbine and electrical/mechanical components to allow an increase in hydropower capacity to be made available to the power marketing agencies. The plan of improvement will arrest the further degradation of the hydroelectric units, decrease operation and maintenance costs, improve the powerplant's overall reliability and increase the power generation capability. Average annual benefits for hydroelectric power are $3,354,600.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue rehabilitation of Powerplant	608,000
Planning, Engineering and Design	25,000
Construction Management	100,000
Total	$733,000

NON-FEDERAL COST: The costs allocable to power are reimbursable and will be reviewed and adjusted based on construction costs as the project becomes operational. As applicable, the non-Federal sponsor must comply with the requirements listed below:

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hydropower facilities.	32,700,000	120,000
Total Non-Federal Costs	32,700,000	120,000

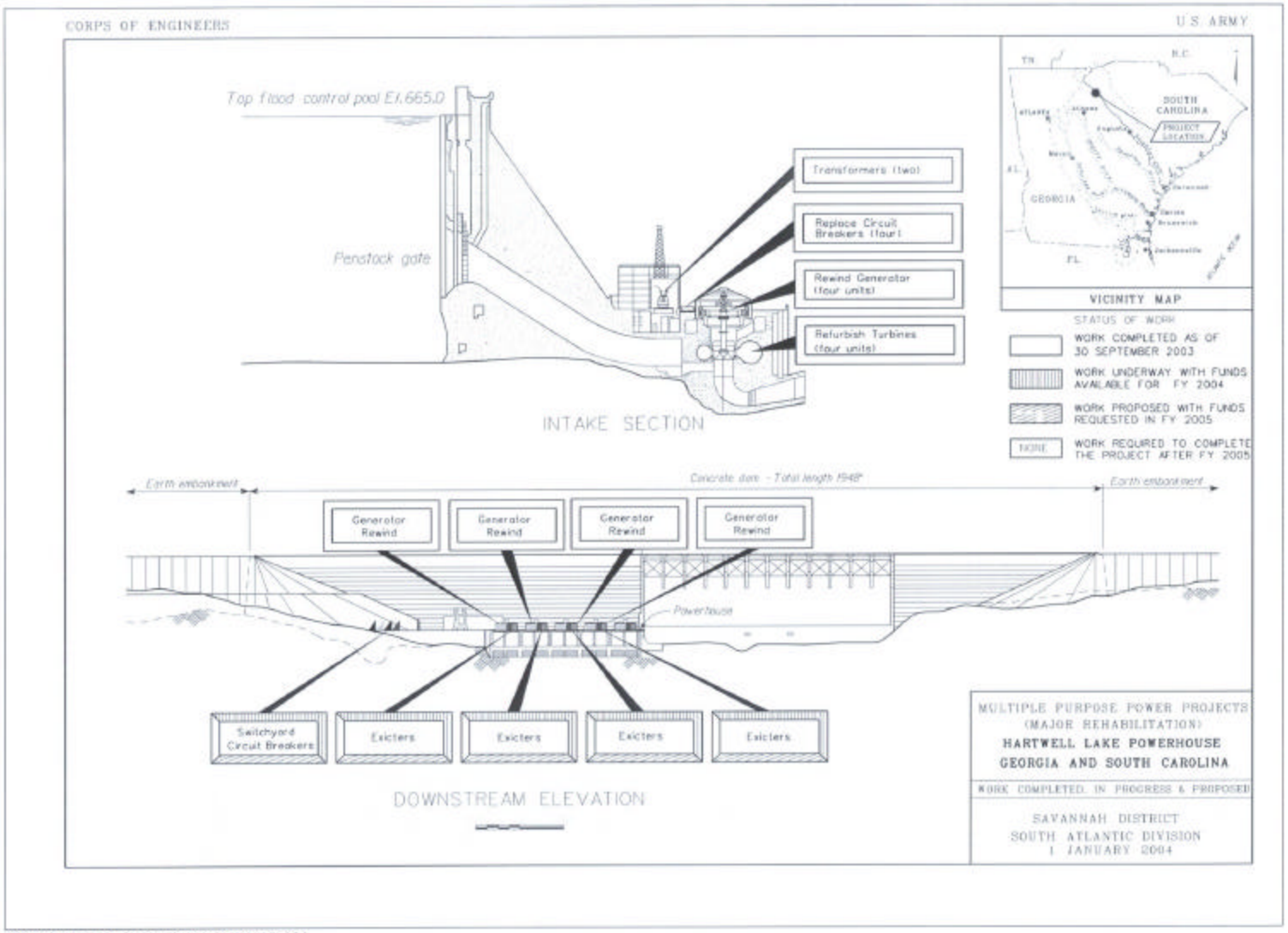
STATUS OF LOCAL COOPERATION: Responsibility for repayment of hydropower cost rests with the Southeastern Power Administration pursuant to Federal laws.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $32,700,000 is a $500,000 increase over the estimate ($32,200,000) last presented to Congress (FY 2004). This change includes the following item:

Post contract award and other estimating adjustments	$500,000
Total	$500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Based on the environmental analysis contained in the Evaluation Report dated July 1993, an Environmental Assessment with a FONSI has been completed and is contained in the FY 1995 Major Rehabilitation Program, Hartwell Powerplant Evaluation Report.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1996.


CORPS OF ENGINEERS
U.S. ARMY
Top flood control pool El.665.0
Penstock gate
Transformers (two)
Replace Circuit Breakers (four)
Rewind Generator (four units)
Refurbish Turbines (four units)
INTAKE SECTION
VICINITY MAP
SOUTH CAROLINA
PROJECT LOCATION
GEORGIA
STATUS OF WORK
WORK COMPLETED AS OF 30 SEPTEMBER 2003
WORK UNDERWAY WITH FUNDS AVAILABLE FOR FY 2004
WORK PROPOSED WITH FUNDS REQUESTED IN FY 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005
Earth embankment
Concrete dam - Total length 1948'
Earth embankment
Generator Rewind
Generator Rewind
Generator Rewind
Generator Rewind
Powerhouse
Switchyard Circuit Breakers
Exciters
Exciters
Exciters
Exciters
DOWNSTREAM ELEVATION
MULTIPLE PURPOSE POWER PROJECTS
(MAJOR REHABILITATION)
HARTWELL LAKE POWERHOUSE
GEORGIA AND SOUTH CAROLINA
WORK COMPLETED, IN PROGRESS & PROPOSED
SAVANNAH DISTRICT
SOUTH ATLANTIC DIVISION
1 JANUARY 2004
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APPROPRIATION TITLE: Construction, General - Multiple Purpose Power (Major Rehabilitation)

PROJECT: Thurmond Lake Powerhouse, Georgia and South Carolina (Continuing)

LOCATION: The project is located on the Savannah River, 22 miles north of Augusta, Georgia and 216 miles north of the mouth of the river.

DESCRIPTION: The recommended plan involves the rewinding of seven generator units, the replacement of the turbine rotating parts, and the refurbishment or replacement of key peripheral equipment in order to improve the overall reliability of the project, to reduce operation and maintenance costs, to reduce unscheduled repair costs, and to provide additional hydropower capacity, power revenues and environmental improvements. All work is programmed.

AUTHORIZATION: Flood Control Act of 1944.

REMAINING BENEFIT - REMAINING COST RATIO: 3.4 to 1 at 8 percent.

TOTAL BENEFIT - COST RATIO: 1.3 to 1 at 8 percent.

INITIAL BENEFIT - COST RATIO: 1.3 to 1 at 8 percent (FY 1996).

BASIS OF BENEFIT - COST RATIO: Benefits are from the Evaluation Report for New Major Rehabilitation Project forwarded to HQUSACE in March 1994 at February 1994 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		69,700,000		Entire Project	69	TBD
Future Non-Federal Reimbursement		69,700,000				
Estimated Federal Cost (Ultimate)		0				
Estimated Non-Federal Cost						
Cash Contributions	0					
Reimbursements						
Power	69,700,000					
Total Estimated Project Cost		69,700,000				
Allocations to 30 September 2003		47,848,000				
Conference Allowance for FY 2004		5,500,000				
Allocation for FY 2004		4,250,000	1/			
Allocations through FY 2004		52,098,000				
Allocation Requested for FY 2005		4,000,000				
Programmed Balance to Complete after FY 2005		13,602,000				
Unprogrammed Balance to Complete after FY 2005		0				

1/ Reflects $1,217,000 reduction assigned as savings and slippage, $33,000 rescinded in accordance with the Consolidated Appropriations Act of 2004

PHYSICAL DATA

Rewind Generators	7
Replace Turbines	7
Replace Peripherals	7

JUSTIFICATION: The J. Strom Thurmond Powerplant, which was initially placed into operation in 1954, has shown signs of excessive wear of the generators, the peripheral equipment and the turbines. This has resulted in a loss of efficiency, reduced reliability of the units and lost power output for the units. The proposed plan of improvement calls for rewinding the generators to maximum capacity, replacement of the turbine runners, and the replacement or refurbishment of key electrical/mechanical peripheral equipment. The plan of improvement will arrest the further degradation of the hydroelectric units, decrease operation and maintenance costs, improve the powerplant's overall reliability, and increase the power generation capability and partially restore some of the environmental impacts of the dam and powerplant. Average annual benefits for hydroelectric power are $7,890,000.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Rehabilitation of Powerplant	3,700,000
Planning, Engineering and Design	50,000
Construction Management	250,000
Total	$4,000,000

NON-FEDERAL COST: The costs allocable to power are reimbursable and will be reviewed and adjusted based on construction costs when the project becomes operational. The non-Federal sponsor must comply with the requirements listed below:

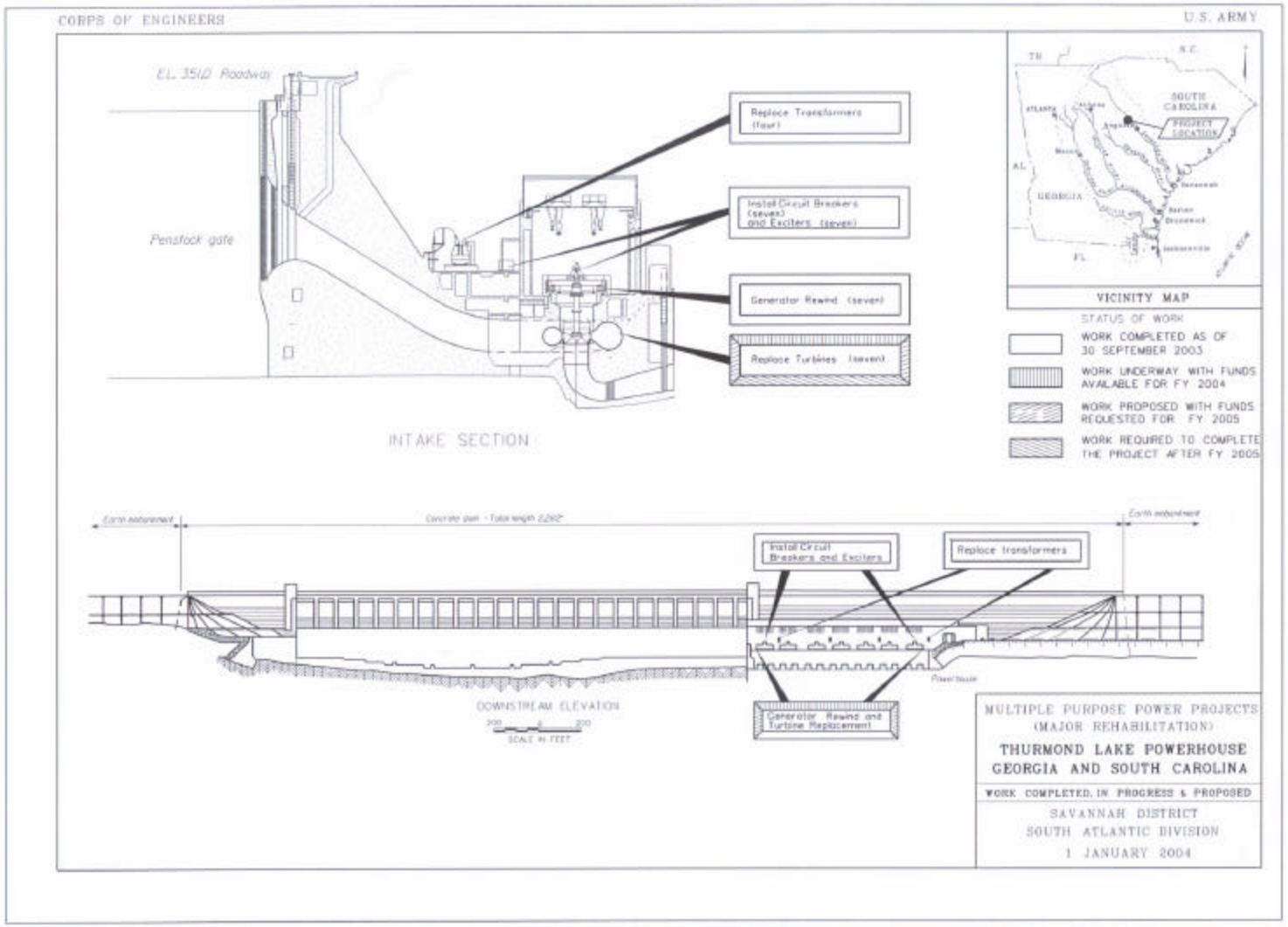
Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hydropower facilities.	69,700,000	485,000
Total Non-Federal Costs	69,700,000	485,000

STATUS OF LOCAL COOPERATION: Responsibility for repayment of hydropower cost rests with the Southeastern Power Administration pursuant to Federal laws.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $69,700,000 is the same as the estimate last presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Based on the environmental analysis contained in the Evaluation Report dated March 1994, an Environmental Assessment with a FONSI has been completed and is contained in the FY 1996 Major Rehabilitation Program, J. Strom Thurmond Powerplant Evaluation Report.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1996.


CORPS OF ENGINEERS
U.S. ARMY
EL 351.0 Roadway
Penstock gate
Replace Transformers (four)
Install Circuit Breakers (seven) and Exciters (seven)
Generator Rewind (seven)
Replace Turbines (seven)
INTAKE SECTION
VICINITY MAP
STATUS OF WORK
WORK COMPLETED AS OF 30 SEPTEMBER 2003
WORK UNDERWAY WITH FUNDS AVAILABLE FOR FY 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005
Install Circuit Breakers and Exciters
Replace transformers
Generator Rewind and Turbine Replacement
DOWNSTREAM ELEVATION
SCALE IN FEET
MULTIPLE PURPOSE POWER PROJECTS
(MAJOR REHABILITATION)
THURMOND LAKE POWERHOUSE
GEORGIA AND SOUTH CAROLINA
WORK COMPLETED, IN PROGRESS & PROPOSED
SAVANNAH DISTRICT
SOUTH ATLANTIC DIVISION
1 JANUARY 2004

APPROPRIATION TITLE: Construction, General - Multiple Purpose Power (Major Rehabilitation).

PROJECT: John H. Kerr Dam and Reservoir, VA & NC (Continuing).

LOCATION: The Kerr Powerhouse is located on the Roanoke River in Mecklenburg County, Virginia, 7 miles east of Boydton, Virginia, 80 air miles southwest of Richmond, Virginia, and 60 air miles north of Raleigh, North Carolina.

DESCRIPTION: The recommended plan involves the rewinding of seven generator units to maximum capacity, replacement of the turbines and main power transformers, and the replacement or refurbishment of key electrical and mechanical peripheral equipment in order to improve the overall reliability of the project, reduce operation and maintenance costs, reduce unscheduled repair costs, and provide additional hydropower capacity and power revenues.

AUTHORIZATION: Flood Control Act of 1944.

REMAINING BENEFIT-REMAINING COST RATIO: 1.6 to 1 at 7 1/8 percent.

TOTAL BENEFIT-COST RATIO: 1.4 to 1 at 7 1/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluations contained in the Major Rehabilitation Evaluation Report addendum and transmittal memorandum dated June 1997, at October 1996 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement			$76,800,000		Entire Project	19	TBD
Future Non-Federal Reimbursement			$76,800,000				
Estimated Non-Federal Cost (Ultimate)			$ 0				
Cash Contributions		0					
Other Costs		0					
Reimbursements		$ 76,800,000					
Power	$76,800,000						
Total Estimated Project Cost			$76,800,000				
Allocations to 30 September 2003			$ 12,411,000				
Conference Allowance for FY 2004			6,000,000				
Allocation for FY 2004			4,637,000	1/			
Allocations through FY 2004			17,048,000				
Allocation Requested for 2005			$ 8,200,000				
Programmed Balance to Complete after FY 2005			51,552,000				
Unprogrammed Balance to Complete after FY 2005			0				

1/ Reflects $ 1,327,000 reduction assigned as savings and slippage and $36,000 rescinded in accordance with the Consolidated Appropriations Act of 2004.

PHYSICAL DATA

Rewind Generator	7
Replace Turbines	6
Refurbish Turbines	1
Replace Transformers	All

JUSTIFICATION: The John H. Kerr Powerplant, which was initially placed into operation in 1953, is showing signs of excessive wear of the generators, the peripheral equipment and the turbines. This has resulted in a loss of efficiency, reduced reliability of the units and lost power output for the units. The recommended plan of improvement calls for rewinding the generators to maximum capacity, replacement of the turbines and main power transformers, and replacement or refurbishment of key electrical/mechanical peripheral equipment. The recommended plan will improve the powerplant's overall reliability, reduce further degradation of the hydroelectric units, decrease operation and maintenance costs, and increase the power generation capability. There is growing concern with project reliability due to recent malfunctions of oil circuit breakers in the switchyard, for which repair parts are no longer available and must be custom fabricated; frequent leaks in the raw water piping system, which is in extremely poor condition throughout; and the extremely heavy cavitation observed in the runner, stay ring and discharge ring of unit #5. Average annual benefits for hydroelectric power are $8,836,000.

FISCAL YEAR 2005: The requested amount of $8,200,000 will be applied as follows:

Rehabilitation of powerplant	$6,980,000
Planning, Engineering and Design	490,000
Construction Management	730,000
Total	$8,200,000

NON-FEDERAL COST: The costs allocable to power are reimbursable, and will be reviewed and adjusted based on construction costs when the project becomes operational.

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hydropower facilities	$76,800,000	$6,043,000

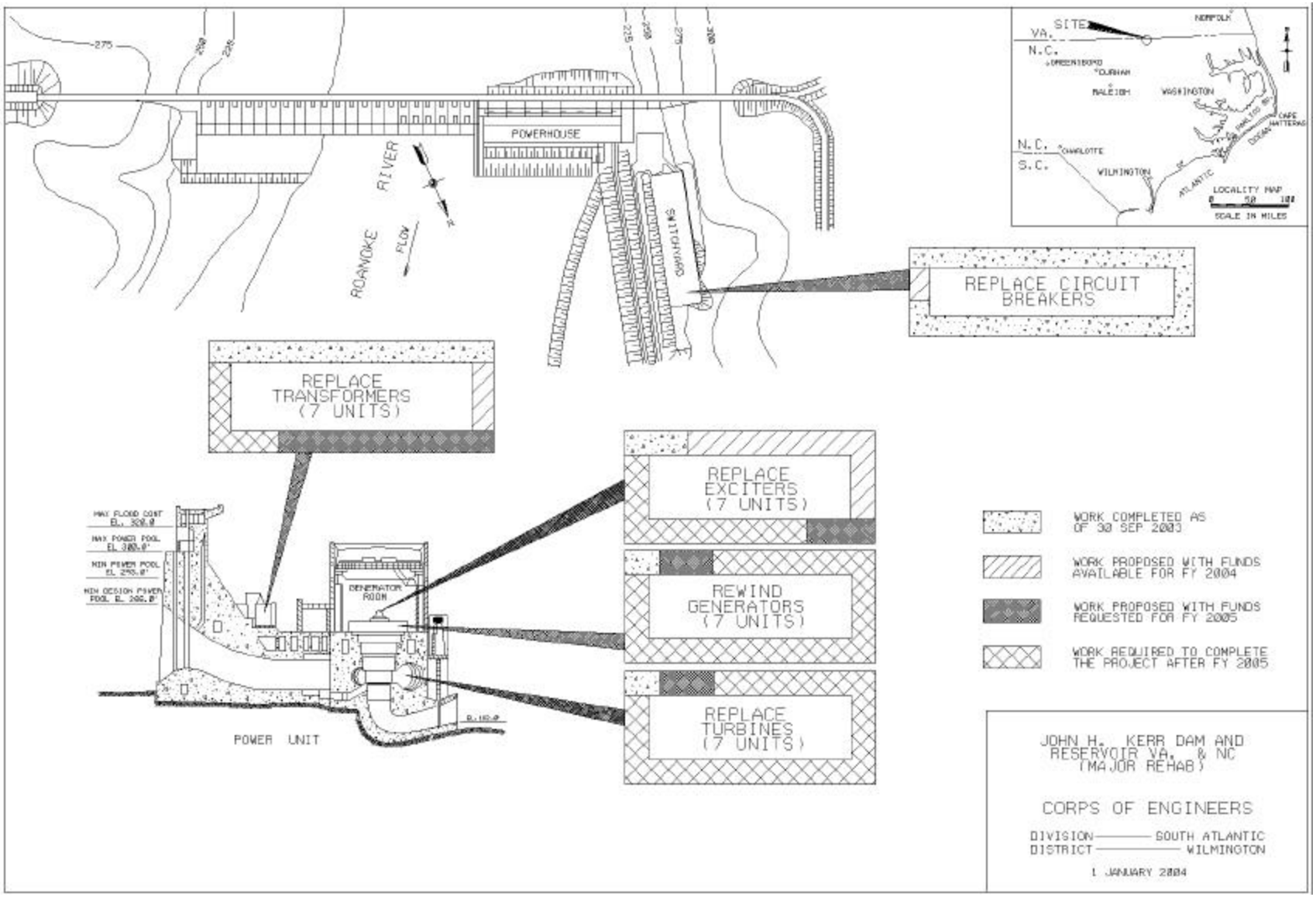
STATUS OF LOCAL COOPERATION: Pursuant to Federal Laws responsibility for repayment of hydropower costs rests with the power-marketing agency, the Southeast Power Administration.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $76,800,000 is a $5,200,000 decrease of from the estimate ($82,000,000) last presented to Congress (FY 2004). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	-$5,200,000
Total	-$5,200,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment and Finding of No Significant Impact was prepared and distributed in December 1996 for public comment. The Finding of No Significant Impact was signed by the District Engineer on 7 February 1997.

OTHER INFORMATION: The generator and turbine replacement contractor, General Electric Hydro, has demobilized until FY 2005 due to insufficient funds.


POWERHOUSE
ROANOKE RIVER
FLOW
SPILLWAYS
REPLACE CIRCUIT BREAKERS
REPLACE TRANSFORMERS (7 UNITS)
REPLACE EXCITERS (7 UNITS)
REWIND GENERATORS (7 UNITS)
REPLACE TURBINES (7 UNITS)
GENERATOR ROOM
POWER UNIT
SITE
VA.
N.C.
GREENSBORO
DURHAM
RALEIGH
WASHINGTON
NORFOLK
CHARLOTTE
WILMINGTON
ATLANTIC
OCEAN
CAPE HATTERAS
LOCALITY MAP
SCALE IN MILES
WORK COMPLETED AS OF 30 SEP 2003
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005
JOHN H. KERR DAM AND RESERVOIR VA. & NC (MAJOR REHAB)
CORPS OF ENGINEERS
DIVISION — SOUTH ATLANTIC
DISTRICT — WILMINGTON
1 JANUARY 2004

SOUTH ATLANTIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. Navigation

a. Channels and Harbors. The program estimate of $117,160,000 provides for essential operation and maintenance work on 25 channel and harbor projects named in the list, which follows. The work to be accomplished under this activity consists of operating and maintaining the coastal navigation channels, harbors and anchorages by means of dredging, constructing bulkheads and spoil disposal areas, snagging, and repairing channel stabilization works, navigation structures, and harbor jetties, all as authorized in the laws pertaining to river and harbor projects. The requested amount includes an amount from the Special Fund established by WRDA96 covering 100% of the costs of operation and maintenance of dredged material disposal facilities for which fees were collected.

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
			Alabama
Gulf Intracoastal Waterway (Mobile)	5,000,000	5,000,000	Dredging
Mobile Harbor	19,040,000	20,000,000	Dredging
			Florida
Canaveral Harbor	3,800,000	7,500,000	Dredging
Escambia and Conecuh Rivers	1,000,000	1,000,000	None
Fernandina Harbor	2,556,000	1,980,000	Dredging
Jacksonville Harbor	6,551,000	6,945,000	Dredging
Palm Beach Harbor	1,916,000	1,985,000	Dredging
Panama City Harbor	500,000	906,000	None

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. Navigation (Continued)

a. Channels and Harbors (Continued)

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
			Florida (Continuing)
Pensacola Harbor	1,500,000	1,500,000	Dredging
Port Everglades Harbor	1,255,000	2,000,000	Dredging
Tampa Harbor	8,985,000	4,286,000	Dredging
			Georgia
Brunswick Harbor	3,993,000	3,993,000	Dredging
Savannah Harbor	12,540,000	11,687,000	Dredging
Savannah River Below Augusta	154,000	134,000	None
			Mississippi
Biloxi Harbor	0	1,250,000	Dredging
Gulfport Harbor	2,500,000	2,500,000	Dredging
Pascagoula Harbor	4,460,000	3,900,000	Dredging

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. Navigation (Continued)

a. Channels and Harbors (Continued)

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
			North Carolina
Manteo (Shallowbag) Bay	6,390,000	6,970,000	Additional channel surveys; dredging
Morehead City Harbor	5,000,000	4,112,000	Dredging
Wilmington Harbor	6,906,000	8,157,000	Dredging
			Puerto Rico
San Juan Harbor	0	2,000,000	Dredging
			South Carolina
Charleston Harbor	9,740,000	14,052,000	Dredging
Cooper River, Charleston Harbor	3,380,000	3,315,000	None
Georgetown Harbor	2,719,000	1,988,000	Dredging
TOTAL - Channels and Harbors	130,253,000	117,160,000	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. Navigation (Continued)

b. Locks, Dams, and Canals. The program request of $46,575,000 provides for the operational requirements of six canalized waterways. Requirements include: operation and ordinary maintenance of project facilities; facility security, labor, supplies, materials, and parts for day-to-day functioning; and periodic maintenance, repairs, and replacements. The requested amount includes an amount from the Special Recreation Use Fees (SRUF) Special Fund for recreation areas.

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
		Alabama	
Alabama - Coosa Rivers	2,961,000	549,000	Reduction in lock operations
Black Warrior and Tombigbee Rivers	22,100,000	18,377,000	Dredging
		Alabama and Georgia	
Apalachicola, Chattahoochee and Flint Rivers	1,500,000	117,000	Reduction in lock operations
		Alabama and Mississippi	
Tennessee - Tombigbee Waterway	21,500,000	22,354,000	Dredging
Tennessee - Tombigbee Waterway, Wildlife Mitigation	1,500,000	2,000,000	Increase in wildlife mitigation

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. Navigation (Continued)

b. Locks, Dams, and Canals (Continued)

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
			Florida
Apalachicola, Chattahoochee and Flint Rivers (see Alabama and Georgia)			
Okeechobee Waterway	4,316,000	3,055,000	Reduction in lock operations
			North Carolina
Cape Fear River above Wilmington	803,000	123,000	Reduction in lock operations and maintenance
TOTAL - Locks, Dams, and Canals	54,680,000	46,575,000	
TOTAL - NAVIGATION	184,933,000	163,735,000	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. Flood Control

a. Reservoirs. The program request of $8,052,000 provides for operation and maintenance of four reservoirs, including facility security, and for continuing the Alabama-Coosa River Comprehensive Water Study. The requested amount includes an amount from the Special Recreation Use Fees (SRUF) Special Fund for recreation areas.

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
			Alabama
Alabama-Coosa River Comprehensive Water Study	285,000	500,000	None
			Mississippi
Okatibbee Lake	1,600,000	1,320,000	None
			North Carolina
B. Everett Jordan Dam and Lake	1,993,000	1,915,000	None
Falls Lake	2,113,000	1,793,000	None
W. Kerr Scott Dam and Reservoir	2,853,000	2,524,000	None

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. Flood Control (Continued)

b. Reservoirs: Scheduling Reservoir Operations. The $130,000 requested in FY 2005 supports preparation, reviews and updating of water control manuals, real-time data collection to monitor hydrologic conditions, and the issuance of gate regulation instructions as necessary at two non-Corps dam and reservoir projects at which the Corps is responsible for flood control or navigation.

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
			Alabama
Scheduling Reservoir Operations	100,000	100,000	None
			Puerto Rico
Scheduling Reservoir Operations	0	30,000	First year funding for new project
TOTAL - Reservoirs	8,944,000	8,182,000	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. Flood Control (Continued)

c. Channel Improvements. The $10,729,000 requested in FY 2005 supports operation and maintenance requirements at two flood control projects. The requested amount includes an amount from the Special Recreation Use Fees (SRUF) Special Fund for recreation areas.

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
Florida			
Central and Southern Florida	13,005,000	10,559,000	Reduction in monitoring activities; maintaining flood control structures
Mississippi			
East Fork, Tombigbee River	170,000	170,000	None

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. Flood Control (Continued)

d. Channel Improvements: Inspection of Completed Works. The $513,000 requested in FY 2005 supports inspections at flood control projects constructed by the Corps and operated and maintained by non-Federal interests. The inspections are conducted to determine the extent of compliance with legal standards and to advise local interests, as necessary, of corrective measures required to ensure that project structures and facilities will continue to safely provide flood protection benefits. These projects consist of features such as channels, levees, flood walls, drainage structures and pumping plants.

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
Alabama	50,000	50,000	
Florida	200,000	300,000	
Georgia	41,000	41,000	
Mississippi	50,000	57,000	
North Carolina	33,000	35,000	
South Carolina	26,000	30,000	
TOTAL – Channel Improvements, Inspections, and Miscellaneous Maintenance	13,575,000	11,242,000	
TOTAL - FLOOD CONTROL	22,519,000	19,424,000	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

3. Multiple Purpose with Power: The program request of $102,074,000 provides for the operation requirements of 13 multiple purpose projects. Requirements include: operation and ordinary maintenance of project facilities; facility security, labor, supplies, materials, and parts for day-to-day functioning; and periodic maintenance, repairs and replacements. The requested amount includes an amount from the Special Recreation Use Fees (SRUF) Special Fund for recreation areas.

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
			Alabama
Millers Ferry Lock and Dam, William "Bill" Dannelly Lake	5,429,000	4,543,000	Reduction in lock operations
Robert F. Henry Lock and Dam	5,726,000	4,590,000	Reduction in lock operations
Walter F. George Lock and Dam	6,892,000	5,989,000	Reduction in lock operations
			Florida
Jim Woodruff Lock and Dam	6,686,000	5,380,000	Reduction in lock operations
			Georgia
Allatoona Lake	6,000,000	5,986,000	None
Buford Dam and Lake Sidney Lanier	9,100,000	9,697,000	None
Carters Lake	10,012,000	12,955,000	Repairing hydropower generating units

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

3. Multiple Purpose with Power (Continued)

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
			Georgia (Continued)
Hartwell Lake	13,964,000	12,238,000	Reduction is studies and gate maintenance
J. Strom Thurmond Lake	11,747,000	11,106,000	None
Richard B. Russell Dam and Lake	7,746,000	8,128,000	None
Walter F. George L & D (see Alabama)			
West Point Lake	6,600,000	5,676,000	Reduction in surveys and operation of recreation facilities
			North Carolina
John H. Kerr Dam and Reservoir (see Virginia)			
			South Carolina
Hartwell Lake (see Georgia)			
J. Strom Thurmond Lake (see Georgia)			
Richard B. Russell (see Georgia)			

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

3. Multiple Purpose with Power (Continued)

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
			Virginia
John H. Kerr Dam and Reservoir	10,839,000	11,881,000	Installation of hydropower equipment
Philpott Lake	3,854,000	3,905,000	None
TOTAL - MULTIPLE PURPOSE WITH POWER	104,595,000	102,074,000	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

4. Protection of Navigation.

a. Removal of Aquatic Growth. The program request of $3,500,000 provides for accomplishing the work essential to the eradication of aquatic plant growth for navigable waters in Florida.

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason for Change and Major Maintenance Items (Threshold $1,000,000)
Removal of Aquatic Growth	3,400,000	3,500,000	

b. Project Condition Surveys. The $1,797,000 requested in FY 2005 supports hydrographic surveys, inspections, and studies to determine the condition of navigation channels that do not have any other maintenance work included in the program request and disseminate the information to users of the projects. For the projects that do not require maintenance, surveys are performed at many of them in order to determine the degree of sedimentation so that users can be advised of channel conditions and future maintenance can be scheduled.

Florida	1,000,000	975,000
Georgia	0	71,000
Mississippi	175,000	175,000
North Carolina	75,000	227,000
South Carolina	229,000	349,000
TOTAL - PROTECTION OF NAVIGATION	4,879,000	5,297,000
GRAND TOTAL	316,926,000	290,530,000
South Atlantic Division	(101,756,000)	
	(215,170,000)	