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CIVIL WORKS PROGRAM

CONGRESSIONAL SUBMISSION
FISCAL YEAR 2002

NORTH ATLANTIC DIVISION

Budgetary information will not be released
outside the Department of the Army until
3 April 2001

Justification of Estimate for Civil Functions Activities
Department of the Army, Corps of Engineers
Fiscal Year 2002

NORTH ATLANTIC DIVISION

Corps of Engineers

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Justification of Estimate for Civil Function Activities
Department of the Army, Corps of Engineers
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SUMMARY, NORTH ATLANTIC DIVISION

	FY 2001 Allocation $	FY 2002 Request $	Increase or Decrease $
General Investigations			
Surveys	11,939,000	8,781,000	-3,158,000
Preconstruction Engineering and Design	6,982,000	5,719,000	-1,263,000
Subtotal General Investigations	(18,921,000)	(14,500,000)	(-4,421,000)
Construction, General			
Construction	218,042,000	207,300,000	-10,742,000
Major Rehabilitation	7,224,000	12,500,000	5,276,000
Dam Safety Assurance	0	9,000,000	9,000,000
Subtotal Construction, General	(225,266,000)	(228,800,000)	(3,534,000)
Operation and Maintenance, General			
Project Operation	56,797,000	59,312,000	2,515,000
Project Maintenance	149,726,000	134,415,000	-15,311,000
Subtotal Operation and Maintenance	(206,523,000)	(193,727,000)	(-12,796,000)
GRAND TOTAL, NORTH ATLANTIC DIVISION	450,710,000	437,027,000	-13,683,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $

1. SURVEYS – NEW: None.

2. SURVEYS – CONTINUING

a. Navigation Studies: The amount of $1,771,000 is requested in fiscal year 2002 to continue five navigation studies and complete one navigation study.

MASSACHUSETTS

Boston Harbor	1,786,000	86,000	150,000	300,000	1,250,000

Boston Harbor is located along the eastern shoreline of Massachusetts and is New England’s largest port, serving as the principal distribution point for the commerce of Massachusetts, New Hampshire and Vermont. In 1996, waterborne commerce totaled 20.1 million tons, of which approximately 79 percent were liquid petroleum products. The inner harbor has been extensively developed for water transportation and is comprised of the Main Ship, Reserved, Chelsea River and Mystic River Channels. The Massachusetts Port Authority (Massport) has been upgrading facilities at Conley Terminal, which is located along the southerly side of the Reserved Channel, to accommodate larger vessels and improve operational efficiency of the harbor. In addition, Massport has plans to expand Conley Terminal onto the adjacent Coastal Oil Terminal property and to develop a bulk cargo terminal at nearby North Jetty Terminal, increasing the number of berths that would benefit from deeper channels. The Port of Boston Competitiveness Task Force Report, dated December 1998, concluded that the channels accessing Conley Terminal must be dredged to at least 45 feet for New England companies to remain competitive by receiving containerized cargo by direct ocean going service. This becomes increasingly important as the next generation of container ships, drawing 45 feet or more, come into service. Navigation improvements to deepen portions of Boston Harbor to at least 45 feet would increase the efficiency of harbor operations and reduce tidal delays for larger vessels. Massport expressed an interest in the Corps conducting a reconnaissance study by letter dated 17 December 1998, and is aware of the cost sharing requirements for the feasibility study. Massport is currently the non-Federal sponsor of ongoing improvement work at Boston Harbor, which includes deepening the Reserve Channel to 40 feet.

Prior appropriated funds will be used to complete a reconnaissance study at full Federal expense, and if Section 905 (b) analysis is found to be in accord with policy, fiscal year 2001 will be used to initiate the feasibility phase of the study, including studies to evaluate deepening the lower Main Ship, Reserved, and Entrance Channels to 45 feet. Funds

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Boston Harbor					

requested for fiscal year 2002 will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $3,400,000, which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$3,486,000
Reconnaissance Phase (Federal)	86,000
Feasibility Phase (Federal)	1,700,000
Feasibility Phase (Non-Federal)	1,700,000

The reconnaissance phase is scheduled for completion in April 2001. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
NEW YORK					
Freeport Creek, Village of Freeport	1,600,000	0	100,000	75,000	1,425,000

The study area includes Freeport Creek and its tributaries in the Village of Freeport, New York, which is located on the south shore of Long Island approximately 20 miles east of the Battery New York City. The area is urban to suburban and supports commercial fishing and recreational boating activities. Local interests maintain that shoaling in Freeport Creek limits current commercial vessels forcing some deeper draft vessels to wait for higher tides. In addition, over 1700 residential and commercial structures are subject to flooding from storm events, such as northeastern storms and hurricanes, and the remaining tidal ecosystem along the waterfront area has suffered environmental degradation from over development and erosion.

The reconnaissance study is assessing if there is a Federal interest to pursue further studies during the feasibility phase to determine potential solutions for navigation improvements, flood damage protection measures, as well as ecosystem restoration measures along Freeport Creek and its tributaries. The New York State Department of Environmental Conservation and the Village of Freeport are the potential local sponsors for the feasibility study who fully understand the cost sharing requirements for the feasibility phase of the study. The feasibility cost sharing agreement is scheduled to be executed in March 2002.

Fiscal Year 2001 funds are being used to complete the reconnaissance phase at full Federal expense. If the Section 905 (b) analysis is certified to be in accord with policy, the funds requested for fiscal year 2002 will be used to initiate the feasibility phase of the study, including surveys, environmental analysis, data collection, and preliminary assessments of existing baseline conditions. 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 the study cost sharing is as follows:

Total Estimated Study Cost	$3,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase is scheduled for completion in March 2002. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Lake Montauk Harbor	1,425,000	425,000	150,000	100,000	750,000

Lake Montauk Harbor, located about 120 miles east of the Battery New York City, is on the south fork of Long Island in the Town of East Hampton, Suffolk County, New York. It is the only harbor of refuge for nearly 50 miles in this area.

The existing Federal project provides a channel 12-foot deep at mean low water, 150 feet wide for an approximate length of 3700 feet; a boat basin 10 feet deep, 400 feet wide for an approximate length of 900 feet; and two jetties with sport fishing facilities. Local interests maintain that the authorized 12-foot project is inadequate for current commercial vessels forcing some deeper draft vessels to wait for higher tides in order to pass safely through the channel. In addition, deterioration of the eastern jetty is allowing sand to migrate into the authorized channel increasing Federal maintenance costs.

A reconnaissance report, completed in May 1995, recommended a $4,900,000 project to deepen the existing channel and provide shoreline protection through beneficial use of the dredged material and sand bypassing. In addition, environmental restoration opportunities at two sites were identified. The feasibility study will evaluate alternative plans to determine the national economic development plan for the project. The New York State Department of Environmental Conservation is the potential local sponsor for the feasibility study and fully understands the cost sharing requirements for the feasibility phase of the study. The feasibility cost-sharing agreement is scheduled to be executed in July 2001.

If the Section 905 (b) analysis is certified to be in accord with policy, the fiscal year 2001 funds will be used to initiate the feasibility phase of the study, including data collection and problem identification. The funds requested for Fiscal Year 2002 will be used to continue the feasibility phase of the study, including economic, hydraulic, and environmental analyses to establish baseline conditions to develop alternative project plans. The preliminary 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	$2,425,000
Reconnaissance Phase (Federal)	425,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in July 2001. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
New York Harbor Anchorage Areas	1,300,000	616,000	194,000	200,000	290,000

The New York Harbor Anchorage Areas, a part of the New York Harbor and Adjacent Channels Project, includes three separate anchorage areas with current depths ranging from 10 to 45 feet below mean low water. The reconnaissance report recommended anchorage improvements for Red Hook Flats and Gravesend Bay at a cost of $56,000,000. Local interests desire that one of these areas, the Red Hook Flats, be considered for navigation improvements. The Red Hook Flats anchorage area is located west of Red Hook and Bay Ridge, Brooklyn, New York, and is approximately 3.6 miles long, 2,640 feet wide, and 35 to 45 feet deep. The major problem in the area is overcrowding in the anchorage as well as in navigation channels, caused by increasing vessel size, lack of space and, insufficient depth. The current design of the Red Hook Flats anchorage area was based primarily on vessels having a draft of 35 feet and a length of 525 feet. Recent investigations verify that there is a significant increase in vessels with drafts of 40 to 46 feet and lengths of approximately 1,000 feet. Thus, the existing anchorage areas can accommodate fewer ships. The feasibility study will investigate potential improvements that would reduce the risk of collisions and groundings, including resultant petroleum spills. The feasibility cost-sharing agreement was executed in July 2000 with the Port Authority of New York and New Jersey.

Fiscal Year 2001 funds are being used to continue the feasibility phase of the study, including the economic analysis, public scoping meetings and engineering and environmental data gathering. The funds requested for Fiscal Year 2002 will be used to continue the feasibility phase of the study including the engineering design, environmental impact analysis and the selection of the recommended plan. The estimated cost of the feasibility phase is $1,600,000, 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	$2,100,000
Reconnaissance Phase (Federal)	500,000
Feasibility Phase (Federal)	800,000
Feasibility Phase (Non-Federal)	800,000

The reconnaissance phase was completed in July 2000. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
RHODE ISLAND					
Quonset Davisville Port	1,600,000	0	100,000	150,000	1,350,000

The Quonset Davisville port is located along the southwestern shore of Narragansett Bay about 20 miles south of Providence, Rhode Island, at the former Naval Construction Battalion Center. The Quonset Point and Davisville sections of the port are located on the southern and northern sides of the airfield within the former Naval facility, respectively. Several shipbuilding and marine construction interests, including General Dynamics that fabricates Naval submarine hull components, are using the Quonset Point piers. The Davisville piers are being used for shipping frozen foods and importing automobiles from Asia and Europe. The Rhode Island Economic Development Corporation (RIEDC), a State agency, manages the port facilities. The RIEDC has plans to redevelop the Quonset and Davisville port facilities for larger containerships and bulk carriers and has acquired the Maritime Administration section of the port. RIEDC is currently upgrading rail and highway access to the port.

The reconnaissance study is assessing if there is a Federal interest for further studies during the feasibility phase to deepen the former naval channels in Quonset Davisville port. The 35-foot channel and turning basin at Quonset Point would be deepened to 45 feet. The current Davisville channel depth limits commercial vessels forcing some deeper draft vessels to wait for higher tides. The channel and turning basin in the Davisville section would be deepened to 35 feet. RIEDC is empowered to act as the non-Federal sponsor by the State of Rhode Island and understands the cost sharing requirements for the feasibility phase of the study. The feasibility cost sharing agreement is scheduled for execution in January 2002.

Funds available in fiscal year 2001 are being used to initiate and complete a reconnaissance study at full Federal expense. If the Section 905 (b) analysis is certified to be in accord with policy, funds requested for fiscal year 2002 will be used to initiate the feasibility phase, including data collection, economic and environmental analyses for deepening the Davisville channel. The estimated cost of the feasibility phase is $3,000,000, which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$3,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase is scheduled for completion in January 2002. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
VIRGINIA					
Norfolk Harbor and Channels, Craney Island	3,050,000	1,213,000	891,000	946,000	0

The Craney Island Dredged Material Management Area (CIDMMA) is a 2,500-acre man-made containment area located along the south bank of the James River in Portsmouth, Virginia. It was authorized by the River and Harbor Act of 1946 and constructed from 1956 through 1958. Craney Island is Federally owned and operated and is used by private interests, local municipalities, and Federal and Commonwealth Government agencies for disposal of dredged material from Norfolk Harbor and adjacent waterways. The main containment site consists of a diked area with six spillways. There is also a rehandling basin to the southeast of the containment area that is used by bottom-dump scows and other vessels that do not have pump-out capabilities. About every two years, the rehandling basin reaches its capacity. This material is then hydraulically dredged and pumped into the containment area. The containment area, divided into three cells, is part of a management plan for the effective operation of the area. The Virginia Port Authority, an agency of the Commonwealth of Virginia, has expressed interest to create a fourth cell at the CIDMMA by expanding the containment area to the east. The new cell will extend the useful life of the CIDMMA and provide an area that could be developed as a long-term berthing and port facility adjacent to the Norfolk Harbor Channel. The Virginia Port Authority and maritime officials claim that additional port facilities are needed based on increased vessel traffic projections through 2010-2015. In addition, the Commonwealth of Virginia has formed a Craney Island Study Committee to address issues regarding the future use and development of the CIDMMA. The Virginia Port Authority is the non-Federal sponsor and executed the feasibility cost-sharing agreement in April 1999.

Fiscal Year 2001 funds will be used to continue the feasibility phase of study, including preparation of the project study plan; and engineering, economic, cultural, environmental, and real estate investigations. Fiscal Year 2002 funds will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is $5,900,000, which is being 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	$6,000,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,950,000
Feasibility Phase (Non-Federal)	2,950,000

The reconnaissance phase was completed in April 1999. The feasibility study schedule is being determined.

Subtotal Navigation Studies Continuing	10,761,000	2,340,000	1,585,000	1,771,000	5,065,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
2. SURVEYS – CONTINUING					
b. Flood Damage Prevention Studies: The amount of $1,409,000 is requested in fiscal year 2002 to continue 11 flood damage prevention studies and complete one flood damage prevention study.					
MARYLAND					
Anacostia River and Tributaries, Prince George's County Levee, MD & DC	1,453,000	954,000	180,000	240,000	79,000

The Anacostia River has a total drainage area of 170 square miles, of which 136 square miles are in Maryland, and 34 square miles are in the District of Columbia. The Northeast and Northwest Branches originate in Maryland and flow through several highly urbanized areas before forming the Anacostia River about nine miles upstream from its junction with the Potomac River. The Corps of Engineers' involvement in the basin dates back more than 115 years and includes projects and programs for navigation, flood control, debris removal, and aquatic vegetation control. Two major projects were undertaken. From 1902 through 1940, the District of Columbia portion of the river was channelized, seawalls were built, Kingman Lake and East Lake were constructed, and more than 1,000 acres of mudflats and wetlands were filled with dredged material. The primary purpose of this work was to provide a park for the eastern portion of the city. From 1952 to 1959, a flood control project was constructed in Prince George's County, Maryland, along the Northeast and Northwest Branches, and the Anacostia River. A total of 28,000 feet of levees and 14,000 feet of channels were constructed to solve critical flood problems. This effort was successful; however, the construction resulted in a further loss of wetlands and fish and wildlife habitat. A reconnaissance study for the Anacostia River and Tributaries, completed in December 1991, identified extensive potential Federal involvement in the Anacostia watershed restoration effort. This reconnaissance study recommended that additional feasibility studies be conducted at numerous sites in the Anacostia area. Prince George’s County Levee is the third feasibility study from the reconnaissance effort, and will investigate improving the existing local flood protection levee in Prince George's County and restoring the environment through wetland creation and restoration. According to a recent County study, the levees do not currently provide 100-year level of protection under existing conditions nor do they have the required 3-foot freeboard above the 100-year flood elevation. The non-Federal sponsors for this third study are Prince George's County and the Maryland-National Capital Park and Planning Commission. The feasibility cost-sharing agreement was executed in January 1999.

Fiscal Year 2001 funds are being used to continue the feasibility phase of the study, including development of detailed designs and costs, assessment of benefits and impacts, and public coordination. The funds requested for fiscal year 2002 will be used to continue the feasibility phase, including design analyses and continue coordination with resource

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Anacostia River and Tributaries, Prince George's County Levee, MD & DC					

agencies and the public. The estimated cost of the feasibility phase is $2,706,000, 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)	100,000
Feasibility Phase (Federal)	1,353,000
Feasibility Phase (Non-Federal)	1,353,000

The reconnaissance phase for the Prince George’s County Levee area was completed in January 1999. The Prince George’s County Levee feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
NEW JERSEY					
Shrewsbury River and Tributaries	1,500,000	100,000	90,000	50,000	1,260,000

The Shrewsbury River and its tributaries flow north-northeast in Monmouth County, New Jersey, and is a tidal estuary protected by the Sandy Hook peninsula and nearby barrier beaches. The river system drains into the Raritan and Sandy Hook Bays and is located about 35 miles southwest of the battery New York City. The area is suburban with several heavily populated towns along the Shrewsbury River and its tributaries.

Frequent flooding occurs along the Shrewsbury River and its tributaries in Monmouth County, New Jersey. The flooding is due to storm surges caused by hurricanes and northeasters that produce high tides that back up the normal river flow. A major damage center is the Township Monmouth Beach. A major storm occurred in December 1992, causing damage to residential, commercial, and municipal properties in Monmouth Beach with water levels reaching above the main floor levels in many structures. Structures in other towns, such as the Township of Seabright, along the river were similarly affected. In October 1996, the area was again flooded during a northeaster. In addition, degraded wetlands exist along the Shrewsbury River and its tributaries.

The reconnaissance study is assessing the flooding problems and if there is a Federal interest to pursue addition studies during the feasibility phase to develop potential solutions in the area as well as opportunities for environmental restoration, particularly Drew Court in Monmouth Beach, the islands in the Shrewsbury River, the Navesink delta, and along Little Silver Creek. The New Jersey Department of Environmental Protection is the potential non-Federal sponsor who understands the cost-sharing requirements for the feasibility phase of the study. The feasibility cost sharing agreement is scheduled to be executed in July 2001.

Prior appropriated funds are being used to complete the reconnaissance phase at full Federal expense. If the Section 905 (b) analysis is certified to be in accord with policy, fiscal year 2001 funds will be used to initiate the feasibility phase of the study, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions and formulate alternatives. The funds requested for fiscal year 2002 will be used to continue the feasibility phase of the study, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions and formulate alternatives. The preliminary estimated cost of the feasibility phase is $2,800,000, which is being 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	$2,900,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,400,000
Feasibility Phase (Non-Federal)	1,400,000

The reconnaissance phase is scheduled for completion in July 2001. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Stony Brook - Millstone River Basin	1,500,000	100,000	90,000	100,000	1,210,000

The study area is located in central New Jersey in Mercer, Middlesex, Monmouth, Hunterdon, and Somerset Counties and includes the Stony Brook, Peters Brook, Woodsville Brook, Baldwin Brook, Lewis Brook, and Honey Branch, all tributaries to the Millstone River. Stony Brook is the largest tributary to the Millstone River, draining an approximate 56 square miles area. This area is suburban in nature and the population is expected to grow by 30 percent by the year 2010.

Strom events cause frequent flooding in communities along Stony Brook and the other tributaries to the Millstone River. Hurricane Floyd in September 1999 and Hurricane Doria in August 1971 caused two of the largest floods of record in the area. Hurricane Floyd was a 500-year flood event inundating the area with 10-12 inches of rain in a 24-hour period and causing 4 deaths in New Jersey. A major damage center is the Borough of Manville, New Jersey, located downstream from the confluence of Stony Brook and most of the tributaries to the Millstone River. Manville experiences fluvial flooding from the Millstone River in addition to backwater flooding from the Raritan River. Eight major flood events have affected Manville since 1921 with Hurricane Floyd causing damages in the hundreds-of-millions dollars range.

The reconnaissance study is assessing the flooding problems and if there is a Federal interest to pursue additional studies during the feasibility phase of the study. Potential solutions include flood damage prevention measures in the area and an enhanced flood warning system, as well as opportunities for environmental restoration. The potential non-Federal sponsor is the New Jersey Department of Environmental Protection who understands the cost sharing requirements for the feasibility phase of the study. The feasibility cost sharing agreement is scheduled to be executed in July 2001.

Prior appropriated funds are being used to complete the reconnaissance phase at full Federal expense. If the Section 905 (b) analysis is certified to be in accord with policy, fiscal year 2001 funds will be used to initiate the feasibility phase of the study, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions and formulate alternatives. The funds requested for fiscal year 2002 will be used to continue the feasibility phase of the study, including data collection, economic, hydraulic, and environmental analyses. The preliminary estimated cost of the feasibility phase is $2,800,000, 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	$2,900,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,400,000
Feasibility Phase (Non-Federal)	1,400,000

The reconnaissance phase is scheduled for completion in July 2001. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Upper Passaic River and Tributaries	750,000	356,000	225,000	169,000	0

The Upper Passaic River and its tributaries are located in northeast Morris County, New Jersey, draining an approximate 100 square mile area. The study will focus on flood problems in several communities, including Long Hill Township, a 12.5 square miles township that is 97 percent developed with a population of 7500.

Major flooding occurred from storms in August 1971 and 1973, July 1984 and September 1999 in this area due to under sized culverts, sediment build-up in the river, and backwater flow from the Passaic River into its tributaries. The October 19, 1996 storm was a 25-year flood event causing over $1 million in damages to commercial and residential structures with water levels of four feet or higher in Long Hill Township. This storm also flooded many local roads, damaging many local residents’ cars, and the township’s roadways and bridges. The damage to the roadways and bridges caused transportation problems for several days. In addition, Long Hill Township’s wastewater treatment plant was shut down. The reconnaissance study found there is a Federal interest to proceed to the feasibility phase of the study and recommended further studies for potential flood damage prevention measures as well as opportunities for environmental restoration. The feasibility cost-sharing agreement was executed in May 1999, with the State of New Jersey Department of Environmental Protection.

Fiscal Year 2001 funds are being used to continue feasibility phase of the study, including formulation of alternatives, environmental assessments, public involvement and local coordination. Fiscal Year 2002 funds will be used to complete the feasibility phase of the study, including design alternatives analysis, cost and benefit analyses, environmental assessments, and local coordination. The estimated cost of the feasibility phase is $1,300,000, 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	$1,400,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	650,000
Feasibility Phase (Non-Federal)	650,000

The reconnaissance phase was completed in May 1999. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Upper Rockaway River	1,400,000	356,000	225,000	200,000	619,000

The Upper Rockaway River is located in Morris County, New Jersey, and is a tributary to the Passaic River draining an approximate 116 square mile area. Several Morris County townships are susceptible to flooding, including Jefferson, Wharton, Dover, Denville, and Boonton. These townships have combined population of about 100,000 people. In the townships of Denville and Boonton alone about 1,000 structures are subject to flooding.

Major flooding occurred in May 1968, September 1971, February and December 1973, March 1977, January 1979, April 1984 and September 1999 along the Upper Rockaway River. Downstream of Dover, flooding damaged many homes, commercial businesses, roads and bridges. The flooding is from low capacity in the river caused by siltation. In addition, recent stream bank erosion in the river has further increased the river’s siltation problems. Local interests have attempted to remove the sediment build-up from the river but were unsuccessful. The October 1996 storm flooded about 200 homes and businesses. In the Township of Denville, many roads were under a foot of water or more. Several bridges, including Savage Road Bridge and Diamond Spring Road Bridge, were washed out and had to be repaired after the flood. In the Township of Boonton, water levels were several feet above the first floor of many residential properties and residents of six homes had to be evacuated. The upstream areas of the Rockaway River are being evaluated for environmental restoration including creation of new wetland sites. The feasibility study will develop plans to alleviate flood problems and develop opportunities for environmental restoration. The feasibility cost-sharing agreement was executed on May 27, 1999 with the State of New Jersey Department of Environmental Protection.

Fiscal Year 2001 funds are being used to continue feasibility phase of the study, including formulation of alternatives, environmental assessments, public involvement and local coordination. Fiscal Year 2002 funds will be used to continue the feasibility phase of the study, including design alternatives analyses, cost and benefit analyses, environmental assessments, and local coordination. The estimated cost of the Feasibility phase is $2,600,000, 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	$2,700,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,300,000
Feasibility Phase (Non-Federal)	1,300,000

The reconnaissance phase was completed in May 1999. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Rahway River Basin	4,260,000	123,000	75,000	100,000	3,962,000

The study area encompasses the Rahway River basin located in northeastern New Jersey about 15 miles west of the Battery New York City. The basin is 81.9 square miles flowing southerly through Essex and Union Counties, then easterly through Union and Middlesex Counties from the City of Rahway discharging into the Arthur Kill near Carteret, New Jersey. The area is entirely developed and is urban to suburban in nature.

Frequent flooding occurs along the Rahway River in Essex, Union, and Middlesex Counties. Flooding problems from fluvial and tidal storm surges have worsened due to extensive development in the area. Major storms of record occurred in July 1938, May 1968 (10 year flood), August 1971 (15 year flood), August 1973 (60 year flood), July 1975 (50 year flood), June 1992 (15 year flood), October 1996 (75 year flood), July 1997 (50 year flood), and most recently September 1999 Hurricane Floyd (500 year flood). Major damage centers include Springfield, Cranford, Rahway, Maplewood, and Millburn. In addition to the flooding problems, ecologic problems exist that include loss and degradation of tidal wetlands, pollution and sedimentation problems. Many denuded mud flats exist where phragmites has replaced spartina as the dominant plant. Numerous petroleum facilities align the Rahway River in the vicinity of its confluence with the Arthur Kill. Past sediment analyses have shown that petroleum products and heavy metals are prevalent downstream of the river.

The reconnaissance study, completed in July 1999, found there is a Federal interest to proceed to the feasibility phase of the study and recommended further studies for potential channel improvements and detention ponds along the South Branch of the Rahway River, and levees and floodwalls along the Robinson’s Branch of the Rahway River. Ecosystem restoration for streambank and wetlands restoration were recommended along the Rahway River in the City of Rahway and the Town of Cranford. The New Jersey Department of Environmental Protection is the potential non-Federal sponsor who understands the cost-sharing requirements for the feasibility phase of the study. The feasibility cost sharing agreement is scheduled for execution in July 2001.

If the Section 905 (b) analysis is certified to be in accord with policy, the fiscal Year 2001 funds, along with prior appropriated funds, will be used to initiate the feasibility phase of the study, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions and formulate alternatives. The funds requested for fiscal year 2002 will be used to continue the feasibility phase of the study, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions and formulate alternatives. The preliminary estimated cost of the feasibility phase is $8,360,000, 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	$8,440,000
Reconnaissance Phase (Federal)	80,000
Feasibility Phase (Federal)	4,180,000
Feasibility Phase (Non-Federal)	4,180,000

The reconnaissance phase is scheduled for completion in July 2001. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Woodbridge River Basin	1,330,000	123,000	75,000	100,000	1,032,000

The study area encompasses the Woodbridge River Basin located in northeastern New Jersey about 18 miles southwest of the Battery New York City. The 5 miles long Woodbridge River flow easterly through Middlesex County, New Jersey, and discharges into the Arthur Kill. The area is entirely developed and is suburban and industrial in nature.

Frequent flooding occurs along the Woodbridge River in Middlesex County. Flooding problems from fluvial and tidal storm surges have worsened due to extensive development in the area. Major storms of record occurred in July 1938, May 1968 (10 year flood), August 1971 (15 year flood), August 1973 (60 year flood), July 1975 (50 year flood), June 1992 (15 year flood), October 1996 (75 year flood), July 1997 (50 year flood), and most recently September 1999 Hurricane Floyd (500 year flood). Major damage centers includes the Sewaren section of Woodbridge Township and Perth Amboy. In addition to the flooding problems, ecologic problems exist that include loss and degradation of tidal wetlands, pollution and sedimentation problems. Many denuded mud flats exist where phragmites has replaced spartina as the dominant plant. Petroleum facilities align the Woodbridge River in the vicinity of its confluence with the Arthur Kill. Past sediment analyses have shown that petroleum products and heavy metals are prevalent downstream of the river.

The reconnaissance study, completed in July 1999, found there is a Federal interest to proceed to the feasibility phase of the study and recommended non-structural and structural measures in the Township of Woodbridge, as well as ecosystem opportunities for streambank stabilization and wetlands creation along the Woodbridge River. The New Jersey Department of Environmental Protection is the potential non-Federal sponsor who understands the cost-sharing requirements for the feasibility phase of the study. The feasibility cost sharing agreement is scheduled to be executed in April 2001.

Prior appropriated funds are being used to complete the reconnaissance phase at full Federal expense. If the Section 905 (b) analysis is certified to be in accord with policy, fiscal year 2001 funds will be used to initiate the feasibility phase of the study, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions and formulate alternatives. The funds requested for fiscal year 2002 will be used to continue the feasibility phase of the study, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions and formulate alternatives. The preliminary estimated cost of the feasibility phase is $2,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interest. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,580,000
Reconnaissance Phase (Federal)	80,000
Feasibility Phase (Federal)	1,250,000
Feasibility Phase (Non-Federal)	1,250,000

The reconnaissance phase is scheduled for completion in April 2001. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
NEW YORK					
Ausable River Basin	800,000	144,000	0	50,000	606,000

The study area encompasses the entire 450 square mile Ausable River Basin located in northeastern New York. Flooding occurred in February 1976, March 1978, November 1979, December 1983, October 1985, November 1996 and January 1996 along the Ausable River and its tributaries in Essex and Clinton Counties. The river and its tributaries carry large amounts of sediment that are deposited in the lower reaches at river bends and bridges which leads to flooding during high flow events. Ice jam flooding also occurs during winter causing backwater flood conditions in surrounding areas. Major damage centers are at Ausable Forks, Upper Jay, Keeseville, Keene, and Keene Valley. Clinton and Essex Counties sustained some $20 million in flood damages in November 1996 and were declared Federal Disaster Areas. In Keeseville, flooding would damage a 40-foot high by 1,400-foot long bedrock embankment that protects a portion of the town’s business district. In addition, other towns are cut off when the main roads become impassable during storm events and further restrict residents from receiving emergency services. Clinton and Essex flooding in January 1996 and a sudden mid-winter thaw caused delays in emergency evacuation efforts as rising rivers again inundated bridges and roadways.

The reconnaissance report found there is a Federal interest to proceed to the feasibility phase of the study and recommended further studies for potential flood damage prevention measures such as levees, floodwalls, roadway raisings, and ice retention structures in the Towns of Jay, Keene, and Keesville, New York, as well as ecosystem opportunities in the Towns of Chesterfield, Jay, and Keene, New York. In a letter dated 27 May 1997, the New York State Department of Environmental Conservation expressed interest in becoming the non-Federal sponsor and their willingness to share equally in the feasibility phase cost. The feasibility cost-sharing agreement is scheduled to be executed in July 2002.

Prior appropriated funds are being used to complete the reconnaissance phase at full Federal expense. Fiscal Year 2001 funds were reprogrammed because the non-Federal sponsor’s matching funds for the feasibility phase of the study are not available. If the Section 905 (b) analysis is certified to be in accord with policy, fiscal year 2002 funds and prior appropriated funds for the feasibility study, will be used to initiate the feasibility phase of the study, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions and formulate alternatives. The preliminary estimated cost of the feasibility phase is $1,400,000, which is 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	$1,500,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	700,000
Feasibility Phase (Non-Federal)	700,000

The reconnaissance phase is scheduled for completion in July 2002. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Boquet River Basin	800,000	142,000	0	50,000	608,000

The Boquet River and its tributaries flow northeast through Essex County, New York, draining an approximately 95 square mile watershed. Frequent flooding occurs along the Boquet River and its tributaries in Essex County, New York. The river and its tributaries carry large amounts of sediment that are deposited in the lower reaches at river bends and bridges which leads to flooding during high flow events. Ice jam flooding also occurs during winter causing backwater flood conditions in surrounding areas. Essex County’s main roads become impassable during storm events and further restrict residents from receiving emergency services. Major damage centers are Elizabethtown, New York and areas along New York State Route 9. Flood damages include basement and first floor flooding in commercial and residential structures, loss of bridges and deterioration of roads, and excessive stream bank erosion. Essex County sustained some $10 million in flood damages in November 1996 and was declared a Federal Disaster Area. Flooding in Elizabethtown, damaged some 25 structures when water levels reached two feet above first floor elevations. In addition, several main bridges were damaged beyond repair and road washouts occurred due to high waters and stream bank erosion. A New York State Hydro-Plant was closed for several months to make needed repairs. Five deaths occurred near Elizabethtown in November 1979 when drivers tried to cross an inundated bridge. Another area that has experienced flooding is the Hamlet of Whallonsburg where flood levels have reached up to 15 feet in the past.

The reconnaissance report, certified in December 1998, found there is a Federal interest to proceed to the feasibility phase of the study and recommended further studies for potential flood damage prevention measures, such as levees, floodwalls, roadway raising, ice retention structures, and sedimentation basins, as well as ecosystem opportunities, in Elizabethtown, and the Towns of Lewis and Westport, New York. In a letter dated 27 May 1997, the New York State Department of Environmental Conservation expressed interest in becoming the non-Federal sponsor and expressed their willingness to share equally in the feasibility phase of the study. The feasibility cost-sharing agreement is scheduled to be executed in July 2002.

Prior appropriated funds are being used to complete the reconnaissance phase at full Federal expense. Fiscal Year 2001 funds were reprogrammed because the non-Federal sponsor’s matching funds for the feasibility phase of the study are not available. If the Section 905 (b) analysis is certified to be in accord with policy, the fiscal Year 2002 funds, along with prior appropriated funds for the feasibility study, will be used to initiate the feasibility phase of the study, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions and formulate alternatives. The preliminary estimated cost of the feasibility phase is $1,400,000, which is 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	$1,500,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	700,000
Feasibility Phase (Non-Federal)	700,000

The reconnaissance phase is scheduled for completion in July 2002. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Bronx River Basin	800,000	150,000	337,000	50,000	263,000

The study area for the Bronx River Basin is located in central Bronx County and lower Westchester County, New York, draining an approximate 56.4 square mile watershed. The river and its tributaries carry large amounts of sediment that are deposited in the lower reaches at river bends and bridges which leads to flooding during high flow events in Bronx and Westchester Counties. Major damage centers include the Towns of North Castle, Scarsdale, Mount Pleasant, and Greenburgh; and the Cities of Yonkers, White Plains, and Mount Vernon. In addition to flooding problems, environmental degradation of the Bronx River affects the water quality and fish and wildlife habitats of the watershed.

The reconnaissance study, completed in August 1999, found there is a Federal interest to proceed to the feasibility phase and recommended further studies for potential flood damage prevention measures, ecosystem restoration opportunities for 18 sites along the Bronx River, and recommended a comprehensive basin-wide watershed plan to identifying non-structural measures for ecosystem restoration. The potential local sponsor is the New York State Department of Environmental Conservation, who fully understands the cost-sharing requirements for the feasibility phase of the study. The feasibility cost-sharing agreement is scheduled to be executed in July 2001.

If the Section 905 (b) analysis is certified to be in accord with policy, the fiscal Year 2001 funds, along with prior appropriated funds for the feasibility phase of the study, will be used to initiate the feasibility study, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions. The funds requested for fiscal year 2002 will be used to continue the feasibility phase of the study, including formulation of alternatives. The preliminary estimated cost of the feasibility study is $1,400,000 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	$1,500,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	700,000
Feasibility Phase (Non-Federal)	700,000

The reconnaissance phase is scheduled for completion in July 2001. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Lindenhurst	800,000	149,000	0	50,000	601,000

The Village of Lindenhurst is located on the south shore of Long Island in Suffolk County, New York, and encompasses a total area of 3.8 square miles. The Village has a large shoreline along the Great South Bay and an extensive canal system. The bay is separated from the Atlantic Ocean by a barrier island that is divided by coastal inlets, the nearest of which is Fire Island Inlet.

Tidal flooding from moderate storms floods basements and main floors of hundreds of residential and commercial properties in Lindenhurst. These storms also submerge streets, isolate homeowners, and restrict emergency vehicles access in the village. The December 1992 northeaster caused some $10 million in damages to beaches, town properties, and homes in Babylon and Lindenhurst. Tides were approximately 4 to 6 feet above normal during this storm.

The reconnaissance report found there is a Federal interest to proceed to the feasibility phase of the study and recommended further studies for potential structural and non-structural flood damage prevention measures. The feasibility study will assess the flooding problems in the area and determine Federal interest. The New York State Department of Environmental Conservation is the potential non-Federal sponsor and understands the cost-sharing requirements for the feasibility phase of the study. The feasibility cost-sharing agreement is scheduled to be executed in July 2002.

Prior appropriated funds are being used to complete the reconnaissance phase at full Federal expense. Fiscal Year 2001 funds were reprogrammed because the non-Federal sponsor’s matching funds for the feasibility phase of the study are not available. If the Section 905 (b) analysis is certified to be in accord with policy, fiscal year 2002 funds and prior appropriated funds for the feasibility study, will be used to initiate the feasibility phase of the study, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions and formulate alternatives. The preliminary estimated cost of the Feasibility phase is $1,400,000, 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	$1,500,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	700,000
Feasibility Phase (Non-Federal)	700,000

The reconnaissance phase is scheduled for completion in July 2002. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
PENNSYLVANIA					
Bloomsburg	1,152,000	534,000	257,000	250,000	111,000

The Town of Bloomsburg is located about 50 miles southwest of Wilkes-Barre, Pennsylvania, in Columbia County and about 20 miles upstream of the Susquehanna's confluence with the West Branch Susquehanna River at Sunbury. The drainage area of the Susquehanna River at Bloomsburg is approximately 10,940 square miles including 336 square miles contiguous to Fishing Creek. Bloomsburg is subject to frequent flooding from both Fishing Creek and the Susquehanna River. Severe flooding has occurred in the past with the floods of 1936, 1972 and 1975 causing the most damage. The greatest flood of record in 1972 (Tropical Storm Agnes) was a 400-year event; a recurrence of a flood of this magnitude today would cause an estimated $60 million in damage to several large industries, hundreds of residences, and infrastructure within the town. Significant flood damages have occurred as recently as January 1996. The town lies within the increased flooding area downstream of the Wyoming Valley Levee Raising Project and is scheduled to receive funds under the mitigation plan of that project. However, these funds are limited and will not provide substantial flood protection for the community.

The non-Federal sponsors are the Town of Bloomsburg and Commonwealth of Pennsylvania. The Town of Bloomsburg provided a letter of support dated 18 May 1998 which outlines their understanding of the study cost-sharing requirements for the feasibility study and expressed a willingness to cost-share their portions of the feasibility study. The feasibility cost-sharing agreement was executed in June 1999.

Fiscal Year 2001 funds are being used to continue the feasibility phase, including detailed alternative plan development and analyses, engineering and design, environmental impact analysis, and public coordination. The funds requested for fiscal year 2002 will be used to develop the final design and cost estimate for the selected plan, initiate preparation of the draft feasibility report, and continue coordination with resource agencies and the public. The estimated cost of the feasibility phase is $2,104,000, 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	$2,204,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,052,000
Feasibility Phase (Non-Federal)	1,052,000

The reconnaissance phase was completed in June 1999. The feasibility study schedule is being determined.

Subtotal Flood Damage Prevention Studies – Continuing	16,545,000	3,231,000	1,554,000	1,409,000	10,351,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
2. SURVEYS - CONTINUING					
c. Shoreline Protection Studies: The amount of $1,253,000 is requested in fiscal year 2002 to continue eight shoreline protection studies and complete one shoreline protection study.					
NEW JERSEY					
Raritan Bay and Sandy Hook Bay Highlands	1,750,000	86,000	0	50,000	1,614,000

The study area is located along the Raritan Bay and Sandy Hook Bay in the Town of Highlands, New Jersey, in northeast Monmouth County, New Jersey, approximately 20 miles southwest of the Battery New York City. This low-lying suburban area is subject to tidal flooding from coastal storms and tidal surges that cause major damages to the Town’s businesses, residences, and small marinas. The recession of the beachfront has eliminated any protection afforded to the area and is exposing existing coastal protection measures and drainage works to further damage. Tidal surges often block existing storm drainage systems, which compound flooding. The purpose of the feasibility study is to assess the need for hurricane and storm damage protection measures along the shoreline.

The reconnaissance study for the overall Raritan Bay and Sandy Hook Bay Study, completed in February 1994, recommended separate interim feasibility study be conducted for the Highlands area. The reconnaissance phase, certified in February 2001, found there is a Federal interest for further studies for potential hurricane and storm damage protection measures. The feasibility phase will evaluate these measures, including floodwalls, tide gates, pump stations, and shoreline stabilization that are estimated to cost $45 million. The New Jersey Department of Environmental Protection is the potential sponsor for the feasibility phase of the study and understands the cost-sharing requirements for the feasibility phase. The feasibility cost-sharing agreement is scheduled for execution in June 2001.

If the Section 905 (b) analysis is certified to be in accord with policy, prior appropriated funds will be used to initiate the feasibility phase, including surveys, and initial data gathering. Fiscal Year 2002 funds will be used to continue the feasibility phase, including data gathering, a preliminary assessments. The estimated cost of the feasibility phase is $3,500,000, 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	$3,500,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	1,750,000
Feasibility Phase (Non-Federal)	1,750,000

The overall reconnaissance phase was completed in February 1994. The supplemental feasibility cost sharing agreement for Highlands is scheduled for execution in June 2001. The interim feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Raritan Bay and Sandy Hook Bay, Leonardo	1,375,000	293,000	339,000	250,000	493,000

The study area is located along the Raritan Bay and Sandy Hook Bay in Leonardo, Monmouth County, New Jersey. The area is bounded by the Raritan Bay to the north, Wagner Creek to the east, the US Naval Weapons Pier to the west, and the New Jersey State Route 36 to the south.

The Leonardo area is subject to tidal flooding from coastal storms and storm surges causing shoreline erosion and recession that affect the beach front. The downtown business and residential area, which surrounds a small harbor, is subject to significant main floor flooding from storm surges. In addition, these coastal storms and storm surges caused the recession of a short beach-front, which has eliminated any protection afforded to the area and is exposing existing coastal protection measures and drainage works to further damage. The purpose of the study for the Raritan Bay and Sandy Hook Bay Leonardo, New Jersey, area is to assess the feasibility of providing hurricane and storm damage protection measures.

The reconnaissance study for the overall Raritan Bay and Sandy Hook Bay Study, completed in February 1994, recommended separate interim feasibility study be conducted for the Leonardo area. Potential hurricane and storm damage protection measures being investigated include levees, tide gates, dunes, and beach fill. A supplemental feasibility cost-sharing agreement for Leonardo was executed in April 1999 with the New Jersey Department of Environmental Protection.

Fiscal Year 2001 funds are being used to continue feasibility phase of the study, including design alternatives, environmental assessments, public involvement and local coordination. Fiscal Year 2002 funds will be used to continue the feasibility phase of the study, including refinement of design alternatives, benefit and cost analyses, environmental assessments, and local coordination. The cost of the feasibility phase is $2,750,000, 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	$2,750,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	1,375,000
Feasibility Phase (Non-Federal)	1,375,000

The overall reconnaissance phase was completed in February 1994. The supplemental feasibility cost-sharing agreement for Leonardo was executed in April 1999. The interim feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Raritan Bay and Sandy Hook Bay, Union Beach	1,919,000	1,584,000	291,000	44,000	0

The study area is located along the Raritan Bay and Sandy Hook Bay in Union Beach, Monmouth County, New Jersey. This area is 1.8 square miles bounded by Raritan Bay to the north, East Creek to the east, the Township of Hazlet to the south, and Chingarora Creek to the west. The Flat Creek and East Creek flow through Union Beach subjecting the Borough to flooding during storms.

The Union Beach community is a low-lying densely populated suburban area that experiences flooding to residential, commercial and industrial structures from coastal storms, storm surges, and tidal flooding from the creeks and Raritan Bay. The recession of the beachfront has eliminated any protection afforded to the area and is exposing existing coastal protection measures and drainage works to further damage. Tidal surges often block the existing storm drainage system that compounds flooding. The purpose of the study is to assess the feasibility of providing hurricane and storm damage protection measures.

The reconnaissance study for the overall Raritan Bay and Sandy Hook Bay Study, completed in February 1994, recommended separate interim feasibility study be conducted including the Union Beach area. Potential hurricane and storm damage protection measures being investigated include levees, tide gates, dunes, and beach fill. The supplemental feasibility cost-sharing agreement for Union Beach was executed on 25 April 1997 with the New Jersey Department of Environmental Protection.

Fiscal Year 2001 funds are to be used to continue the feasibility phase of the study, including final plan selection, and preparation of the draft feasibility report and draft environmental impact statement. The funds requested for fiscal year 2002 will be used to complete the feasibility phase of the study, including the final feasibility report and environmental impact statement. The cost of the feasibility phase is $3,838,000, 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	$3,838,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	1,919,000
Feasibility Phase (Non-Federal)	1,919,000

The overall reconnaissance phase was completed in February 1994. The supplemental feasibility cost-sharing agreement for Union Beach was executed on 25 April 1997. The interim feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
NEW YORK					
Jamaica Bay, Marine Park and Plumb Beach, Arverne	1,000,000	0	37,000	50,000	913,000

The Arverne study area is located on the Rockaway peninsula in Queens County, New York. It is bounded by the Atlantic Ocean to the south, Jamaica Bay to the north and is about 15 miles southeast of the Battery New York City.

The low ground elevation levels in Arverne subjects this area’s 800 residential, commercial and public structures to damages from storm events and associated storm surges. The December 1992 northeaster flooded many of the area’s residences and street flooding damaged many private vehicles. Commercial business structures were also damaged forcing many businesses to close temporarily. Furthermore, the street flooding prevented emergency vehicles from reaching the area. The purpose of the feasibility study will be to determine the feasibility of providing hurricane and storm damage protection measures to Arverne.

The reconnaissance study for the overall Jamaica Bay, Marine Park and Plumb study, completed January 1994, recommended that separate interim studies be conducted including the Arverne area. Potential protection measures currently projected to cost about $8,500,000, include levees, floodwalls and other appurtenant works. The New York State Department of Environmental Conservation, by letter dated 19 November 1996, has indicated its willingness to cost-share the feasibility phase of the study. The feasibility cost-sharing agreement is scheduled to be executed in August 2001.

If the Section 905 (b) analysis is certified to be in accord with policy, the fiscal year 2001 funds will be used to initiate the feasibility phase of the study, including initial data collection, problem identification, and local coordination. The funds requested for fiscal year 2002 funds will be used to continue the feasibility study, including data collection, and formulate plan alternatives. The estimated cost of the feasibility phase is $2,000,000, 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	$2,000,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in August 2001. The interim feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Jamaica Bay, Marine Park and Plumb Beach	2,510,000	1,614,000	296,000	400,000	200,000

Jamaica Bay is located in the Boroughs of Queens and Brooklyn in New York City and is about 8 miles long and 4 miles wide, covers 26 square miles, and opens to the Atlantic Ocean via Rockaway Inlet. Marine Park and Plumb Beach are located on the north side of Rockaway Inlet.

The study area constitutes a vital link in this regions coastal ecology. Over 300 species of birds utilize the bay, which represents a primary junction along the Atlantic Flyway, a major migratory route for east coast waterfowl. Various parts of the bay have been declared critical or important habitat for Federally protected species including piping plovers, sea turtles, and short nose sturgeons. The bay also serves as a spawning and nursery habitat for many species of anadromous and estuarine fish, including the commercially and recreationally important striped bass and bluefish. Jamaica Bay has undergone habitat degradation related to past and present Federal dredging and filling activities. Impacts to Jamaica Bay include extensive wetland/aquatic habitat losses, shoreline and bathymetry alterations and water quality degradation from adverse hydrological changes. The combination of degraded flushing and hydrology, and loss of pristine habitat has resulted in a decline in habitat diversity within the region. As a result, Jamaica Bay has been identified for significant environmental restoration.

The reconnaissance study for the interim environmental initiatives was completed in January 1994. Potential plans and goals to be considered in subsequent phases for ecosystem restoration at Jamaica Bay including wetland restoration for aquatic and terrestrial habitats, circulation and flushing pattern alterations and bay recontouring. Project costs will be refined in the feasibility phase and will vary depending upon site-specific restoration measures.

The purpose of this interim feasibility study of the overall Jamaica Bay, Marine Park and Plumb Beach study area, is to determine the feasibility of environmental restoration projects to improve the native habitat and circulation patterns in Jamaica Bay. A Feasibility Cost Sharing Agreement for the environmental restoration portion of the Jamaica Bay feasibility phase effort was executed with the New York City Department of Environmental Protection on 16 February 1996.

Fiscal Year 2001 funds are being used to continue this interim study feasibility phase, including final data collection, public involvement, formulate plan alternative for selected sites, environmental assessments, cost analysis for selected plan alternatives, public involvement, and interagency coordination. Fiscal Year 2002 funds will be used to continue the feasibility phase of the study, including final site design, final costs estimates for selected sites, public

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Jamaica Bay, Marine Park and Plumb Beach					

involvement, and interagency coordination. The estimated cost of the feasibility phase is $4,020,000, 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	$4,520,000
Reconnaissance Phase (Federal)	500,000
Feasibility Phase (Federal)	2,010,000
Feasibility Phase (Non-Federal)	2,010,000

The reconnaissance phase for the interim environmental initiatives was completed in February 1996. The interim environmental initiatives feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
North Shore of Long Island, Asharoken	998,000	318,000	0	50,000	630,000

The study area is located in the Village of Asharoken, a portion of the Town of Huntington in Suffolk County, New York about 40 miles east of New York City. The Village, located on a narrow spit of land about 2.5 miles long with Long Island Sound to the north and Duck Island Harbor to the south, is subject to tidal flooding from coastal storms. The feasibility study will assess potential hurricane and storm damage measures.

Residential and commercial properties in Village of Asharoken experienced major damages from storms in 1962, 1992 and 1996. During the 1992 storm, over 3000 area residents were without access and emergency services due to the flooding of Asharoken Avenue, the only access route between the Village and the Long Island mainland. The reconnaissance report for the North Shore of Long Island, completed in September 1995, recommended a potential plan for beach fill and buried seawalls to protect the area and keep the access roadway free from flooding, estimate at $21,000,000. The New York State Department of Environmental Conservation is the potential sponsor for the feasibility study and understands the cost sharing requirements for the feasibility phase of the study. The feasibility cost sharing agreement was executed in March 2001.

Prior appropriated funds are being used in fiscal year 2001 to initiate the feasibility study, including surveys and data gathering. The funds requested for fiscal year 2002 will be used to continue the feasibility phase, including environmental analyses, data collection, and preliminary assessments of existing baseline conditions. The preliminary estimated cost of the feasibility phase is $1,996,000, 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	$1,996,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	998,000
Feasibility Phase (Non-Federal)	998,000

The reconnaissance phase was completed in March 2001. The interim feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
North Shore of Long Island, Bayville	1,850,000	599,000	101,000	100,000	1,050,000

The study area is located on the North Shore of Long Island, New York, extending west from Orient Point on the north fork of Long Island in Suffolk County to the East River in Queens County in New York City, a distance of approximately 100 miles. The Village of Bayville is located in northeastern Nassau County on a narrow strip of land connecting the Center Island peninsula and Long Island. Bayville faces Long Island Sound to the north and Oyster Bay to the south. Several communities, especially the Village of Bayville, have incurred major losses due to coastal erosion and flooding.

Hurricanes, tropical storms, and northeasters have frequently affected the study area. In December 1992, a northeaster inundated hundreds of residential and business properties with damages estimated at $12,000,000. Approximately 300 families were evacuated, and sections of Bayville were impassable for days.

The reconnaissance report, completed September 1995, found there is a Federal interest to proceed to the feasibility phase and recommended further studies for potential a plan for the Bayville area consisting of combined buried seawalls with setback flood walls and interior drainage works to reduce tidal inundation from Long Island Sound and Oyster Bay. The cost for this potential plan is estimated at approximately $30 million. The reconnaissance report also recommended studies for other north shore communities, however these communities were not certified for further study. The New York State Department of Environmental Conservation understands the cost-sharing requirements for the feasibility phase of the study and has indicated its willingness to cost-share the study. The feasibility cost-sharing agreement was executed in March 2001.

Fiscal year 2001 funds, along with prior appropriated funds for the feasibility phase of the study, are being used to initiate the feasibility study, including surveys and data collection. The funds requested for fiscal year 2002 will be used to continue the feasibility phase of the study, including data collection, economic, hydraulic, environmental analyses necessary to establish baseline conditions, and formulate alternatives. The estimated cost of the feasibility study is $2,650,000 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)	525,000
Feasibility Phase (Federal)	1,325,000
Feasibility Phase (Non-Federal)	1,325,000

The reconnaissance phase was completed in March 2001. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
South Shore of Staten Island	2,000,000	1,151,000	300,000	209,000	340,000

The study area is located along the south shore of Staten Island, extending approximately 13 miles along the Lower New York Bay and Raritan Bay from Fort Wadsworth to Tottenville. The area has a long history of storm damage. In December 1992 and the March 1993, northeastern storms caused evacuations in several communities, damage to 40 structures from flooding, and loss of 30 structures from erosion. The December 1992 storm damages were estimated at $5,000,000. The loss of beachfront now leaves the area increasingly vulnerable to severe damages, even from moderate storms.

The reconnaissance report, completed June 1995, found there is a Federal interest to proceed to the feasibility phase of the study and recommended a potential plan consisting of beach fill for the community of Annadale and a beach fill plan with dunes, levees, floodwalls and pump stations for the area from Oakwood Beach and to Fort Wadsworth. This potential plan is estimated to cost approximately $51,000,000. The feasibility cost-sharing agreement was executed in May 1999 with the New York State Department of Environmental Conservation, however due to the unavailability of the non-Federal sponsor’s matching funds, the feasibility study was not initiated until August 2000.

Fiscal Year 2001 funds, along with prior appropriated funds for the feasibility phase of the study, will be used to continue the feasibility study, including sediment and offshore borrow area sampling, formulation of plan alternatives, and environmental analyses. The funds requested for fiscal year 2002 will be used to continue the feasibility phase of the study, including final selection of plan alternatives, and initiation of environmental assessments, flood damage assessments, and local coordination. The estimated cost of the feasibility phase is $3,000,000, 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	$3,500,000
Reconnaissance Phase (Federal)	500,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase was completed in May 1999. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
VIRGINIA					
Chesapeake Bay Shoreline, Hampton	1,004,000	687,000	127,000	100,000	90,000

The study area is located in City of Hampton, Virginia, which is part of the Norfolk-Virginia Beach-Newport News Metropolitan Area. Hampton's shoreline fronts about 6 miles of the Chesapeake Bay at the Bay’s mouth with Atlantic Ocean making the area particularly vulnerable to flooding from hurricanes and northeasters.

Storm surges and wave action cause damages to beach, residential and commercial properties, and endangered local citizens. Major damage occurred during the August 1933 hurricane and the March 1962 northeaster in the area. At Buckroe Beach in Hampton, the March 1962 storm damaged 600 feet of concrete retaining wall, 200 feet of timber bulkhead, an amusement park, a resort center, 350 homes, and 13 businesses. In addition, in Grandview the storm damaged one-half mile of retaining wall, 50 homes, and 2 businesses. Since 1962, significant development has occurred along the Hampton shoreline. A recurrence of the March 1962 storm would cause damages estimated at tens of millions of dollars.

The reconnaissance study found there was a Federal interest for further study for potential non-structural and structural plans for hurricane and storm damage protection measures. The feasibility is assessing hurricane and storm damage protection measures of various heights and widths with various renourishment periods. The feasibility cost-sharing agreement was executed in March 1999 with the the city of Hampton, Virginia.

Fiscal Year 2001 funds will be used to continue the feasibility study, including sediment and offshore borrow area sampling, formulation of plan alternatives, and environmental analyses. The funds requested for fiscal year 2002 will be used to continue the feasibility phase of the study, including final selection of plan alternatives, and initiation of environmental assessments, flood damage assessments, and local coordination. The estimated cost of the feasibility phase is $1,308,000, which is being 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	$1,658,000
Reconnaissance Phase (Federal)	350,000
Feasibility Phase (Federal)	654,000
Feasibility Phase (Non-Federal)	654,000

The reconnaissance phase was completed in March 1999. The feasibility study schedule is being determined.

Subtotal Shoreline Protection Studies – Continuing	14,406,000	6,332,000	1,491,000	1,253,000	5,330,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
2. SURVEYS - CONTINUING					
d. Special Studies: The amount of $4,048,000 is requested in fiscal year 2002 to continue 15 special studies and complete one special study.					
MARYLAND					
Anacostia River Federal Facilities Impact Assessment, MD & DC	3,000,000	2,167,000	375,000	458,000	0

The Anacostia River watershed extends through portions of Maryland and the District of Columbia. The watershed is 170 square miles in size and is highly urbanized. As a result of the Federal Government's development in the Washington region, substantial lands in the Anacostia watershed are in Federal ownership. More than 15 Federal facilities, owned by numerous agencies, encompass about 25 square miles or 15 percent of the Anacostia watershed. Consequently, the Federal Government has the opportunity to play a major role in regional environmental initiatives. In Section 114(d) of the Water Resources Development Act of 1992, Congress directed the Secretary of the Army to carry out a comprehensive assessment of the adverse watershed impacts from Federal facilities and to review the current plans for reducing such adverse impacts in the Anacostia basin. This assessment will address the potential for several types of environmental restoration, including terrestrial habitat restoration, aquatic habitat restoration, creation of wetland habitat, and sediment/stormwater control, at the specific Federal facilities. It is expected that these projects would be creative, cost-effective measures that would be in consonance with other Federal, state, and local activities underway in the watershed. The authorizing legislation authorizes appropriations up to $3,000,000 to carry out a feasibility study to identify and recommend measures for implementation to eliminate adverse impacts identified in the assessment report.

There is a strong ongoing program in the Anacostia River watershed to restore fish and wildlife habitat, promote good environmental practices, and implement many environmental restoration projects. This program was initiated by a regional agreement in 1987 and is led by the multi-jurisdictional Anacostia Watershed Restoration Committee. Support for this study extends across local, state, and regional agencies, as well as at the national level. The initial assessment report was completed in August 1997 and identified the priority problem areas and potential solutions on Federal facilities in the watershed.

Fiscal Year 2001 funds are being used to complete the sub-watershed analysis for the Lower Anacostia basin and continue development of the watershed plan for all the facilities in the upper and lower basins. The funds requested for fiscal year 2002 will be used to consolidate the findings of the upper and lower watershed studies into a comprehensive report. The interim sub-watershed analysis for Paint Branch and Beaverdam Creek was completed in May 2000. The final analyses schedules for the other priority sub-watersheds are being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Eastern Shore	1,250,000	186,000	110,000	250,000	704,000

The Eastern Shore of Maryland includes the counties of Cecil, Kent, Queen Annes, Caroline, Talbot, Dorchester, Somerset, Wicomico, and Worcester, Maryland. The Eastern Shore also includes 7 major watersheds; Sassafras River, Chester River, Eastern Bay, Choptank River, Nanticoke River, Wicomico River, and Pocomoke River. The focus of the study is the Nanticoke and Choptank watersheds.

The Nanticoke River is approximately 50 miles in length, has a drainage area of 827 square miles within Susex and Kent counties Delaware, and Wicomico, Dorchester, and Caroline Counties in Maryland, emptying into the Chesapeake Bay at Tangier Sound. The Nanticoke and its tributaries were once a major spawning area for shad and rockfish. The river is navigable to a depth of 12 feet from the Bay to Seaford, Delaware. The Choptank River is approximately 70 miles in length, has a drainage area of 961 square miles within Caroline, Queen Annes, Dorchester, and Talbot Counties in Maryland, and Kent County in Delaware, emptying into the Chesapeake Bay. The river is navigable to a depth of 8 feet from the Bay to Greensboro, Maryland.

Both watersheds have suffered significant degradation due to development; loss of forest and riparian habitat; and wetlands loss through drainage for agriculture. In recent years, high levels of nutrient runoff from poultry farms and other agricultural uses have caused further degradation to the environment. Other areas of concern include sedimentation, high volume of flow, and groundwater contamination. The study will investigate these problems, including agricultural drainage ditches, and if in the Federal interest recommend potential solutions. Potential sponsors for the feasibility phase of the study include the States of Maryland and Delaware and interested counties. These entities understand the cost-sharing requirements of the feasibility study and are scheduled to execute the feasibility cost-sharing agreement in July 2001.

If the Section 905 (b) analysis is certified to be in accord with policy, the fiscal year 2001 funds will be used to continue into the feasibility phase of the study, including technical activities, environmental impact analysis, and public involvement. The funds requested for FY 2002 will be used to continue the feasibility phase, including alternative analyses, concept and detailed designs, environmental impact analyses, and public involvement. The preliminary estimated cost of the feasibility phase is $2,200,000, 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	$2,350,000
Reconnaissance Phase (Federal)	150,000
Feasibility Phase (Federal)	1,100,000
Feasibility Phase (Non-Federal)	1,100,000

The reconnaissance phase is scheduled for completion in July 2001. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Lower Potomac Estuary Watershed, Mattawoman Watershed	460,000	304,000	19,000	87,000	50,000

The Lower Potomac Estuary is 150 miles in length, has a drainage area of about 1,850 square miles and empties into the Chesapeake Bay. There are several navigation projects on the lower Potomac River. The lower portion of the Potomac River watershed in Virginia and Maryland is stressed by increasing population and development that is degrading the environment. In addition, the construction of the Federal navigation projects contributed to the degradation and loss of the region's fish and wildlife habitats. The reconnaissance study focused on navigation, fish and wildlife restoration and creation, flood damage reduction and improvement of recreational opportunities. The reconnaissance study, completed in July 1997, found there is a Federal interest to conduct feasibility studies for several watersheds in the Lower Potomac Estuary including Charles County area for potential environmental restoration projects.

The Mattawoman feasibility studies will evaluate environmental restoration needs and opportunities that Federal, State and local entities can use to plan potential projects to protect or minimize degradation to existing fish and wildlife habitats. Charles County executed a feasibility study cost sharing agreement in May 2000 to prepare a watershed management plan. A second feasibility study will focus on the Prince George’s County area. Prince George’s County, Maryland, understands the cost sharing requirements for the feasibility phase of the study and is scheduled to execute the feasibility cost-sharing agreement in August 2001.

Fiscal Year 2001 funds are being used to continue the feasibility study for Charles County and negotiate and execute a feasibility study cost sharing agreement with Prince George’s County. The funds requested for fiscal year 2002 will be used to complete the Charles County feasibility study including development of a restoration and watershed management plan and public involvement. Funds will also be used to continue the feasibility study for Prince George’s County including initiation of development of a restoration and watershed management plan. The estimated cost of the feasibility phase is $600,000, 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	$760,000
Reconnaissance Phase (Federal)	160,000
Feasibility Phase (Federal)	300,000
Feasibility Phase (Non-Federal)	300,000

The reconnaissance phase for Charles County was completed in May 2000. The reconnaissance phase for Prince George’s County is scheduled for completion in August 2001. The feasibility studies schedules are being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Lower Potomac Estuary Watershed, St. Mary’s Watershed	680,000	132,000	135,000	190,000	223,000

The Lower Potomac Estuary is 150 miles in length, has a drainage area of about 1,850 square miles and empties into the Chesapeake Bay. There are several navigation projects on the lower Potomac River. Increasing population and developmental growth is degrading the lower Potomac River watershed’s environment in Virginia and Maryland. In addition, the construction of the Federal navigation projects contributed to the degradation and loss of the region's fish and wildlife habitats. The reconnaissance study focused on navigation, fish and wildlife restoration and creation, flood damage reduction and improvement of recreational opportunities. Completed in July 1997, the reconnaissance study recommended conducting feasibility studies in several watersheds throughout the study area to evaluate potential environmental restoration projects.

St. Mary’s watershed, Maryland, is the second feasibility study to be conducted from the Lower Potomac Estuary Watershed reconnaissance effort. The feasibility study will evaluate environmental restoration needs and opportunities that Federal, State and local entities can use to plan potential projects to protect or minimize degradation to existing fish and wildlife habitats. The non-Federal sponsors for this study are St. Mary's County, and the State of Maryland. The feasibility cost sharing agreement was executed in November 2000.

Fiscal Year 2001 funds are being used to initiate the feasibility study, including technical activities, concept designs, stormwater analyses and plan formulation. The funds requested for fiscal year 2002 will be used to continue the feasibility study including alternative analyses, incremental analyses, concept and detailed designs, public involvement and environmental impact analyses. The estimated cost of the feasibility phase is $1,200,000, 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	$1,280,000
Reconnaissance Phase (Federal)	80,000
Feasibility Phase (Federal)	600,000
Feasibility Phase (Non-Federal)	600,000

The reconnaissance phase for the St. Mary’s watershed, Maryland area was completed in November 2000. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
MASSACHUSETTS					
Blackstone River Watershed Restoration, MA and RI	1,627,000	888,000	162,000	100,000	477,000

The study area includes the entire Blackstone River Watershed, which originates in Worcester, Massachusetts and flows southward to the National Estuary of Narragansett Bay in Pawtucket, Rhode Island. The watershed is approximately 540 square miles and encompasses 30 cities and towns in south-central Massachusetts and northern Rhode Island. There is one Federal flood control reservoir and four local protection projects within this relatively small watershed to alleviate flooding in urban areas and protect major utilities and roadways. These projects consist of over 9 miles of channel improvements, dikes, floodwalls, tunnels and conduits that have decreased the value and diversity of fish habitat in the project areas and have altered the natural hydrologic regime of the watershed. The Blackstone River is also the largest single source of pollutants such as suspended solids, PCB's, metals and organics discharging into Narragansett Bay. One source of this pollution is the resuspension of contaminated sediments, which have collected behind existing impoundments along the river. The study will evaluate possible measures to correct the numerous problems of the Blackstone River Watershed and improve its overall resource value. A feasibility cost-sharing agreement was executed with the Massachusetts Executive Office of Environmental Affairs on 24 May 1999. Negotiations are continuing with the State of Rhode Island regarding their involvement in the feasibility study.

Fiscal Year 2001 funds are being used to continue the feasibility phase of the study, including studies to evaluate measures to improve fish and wildlife habitat by regulating flows; restoring fish spawning habitat, wetlands, and waterfowl nesting areas (e.g. black duck, mallards and wood ducks); constructing fish passage facilities for the target Anadromous fish species (American shad and river herring) and remediating the resuspension of contaminated sediments. The funds requested for fiscal year 2002 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,400,000, which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$2,827,000
Reconnaissance Phase (Federal)	427,000
Feasibility Phase (Federal)	1,200,000
Feasibility Phase (Non-Federal)	1,200,000

The reconnaissance phase was completed in May 1999. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Coastal Massachusetts Ecosystem Restoration Massachusetts and Cape Cod Bays	600,000	0	100,000	100,000	400,000

The study area encompasses the Massachusetts and Cape Cod Bays (MCCB) coastal shoreline and associated waters within the Commonwealth of Massachusetts, including the EPA designated national estuary of MCCB. The biologically diverse ecosystem created by the many natural salt marshes along the Massachusetts coast has historically provided exceptionally productive fish and wildlife habitat. Salt marshes provide significant economic and environmental benefits for the region by providing flood storage, filtering pollutants, and supporting commercial fisheries as well as recreational fishing and tourism. Over the past century, many of these natural salt marshes have been lost or degraded by construction of transportation facilities and other coastal development. There are 25 navigation and 11 beach erosion control projects in this region of Massachusetts. Several of these projects involved the disposal of dredged material in coastal wetlands or salt marshes such as the Green Harbor project. Dredged material was disposed of in the Town Marsh filling approximately 35 acres of productive salt marsh above mean high tide, resulting in a relatively unproductive upland habitat. Reconnaissance studies will evaluate this and other sites to determine measures to restore the ecological productivity of the MCCB coastline. This study is consistent with the objectives of Coastal America to restore all degraded salt marshes in the Commonwealth and is supported by the Executive Office of Environmental Affairs, Department of Transportation and numerous Federal agencies, as evidenced by their signing an MOU to restore Massachusetts wetlands. In April 1999, the Massachusetts Executive Office of Environmental Affairs expressed an interest in this study and is aware of the cost sharing requirements for the feasibility phase.

Fiscal Year 2001 funds will be used to initiate and complete a reconnaissance study at full Federal expense. Studies will identify areas of lost or degraded salt marshes and evaluate measures to restore the natural tidal exchange and ecological productivity of these areas. This restoration will increase the wetlands carrying capacity for fisheries (e.g. striped bass, scallops, etc.) and waterfowl nesting and forage habitat. If the Section 905 (b) analysis is certified to be in accord with policy, funds requested for fiscal year 2002 will be used to initiate the feasibility phase. The estimated cost of the feasibility phase is $1,000,000, which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of the study cost sharing is a 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 March 2002. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Somerset and Searsburg Dams, Deerfield River, MA and VT	369,000	82,000	84,000	100,000	103,000

The Deerfield River Watershed consists of approximately 664 square miles in southern Vermont and western Massachusetts. The Deerfield River originates in Stratton, Vermont flowing southerly to its confluence with the Connecticut River in the town of Greenfield, Massachusetts. The Deerfield River has some 45 separate impoundments in the watershed, 15 of which still generate power (8 in Massachusetts). Most of the dams are abandoned mill dams and are not in use; many are in disrepair. Historically, much of the Deerfield and its tributaries supported runs of several fish species. River impediments, primarily dams, block the migration of anadromous fish upstream to spawning areas and smolt movement to the ocean. Similarly, catadromous fish, which typically live in fresh water and spawn in the ocean, are not able to access their primary habitat as a result of these dams. The sectioning of the river has also impacted potamodromous fish, which are freshwater species that move to faster moving streams in the watershed to spawn. In addition, impounding the river causes the loss of spawning habitat for migrating fish (e.g., removal of pool-riffle pattern, elimination of in stream cover and riparian vegetation, and establishment of unsuitable flow regimes and water depths). The reconnaissance report evaluated measures to restore degraded habitats by breaching dams or providing fish ladders at the following Massachusetts sites: Wiley & Russell Dam, Greenfield (Green River); Mill Street Dam, Greenfield (Green River); Town Swimming Pool Dam, Greenfield (Green River); Water Supply Dam, Greenfield (Green River); and the BBA Nonwovens Dam, Colrain (North River). A feasibility study cost sharing agreement was executed in April 2000 with the Massachusetts Executive Office of Environmental Affairs.

Fiscal Year 2001 funds will be used to continue the feasibility phase of the study, including evaluating measures to restore degraded habitats by breaching dams or providing fish ladders at the following Massachusetts sites: Wiley & Russell Dam, Greenfield (Green River); Mill Street Dam, Greenfield (Green River); Town Swimming Pool Dam, Greenfield (Green River); Water Supply Dam, Greenfield (Green River); and the BBA Nonwovens Dam, Colrain (North River). The funds requested for fiscal year 2002 will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $606,000, which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$672,000
Reconnaissance Phase (Federal)	66,000
Feasibility Phase (Federal)	303,000
Feasibility Phase (Non-Federal)	303,000

The reconnaissance phase was completed in April 2000. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
NEW JERSEY					
Hudson-Raritan Estuary, Lower Passaic River	2,500,000	0	81,000	200,000	2,219,000

The study area is located in Essex County, New Jersey, about five west of the Battery New York City and encompasses the lower Passaic River Basin from the river's confluence with Newark Bay to Dundee Dam. The area is urban to suburban and has been heavily industrialized since the mid-nineteenth century. This industrial activity has resulted in the degradation of the wetlands; discharges of effluents into the river, and dumping of refuse resulting in contaminated sediments in the river that is unfavorable for fish and wildlife habitat.

The reconnaissance report for the Hudson-Raritan Estuary, approved in July 2000, found there is a Federal interest for further studies in the lower Passaic River Basin. If the Section 905 (b) analysis for the Hudson-Raritan Estuary study is certified to be in accord with policy, the interim feasibility study for the Lower Passaic River will assess items that have a Federal interest for ecosystem restoration, including contaminate reduction measures, creation of wetlands, water quality improvements, and alteration of hydrology/hydraulics to improve water movement and quality in the Lower Passaic River and sections of Newark bay. The potential non-Federal sponsor is the New Jersey Department of Environmental Protection, who understands the cost sharing requirements for the feasibility phase of the study. The feasibility cost sharing agreement is scheduled for execution in September 2001.

If the Section 905 (b) analysis for the Hudson-Raritan Estuary study is certified to be in accord with policy, fiscal year 2001 funds will be used to negotiate and execute the feasibility cost sharing agreement for the interim study, and initiate the feasibility phase. The funds requested for fiscal year 2002 will be used to continue the feasibility phase, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions. The preliminary estimated cost of the feasibility study 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	$5,000,000
Reconnaissance phase (Federal)	0
Feasibility phase (Federal)	2,500,000
Feasibility phase (Non-Federal)	2,500,000

The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Lower Passaic River	2,600,000	0	100,000	75,000	2,425,000

The Passaic River Basin is a 935 square miles basin located in north-central New Jersey and southeastern New York about 15 miles northwest of the Battery New York City. The ecosystem in the Passaic River basin, particularly the lower portion of the basin, has been subjected to degradation from industrial and commercial activities since the mid-nineteenth century, as well as from urban development. Local communities desire to restore portions of the Passaic River basin to its natural state.

A reconnaissance study will assess the ecosystem restoration opportunities and potential solutions. Restoration measures to be evaluated include restoring or recreating wetlands, fish spawning habitat, and waterfowl nesting areas. In addition, the reconnaissance study will evaluate restoring the natural river channel in areas that have been altered by flood control structures. The potential non-Federal sponsor is the New Jersey Department of Environmental Protection who understands the cost sharing requirements for the feasibility phase of the study. The feasibility cost sharing agreement is scheduled to be executed in November 2001.

Fiscal Year 2001 funds are being used to complete the reconnaissance phase at full Federal expense. If the Section 905 (b) analysis is certified to be in accord with policy, fiscal year 2002 funds will be used to initiate the feasibility phase of the study, including data collection, economic, environmental analyses necessary to establish baseline conditions, and formulate alternatives. 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	$5,100,000
Reconnaissance phase (Federal)	100,000
Feasibility phase (Federal)	2,500,000
Feasibility phase (Non-Federal)	2,500,000

The reconnaissance phase is scheduled to be completed in November 2001. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
NEW YORK					
Flushing Bay and Creek	1,614,000	708,000	390,000	409,000	107,000

The project area is an embayment of the East River adjoining a portion of the northern coast of the Borough of Queens in New York City. The watershed area is located in a highly urbanized area of New York City.

An active Federal navigation project has existed in Flushing Bay and Creek since the 1870's. The project consists of a 15-foot channel into Flushing Bay and Creek with a 6-foot anchorage basin in the back bay. A 1,400-foot earthen dike, constructed in the 1960's, functions as a breakwater for the marina in the back bay. However, the earthen dike was deauthorized from Federal maintenance by the Water Resources Development Act 1992. Past project dredging activities, along with continued urban development, have continued to degrade the tidal wetlands leaving the remaining wetlands unsuitable to support any fish or wildlife.

The reconnaissance study, completed April 1996, found there is a Federal interest to proceed to the feasibility phase of the study and recommended potential ecosystem restoration measures, including tidal wetlands restoration, freshwater wetlands restoration, removal of the earthen dike, reorientation of the Federal navigation channel, bank stabilization, debris removal. The New York City Department of Environmental Protection is the non-Federal sponsor for the feasibility phase of the study and executed the feasibility cost-sharing agreement in September 1999.

Fiscal Year 2001 funds are being used to continue the feasibility phase of study, including hydrodynamic modeling, formulation of plan alternatives, aerial photography, and environmental analysis. The funds requested for fiscal year 2002 will be used to continue the feasibility phase of the study, including biological/environmental analyses, preparation of site designs, and coordination of the recommended plan. The estimated cost of the feasibility study is $2,728,000, which is being 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	$2,978,000
Reconnaissance Phase (Federal)	250,000
Feasibility Phase (Federal)	1,364,000
Feasibility Phase (Non-Federal)	1,364,000

The reconnaissance phase was completed in September 1999. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Hudson-Raritan Estuary NY & NJ	6,200,000	163,000	475,000	1,369,000	4,193,000

The study area includes the Port of New York and -New Jersey and includes the Ambrose and Anchorage Channel; New York and New Jersey Channels; Newark Bay Channel; Port Jersey Channel; Claremont Channel; Bay Ridge and Red Hook Channel; and Buttermilk Channel, the Upper and Lower New York Bays, the Raritan Bay and Jamaica Bay. The Port of New York-New Jersey is the largest port on the East coast with channels ranging depths of 35 to 45 feet. These waters and the surrounding shoreline, mudflats, intertidal marshes, and adjacent upland areas provide valuable habitat for fish, plant and wildlife resources, and accommodate migrating birds along the Atlantic flyway. The area is also utilized by a number of Federally threatened/endangered species including the shortnosed sturgeon, five species of sea turtles, peregrin falcons, piping plovers and rosette terns.

The reconnaissance report for the Hudson-Raritan Estuary, approved in July 2000, found there is a Federal interest for further studies. If the Section 905 (b) analysis is certified to be in accord with policy, the feasibility study will assess items that have a Federal interest for ecosystem restoration, including contaminate reduction measures, creation of wetlands, water quality improvements, and alteration of hydrology/hydraulics to improve water movement and quality. Potential local sponsors for the feasibility phase of the study include the Port Authority of New York and New Jersey, the New York State Department of Environmental Conservation and the State of New Jersey Department of Environmental Protection, who all understand the cost sharing requirements for the feasibility study. The feasibility cost sharing agreement is scheduled for execution in June 2001.

Fiscal Year 2001 funds are being used to complete the reconnaissance phase at full Federal expense and if the Section 905 (b) analysis is certified to be in accord with policy, initiate the overall feasibility phase of the study, as well as initiate the feasibility phases for the Hudson-Raritan Estuary Gowanus Canal and Hudson-Raritan Estuary Lower Passaic studies (see separate justication sheets). The funds requested for fiscal year 2002 will be used to continue the feasibility phase, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions and formulate alternatives. The preliminary estimated cost of the feasibility study is $12,000,000, 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	12,200,000
Reconnaissance Phase (Federal)	200,000
Feasibility Phase (Federal)	6,000,000
Feasibility Phase (Non-Federal)	6,000,000

The reconnaissance phase is scheduled for completion in June 2001. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Hudson-Raritan Estuary, Gowanus Canal	2,500,000	0	81,000	400,000	2,019,000

The Gowanus Canal is located in Brooklyn, New York, approximately four miles southeast of the Battery New York City. The canal is non-Federal and extends from the Hamilton Avenue Bridge at the end of a Federal navigation project northeasterly into Brooklyn for approximately two miles. The Canal was constructed about 1881 to accommodate industrial users and commercial shippers from the Brooklyn waterfront. The area around the canal has been heavily industrialized and urbanized since the mid-nineteenth century.

The Gowanus Creek Channel Federal navigation project, constructed between 1881 and 1952, is a 30-foot deep channel, with a tapering width of 500-to-200 feet from Gowanus Bay to the vicinity of Sigourney Street, then an 18-foot deep channel, with a tapering width from 200-to-100 feet to the Hamilton Avenue Bridge for an approximate length of 4000 feet. In addition, there is a 30-foot deep, 150-foot wide branch channel from Gowanus Bay extending northerly to the Henry Street basin. The industrial users of the Canal throughout the nineteenth and twentieth centuries have caused significant environmental degradation to Gowanus Creek and Gowanus Canal by allowing hazardous materials to be deposited at the bottom of these channels. In addition, the pollution poses a great risk to area residents, and fish and wildlife.

The reconnaissance report for the Hudson-Raritan Estuary, approved in July 2000, found there is a Federal interest for further studies for the Gowanus Canal. If the Section 905 (b) analysis for the Hudson-Raritan Estuary study is certified to be in accord with policy, the interim feasibility study for Gowanus Canal will assess items that have a Federal interest for ecosystem restoration, including contaminate reduction measures, creation of wetlands, water quality improvements, and alteration of hydrology/hydraulics to improve water movement and quality. Potential local sponsors for the feasibility phase of the study include the Port Authority of New York and New Jersey, and the New York City Department of Environmental Protection, who all understand the cost sharing requirements for the feasibility study. The feasibility cost sharing agreement is scheduled for execution in September 2001.

If the Section 905 (b) analysis for the Hudson-Raritan Estuary study is certified to be in accord with policy, fiscal year 2001 funds will be used to negotiate and execute the feasibility cost sharing agreement for the interim study, and initiate the feasibility phase. The funds requested for fiscal year 2002 will be used to continue the feasibility phase of the study, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions, and formulate plan alternatives. The preliminary estimated cost of the feasibility study 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	$5,000,000
Reconnaissance phase (Federal)	0
Feasibility phase (Federal)	2,500,000
Feasibility phase (Non-Federal)	2,500,000

The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Saw Mill River Basin	1,600,000	100,000	75,000	50,000	1,375,000

The Saw Mill River Basin is located in the southwestern part of Westchester County, New York. The drainage area of the basin is approximately 26.5 square miles. The Saw Mill River begins in the town of New Castle and flows in a southwesterly direction passing through the City of Yonkers to the Hudson River.

Federal flood control projects have been completed along several sections of the Saw Mill River at Chappaqua, Ardsley, Nepera Park, and Yonkers, New York. Construction of the flood control projects has removed the natural material in the channel bed with varying riffles and pools and replaced it with a relatively uniform bottom lined with rock and concrete mat. This has changed the aquatic resources and habitat ecology. Erosion of the channel banks has resulted and many trees immediately along the improved channel were removed along with herbaceous vegetation. Additional vegetation would result in significant habitat improvement.

The reconnaissance report, completed in November 1999, found there is a Federal interest for ecosystem restoration throughout the basin. The feasibility study will consider measures to reestablish and creation of wetlands and aquatic habitat, removal of barriers to fish migration, and streambank erosion control. The potential sponsor for the feasibility phase of the study is the New York State Department of Environmental Conservation, who fully understands the cost sharing requirements. The feasibility cost sharing agreement is schedule to be executed in August 2001.

If the Section 905 (b) analysis is certified to be in accord with policy, the fiscal Year 2001 funds will be used to initiate the feasibility phase of the study, including data collection, economic, hydraulic, and environmental analyses necessary to establish baseline conditions. The funds requested for fiscal Year 2002 will be used to continue the feasibility phase of the study, including formulation of plan alternatives. The preliminary estimated cost of the feasibility study is $3,000,000 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	$3,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase is scheduled for completion in August 2001. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
South Shore of Long Island	2,150,000	200,000	67,000	50,000	1,833,000

The study area is the entire south shore of Long Island consisting of the embayment (back bay) areas between the Long Island mainland and its smaller barrier islands. The embayment areas, comprised of an area of approximately 155 square miles, are a critical ecosystem of salt marshes and waterways that provide habitat and spawning areas for a wide variety of species including Federally endangered shorebirds and sea turtles. The back bay system also provides substantial commercial value shellfish and finfish resources. Within the northeastern United States, at least 50 percent of finfish both directly or indirectly utilize and benefit from estuarine wetlands and back bays. Generally, a loss of wetlands has contributed to a declining finfish population in the northeast.

This study will examine the past impacts of Corps projects on these important ecosystems, habitats and water quality. Impacts that may have affected the back bay ecosystem include the loss of wetlands and associated habitats that support the fish and wildlife resources of the back bay areas in addition to the alteration of tidal patterns and the degradation of water quality, which adversely affect the biological productivity of the surrounding area. Hundreds of acres have likely been adversely impacted due to actions associated with existing Federal navigation projects and the indirect usage and development related to them. A reconnaissance report was completed in June 1997. The report recommended further studies, including salt marsh restoration; seabird/shorebird habitat restoration; shellfish restoration; shoreline protection; submerged aquatic vegetation restoration; and estuarine pond restoration. The New York State Department of Environmental Conservation and Department of State, Suffolk County and the Town of Brookhaven strongly support this study and have indicated their willingness to execute a Feasibility Cost Sharing Agreement. The feasibility cost-sharing agreement is scheduled for execution in July 2001.

If the Section 905 (b) analysis is certified to be in accord with policy, the fiscal year 2001 funds, along with prior appropriated funds, will be used to initiate the feasibility phase of the study, including data collection activities. The funds requested for fiscal year 2002 will be used to continue the feasibility phase of the study, including habitat and wetlands evaluation analyses; preliminary site selection and formulate plan alternatives. The estimated cost of the feasibility phase is $4,000,000, which is cost shared on a 50-50 percent basis by Federal and non-Federal sponsor. A summary of study cost sharing is as follows:

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

The reconnaissance phase is scheduled for completion in July 2001. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Upper Delaware River Watershed	1,300,000	150,000	0	160,000	990,000

The study area is located in southeastern New York, roughly 45 miles southwest of Albany, New York and drains about 2,360 square miles in New York State. The study area encompasses the main stem of the Delaware River and four major sub-basins: the East and West Branches of the Delaware River, the Neversink River, and the Mongaup River. The area includes portions of Sullivan, Delaware, Greene, Ulster, Orange, Broom, Chenango, and Schoharie Counties, including parts of the Catskill Mountains. The only existing Federal project in the watershed is an earthen levee and ponding area in the Village of East Branch, New York, that was completed in 1972.

The feasibility phase of the study will evaluate ecosystem restoration efforts, flood protection measures, including structural and non-structural solutions, flood plain management techniques, and other purposes such as streambank erosion control, water quality management, flow management, stream corridor management, and geographic information system (GIS) modeling. A Section 905 (b) analysis was completed in July 1997.

The Upper Delaware River Watershed in New York State is home to world famous trout fisheries. Ecosystem degradation has destroyed fish and wildlife habitats for some of the fisheries in the watershed from increased turbidity, streambank erosion, channel migration, flooding, and flood recovery efforts. The watershed also serves as the main source of potable water for the Greater New York City area. It provides about 700 million gallons per day from three reservoirs to nearly 9 million residents.

In addition, the January 19-20, 1996 and November 8-9, 1996 storms caused major flooding in the area with extensive damage. These storm events both resulted in a Federal disaster declaration. The January storm caused flooding in Stamford, New York, which damaged about 30 structures, and several roads and bridges at six locations estimated at $375,000. At Delhi, New York, flooding damaged over 40 structures with significant damage to roads, bridges, and retaining structures estimated at $1.8 million. The Town of Middletown, New York, sustained damage to over 800 residences and commercial structures. In Sullivan County, New York, damages to roads, bridges and culverts exceeded $5 million, and damages to about 400 homes, trailers and businesses, exceeded $2.5 million. Major flooding affected Delaware and Sullivan Counties again in June and July 1998. The sponsors are the New York State Department of Environmental Conservation, New York City Department of Environmental Protection, and Delaware River Basin Commission. Each entity understands the cost-sharing requirements for the feasibility phase of the study. The feasibility cost-sharing agreement was executed in December 2000.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $

Upper Delaware River Watershed

Prior appropriated funds are being used to continue the feasibility phase of the study, including economic, cultural, and environmental and real estate investigations. The funds requested for fiscal year 2002 will be used to continue the feasibility phase of the study, including existing and without-project conditions assessments and problem identification efforts. The estimated cost of the feasibility phase is $2,400,000, 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	$2,500,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	$1,200,000
Feasibility Phase (Non-Federal)	1,200,000

The reconnaissance phase was completion in Delaware 2000. The feasibility study schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
RHODE ISLAND					
Rhode Island Ecosystem Restoration	1,200,000	200,000	90,000	50,000	860,000

The study area encompasses all coastal and riverine areas within the Pawcatuck, Pawtuxet, Moshassuck, Ten Mile and Woonasquatucket River Watersheds; and along the western shoreline of Narragansett Bay in Rhode Island. The biologically diverse ecosystems created by the many natural salt marshes and wetlands in the study area have historically provided exceptionally productive fish and wildlife habitat. Salt marshes and wetlands provide significant economic and environmental benefits for the region by providing flood storage, filtering pollutants, supporting commercial fisheries, recreational fishing and tourism. Over the past century, many of these natural salt marshes, eel grass beds and wetlands have been lost or degraded by development activities in the coastal and riverine floodplains and from the disposal of dredged material. Development of coastal and riverine floodplains, along with the construction of dams, has also impacted historic anadromous fish populations. Studies will evaluate these and other sites to determine measures to restore the ecological productivity of the coastline and riverine areas. These studies will identify and prioritize numerous opportunities to restore degraded coastal wetlands, freshwater wetlands impacted by filling, riverine migratory corridors and submerged aquatic vegetation. The Rhode Island Department of Environmental Management has expressed strong interest in this study and is aware of the cost sharing requirements for the feasibility phase. However, due to limited funding, the state requested that several separate feasibility efforts be conducted. The first feasibility study will evaluate restoring anadromous fish passage, restore lost or degraded salt marshes and freshwater wetlands, fish passages in other watersheds, and aquatic vegetation at three dams along the Ten Mile River. The feasibility cost-sharing agreement is scheduled for execution in April 2001.

Fiscal Year 2001 funds will be used to complete the reconnaissance study at full Federal expense, and if the Section 905 (b) analysis is certified to be in accord with policy, initiate the feasibility phase of the study, including evaluating measures to restore anadromous fish passages. The funds requested for Fiscal Year 2002 will be used to continue the feasibility phase of the study, including formulate plan alternatives. The estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$2,200,000
Reconnaissance Phase (Federal)	200,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in April 2001. The feasibility study schedule is being determined.

Subtotal Special Studies Continuing	29,650,000	5,280,000	2,344,000	4,048,000	17,978,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
2. SURVEYS - CONTINUING					
e. Comprehensive Studies: The amount of $300,000 is requested in fiscal year 2002 to continue one comprehensive study.					
NEW HAMPSHIRE					
Merrimack River Basin, NH and MA	3,850,000	0	374,000	300,000	3,176,000

The Merrimack River originates in Franklin, New Hampshire at the confluence of the Pemigewasset and Winnipesaukee Rivers and flows southerly towards the Massachusetts border then easterly towards the coast. The Merrimack River basin encompasses an approximate 5,010 square miles area in Massachusetts and New Hampshire. Significant improvements have been made to improve the overall water quality of the Merrimack River. Federal and state agencies, communities and the private sector have made substantial investments in wastewater treatment plants to address point source pollution. However, elimination of combined sewer outfalls (CSOs) is needed to fully restore the ecosystem to support habitat for anadromous fisheries, a source of drinking water, and provide a recreational resource for the region. The US Environmental Protection Agency is requiring the communities of Haverhill, Lawrence, and Lowell in Massachusetts and Manchester and Nashua in New Hampshire to address eliminating CSOs discharges into the Merrimack River. Current estimates for eliminating CSOs is over $500 million and the five communities are concerned with the high cost. These communities are requesting that studies be conducted to identify less costly options to eliminate CSOs in their communities, as well as ecosystem opportunities to restore anadromous fisheries, improve fish and wildlife habitat, restore degraded wetlands, address low flow issues, and improve the river’s water quality. This study is being conducted pursuant to Section 729 of the Water Resources Development Act of 1986. The non-Federal sponsors for the study are the States of Massachusetts and New Hampshire, who understand the cost sharing requirements for the study. The cost sharing agreement is scheduled for execution in September 2001.

Fiscal year 2001 funds will be used to negotiate a study cost sharing agreement and initiate a study, including data collection, and cost analysis to assist the communities to prioritize CSO investments. The funds requested in fiscal

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Merrimack River Basin, NH and MA					

year 2002 will be used to continue the study. The preliminary estimated cost of the study is $7,500,000, 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	$7,600,000
Reconnaissance Phase	100,000
Study Phase (Federal)	3,750,000
Study Phase (Non-Federal)	3,750,000

The study schedule is being determined.

Subtotal Comprehensive Studies Continuing	3,850,000	0	374,000	300,000	3,176,000

f. Project Review Studies: None

TOTAL SURVEYS – CONTINUING	75,212,000	17,183,000	7,348,000	8,781,000	41,900,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $

3. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) – NEW

e. Watershed/Ecosystem: The amount of $644,000 is requested in fiscal year 2002 to initiate four watershed/ ecosystem PED activities.

MARYLAND

Baltimore Metropolitan Water Resources, Gwynns Falls	945,000	0	0	50,000	895,000

The project area includes portions of the Patapsco River basin in Baltimore City and Baltimore County, Maryland. The State of Maryland has identified the Patapsco river watershed as a high-priority area to focus its efforts for improving the water quality in the Chesapeake Bay. Numerous problems have contributed to the loss and degradation of fish and wildlife habitat in the watershed, including previous dredging from the Baltimore Harbor and Channels project. A feasibility study for the Gwynns Falls area is assessing a potential ecosystem restoration project, which is scheduled for completion in December 2001. The potential project includes construction of stream and streambank restoration measures, stormwater ponds, wetland creation, restoration of riparian vegetation, and removal of fish passage blockages. The preliminary estimated project cost is $7,260,000 with an estimated Federal cost of $4,953,000 and an estimated non-Federal cost of $2,667,000. No benefit-cost ratio has been computed for this project because it is an ecosystem restoration project and benefits are not quantifiable in monetary terms. Baltimore County and Baltimore City, Maryland, fully understand the preconstruction engineering and design cost-sharing requirements and are expected to be the non-Federal sponsors for this effort. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal construction in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Effort Costs	$1,260,000	Total Estimated Preconstruction Engineering and Design Costs	$1,260,000
Initial Federal Share	945,000	Ultimate Federal Share	819,000
Initial Non-Federal Cost	315,000	Ultimate Non-Federal Cost	441,000

Consistent with the cost-sharing and financing concepts exacted by the Water Resources Development Act of 1986 and 1996, local interests are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to environmental protection and restoration.

The funds requested for fiscal year 2002 will be used to execute the design agreement and initiate preconstruction engineering and design, including detailed engineering and design activities. The preconstruction engineering and design schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
NEW JERSEY					
New Jersey Intracoastal Waterway, Environmental Restoration	750,000	0	0	150,000	600,000

The project area includes 117 miles of the Intracoastal Waterway in the State of New Jersey from the Manasquan River to Delaware Bay. Maintenance dredging has removed millions of cubic yards of dredged material that has been placed in upland and overboard disposal sites in the shallow bays and wetlands along the waterway. Many disposal sites are becoming either environmentally unacceptable or filled to capacity and are degrading the ecosystem habitats. A feasibility study for the New Jersey Intracoastal Waterway is assessing a potential ecosystem restoration project, including modifications to current dredging practices with an emphasis on techniques for recycling and the beneficial use of dredged material. The feasibility study is scheduled for completion in May 2002. The preliminary estimated project cost is $15,000,000 with an estimated Federal cost of $9,750,000 and an estimated non-Federal cost of $5,250,000. No benefit-cost ratio has been computed for this project because it is an ecosystem restoration project and benefits are not quantifiable in monetary terms. The New Jersey Department of Environmental Protection, who fully understands the preconstruction engineering and design cost-sharing requirements, is expected to be the non-Federal sponsor for this effort. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal construction in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$1,000,000	Total Estimated Preconstruction Engineering and Design Costs	$1,000,000
Initial Federal Share	750,000	Ultimate Federal Share	650,000
Initial Non-Federal Share	250,000	Ultimate Non-Federal Share	350,000

Consistent with the cost-sharing and financing concepts exacted by the Water Resources Development Act of 1986 and 1996, local interests are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to environmental protection and restoration.

The funds requested for fiscal year 2002 will be used to execute the design agreement and initiate preconstruction engineering and design, including detailed engineering and design activities. The preconstruction engineering and design schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
RHODE ISLAND					
Rhode Island South Coast Habitat Restoration and Storm Damage Reduction	375,000	0	0	160,000	215,000

The project area encompasses the coastal shoreline in the State of Rhode Island, from Westerly to Narragansett. Development in and around the coastal shorelines since the mid-nineteenth century has restricted the nature tidal flushing of many salt marshes, ponds that has degraded or eliminated many ecosystem habitats. These ponds and salt marshes support a $70,000,000 fishing and shellfish industry, as well as providing essential habitat for migratory birds. The Coastal America partnership and the Rhode Island Coastal Resources Management Council support ecosystem restoration in the State of Rhode Island. The feasibility study is assess potential ecosystem restoration measures and is scheduled for completion in September 2001. A preliminary project recommendation would restore eelgrass and shellfish beds in Winnapaug Pond in Westerly, Rhode Island, and Ninigret and Quonochontaug Ponds in Charlestown, Rhode Island, as well as fish passage structures at Factory Pond in South Kingstown, Rhode Island and Cross Mills Pond in Charlestown. The preliminary estimated project cost is $10,000,000 with an estimated Federal cost of $6,500,000 and an estimated non-Federal cost of $3,500,000. No benefit-cost ratio has been computed for this project because it is an ecosystem restoration project and benefits are not quantifiable in monetary terms. The Rhode Island Coastal Resources Management Council, who fully understands the preconstruction engineering and design cost-sharing requirements, is expected to be the non-Federal sponsor for this effort. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal construction in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$500,000	Total Estimated Preconstruction Engineering and Design Costs	$500,000
Initial Federal Share	375,000	Ultimate Federal Share	325,000
Initial Non-Federal Share	125,000	Ultimate Non-Federal Share	175,000

Consistent with the cost-sharing and financing concepts exacted by the Water Resources Development Act of 1986 and 1996, local interests are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to environmental protection and restoration.

The funds requested for fiscal year 2002 will be used to negotiate and execute the design agreement and initiate preconstruction engineering and design, including detailed engineering and design activities. The preconstruction engineering and design schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
VIRGINIA					
Elizabeth River Basin, Environmental Restoration, Hampton Roads	1,000,000	0	0	284,000	716,000

The project area includes the Elizabeth River Basin within the southside Hampton Roads area of southeastern Virginia, including the cities of Suffolk, Portsmouth, Chesapeake, Norfolk, and Virginia Beach. Three hundred years of industry and commerce have made the Elizabeth River one of the nation's most contaminated waterways. Portions of the river have been dredged to twice its natural depth and narrowed to two-thirds of its natural width. There is an existing deep draft navigation project to 35 feet on the Southern Branch of the river that is part of the Norfolk Harbor and Channels project. Only limited wetlands in the 20-mile reach remain to support wildlife and filter pollution. The feasibility study is assessing a potential ecosystem restoration project for the Elizabeth River including creation and restoration of wetlands at several locations along the river and the remediation of contaminated river bottom sediments. The feasibility study is scheduled for completion in July 2001. The preliminary estimated project cost is $11,300,000 with an estimated Federal cost of $7,3000,000 and an estimated non-Federal cost of $4,000,000. No benefit-cost ratio has been computed for this project because it is an ecosystem restoration project and benefits are not quantifiable in monetary terms. The Cities of Chesapeake, Norfolk, Portsmouth, Virginia Beach, VA and the Commonwealth of Virginia, who fully understand the preconstruction engineering and design cost-sharing requirements, are expected to be the non-Federal sponsors for this effort. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal construction in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Cost	$1,000,000	Total Estimated Preconstruction Engineering and Design Cost	$1,000,000
Initial Federal Share	750,000	Ultimate Federal Share	650,000
Initial Non-Federal Share	250,000	Ultimate Non-Federal Share	350,000

Consistent with the cost-sharing and financing concepts exacted by the Water Resources Development Act of 1986 and 1996, local interests are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to environmental protection and restoration.

The funds requested for fiscal year 2002 will be used to execute the design agreement and initiate preconstruction engineering and design, including detailed engineering and design activities. The preconstruction engineering and design schedule is being determined.

Subtotal Watershed/Ecosystem (PED) Activities – New	3,070,000	0	0	644,000	2,426,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
3. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) – NEW					
b. Navigation: None.					
c. Beach Erosion Control: None.					
d. Flood Control: The amount of $644,000 is requested in fiscal year 2002 to initiate one flood control PED activities.					
NEW JERSEY					
South River, Raritan River Basin	3,000,000	0	0	100,000	2,900,000

The project area includes the communities of Sayreville, South River, and East Brunswick, New Jersey, along the South River, a tributary to the Raritan River, located in Middlesex County, New Jersey. This highly developed suburban area is subject to tidal flooding from storms. The storms that occurred in December 1992 and March 1993 caused damages estimated at $6,100,000 to residential and commercial properties. The feasibility study for South River is assessing a potential project for flood control measures as well as an ecosystem restoration measure, which is scheduled to be completed in December 2001. The selected flood control plan consists of levees, floodwalls, interior drainage facilities consisting of pumping stations and ponding areas with outlet gates, and a storm-tide gate at the Veteran’s Memorial Bridge in South River. This project will protect approximately 1,200 residential and commercial structures in Sayreville, South River, and East Brunswick. In addition, several sites for ecosystem restoration have been selected, including a 350-acre island along the Washington Canal and South River. The preliminary estimated project cost is $40,000,000, with an estimated Federal cost of $26,000,000 and an estimated non-Federal cost of $14,000,000. The average annual benefits for the flood control project amount to $2,200,000, all for flood damage reduction. The benefit-cost ratio is approximately 1.4 to 1, based on the latest economic analysis dated April 1999. By a letter dated March 18, 1999, the New Jersey Department of Environmental Protection indicated its support for the project and fully understands the preconstruction engineering and design cost-sharing requirements. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed, but will be financed through the preconstruction engineering and design period at 25 percent non-Federal. Any adjustments that may be necessary to bring

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
South River, Raritan River Basin					

the non-Federal contribution in line with the project cost sharing will be accomplished in the first years of construction.

Total Estimated Preconstruction Engineering And Design Cost	$4,000,000	Total Estimated Preconstruction Engineering Design Cost	$4,000,000
Initial Federal Share	3,000,000	Ultimate Federal Share	2,600,000
Initial Non-Federal Share	1,000,000	Ultimate Non-Federal Share	1,400,000

Consistent with the cost-sharing and financing concepts exacted by the Water Resources Development Act of 1986 and 1996, local interests are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to flood control and environmental protection and restoration.

The funds requested for fiscal year 2002 will be used to execute the design agreement and initiate preconstruction engineering and design, including detailed engineering and design activities. The preconstruction engineering and design schedule is being determined.

Subtotal Flood Control (PED) Activities – New	3,000,000	0	0	100,000	2,900,000

e. Multiple Purpose Power: None.

TOTAL PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) - New	6,070,000	0	0	744,000	5,326,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
4. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) – CONTINUING					
a. Watershed/Ecosystem: The amount of $930,000 is requested in fiscal year 2002 to continue three watershed/ ecosystem PED activities.					
MARYLAND					
Smith Island Environmental Restoration	600,000	0	75,000	300,000	225,000

Smith Island is located on the eastern shore of Maryland near the Maryland-Virginia border in Somerset County. The island Maryland’s only inhabited offshore island having been settled in the mid 1600’s. There are three towns on the island Ewell, Rhodes Point and Tylerton, with harbors that are used by the oystering and crabbing industries. In the past 100 years, 1,200 acres of Smith Island have eroded into the Chesapeake Bay, and future erosion will destroy the island if left unchecked. There are existing Federal navigation channels being maintained for the island, all of which were formulated and constructed prior to today’s recognition of fish and wildlife values. The feasibility study is investigating fish and wildlife habitat restoration, wetlands restoration, SAV habitat restoration, navigation improvements, and storm protection. Areas of special concern include Rhodes Point, Tylerton, and threatened and decreasing SAV beds in Big Thorofare and around the Martin Wildlife Refuge. The feasibility report is scheduled to be complete in May 2001. The recommended projects identified in the feasibility study include construction of environmental restoration measures including protection/restoration of SAV habitat and protection/creation of wetlands and navigation improvements. The preliminary estimated project cost is $9,000,000 with an estimated Federal cost of $5,850,000 and an estimated non-Federal cost of $3,150,000. No benefit-cost ratio has been computed for this project because it is an environmental restoration project and benefits are not quantifiable in monetary terms. Somerset County, Maryland and the Maryland Department of the Environment and the Maryland Department of Natural Resources, fully understand the preconstruction engineering and design cost-sharing requirements and are expected to be the non-Federal sponsors for this effort. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal construction in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Effort Costs	$800,000	Total Estimated Preconstruction Engineering and Design Costs	$800,000
Initial Federal Share	600,000	Ultimate Federal Share	520,000
Initial Non-Federal Cost	200,000	Ultimate Non-Federal Cost	280,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $

Smith Island Environmental Restoration

Consistent with the cost-sharing and financing concepts exacted by the Water Resources Development Act of 1986 and 1996, local interests are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to environmental protection and restoration.

Fiscal Year 2001 funds are being used to initiate the preconstruction engineering and design, including execution of a cost-shared design agreement and initiation of detailed engineering and design activities. Fiscal Year 2002 funds will be used to continue preconstruction engineering and design, including preparation of the design memorandum and plans and specifications. The preconstruction engineering and design schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
NEW JERSEY					
Barnegat Bay	750,000	0	50,000	300,000	400,000

Barnegat Bay, located in Ocean County, New Jersey, is a 75 square mile shallow water estuary situated between the mainland and barrier islands of New Jersey. The Bay supports an ecosystem of eelgrass beds and wetlands that is an ideal habitat for fish and shellfish. This habitat also supports many commercial and recreational fishing activities for local citizens. The US Environmental Protection Agency approved Barnegat Bay for inclusion into the National Estuary Program. Development in Ocean County, New Jersey, is causing extensive ecosystem pressures along the shorelines of Barnegat Bay. In addition, extensive filling of wetlands, bulkheading, point and non-point source pollution, dredging and dredged material disposal are contributing to an overall decline in the estuary. Flooding and erosion along the bay's shoreline also affect local residences during storm events. A feasibility study of Barnegat Bay is assessing the need for potential ecosystem restoration measures, which is scheduled for completion in July 2001. The recommended projects include restoration of dredged holes, creation of anadromous fish runs and tidal marshes, and protection of nesting sites. The preliminary estimated project cost is $10,000,000 with an estimated Federal cost of $6,500,000 and an estimated non-Federal cost of $3,500,000. No benefit-cost ratio has been computed for this project because it is an environmental restoration project and benefits are not quantifiable in monetary terms. The New Jersey Department of Environmental Protection is the non-Federal sponsor for this effort. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal construction in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$1,000,000	Total Estimated Preconstruction Engineering and Design Costs	$1,000,000
Initial Federal Share	750,000	Ultimate Federal Share	650,000
Initial Non-Federal Share	250,000	Ultimate Non-Federal Share	350,000

Consistent with the cost-sharing and financing concepts exacted by the Water Resources Development Act of 1986 and 1996, local interests are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to environmental protection and restoration.

Fiscal Year 2001 funds are being used to negotiate and execute a design agreement and initiate preconstruction engineering and design efforts. The funds requested in fiscal year 2002 will be used to continue the preconstruction engineering and design, including detailed engineering and design activities. The preconstruction engineering and design schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
MASSACHUSETTS					
Muddy River, Brookline and Boston	975,000	0	375,000	330,000	270,000

The project area includes a 5.6 square mile area of the Muddy River watershed located in Boston, Brookline and Newton, Massachusetts. The river flows through the heart of the famed “Emerald Necklace”, one of the most carefully crafted park systems in the country. The park system is located adjacent to many residential areas, prominent Boston institutions, and businesses such as the Museum of Fine Arts, Northeastern University, Wentworth, Simmons and Emmanuel Colleges, and the Longwood Medical Center, that are subjected to flooding from storm events. A major storm in October 1996 caused over $70,000,000 in damages to Boston’s underground mass transit system. In addition, urban runoff, sewer cross-connections have degraded the river’s ecosystem habitats, and water quality. Sedimentation at bends in the river also has impacted the river’s ecosystem with the colonization of Phragmites along the riverbanks. A potential flood damage prevention project has been recommended to dredge 161,500 cubic yards of sediments from the Muddy River between Wards Pond and the Charles River, enlarge or removing restrictive culverts, stabilizing riverbanks, and remove nuisance vegetation. The proposed project would reduce flood damages, enhance recreation, and restore the ecosystem habitat. The preliminary estimated project cost is $50,000,000 with an estimated Federal cost of $32,500,000 and an estimated non-Federal cost of $27,500,000. Average annual benefits amount to $13,180,000, of which $12,737,000 are for flood damage reduction and $443,000 for enhanced recreation, based on the feasibility report. The benefit-cost ratio is 3.3 to 1. The project sponsors are the Commonwealth of Massachusetts, City of Boston and Town of Brookline, who fully understand the cost sharing requirements for the project. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal construction in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$1,300,000	Total Estimated Preconstruction Engineering and Design Costs	$1,300,000
Initial Federal Share	975,000	Ultimate Federal Share	845,000
Initial Non-Federal Share	325,000	Ultimate Non-Federal Share	455,000

Consistent with the cost-sharing and financing concepts exacted by the Water Resources Development Act of 1986 and 1996 as amended, local interests are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to environmental protection and restoration.

Fiscal Year 2001 funds are being used to prepare a decision document, including all environmental compliance, a project management plan, negotiate and execute a design agreement, and initiate preconstruciton engineering and design. Funds requested for fiscal year 2002 will be used to continue preconstruction engineering and design. The schedule for preconstruction engineering and design is being determined.

Subtotal Watershed/Ecosystem (PED) Activities – Continuing	2,325,000	0	500,000	930,000	895,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
4. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) – CONTINUING					
b. Navigation: The amount of $3,270,000 is requested in fiscal year 2002 to continue two navigation PED activities and complete one navigation PED activities.					
NEW YORK					
New York and New Jersey Harbor, NY & NJ	15,375,000	2,055,000	1,896,000	2,500,000	8,924,000

The Port of New York and New Jersey includes the Ambrose Channel, Anchorage Channel, New York and New Jersey Channels; Newark Bay Channel; Port Jersey Channel; Claremont Channel; Bay Ridge and Red Hook Channel; and Buttermilk Channel. The Port of New York-New Jersey is the largest port on the East Coast, providing more than 166,000 port related jobs, $20 billion in economic activity, and serves more than 17 million consumers in the States of New York and New Jersey. Through its intermodal links, the Port provides second day access to another 80 million consumers in the northeast and mid-western states. The Port annually receives and ships over 110 million long tons of waterborne general cargo to all parts of the United States and throughout the world and receives petroleum and related products from ports in the Atlantic, and Gulf Coasts, the Caribbean, Africa, and the Persian Gulf. Channels within the Harbor range in depths from 30 to 45 feet. Several shipping lines are constructing vessels with drafts exceeding 45 feet and have expressed a strong interest in entering the Port with these new vessels. The current channel depths prevent shipping lines from efficiently using the full capacity of these new ships. The Chief of Engineers report was completed in May 2000, which recommended a project to deepen Ambrose Channel to 53 feet MLW; the Anchorage Channel, Kill Van Kull, Newark Bay, Port Jersey Channels, Bay Ridge Channel, and the Arthur Kill Channel to Howland Hook to 50 feet MLW and 52 feet MLW if in rock or otherwise hard material. The estimated project cost is $2,000,000,000 with an estimated Federal cost of $1,100,000,000 and an estimated non-Federal cost of $900,000,000. The average annual benefits amount to $238,500,000, all for transportation savings, based on the feasibility report approved in December 1999, at October 1999 prices. The benefit-cost ratio is 1.4 to 1. The project was authorized in the Water Resources Development Act of 2000. The project sponsor is the Port Authority of New York and New Jersey, who fully understands the cost sharing requirements. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal construction in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$20,500,000	Total Estimated Preconstruction Engineering and Design Costs	$20,500,000
Initial Federal Share	15,375,000	Ultimate Federal Share	8,610,000
Initial Non-Federal Share	5,125,000	Ultimate Non-Federal Share	11,890,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $

New York and New Jersey Harbor, NY & NJ

Consistent with the cost-sharing and financing concepts enacted by the Water Resources Development Act of 1986, local interests are required to provide all lands, easements, rights-of-way and relocations, and bear all costs of terminal facilities and dredging in berthing areas; pay 50 percent of costs allocated to deep draft navigation; and pay an additional 10 percent of costs allocated to deep draft navigation, less a credit for the value of lands, easements, rights-of-way, and relocations within the 30 years following completion.

Fiscal Year 2001 funds will be used to continue preconstruction engineering and design, including data collection and detailed model studies. The funds requested for fiscal year 2002 will be used to continue preconstruction engineering and design, including detailed model studies, engineering and design and environmental monitoring. The preconstruction engineering and design schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
VIRGINIA					
Atlantic Intracoastal Waterway Bridge at Deep Creek	1,375,000	0	150,000	475,000	750,000

The Atlantic Intracoastal Waterway is a naturally protected navigation route that parallels the Atlantic coast between Massachusetts and Florida. The waterway's route intersects several existing highways that are the responsibility of the Corps of Engineers. One of these bridges is located in the Deep Creek community of Chesapeake, Virginia, about 150 miles southeast of Washington, D.C. The bridge, constructed in 1934, is a Federally owned and operated facility over which U.S. Route 17 crosses the Dismal Swamp Canal. The city of Chesapeake requested that the need to modify or replace the bridge be investigated in conjunction with City’s plans to improve area’s roadway and Commonwealth of Virginia plans to improve U.S. Route 17 south of the bridge. These improvements are needed to accommodate the increasing development in this area. In October 1996, the approved Initial Appraisal concluded that the bridge is functionally obsolete because of its narrow roadway and poor alignment with the connecting roads, compounded by increasing traffic volumes. The feasibility study is scheduled for completion in May 2001. The preliminary recommended plan is to replacement the bridge with a five lane, double leaf, rolling-lift Bascule Bridge. The preliminary project cost is estimated to be $16.000,000 with estimated Federal cost of $15,200,000 and an estimated non-Federal cost of $800,000. The average annual benefits amount to 3.5 million, all for transportation savings, based on the latest economic analysis dated 11 January 2000. The benefit-cost ratio is 1.7 to 1. The potential project sponsor is City of Chesapeake, Virginia, who fully understands the project cost sharing requirements. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed, but will be financed through the preconstruction engineering and design period at 100 percent Federal funds because inland navigation projects are exempt from the 25 percent non-Federal financing requirement. In addition, the City of Chesapeake has agreed to assume ownership of the bridge and all operation, maintenance, repair, replacement, and rehabilitation responsibilities.

Total Estimated Preconstruction Engineering and Design Cost	$1,375,000	Total Estimated Preconstruction Engineering and Design Cost	$1,375,000
Initial Federal Share	1,375,000	Ultimate Federal Share	1,375,000
Initial Non-Federal Share,	0	Ultimate Non-Federal Share	0

Consistent with the cost-sharing and financing concepts enacted by the Water Resources Development Act of 1986, local interests are required to provide all lands, easements, rights-of-way, relocations, approaches, and any costs associated with widening culvert or other structures, bear all costs of betterments to the project, and provide all costs of operation, maintenance of the bridge.

Fiscal Year 2001 funds are being used to initiate preconstruction engineering and design efforts, including a project management plan. The funds requested in fiscal year 2002 will be used to continue the preconstruction engineering and design, including detailed engineering and design activities. The preconstruction engineering and design schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
James River	671,000	168,000	208,000	295,000	0

The existing Federal navigation project on the James River extends from the mouth of the river at Hampton Roads to the City of Richmond locks, a distance of approximately 91 miles. Richmond is located in east central Virginia about 100 miles south of Washington, D. C. The study area includes one element of the project--a 25-foot deep and up to 600-foot wide, and 2,770-foot long turning basin adjacent to the Richmond Deepwater Terminal, about 5 miles downstream from the city locks. The terminal handles bulk, breakbulk, and container cargo. The turning basin is authorized up to a depth of 35 feet and width of 825 feet under the River and Harbor Act of 23 October 1962. As a result of recent improvements to the terminal that is used by several shippers, the size of vessels calling at that port has increased. The larger ships, some reaching a length of 559 feet and a width of 85 feet, frequently experience problems when existing the turning basin, particularly when other vessels are docked at the terminal’s wharf. Based on current operations there is a need to expand the width of the turning basin within the limits of the existing project authorization. Under these circumstances, when a ship now arrives at the terminal and makes its turn to prepare for docking, contact is sometimes made with the river channel bank. In order to complete the turn, the ship is then forced to back up and to swing around at a distance of only about 25 feet from the wharf. This presents a dangerous situation to both wharf and ship. Other large vessels including oil barges and large bulk ships that call at various wharves upstream and downstream from the Richmond Deepwater Terminal also use the turning basin. These vessels cannot accomplish the turn necessary to make the return trip down the James since those sections of the river are too narrow. As a consequence, these vessels travel to the turning basin where they are able to make their turn. There is concern that there is potential for serious an accident that would cause damage to vessels or the wharf. The situation is worsened by the fact that there are no dry-dock repair facilities in Richmond to handle large vessels. The Section 905 (b) analysis, approved in September 1998, confirmed that there is a Federal interest for widening the turning basin within the current authorization. The recommended project is estimated to cost $14,800,000, with estimated Federal cost of $9,800,000 and a non-Federal cost of $5,000,000. The average annual benefits amount to $300,000, all for transportation savings, based on the Section 905 (b) analysis approved in September 1998, at August 1998 price levels. The benefit-cost ratio is 2.2 to 1. The potential local sponsor for the port is the City of Richmond, Virginia, who indicated its support for expanding the turning basin in a letter dated 3 November 1997. The preconstruction engineering and design cost-sharing agreement is schedule for execution in June 1999. Preconstruction engineering and design phase will ultimately be cost-shared at the rate for the project to be constructed but will be financed through the peconstruction engineering and design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contributions in line with the project cost sharing will be accomplished in the first year of construction.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
James River					
Total Estimated Preconstruction Engineering and Design Cost	$895,000				
Initial Federal Share	671,000				
Initial Non-Federal Share	224,000				
Total Estimated Preconstruction Engineering and Design Cost	$895,000				
Ultimate Federal Share	671,000				
Ultimate Non-Federal Share	224,000				

The Rivers and Harbors Act of 1962 authorized the project for construction. In accordance with the cost-sharing and financing concepts enacted by the Water Resources Development Act of 1986, local interest are required to provide all lands, easements, rights-of-way, and relocations necessary for the construction and subsequent maintenance including the prorated costs if using existing and future Federal disposal areas; pay 25 percent of costs allocated to deep draft navigation, presently estimated at $3,700,000; and pay an additional 10 percent of costs allocated to deep draft navigation, less a credit for the value of lands, easements, rights-of-way, and relocations (other than utility relocation) within the 30 years following completion.

Fiscal Year 2001 funds are being used to continue the cost-shared preconstruction engineering and design effort, including finalizing the general reevaluation report. The funds requested for fiscal year 2002 will be used to complete the preconstruction engineering and design, including plans and specifications. The preconstruction engineering and design schedule is being determined.

Subtotal Navigation (PED) Activities – Continuing	17,421,000	2,223,000	2,254,000	3,270,000	9,674,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $

4. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) – CONTINUING

c. Beach Erosion Control: The amount of $500,000 is requested in fiscal year 2002 to continue three beach erosion control PED activities and complete one beach erosion control PED activity.

NEW JERSEY

Barnegat Inlet to Little Egg Inlet	836,000	172,000	401,000	263,000	0

The project area is located along the Atlantic coast of New Jersey about 14 miles north of Atlantic City, covering Long Beach Island, New Jersey. Major storms that occurred in September 1944, March 1962, March 1984, September 1985, October 1991, January 1992, and December 1992 have left the Long Beach Island beachfront vulnerable to severe damages. Even moderate storms today can cause major damage to the island’s beachfront, damage residential and commercial properties, cause lost of lives, and subject families to inconvenience from evacuation of their homes. Damage estimates reported for the March 1962, March 1984, October 1991, January 1992, and December 1992 were $19,000,000, $1,700,000, $2,000,000, $2,300,000, and $1,800,000 at the time of each storm, respectively. In addition, Long Beach Island protects Barnegat Bay and Little Egg Harbor bay to the west. Both bays are significant ecosystems for fish and wildlife habitat in the State of New Jersey. A feasibility study for the Barnegat Inlet to Little Egg Inlet area, completed in September 1999, recommended a project for hurricane and storm damage reduction consisting of a 125-foot wide berm at elevation +8 feet NAVD and 30-foot wide dunes at elevation +22 feet NAVD. The estimated initial project cost is $50,800,000, with an estimated Federal cost of $32,600,000 and an estimated non-Federal cost of 18,200,000. The average annual benefits amount to $10,615,000, all for hurricane and storm damage reduction savings, based on the latest economic analysis dated January 1999. The benefit-cost ratio is 1.84 to 1. The New Jersey Department of Environmental Protection executed a design agreement for preconstruction engineering and design phase in September 2000 for this effort. Preconstruction engineering and design phase will ultimately be cost-shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contributions in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$1,116,000	Total Estimated Preconstruction Engineering and Design Costs	$1,116,000
Initial Federal Share	$836,000	Ultimate Federal Share	$725,000
Initial Non-Federal Share	$280,000	Ultimate Non-Federal Share	$391,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $

Barnegat Inlet to Little Egg Inlet

In accordance with the cost-sharing and financing concepts enacted by the Water Resources Development Act of 1986 as amended, local interest are required to provide all lands, easements, rights-of-way, and relocations necessary for the construction, estimated at $700,000; pay 35 percent of costs allocated to hurricane and storm damage reduction, estimated at $17,500,000; and pay 65 percent of the cost of periodic nourishment for the 50 year life of the project every 7 years, estimated at $68,200,000.

Fiscal Year 2001 funds are being used to continue preconstruction engineering and design. The funds requested for fiscal year 2002 will be used to complete the preconstruction engineering and design, including plans and specifications. The preconstruction engineering and design schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Great Egg Harbor Inlet to Townsends Inlet	1,043,000	0	112,000	69,000	862,000

This project area is located along the Atlantic coast of New Jersey in Cape May County about 8 miles South of Atlantic City, New Jersey, and includes the coastal barrier islands of Peck Beach and Ludlum Beach. Major storms that occurred in September 1944, March 1962, March 1984, September 1985, October 1991, January 1992, and December 1992 have left these two coastal barrier island beachfronts vulnerable to severe damages. Even moderate storms today can cause major damage to the islands' beachfronts, damage residential and commercial properties, cause lost of lives, and subject families to inconvenience from evacuation of their homes. The March 1962 storm damaged 2,629 structures with damages estimated at $24,300,000. The December 1992 storm caused damages to the area estimated at $1,300,000. The feasibility study for the Great Egg Harbor Inlet to Townsends Inlet area is scheduled for completion in June 2001. The preliminary plan consists of a hurricane and storm damage reduction project with a 100-foot wide berm and dunes at elevation +13 NAVD for the southern end of Ocean City, New Jersey, and a 50-foot wide berm and dunes at elevation +15 NAVD for Ludlam Beach. Periodic nourishment will be required every 3 years on Peak Beach Island and every 5 years on Ludlum Beach Island for the 50-year project life. The initial project cost is $42,400,000, with an estimated Federal cost of $27,500,000 and an estimated non-Federal cost of $14,900,000. The average annual benefits amount to $1,887,000, for the south end of the Peak Beach island portion and $2,064,000 for the Ludlum Beach island portion of the project, all for hurricane and storm damage reduction savings, based on the latest economic analysis dated October 1999. The benefit-cost ratio is 1.9 to 1 and 1.5 to 1 for each project portion, respectively. The project sponsor is New Jersey Department of Environmental Protection, who fully understand the cost sharing requirements and is expected to be the non-Federal sponsor for this effort. Preconstruction engineering and design phase will ultimately be cost-shared at the rate for the project to be constructed but will be financed through the peconstruction engineering and design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contributions in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$1,391,000	Total Estimated Preconstruction Engineering and Design Costs	$1,391,000
Initial Federal Share	1,043,000	Ultimate Federal Share	904,000
Initial Non-Federal Share	348,000	Ultimate Non-Federal Share	487,000

Consistence with the cost-sharing and financing concepts enacted by the Water Resources Development Act of 1986 as amended, local interest are required to provide all lands, easements, rights-of-way, and relocations necessary for the construction, estimated at $400,000; pay 35 percent of costs allocated to beach erosion control, estimated at $14,500,000; and pay 65 percent of the cost of periodic nourishment for the 50 year life of the project every every 3 years for the Peak Beach island project portion and every 5 years for the Ludlum Beach island project portion, estimated at $1,100,000.

Fiscal Year 2001 funds are being used to negotiate and execute a design agreement and initiate the preconstruction engineering and design. The funds requested in fiscal year 2002 will be used to continue the preconstruction engineering and design, including plans and specifications. The preconstruction engineering and design schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Manasquan Inlet to Barnegat Inlet	750,000	0	112,000	68,000	570,000

This project area is located along 24 miles of the Atlantic coast of New Jersey in Ocean County about 31 miles north of Atlantic City, New Jersey, and includes the coastal barrier peninsula of Island Beach. Major storms that occurred in September 1944, March 1962, March 1984, September 1985, October 1991, January 1992, and December 1992 have left the area beachfronts vulnerable to severe damages. Even moderate storms today can cause major damage to the area's beachfronts, damage residential and commercial properties, cause lost of lives, and subject families to inconvenience from evacuation of their homes. The March 1962 storm damaged 5,759 structures with damages estimated at $8,000,000. The December 1992 storm caused damages to the area estimated at $2,000,000. The feasibility study for Manasquan Inlet to Barnegat Inlet area is assessing a potential project for hurricane and storm damage reduction measures is scheduled for completion in July 2001. The potential project consists of a berm 75 feet wide with dunes at an elevation of +22 feet. The preliminary estimated initial project cost is $53,600,000, with an estimated Federal cost of $34,800,000 and an estimated non-Federal cost of $18,800,000. The average annual benefits amount to $12,200,000, all for hurricane and storm damage reduction savings, based on the latest economic analysis dated January 2001. The benefit-cost ratio is 2.1 to 1. The project sponsor is New Jersey Department of Environmental Protection, who fully understand the cost sharing requirements and is expected to be the non-Federal sponsor for this effort. Preconstruction engineering and design phase will ultimately be cost-shared at the rate for the project to be constructed but will be financed through the peconstruction engineering and design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contributions in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$1,000,000	Total Estimated Preconstruction Engineering and Design Costs	$1,000,000
Initial Federal Share	750,000	Ultimate Federal Share	650,000
Initial Non-Federal Share	250,000	Ultimate Non-Federal Share	350,000

Consistence with the cost-sharing and financing concepts enacted by the Water Resources Development Act of 1986 as amended, local interest are required to provide all lands, easements, rights-of-way, and relocations necessary for the construction, estimated at $700,000; pay 35 percent of costs allocated to hurricane and storm damage reduction, estimated at $18,100,000; and pay 65 percent of the cost of periodic nourishment for the 50 year life of the project every 4 years, estimated at $4,000,000.

Fiscal Year 2001 funds are being used to negotiate and execute a design agreement and initiate the preconstruction engineering and design. The funds requested in fiscal year 2002 will be used to continue the preconstruction engineering and design, including plans and specifications. The preconstruction engineering and design schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Raritan Bay and Sandy Hook Bay Port Monmouth	3,000,000	272,000	0	100,000	2,628,000

The project area is located in Port Monmouth, New Jersey, in northern Monmouth County, bounded by the Sandy Hook Bay to the north, Compton's Creek to the east, Pew's Creek to the west and Middletown, New Jersey, to the south, about 18 miles southwest of the Battery New York City. In Port Monmouth flooding from the creeks and tidal storm surges causes damage to commercial and residential properties during storms. The recommended project will protect about 1,200 properties with levees, floodwalls, dunes, and a storm-tide gate. In addition, pumping stations and ponding areas with outlet gates are included for interior drainage. The recommended project is estimated to cost $32,900,000, with an estimated Federal cost of $21,400,000 and an estimated non-Federal cost of $11,500,000. The average annual benefits amount to $3,200,000, all for hurricane and storm damage reduction. The benefit-cost ratio is approximately 1.1 to 1, based on the latest economic analysis dated June 1998. The project sponsor is New Jersey Department of Environmental Protection, who by letter dated June 2000 fully understands the cost sharing requirements for this effort. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed, but will be financed through the preconstruction engineering and design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first years of construction.

Total Estimated Preconstruction Engineering And Design Cost	$4,000,000	Total Estimated Preconstruction Engineering Design Cost	$4,000,000
Initial Federal Share	3,000,000	Ultimate Federal Share	2,600,000
Initial Non-Federal Share	1,000,000	Ultimate Non-Federal Share	1,400,000

Consistent with the cost-sharing and financing concepts enacted by the Water Resources Development Act of 1986 as amended, local interests are required to provide all lands, easements, rights-of-way, relocations; pay a portion of the initial construction costs allocated to storm damage reduction, so that the total contributions of the local interests is equal to 35 percent of the initial construction cost allocated to storm damage reduction; bear all costs of betterments to the project; pay 65 percent of the costs allocated to periodic nourishment over 50 years; and provide all costs of operation, maintenance and replacement of storm damage reduction facilities.

Fiscal Year 2001 funds will be used to negotiate and execute a design agreement and initiate preconstruction engineering and design. Fiscal Year 2002 funds will be used to continue the preconstruction, engineering and design, including plans and specifications. The preconstruction engineering and design schedule is being determined.

Subtotal Beach Erosion Control (PED) Activities – Continuing	5,629,000	444,000	625,000	500,000	4,060,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
4. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) – CONTINUING					
d. Flood Control: The amount of $275,000 is requested in fiscal year 2002 to continue one flood control PED activity and complete one flood control PED activity.					
MARYLAND					
Cumberland, Maryland, Flood Project Mitigation	700,000	0	525,000	175,000	0

The Cumberland, Maryland, and Ridgeley, West Virginia, flood control project is located at the junction of the North Branch of the Potomac River and Wills Creek along the panhandle borders of northwest Maryland and northeast West Virginia. The North Branch of the Potomac River drains an area about 1,492 square miles and Wills Creek drains an area about 254 square miles in the project vicinity. The flood control project, completed in 1959, protects Cumberland, Maryland, and Ridgeley, West Virginia, against a flood 28 percent greater than the maximum flood of record that occurred in March 1936. The project consists of about 1.6 miles of channel improvements along Wills Creek; 1.7 miles of channel improvement along the North Branch of the Potomac River; levees and floodwalls on the left and right banks of North Branch of the Potomac River; three pumping stations; eight pressure conduits; an industrial water-supply dam; a reconstructed railroad bridge; track relocations; and the reconstructed piers and abutments for three highway bridges. The Federal Government provides a portion of the project’s annual maintenance along the Wills Creek and the Potomac River channels.

In the early 1950’s during the construction of the Cumberland, Maryland, and Ridgely, West Virginia, project the terminus of the Chesapeake and Ohio Canal was filled in. The National Park Service requested the Corps of Engineers to prepare a design analysis to restore a portion of the historic canal. The Chesapeake and Ohio Canal National Historic Park, Cumberland Maryland, Rewatering Design Analysis, completed in February 1998, recommended a plan to restore about 1.1 miles of canal to a depth of 4 feet. The Water Resources Development Act of 1999 authorizes the Secretary of the Army to modify the project for flood control and other purposes at Cumberland, Maryland, to undertake, as a separate part of the project, restoration of the historic Chesapeake and Ohio Canal substantially in accordance with the design analysis. The estimated project cost is $15,000,000, with an estimated Federal cost of $9,750,000 and an estimated non-

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $

Cumberland, Maryland,
Flood Project Mitigation

Federal cost of $5,250,000. The City of Cumberland, Maryland, fully understands the preconstruction engineering and design cost-sharing requirements and is expected to be the non-Federal sponsor for this effort.

Total Estimated Preconstruction Engineering and Design Effort Costs	$933,000	Total Estimated Preconstruction Engineering and Design Costs	$933,000
Initial Federal Share	700,000	Ultimate Federal Share	606,000
Initial Non-Federal Cost	233,000	Ultimate Non-Federal Cost	327,000

Fiscal Year 2001 funds are being used to negotiate and execute a design agreement and initiate the preconstruction engineering and design, including detailed engineering and design. The funds requested for fiscal year 2002 will be used to complete plans and specifications. The preconstruction engineering and design schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Passaic River, Harrison	2,000,000	300,000	225,000	100,000	1.375,000

This project area is located on the lower Passaic River in Town of Harrison, New Jersey, which is about 10 miles west of the Battery New York City. Major flooding damages commercial, residential, and industrial properties in the town. The recommended project from the draft Passaic River Main Stem general design memorandum, completed in September 1995, includes a levee and floodwall system consisting of 1,750 feet of levees, 6.5 feet high and 50 feet wide; and 5,700 feet of floodwalls 6.2 feet high. In addition, there will be eight closure structures in the system and interior drainage facilities with gravity culverts with flap and sluice gates, and three pumping stations. The project will provide a 100-year level of protection to about 200 commercial and residential properties in Harrison, New Jersey. The recommended project is estimated to cost $16,000,000, with an estimated Federal cost of $10,400,000 and an estimated non-Federal cost of $5,600,000. The benefit-cost ratio is approximately 3.4 to 1, based on the latest economic analysis dated October 1994. The project sponsor is New Jersey Department of Environmental Protection, who fully understands the cost sharing requirements for this effort. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed, but will be financed through the preconstruction engineering and design period at 100 percent Federal funds because perconstruction engineering and design initiated prior to fiscal year 1997 are exempt from the 25 percent non-Federal financing requirement. Preconstruction engineering and design for this project was initiated under the Passaic River Mainstem, New Jersey, project. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first years of construction.

Total Estimated Preconstruction Engineering And Design Cost	$2,000,000	Total Estimated Preconstruction Engineering Design Cost	$2,000,000
Initial Federal Share	2,000,000	Ultimate Federal Share	1,300,000
Initial Non-Federal Share	0	Ultimate Non-Federal Share	700,000

Fiscal Year 2001 funds will be used to prepare an economic re-evaluation report of the project plan, and continue preconstruction engineering and design, including project management plan and design document. The funds requested for Fiscal Year 2002 will be used to continue the preconstruction, engineering and design, including detail engineering and design. The preconstruction, engineering and design schedule is being determined.

Subtotal Flood Control (PED) Activities – Continuing	2,700,000	300,000	750,000	275,000	1,375,000
e. Multiple Purpose Power. None					
TOTAL PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) - CONTINUING	28,075,000	2,967,000	4,129,000	4,975,000	16,004,000
GRAND TOTAL SURVEYS AND PRECONSTRUCTION ENGINEERING AND DESIGN	109,357,000	20,150,000	11,477,000	14,500,000	63,230,000

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

PROJECT: Baltimore Harbor Anchorages and Channels, MD (Continuing)

LOCATION: The project area encompasses the 32-square mile area of the Port of Baltimore. The port area of Baltimore includes the navigable part of the Patapsco River below Hanover Street, the Northwest and Middle Branches, and Curtis Bay and its tributary, Curtis Creek.

DESCRIPTION: The recommended plan will widen and deepen two existing Federal anchorages; widen several connecting channels; provide a new turning basin near Fort McHenry; and provide a new branch channel within the Port of Baltimore. The estimated 4.4 million cubic yards of initial dredged material will be placed in the existing Hart-Miller Island upland placement site.

AUTHORIZATION: Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 4.9 to 1 at 6 7/8 percent.

TOTAL BENEFIT - COST RATIO: 4.7 to 1 at 6 7/8 percent.

INITIAL BENEFIT – COST RATIO: 4.7 to 1 at 6 7/8 percent (FY 2001).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the integrated feasibility report and environmental impact statement dated March 1997 at October 1997 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$21,000,000				
Estimated Non-Federal Cost:		9,400,000		Entire Project	0	Being determined
Cash Contributions	$7,300,000					
Other Costs	2,100,000					
Total Estimated Project Cost		$30,400,000				

SUMMARIZED FINANCIAL DATA: (Continued)

Allocation to 30 September 2000	$ 675,000		
Conference Allowance for FY 2001	3,000,000		
Allocations for FY 2001	2,514,000	1/	
Allocations through FY 2001	3,189,000		15
Allocation Requested for FY 2002	8,000,000		53
Scheduled Balance to Complete After FY 2002	9,811,000		
Unscheduled Balance to Complete After FY 2002	0		

1/ Reflects $480,000 reduction assigned as savings and slippage and $6,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

PHYSICAL DATA

Channels: Widening the East Dundalk Channel to 400 feet, plus the bends and entrances; widening the Seagirt-Dundalk Connecting Channel to 500 feet; widening the West Dundalk Channel to 500 feet, plus the bends and entrances; providing cutoff angles at the intersection of the West Dundalk channel and the main shipping channel; providing cutoff angles at the intersection of the Connecting Channel and the west side of Dundalk Marine Terminal; constructing a new channel at South Locust Point in the area of the remnant Produce Wharf Channel

Anchorages: Deepening and widening a portion of Anchorage #3 to 2,200 feet by 2,200 feet, by 42 feet deep; deepening and widening a portion of Anchorage #4 to 1,800 feet by 1,800 feet, by 42 feet deep; deauthorization of Anchorage #1

Turning Basin: Constructing a 50-foot deep turning basin (1,200 feet by 1,200 feet) near the head of the Fort McHenry Channel.

JUSTIFICATION: Baltimore Harbor is one of the major seaports serving the North Atlantic Coast of the United States. It is equipped with excellent cargo handling facilities and is served by several railroads which connect the port with the Midwest States. The port is 50 to 200 miles nearer the Midwest States than other North Atlantic ports. The port includes, among its many industries, the free world’s largest steel plant. Waterborne commerce through the port totaled 43,552,000 in 1996 and averaged 40,610,600 tons annually for the period 1986-1996. A large portion of the port’s commerce moves in foreign trade, and a very high percentage consists of bulk commodities (grain, ores, petroleum and coal). These bulk commodities are moved most efficiently in large carriers, and the trend towards such carriers is clearly evident in the Port of Baltimore. The smaller vessels are being replaced by larger, more efficient ships.

The existing branch channel and anchorage system in Baltimore Harbor is of insufficient depth and width to accommodate these larger ships. Large vessels requiring anchorage must anchor 25 miles south of Baltimore in naturally deep water, resulting in delays and related costs to the shipping industry. In addition, some of the branch channels within the port are also insufficient to accommodate the types of vessels currently calling on Baltimore. Due to the narrow widths of the branch channels serving the Seagirt and Dundalk Marine Terminals, additional time is required for the pilots to safely maneuver ships to and from the berths. The average annual benefits, all navigation, are $10,000,000 based on 1 October 1997 prices.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue dredging of the anchorage and branch channels	$7,893,000
Planning, Engineering & Design	7,000
Construction Management	100,000
Total	$8,000,000

NON-FEDERAL COSTS: 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:

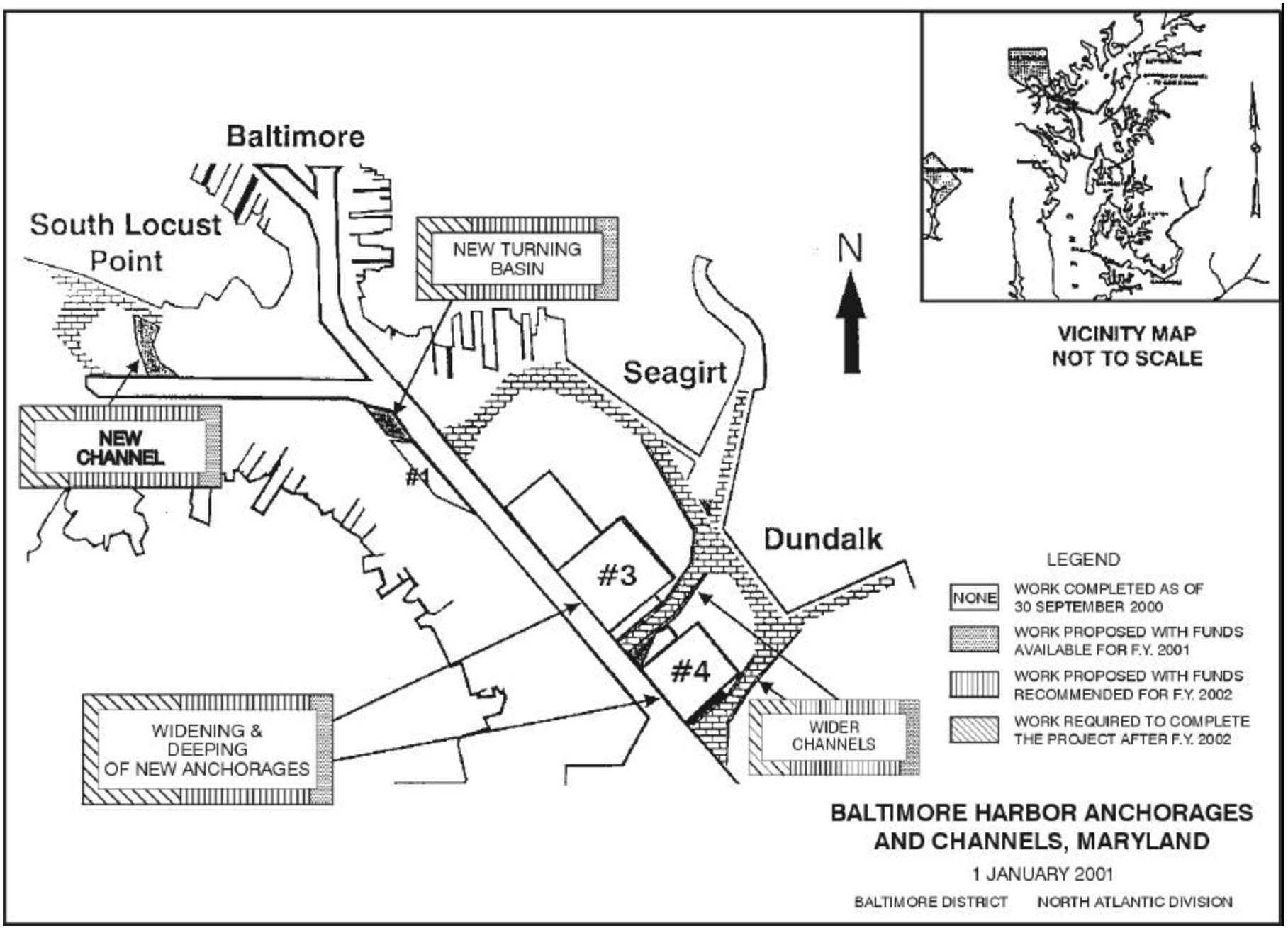
	Payments During Construction and Reimbursements	Annual Operation, Maintenance and Replacement Costs
Requirements of Local Cooperation Provide lands, easements and rights of way, Disposal areas	$2,100,000	
Pay 25 percent of the costs allocated to general navigation facilities during construction and pay 50 percent of the costs of incremented maintenance below 45 feet below mean low water	$7,300,000	
Total Non-Federal Costs	$9,400,000	$0

STATUS OF LOCAL COOPERATION: The State of Maryland has agreed to furnish the required cooperation. In their January 1997 and November 1997 letters, the Maryland Port Administration indicated its intent to be the project's non-Federal sponsor and to utilize Hart-Miller Island for placement of the dredged material. The Project Cooperation Agreement is scheduled for execution by June 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $21,000,000 is the same as the latest estimate ($21,000,000) submitted to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final environmental impact statement for the Baltimore Harbor Anchorages and Channels, MD & VA project was filed in the Federal Register on 5 August 1997. A supplemental environmental assessment to address minor design changes since project authorization is currently being prepared and is expected to be completed in June 2001.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1997. Funds to initiate construction were appropriated in FY 2001.


Baltimore
South Locust Point
NEW TURNING BASIN
N
Seagirt
NEW CHANNEL
#1
Dundalk
#3
#4
WIDENING & DEEPING OF NEW ANCHORAGES
WIDER CHANNELS
VICINITY MAP
NOT TO SCALE
LEGEND
NONE
WORK COMPLETED AS OF 30 SEPTEMBER 2000
WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2001
WORK PROPOSED WITH FUNDS RECOMMENDED FOR F.Y. 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2002
BALTIMORE HARBOR ANCHORAGES AND CHANNELS, MARYLAND
1 JANUARY 2001
BALTIMORE DISTRICT
NORTH ATLANTIC DIVISION

APPROPRIATION TITLE: Construction, General - Navigation (Deep Draft)

PROJECT: Delaware River Main Channel, New Jersey, Pennsylvania, and Delaware (continuing)

LOCATION: The project extends over 100 miles from deep water in Delaware Bay to the tri-state, Ports of the Delaware River including Philadelphia and Beckett Street Terminal, Camden, New Jersey. It involves the Commonwealth of Pennsylvania, and the States of New Jersey and Delaware.

DESCRIPTION: The recommended plan of improvement deepens the existing Federal navigation Channel (Philadelphia to the Sea project) from the 40 foot project to 45 feet, widens bends, deepens an anchorage along with relocation and addition of navigation aids.

AUTHORIZATION: Water Resources Development Act of 1992(Sec.101(6))

REMAINING BENEFIT-REMAINING COST RATIO: 1.4 to 1 at 7 3/8 percent

TOTAL BENEFIT-COST RATIO: 1.4 to 1 at 7 3/8 percent

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 7 3/8 percent (FY 1999).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Limited Reevaluation Report dated May 1997 at October 1996 price levels. This project is undergoing a review to reaffirm its economic feasibility

SUMMARIZED FINANCIAL DATA:

Estimated Appropriation Requirement (CoE)		231,000,000
Estimated Appropriation Requirement (USCG)		1,150,000
Estimated Total Appropriation Requirement		232,150,000
Future Non-Federal Reimbursement		9,548,000
Estimated Federal Cost (Ultimate) (CoE)		222,602,000
Estimated Non-Federal Cost		137,548,000
Cash Contributions	76,820,000	
Other Costs	51,180,000	
Reimbursements: Comml Navigation	9,548,000	
Total Estimated Project Cost		360,150,000

STATUS: (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Channel Dredging:	0	Being determined
Entire Project	0	Being determined

PHYSICAL DATA :

Channel: Channel deepening (dredging of about 85 miles widening and deepening of bends; deepening . of an anchorage.

Disposal Construction: Four confined upland disposal areas and two beneficial use areas.

Navigation aids.: Relocation and additional Navigation aids

SUMMARIZED FINANCIAL DATA: (Cont)

		ACCUM. PCT. OF EST. FED COST
Allocations to 30 September 2000	12,701,000	
Conference Allowance for FY 2001	29,756,000	
Allocation for FY 2001	13,354,000 1/	
Allocations through FY 2001	26,055,000	11
Allocation Requested for FY 2002	10,000,000	16
Programmed Balance to Complete after FY 2002	$194,945,000	
Unprogrammed Balance to Complete after FY 2002	0	

1/ Reflects reduction of $4,761,000 assigned as savings and slippage, $11,583,000 reprogrammed to other projects. and $58,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The existing 40 foot Federal navigation project restricts efficient movement of tankers, dry bulk carriers, and container vessels. These conditions now result in significant light loading and lightering costs, and vessels delays. The 45-foot project results in transportation savings to commodities consisting of crude oil imports, iron ore imports, container ship movements and scrap exports. The average annual quantity of tonnage that will benefit from the project are as follows: oil 57 million tons, dry bulk 7 million tons, and container 1.5 million tons. The estimated average benefits are $40,143,000 (Oct 1996 Price Level) and at an average cost of $ $27,739,000. The Delaware River Ports have made a strategic land side investment in intermodal facilities. Pennsylvania and the railroads have made commensurate investments in double-stack capability for a growing container demand. A 45-foot channel is integral to the port's accomodation to current fleet/cargoes. Several beneficial, land based and aquatic dredged material disposal areas are available.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Initiate Construction	$ 8,900,000
Planning, Engineering and Design	$ 400,000
Construction Management	$ 700,000
Total	$10,000,000

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

	Payments during Construction and Reimbursement	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, and rights of way	$21,180,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	30,000,000	
Reimburse an additional 10 percent of the 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 relocation provided for commercial navigation.	9,548,000 1/	
Pay 25 percent of the costs allocated to general navigation features during construction .	76,820,000	
Total Non-Federal Cost	$137,548,000	$0

The non-Federal sponsor has also agreed to repay its share of construction costs during construction and reimburse its share of construction costs over a period of 30 years following completion of construction.
1/Reimbursement reduced to account for credits for lands, easements, and right of way

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement (PCA) is scheduled for execution in September 2001. The Delaware River Port Authority is the non-Federal sponsor.

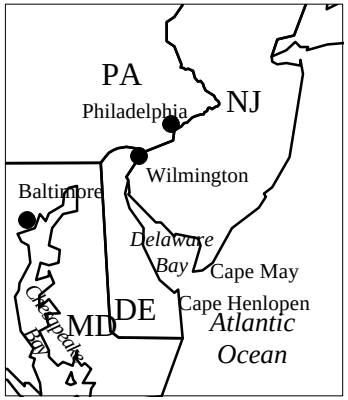
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $231,000,000 is an increase of $7,000,000 over the latest estimate ($224,000,000) submitted to Congress (FY 2001). This change includes the following item:

Item	Amount
Price Escalation on Construction Features	$7,000,000
Total	$7,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: As part of the Preconstruction, Engineering, and Design (PED) study a Supplemental Environmental Impact Statement (SEIS) was prepared in December 1996 and made available to the public and agencies. The Final Supplemental Environmental Impact Statement was filed with U.S. Environmental Protection Agency in July 1997, and the Record of Decision was signed in December 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1992 and funds to initiate construction were appropriated in FY 1999.

PLAN
Scale In Miles
10 0 10 20



VICINITY MAP
25 0 25 50
Scale In Miles

LEGEND

- None — WORK COMPLETED AS OF 30 SEP 2000
- None — WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2001
- WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2002
- WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2002

Delaware River Main Channel Deepening Project

1 January 2001

Scale as Shown

U.S. Army Engineer District Phila., PA

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

PROJECT: New York Harbor and Adjacent Channels, Port Jersey Channel, New Jersey (Continuing)

LOCATION: The project is located in New York Harbor five miles southwesterly of the southern tip of Manhattan Island, New York City, and extends from the Anchorage Channel two miles north of Bayonne, New Jersey to form the access channel just north of the Military Ocean Terminal.

DESCRIPTION: Work consists of dredging the access channel to 41 feet from the Federal Anchorage Channel to its head of navigation, providing a turning basin at the head of navigation, and bulkheading portions of the turning basin. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1986 and Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 4.7 to 1 at 8 percent.

TOTAL BENEFIT - COST RATIO: 4.7 to 1 at 8 percent.

INITIAL BENEFIT - COST RATIO: 4.7 to 1 at 8 percent (FY 1996).

BASIS OF BENEFIT - COST RATIO: Benefits are from the General Design Memorandum approved in May 1993 at October 1991 prices.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT OF EST FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (CoE)		$ 84,300,000		Contract No. 1	0	Being determined
Estimated Appropriation Requirement (USCG)		5,000		Contract No. 2	0	Being determined
Estimated Total Appropriation Requirement		84,305,000		Entire Project	0	Being determined
Future Non-Federal Reimbursement		11,400,000				
Estimated Federal Cost (Ultimate) (CoE)		72,905,000				
Estimated Non-Federal Cost		40,295,000				
Cash Contribution	28,100,000					
Other Costs	795,000					
Reimbursements : Comml Navigation	11,400,000					
Total Estimated Project Cost		$113,200,000				

PHYSICAL DATA

Deepening channel to 41 feet mlw, providing a turning basin, and bulkheading portions of the turning basin

SUMMARIZED FINANCIAL DATA: (continued)

		ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2000	$ 4,304,000	
Conference Allowance for FY 2001	10,000,000	
Allocation for FY 2001	6,880,000	1/
Allocation through FY 2001	11,184,000	13
Allocation Requested for FY 2002	22,000,000	39
Programmed Balance to Complete after FY 2002	51,116,000	
Unprogrammed Balance to Complete after FY 2002	0	

1/ Reflects $1,600,000 reduction assigned for savings and slippage, $1,500,000 reprogrammed from the project, and $20,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: Cargo handled at Global Marine Terminal includes heavy machinery, electronic equipment and waste paper. The terminal serves 12 major shipping lines. The existing 35-foot Port Jersey Channel preclude current generation containerships from fully loading and will further hamper future fleets of larger draft vessels. With approximately 15% of the total container traffic at the Port of NY/NJ Global Marine Terminal imported or exported 175,096 20-ft. equivalent units in the 12 month period ending 1 November 1997. The net average annual benefits are estimated at $32,433,000 at November 1997 price levels.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Contract 1	$ 20,510,000
Planning , Engineering, and Design	$ 250,000
Construction Management	$ 1,240,000
Total	$ 22,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financial 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 Reimbursement	Annual Operation, Maintenance and Replacement Costs
Dredging berthing areas and relocate utilities where necessary in the construction of the project.	$ 795,000	$ 12,100
Pay 25 percent of the costs allocated to deep draft navigation during construction.	28,100,000	
Pay an additional 10 percent of the costs allocated to deep draft navigation within a period of 30 years following completion of construction which is partially offset by a credit allowed for the value of lands, easements, rights of way, and relocation	11,400,000	
Total Non-Federal Costs	$ 40,295,000	$ 12,100

The non-Federal sponsor has also agreed to repay its share of construction costs during construction and reimburse its share of construction costs over a period of 30 years following completion of construction.

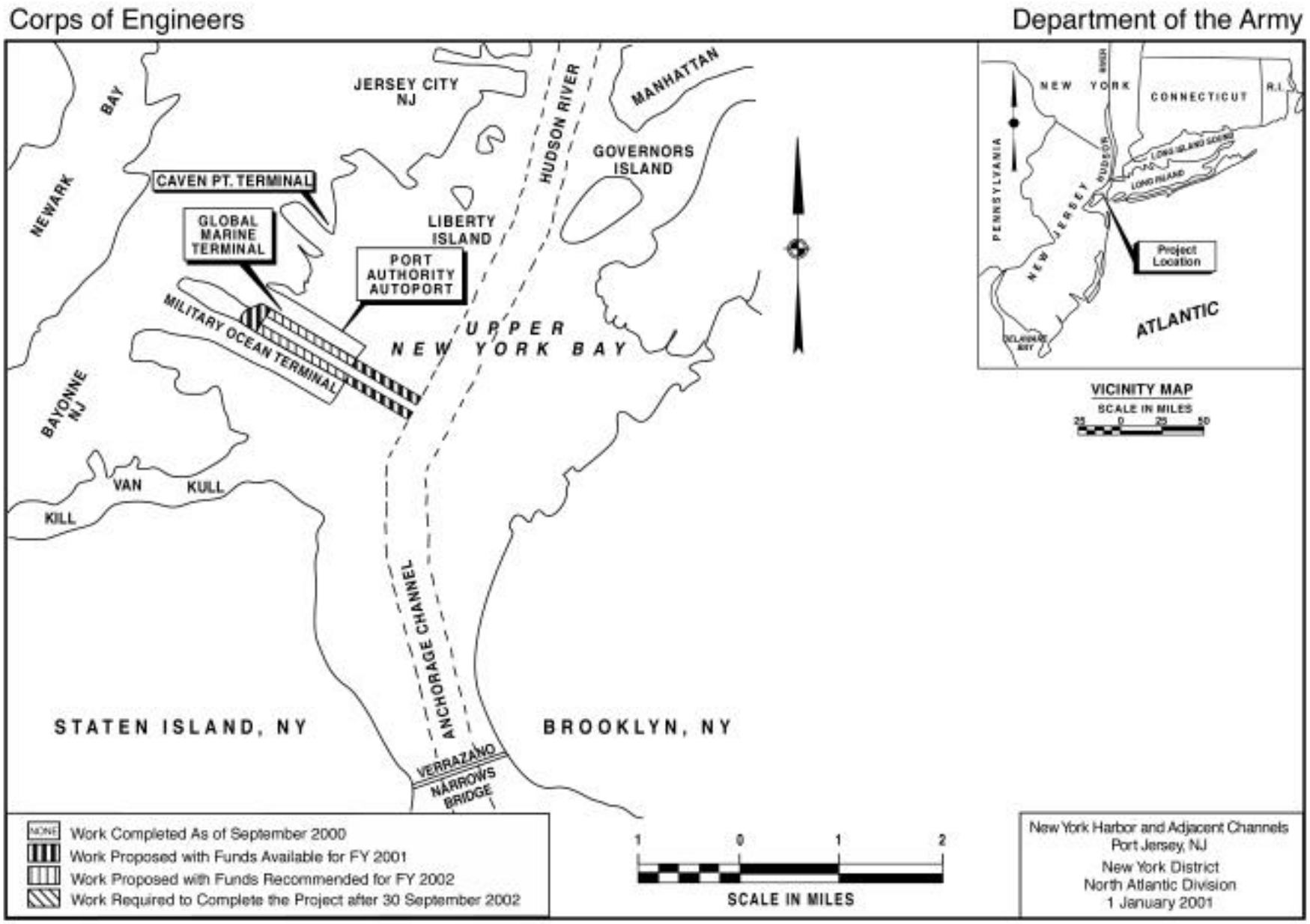
STATUS OF LOCAL COOPERATION: The State of New Jersey by letter dated 27 February 1997 indicated they would be the primary local sponsor. The Port Authority of NY/NJ will serve as a limited co-sponsor specifically and limited to the role of providing indemnification. A project cooperation agreement is scheduled for execution in April 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $84,300,000 is an increase of $2,100,000 over the latest estimate ($82,200,000) submitted to Congress (FY 2001). This change includes the following item:

Item	Amount
Price Escalation on Construction Features	$ 2,100,000
Total	$ 2,100,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency (EPA) on 29 April 1988, and a final Environmental Assessment was issued June 2000. A Record-of-Decision was issued on 23 October 2000.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1988 and funds to initiate construction were appropriated in FY 1994.


Corps of Engineers
Department of the Army
JERSEY CITY NJ
MANHATTAN
HUDSON RIVER
GOVERNORS ISLAND
NEWARK BAY
CAVEN PT. TERMINAL
GLOBAL MARINE TERMINAL
LIBERTY ISLAND
PORT AUTHORITY AUTOPORT
MILITARY OCEAN TERMINAL
UPPER NEW YORK BAY
BAYONNE NJ
VAN KULL
KILL
ANCHORAGE CHANNEL
STATEN ISLAND, NY
BROOKLYN, NY
VERRAZANO NARROWS BRIDGE
NEW YORK
CONNECTICUT
R.I.
PENNSYLVANIA
NEW JERSEY
HUDSON
LONG ISLAND SOUND
LONG ISLAND
Project Location
ATLANTIC
VICINITY MAP
SCALE IN MILES
Work Completed As of September 2000
Work Proposed with Funds Available for FY 2001
Work Proposed with Funds Recommended for FY 2002
Work Required to Complete the Project after 30 September 2002
SCALE IN MILES
New York Harbor and Adjacent Channels
Port Jersey, NJ
New York District
North Atlantic Division
1 January 2001

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

PROJECT: Arthur Kill Channel, Howland Hook Marine Terminal, New York and New Jersey

LOCATION: The project area is located in the Port of New York and New Jersey. The project area extends from the Arthur Kill confluence with the Kill Van Kull Channel, southwesterly about 3.1 miles on the Arthur Kill Channel to the Tosco Oil Terminal and GATX oil facilities, in New Jersey and New York respectively.

DESCRIPTION: Work consists of deepening the existing 35-foot Arthur Kill Channel to 41 feet MLW from its confluence with the Kill Van Kull Channel to Howland Hook Marine Terminal in Staten Island, New York, and to 40 feet MLW from the Howland Hook Marine Terminal to the Tosco Oil Terminal and GATX oil facilities, New Jersey. Also included are selected widenings and realignments of the channel.

AUTHORIZATION: Water Resources Development Act of 1986;Water Resources Development Act of 1996; Water Resources Development Act of 1999.

REMAINING BENEFIT-REMAINING COST RATIO: 2.5 to 1 at 6 7/8 percent

TOTAL BENEFIT-COST RATIO: 2.5 to 1 at 6 7/8 percent

INITIAL BENEFIT-COST RATIO: 2.5 to 1 at 6 7/8 percent (FY 2001)

BASIS OF BENEFIT-COST RATIO: Benefits are from the Limited Reevaluation Report approved in April 1998 at November 1996 prices, updated to October 1998 prices.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement(CoE)		$ 230,400,000		Contract No. 1	0	Being determined
Estimated Appropriation Requirement(U.S.Coast Guard)		140,000		Contract No. 2	0	Being determined
Estimated Total Appropriation Requirement		230,540,000		Contract No. 3	0	Being determined
Future Non-Federal Reimbursement		20,400,000		Contract No. 4	0	Being determined
Estimated Federal Cost(Ultimate)		210,140,000		Entire Project	0	Being determined
Estimated Non-Federal Cost		152,160,000				
Cash Contribution	76,760,000					
Other Costs	55,000,000					
Reimbursements	20,400,000					
Total Estimated Project Cost		$362,300,000				
Allocations to 30 September 2000		$ 5,100,000				
Conference Allowance for FY 2001		4,000,000				
Allocation for FY 2001		3,352,000	1/			
Allocation through FY 2001		8,452,000	4			
Allocation Requested for FY 2002		15,000,000	10			
Programmed Balance to Complete after FY 2002		206,948,000				
Unprogrammed Balance to Complete after FY 2002		0				

PHYSICAL DATA

Deepening channel to 41 feet mlw from confluence with KVK channel to Howland Hook Marine Terminal, and to 40 feet mlw from Howland Hook Marine Terminal to Tosco Oil Terminal and . GATX Oil facilities in NJ and NY, respectively.

1/ Reflects $640,000 reduction assigned for savings and slippage and $8,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: Containerized general cargo at Howland Hook Marine Terminal consists of a current throughput capacity of 350,000 containers per year, which includes dry goods, electronics, manufacturing goods, and agricultural products. The top petroleum terminals which benefit from the channel deepening, Tosco Oil Refinery and GATX Terminal handle crude oil and petroleum products, such as distillate and residual fuel oil and gasoline. Petroleum products receipts and shipments for the New York and New Jersey Channels project in 1997 were about 23.5 million short tons. The present 35-foot channel in the Arthur Kill Channel precludes present generation containerships and oil tankers from fully loading and will further hamper future fleets of larger draft vessels. The average annual benefits, all commercial navigation, are $68,745,000 at October 1998 prices.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Construction of 1st Construction Contract	$ 13,500,000
Planning, Engineering, and Design	675,000
Construction Management	825,000
Total	$ 15,000,000

NON-FEDERAL COST: In accordance with the cost-sharing and financial concepts reflected in the Water Resources Development Act of 1986, as amended by WRDA 1996 and WRDA 1999, 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
Dredge berthing areas, renovate bulkheads/piers and relocate utilities where necessary in the construction of the project.	$44,700,000 1/	$193,000
Provide lands, easements, rights of way, and relocations	10,300,000 1/	
Pay 25 percent of the costs allocated to deep draft navigation during construction.	76,800,000	
Pay an additional 10 percent of the costs allocated to deep draft navigation within a period of 30 years following completion of construction which is partially offset by a credit allowed for the value of lands, easements, rights of way, relocation, and dredged material disposal areas	20,400,000	
Total Non-Federal Costs	$152,200,000	$193,000

1/ Adjusted for lands, easements, rights of way, and relocations.

The non-Federal sponsor has also agreed to repay its share of construction costs during construction and reimburse its share of construction costs over a period of 30 years following completion of construction.

STATUS OF LOCAL COOPERATION: The Port Authority of New York and New Jersey is the non-Federal sponsor for the project. The PCA is scheduled to be executed in July 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of $230,400,000 is an increase of $8,700,000 over the latest estimate ($221,700,000) submitted to Congress (FY 2001). This change includes the following item:

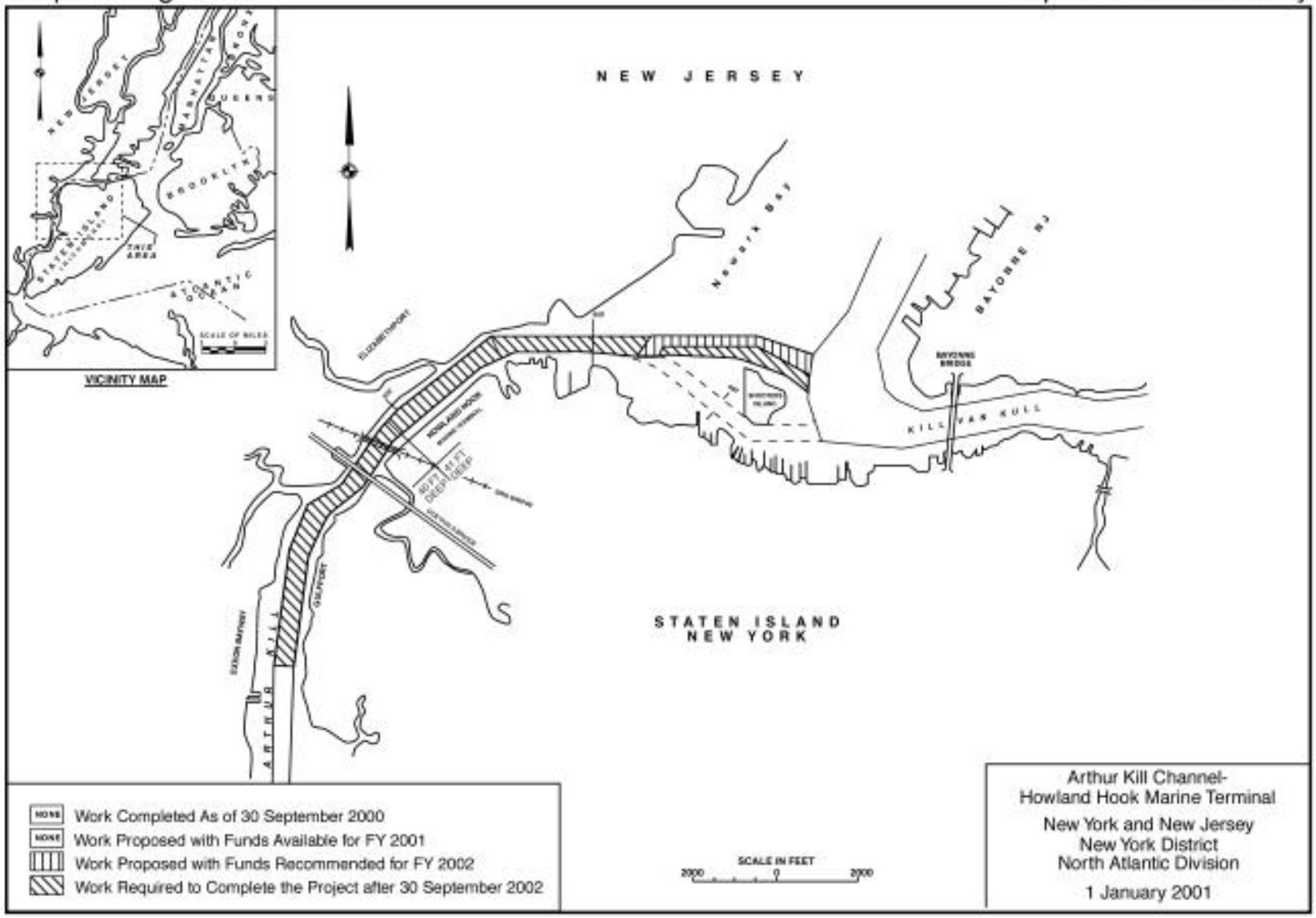
ITEM	AMOUNT
Price Escalation on Construction Features	$ 8,700,000
Total	$ 8,700,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Draft Supplemental Environmental Impact Statement (DSEIS), based on the findings of a Limited Reevaluation Report, was coordinated for public and agency review in December 1997. The Final Supplemental Environmental Impact Statement was incorporated into the Final Limited Reevaluation Report in April 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1986.

Corps of Engineers

Department of the Army



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

PROJECT: Kill Van Kull & Newark Bay Channel, New York and New Jersey (Continuing)

LOCATION: The Kill Van Kull is a tidal straight within New York Harbor between Staten Island, New York, and Bayonne, New Jersey. Newark Bay is a tidal Bay located between Newark, NJ and Elizabeth, NJ to the west and Bayonne, New Jersey to the east.

DESCRIPTION: Programmed work consists of dredging of about five miles of the Kill Van Kull Channel to a depth of 45 feet with widenings at Robins Reef, St. George and Bergen Point; dredging of about 3 miles of the Newark Bay Channels to 45 feet, with widenings at the site of the Central Railroad Bridge and the junction with the Port Newark Channel; and, dredging of a turning basin at Port Elizabeth to a depth of 45 feet. Unprogrammed work includes dredging of Pierhead Channel and Port Newark in the vicinity of Port Newark and Port Elizabeth. Phase I work to deepen channels to 40 feet was completed September 1995.

AUTHORIZATION: Supplemental Appropriations Act of 1985, section 202(a) of the Water Resources Development Act of 1986, section 301(b)(12) of the Water Resources Development Act of 1996, and Section 334 of the Water Resources Development Act of 1999

REMAINING BENEFIT-REMAINING COST RATIO: Phase I is not applicable because project construction is completed. Phase II - The benefit cost is 4.2 to 1. at 7 3/8 percent.

TOTAL BENEFIT-COST RATIO: 4.2 to 1 at 7 3/8 percent.

INITIAL BENEFIT-COST RATIO: 7.9 to 1 at 7 3/8 percent (FY 1996).

BASIS OF BENEFIT-COST RATIO: Phase I Benefits are from the approved General Design Memorandum dated June 1986 at October 1985 price levels. Phase II Benefits are from the Limited Reevaluation Report (LRR) dated April 1997 at November 1996 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED. COST
Estimated Appropriation Required (COE)		$ 580,200,000
Programmed Construction	$ 505,700,000	
Unprogrammed Construction	74,500,000	
Estimated Appropriation Requirement (U.S. Coast Guard)		2,300,000
Programmed Construction	2,300,000	
Unprogrammed Construction	0	

STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Programmed Work		
PHASE I	100	Sep 1995
Phase II Deepening to 45ft depths	0	Indefinite
Contract Area 2	100	Sep 2000
Contract Area 1	90	Aug 2001
Contract Area 3	0	Being determined
Contract Area 4A	80	May 2001

SUMMARIZED FINANCIAL DATA (continued)			ACCUM. PCT. OF EST. FED. COST
Estimated Total Appropriation Requirement			582,500,000
Programmed Construction		508,000,000	
Unprogrammed Construction		74,500,000	
Future Non-Federal Reimbursement			92,000,000
Programmed Construction		83,628,000	
Unprogrammed Construction		8,372,000	
Estimated Federal Cost (Ultimate) (COE)			488,200,000
Programmed Construction		424,372,000	
Unprogrammed Construction		66,128,000	
Estimated Non-Federal Cost			436,600,000
Programmed Construction		411,800,000	
Cash Contribution	$176,972,000		
Other Costs	151,200,000		
Reimbursements	83,628,000		
Unprogrammed Construction		24,800,000	
Cash Contribution	16,420,000		
Other Costs	0		
Reimbursements	8,380,000		

STATUS (1 Jan 2000)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Contract Area 4B	0	Being determined
Contract Area 5	0	Being determined
Contract Area 6	0	Being determined
Contract Area 7	80	Being determined
Contract Area 8	0	Being determined
Unprogrammed Work		
Contract 9	0	Indefinite
Entire Project	27	Indefinite

Total Estimated Programmed Construction Costs	$ 836,172,000	
Total Estimated Unprogrammed Construction Costs	90,928,000	
Total Estimated Project Cost	927,100,000	
Allocations to 30 September 2000	242,227,000	
Conference Allowance for FY 2001	53,000,000	
Allocation for FY 2001	40,416,000 1/	
Allocation through FY 2001	282,643,000	49
Allocation Requested for FY 2002	44,000,000	56
Programmed Balance to Complete after FY 2002	179,057,000	
Unprogrammed Balance to Complete after FY 2002	74,500,000	

1/ Reflects $8,480,000 reduction assigned as savings and slippage, $4,000,000 reprogrammed from the project, and $104,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: Cargo handled at Port Newark and Port Elizabeth, which together comprise one of the nations larger container ports, was about 24.4 million tons in 1995. The 40-foot deep channels in the Kill Van Kull and Newark Bay precluded present generation containerships from fully loading and hampered future fleets of larger draft vessels. The average annual benefits, all commercial navigation, are $619,194,000 at 1 November 1996 price levels.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Contract (Area 3)	$ 15,170,000
Continue Contract (Area 5)	25,349,000
Initiate Contract (Area 8)	2,881,000
Construction Management	600,000
Total	$ 44,000,000

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, and Replacement Costs
Dredge berthing areas and relocate utilities where necessary in the construction of the project.	$151,200,000	
Pay 25 percent of the costs allocated to deep draft navigation during construction.	193,392,000	
Pay an additional 10 percent of the costs allocated to deep draft navigation within a period of 30 years following completion of construction which is partially offset by a credit allowed for the value of lands, easements, rights-of-way, relocations, and dredged material disposal areas.	92,008,000	
Total Non-Federal Costs	$ 436,600,000	

STATUS OF LOCAL COOPERATION: A Local Cooperation Agreement (LCA) with the Port Authority of New York and New Jersey, the non-Federal sponsor, was executed for the Phase I deepening to 40 feet on 30 May 1986. A modification of the LCA was executed on 21 May 1987 to reflect the criteria of the Water Resources Development Act of 1986. A Project Cooperation Agreement for the 45ft deepening project was executed for the Phase II deepening on 13 January 1999.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of $580,200,000 is a decrease of $27,400,000 over the latest estimate ($607,600,000) presented to Congress (FY 2001). This change includes the following items:

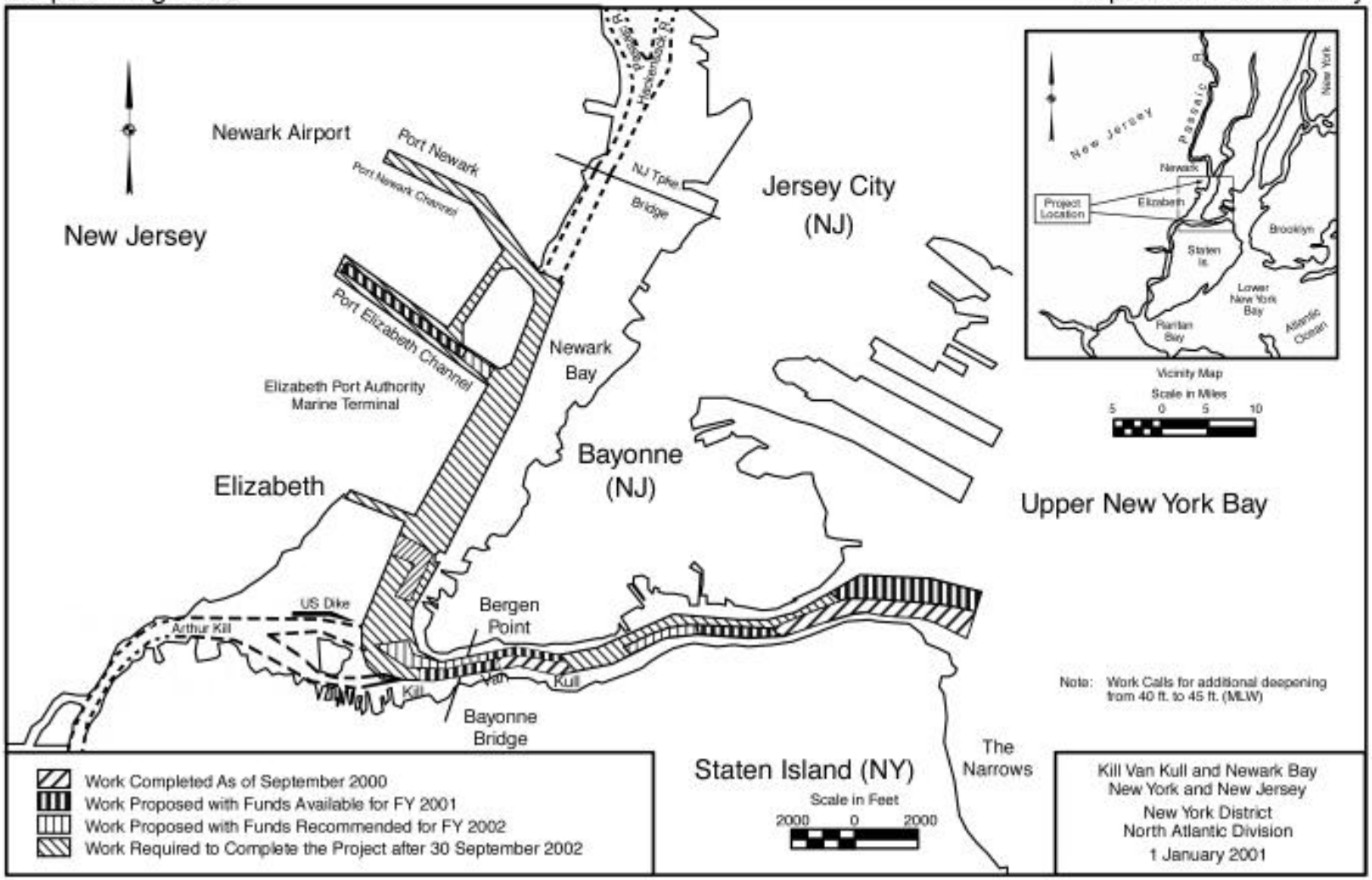
Item	Amount
Price Escalation on Construction Features	$ - 27,400,000
Total	$ - 27,400,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency (EPA) on 31 July 1981. A Supplemental EIS was filed with EPA on 14 February 1986. The Final Supplement to the EIS was filed with EPA on 13 February 1987. The Record of Decision was executed on 1 April 1987. A Environmental Assessment and Finding of no Significant Impact was issued on 30 April 1997 as part of the LRR for the Phase II deepening.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1984 and funds to initiate construction were appropriated in FY 1985.

Corps of Engineers

Department of the Army



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

PROJECT: Atlantic Intracoastal Waterway Bridge At Great Bridge, Virginia (Continuing)

LOCATION: The project is located in the community of Great Bridge, city of Chesapeake, in the southeastern portion of Virginia. The Atlantic Intracoastal Waterway bridge crosses the Albermarle and Chesapeake Canal which is a part of the Atlantic Intracoastal Waterway that connects the Southern Branch of the Elizabeth River and the North Landing River.

DESCRIPTION: The plan of improvement includes replacement of the existing Federal bridge with a five-lane, double-leaf, rolling-lift bascule also commonly known as a "Scherzer Rolling Lift Bridge." The replacement bridge provides five 12-foot lanes, two 2-foot shoulders and pedestrian walkways. The roadway centerline on the proposed bridge will be approximately 80 feet east of, and parallel to, the existing bridge centerline. Upon completion of the project the non-Federal Sponsor (City of Chesapeake) will assume ownership and provide OMRR and R for the new bridge and approaches.

AUTHORIZATION: Section 339 of the National Highway Systems Designation Act of 1995 (P.L. 104-59).

REMAINING BENEFIT-REMAINING COST RATIO: 2.1 to 1 at 7 3/8 percent

TOTAL BENEFIT-COST RATIO: 1.8 to 1 at 7 3/8 percent

INITIAL BENEFIT-COST RATIO: 1.8 to 1 at 7 3/8 (FY 1998)

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in July 1994 at October 1992 price levels

SUMMARIZED FINANCIAL DATA:			ACCUM PCT. OF EST. FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
				Bridge Replacement	13	Being determined
Estimated Federal Cost		24,054,000				
Estimated Non-Federal Cost		3,672,000				
Cash Contributions	3,604,000					
Other Costs	68,000					
Total Estimated Project Cost		27,727,000				
Allocations to 30 September 2000		7,639,000				
Conference Allowance for FY 2001		8,492,000				
Allocation for FY 2001		7,116,000	1/			
Allocations through FY 2001		14,755,000	61			
Allocation Requested for FY 2002		7,000,000	92			
Programmed Balance to Complete after FY 2002		2,299,000				

PHYSICAL DATA

BRIDGE:

TYPE	LENGTH	DECK ELEVATION
Dbl Leaf Rolling Lift Bascule	304 ft.	13.0 ft NGVD

1/ Reflects $1,359,000 reduction assigned as savings and slippage and $17,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The present bridge, which was built by the Corps of Engineers, was opened to traffic in August 1943. The bridge is now functionally obsolete. It is a double-swing two-lane highway bridge carrying Virginia's Route 168 over the Albermarle and Chesapeake Canal. At the time the bridge was built, it had adequate vehicle capacity for a rural area. However, the bridge now connects a multi-lane highway through a heavily traveled area serving a busy urban commercial center. The bridge is seriously overloaded, carrying over 30,000 vehicles per day, which is double its design capacity. Navigation is also adversely affected due to restrictions on bridge openings. Updating of the mechanical and electrical equipment is now needed. Structural problems have required the bridge to be down-posted from 15 to 13 tons. While maintenance and repairs are an alternative to replacing the bridge, the bridge is over 50 years old, and it is likely that increased cost for repairs or further weight limit downposting is likely as the bridge continues to age.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue construction	$6,100,000
Construction Management	900,000
Total	$7,000,000

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, relocations, and approaches	$3,672,000	
Pay all costs of betterments to the project	0	
Total Non-Federal Costs	$3,672,000	$215,000

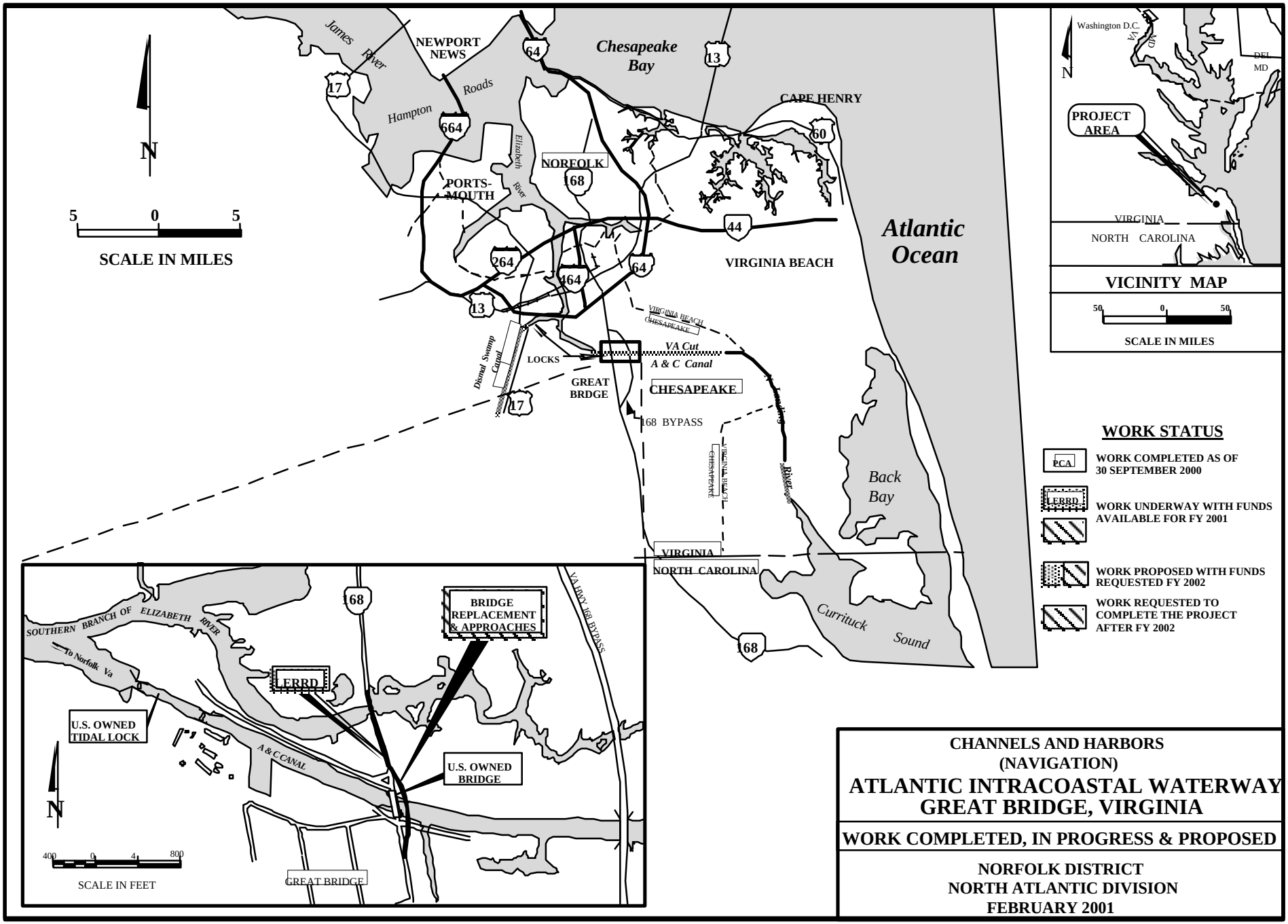
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and will assume ownership and all operation, maintenance, repair, replacement, and rehabilitation responsibilities of the bridge.

STATUS OF LOCAL COOPERATION: The city of Chesapeake is the non-Federal project sponsor. By City Council Resolution dated 8 June 1999 and by letter dated 9 June 1999, the city indicated their support and willingness to enter into a Project Cooperation Agreement (PCA) prior to initiation of construction. In addition, the city agreed to assume ownership and all operation, maintenance, repair, replacement, and rehabilitation responsibilities, and provide the incremental costs of any locally preferred options. The non-Federal sponsor is fully capable of providing its share of funds for the bridge replacement through its City Wide Debt Fund Balance. The PCA was executed on 22 November 1999.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $24,054,000 is the same as the latest estimate ($24,054,000) presented to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment/Finding of No Significant Impact (EA/FONSI) was signed on 25 February 1994.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1995. Funds to initiate construction were appropriated in FY 1998.


N
5 0 5
SCALE IN MILES
James River
Hampton Roads
NEWPORT NEWS
17
64
664
Chesapeake Bay
13
CAPE HENRY
60
Elizabeth River
NORFOLK
168
PORTS-MOUTH
44
Atlantic Ocean
264
464
64
VIRGINIA BEACH
13
VIRGINIA BEACH
CHESAPEAKE
VA Cut
A & C Canal
LOCKS
Dismal Swamp Canal
GREAT BRDGE
CHESAPEAKE
17
168 BYPASS
Lynnhaven River
Back Bay
VIRGINIA
NORTH CAROLINA
168
Currituck Sound
SOUTHERN BRANCH OF ELIZABETH RIVER
To Norfolk Va
168
BRIDGE REPLACEMENT & APPROACHES
VA HWY 168 BYPASS
LERRD
U.S. OWNED TIDAL LOCK
A & C CANAL
U.S. OWNED BRIDGE
N
400 0 4 800
SCALE IN FEET
GREAT BRIDGE
Washington D.C.
VA
MD
DEL
N
PROJECT AREA
VIRGINIA
NORTH CAROLINA
VICINITY MAP
50 0 50
SCALE IN MILES
WORK STATUS
PCA
WORK COMPLETED AS OF 30 SEPTEMBER 2000
LERRD
WORK UNDERWAY WITH FUNDS AVAILABLE FOR FY 2001
WORK PROPOSED WITH FUNDS REQUESTED FY 2002
WORK REQUESTED TO COMPLETE THE PROJECT AFTER FY 2002
CHANNELS AND HARBORS
(NAVIGATION)
ATLANTIC INTRACOASTAL WATERWAY
GREAT BRIDGE, VIRGINIA
WORK COMPLETED, IN PROGRESS & PROPOSED
NORFOLK DISTRICT
NORTH ATLANTIC DIVISION
FEBRUARY 2001

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

PROJECT: Norfolk Harbor and Channels (Deepening), Virginia (Continuing)

LOCATION: The project is located in Hampton Roads, Virginia, a 25-square mile natural harbor serving the ports of Norfolk, Newport News, Portsmouth, Chesapeake, and Hampton, Virginia.

DESCRIPTION: Programmed work encompasses (1) deepening a 2.5 mile section of the Southern Branch of the Elizabeth River from a depth of 35 feet to 40 feet, including an 800 foot turn basin, and (2) the construction of the 50-foot inbound element. Unprogrammed work encompasses deepening the outbound lanes of existing main channels to a depth of 55 feet, constructing a new ocean channel to a depth of 60 feet, and deepening a 6.3 mile section of the Southern Branch to a depth of 45 feet. Dredging the outbound channels to a depth of 50 feet was completed in 1988, the Lower Bay Beneficial Uses Study was completed in August 1994, and the construction of a 1500-foot diameter anchorage area with a depth of 50 feet was completed in September 1999.

AUTHORIZATION: Supplemental Appropriations Act of 1985 and Water Resources Development Act of 1986.

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

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

INITIAL BENEFIT-COST RATIO: 3.7 to 1 at 8 1/8 percent (FY 1985).

BASIS OF BENEFIT-COST RATIO: Benefits are from the General Design Memorandum approved in July 1986 at October 1986 price level and the Supplemental Engineering Report approved in August 1989 at October 1989 price level. Benefits for the 50-Foot Anchorage are from the Limited Reevaluation Report dated May 1996 at October 1996 price level.

SUMMARIZED FINANCIAL DATA

Estimated Appropriation Requirement (CoE)		137,400,000
Programmed Construction	21,312,000	
Unprogrammed Construction	116,088,000	
Estimated Appropriation Requirement (Coast Guard)		833,000
Programmed Construction	306,000	
Unprogrammed Construction	527,000	
Estimated Appropriation Requirement (US Navy)		3,508,000
Programmed Construction	3,508,000	
Unprogrammed Construction	0	
Estimated Total Appropriation Requirement		141,741,000
Programmed Construction	25,126,000	
Unprogrammed Construction	116,615,000	
Future Non-Federal Reimbursement		11,362,000
Programmed Construction	928,000	
Unprogrammed Construction	10,434,000	
Estimated Federal Cost (Ultimate) (CoE)		126,038,000
Programmed Construction	20,384,000	
Unprogrammed Construction	105,654,000	
Estimated Non-Federal Cost		132,321,000
Programmed Construction	14,441,000	
Cash Contribution	9,545,000	
Other Costs	3,968,000	
Reimbursements	928,000	

STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
50-Foot Outbound	100	Dec 1988
50-Foot Outbound (Anchorage)	100	Sep 1999
50-Foot Inbound	2	Indefinite
55-Foot Outbound	0	Indefinite
55-Foot Outbound (Anchorage)	0	Indefinite
Southern Branch 45-Foot	0	Indefinite
Southern Branch 40-Foot	25	Indefinite
Entire Project	20	Indefinite

PHYSICAL DATA

CHANNELS	DEPTH (feet m.l.w.)	WIDTH (feet)	LENGTH (miles)
Atlantic Ocean	60	650	9.6
Thimble Shoal	55	650	13.4
Norfolk Harbor	55	650-800	8.4
Newport News	55	800	6.2
Elizabeth River and Southern Branch	45	375-750	6.3
Southern Branch	40	250-500	2.5

ANCHORAGES	DEPTH (feet m.l.w.)	RADIUS (feet)
55-Foot	55	1,500
Sewells Point	45	1,500
50-Foot	50	1,500

Division: North Atlantic District: Norfolk Norfolk Harbor and Channels (Deepening), VA

SUMMARIZED FINANCIAL DATA (Continued)			ACCUM. PCT. OF EST. FED COST
Unprogrammed Construction	117,880,000		
Cash Contribution	82,326,000		
Other Costs	25,120,000		
Reimbursements	10,434,000		
Total Estimated Programmed Construction Cost		40,153,000	
Total Estimated Unprogrammed Construction Cost		222,547,000	
Total Estimated Project Cost		262,700,000	
Allocations to 30 September 2000		23,413,000	
Conference Allowance for FY 2001		600,000	
Allocation for FY 2001		503,000	1/
Allocations Through FY 2001		23,916,000	17
Allocation Requested for FY 2002		486,000	18
Programmed Balance to Complete after FY 2002		811,000	
Unprogrammed Balance to Complete after FY 2002		112,187,000	

1/ Reflects $96,000 reduction assigned as savings and slippage and $1,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The existing channels in the Port of Hampton Roads are not deep enough to accommodate the increasing vessel sizes which transport principal commodities such as coal and grain. Hampton Roads coal terminals already receive colliers in excess of 100,000 deadweight tons which cannot sail fully loaded with the existing channels 50 feet deep, making unit transportation costs higher. When the project is completed, larger vessels will be able to load to capacity, providing a savings in the delivery of cargo to final destinations. The project will assist in improving the United States competitive position as a major coal exporter. The purpose of constructing the 50-Foot Inbound Channels is to prepare the port for the anticipated growth in the U.S. maritime container trade well into the next century and projected trend toward the utilization of increasingly larger container vessels. Average annual benefits are as follows:

Annual Benefits	Amount
Transportation Savings (50-Foot Outbound)	$26,400,000
Transportation Savings (55-Foot Outbound)	22,200,000
Transportation Savings (Southern Branch 45 foot)	3,499,000
Transportation Savings (Southern Branch 40 foot)	2,550,000
Total	$54,649,000

Division: North Atlantic District: Norfolk Norfolk Harbor and Channels (Deepening), VA

FISCAL YEAR 2002: The requested amount will be applied as follows:

Planning, Engineering, and Design	$486,000
Total	$486,000

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
50-Foot Outbound Element and Long-term Disposal:		
Pay Craney Island dredged material disposal area tolls	642,000	
Pay the costs of improvements to access channels and berthing areas ($2,987,000) and relocate a 30 inch diameter water main ($339,000).	3,326,000	
Pay 50 percent of the costs allocated to deep draft navigation greater than 45 feet during construction and pay 25 percent of the costs of incremental maintenance below 45 feet below mean low water.	9,545,000	150,000
Pay an additional 10 percent of the costs allocated to deep draft navigation within a period of 30 years following completion of construction (which is partially offset by relocation of the 30 inch diameter water main and a credit allowed for the Craney Island dredged material area tolls).	928,000	
Subtotal Non-Federal Costs (50-Foot Outbound Element)	$14,441,000	$150,000

Requirements of Local Cooperation (Cont'd)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
50-Foot Anchorage Element:		
Pay 50 percent of the costs allocated to deep draft navigation greater than 45 feet during construction and pay 25 percent of the costs of incremental maintenance below 45 feet below mean low water.	2,173,500	31,000
Pay an additional 10 percent of the costs allocated to deep draft navigation within a period of 30 years following completion of construction.	434,700	
Subtotal Non-Federal Costs (50-Foot Anchorage Element)	$2,608,200	$31,000

NON-FEDERAL COST (Continued)

Requirements of Local Cooperation (Cont'd)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Remaining Elements:		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	2,620,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	22,500,000	
Pay 50 percent of the costs allocated to deep draft navigation greater than 45 feet during construction and pay 25 percent of the costs of incremental maintenance below 45 feet mean low water.	80,002,000	
Pay an additional 10 percent of the costs allocated to deep draft navigation within a period of 30 years following completion of construction.	10,434,000	
Subtotal Non-Federal Costs (Remaining Elements)	$115,556,000	$ 0
Total Non-Federal Costs	$132,321,000	$181,000

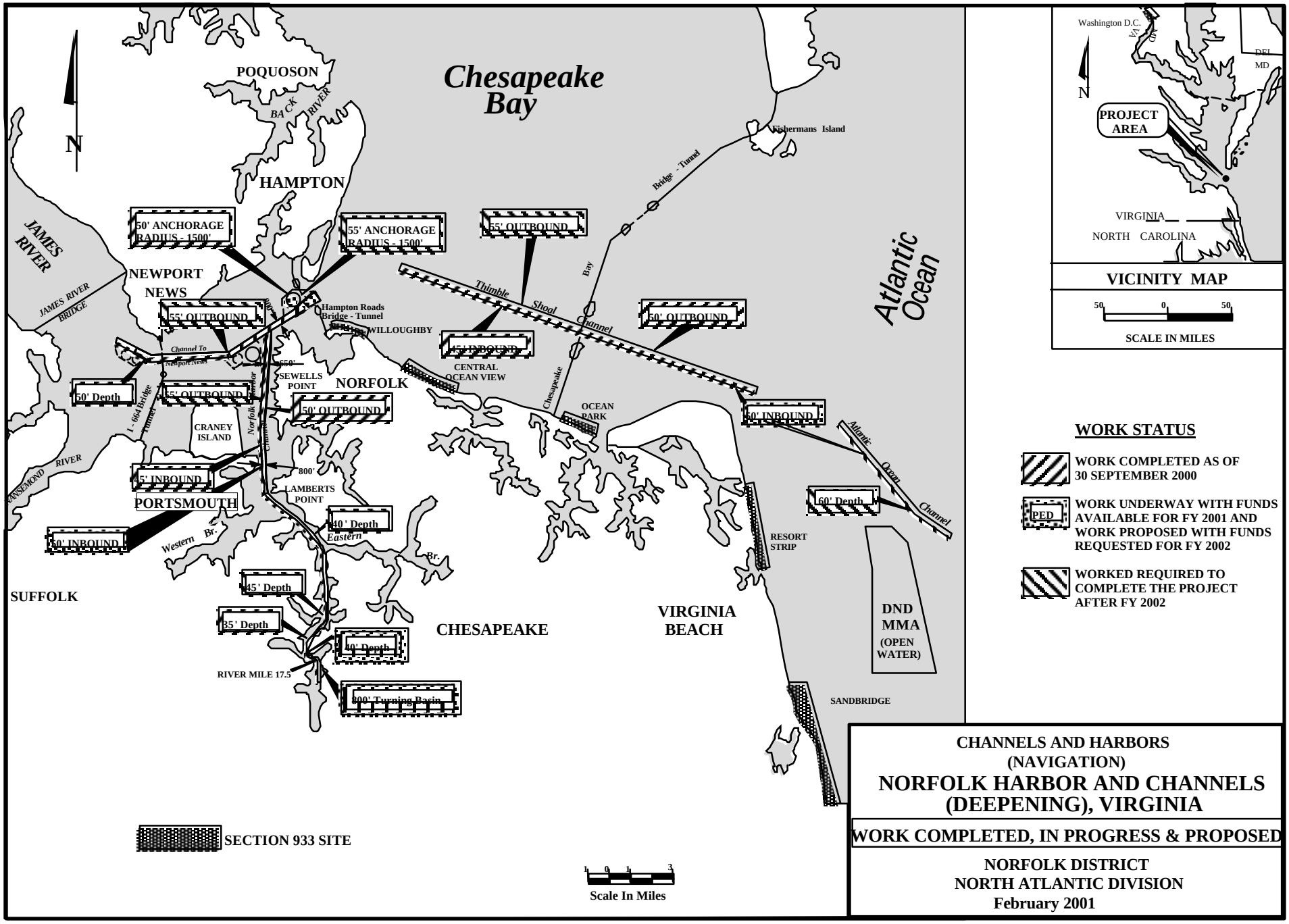
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and reimburse its share of construction costs over a period of 30 years following completion of construction.

STATUS OF LOCAL COOPERATION: A Local Cooperation Agreement (LCA) for the first phase (50 foot Outbound) was executed 15 May 1986 with the Commonwealth of Virginia, and LCA Modification No. 1 was executed 13 February 1987 to reflect the criteria of the Water Resources Development Act of 1986. A Project Cooperation Agreement for the 50-Foot Anchorage was executed 19 February 1999 with the Commonwealth of Virginia. Supplements to the existing LCA will be executed to accommodate completion of future elements.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (CoE) cost estimate of $137,400,000 is the same as the latest estimate ($137,400,000) presented to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (FEIS) and Addendum were filed on 3 April 1981. A final Supplement I to the FEIS was filed on 14 June 1985. An Environmental Assessment for the 50-Foot Anchorage was completed in March 1996.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1985. Funds to initiate the 50-foot anchorage area were appropriated in FY 1998. The first phase of the project provided an outbound channel 50 feet deep. Construction of the inbound 50 and 55 foot channel phases have been deferred due to the absence of currently identified economic or operational need. The remainder of the project will be programmed in coordination with local interests. A long-term dredged material management study was initiated in FY 1985. This study concentrated on the needs of the inner harbor and was completed in FY 1994.


Chesapeake Bay
Atlantic Ocean
POQUOSON
BACK RIVER
HAMPTON
JAMES RIVER
JAMES RIVER BRIDGE
NEWPORT NEWS
50' ANCHORAGE RADIUS - 1500'
55' ANCHORAGE RADIUS - 1500'
55' OUTBOUND
Hampton Roads Bridge - Tunnel
WILLOUGHBY BAY
Channel To Newport News
650'
SEWELLS POINT
NORFOLK
Norfolk Harbor
Thimble Shoal Channel
Bridge - Tunnel
Fishermans Island
Chesapeake Bay
45' INBOUND
CENTRAL OCEAN VIEW
50' OUTBOUND
50' Depth
55' OUTBOUND
I - 664 Bridge Tunnel
CRANEY ISLAND
50' OUTBOUND
OCEAN PARK
50' INBOUND
Atlantic Ocean Channel
ELIZABETH RIVER
45' INBOUND
PORTSMOUTH
800'
LAMBERTS POINT
60' Depth
40' Depth
Eastern Br.
Western Br.
50' INBOUND
RESORT STRIP
45' Depth
SUFFOLK
35' Depth
CHESAPEAKE
VIRGINIA BEACH
DND MMA (OPEN WATER)
40' Depth
RIVER MILE 17.5
800' Turning Basin
SANDBRIDGE
SECTION 933 SITE
Scale In Miles
Washington D.C.
VA
MD
DEL
MD
PROJECT AREA
VIRGINIA
NORTH CAROLINA
VICINITY MAP
SCALE IN MILES
WORK STATUS
WORK COMPLETED AS OF 30 SEPTEMBER 2000
PED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR FY 2001 AND WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2002
WORKED REQUIRED TO COMPLETE THE PROJECT AFTER FY 2002
CHANNELS AND HARBORS (NAVIGATION)
NORFOLK HARBOR AND CHANNELS (DEEPENING), VIRGINIA
WORK COMPLETED, IN PROGRESS & PROPOSED
NORFOLK DISTRICT
NORTH ATLANTIC DIVISION
February 2001

APPROPRIATION TITLE: Construction, General - Beach Erosion Control

PROJECT: Delaware Coast Protection, Delaware (Continuing)

LOCATION: The project is located in Sussex County, Delaware, on the Atlantic Ocean at Indian River Inlet.

DESCRIPTION: The plan of improvement consists of constructing a sand bypassing plant and periodic nourishment of a feeder beach at Indian River Inlet. All work is programmed.

AUTHORIZATION: Flood Control Act of 1968 and the Water Resources Development Act of 1986.

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

TOTAL BENEFIT-COST RATIO: Not applicable because initial construction is complete.

INITIAL BENEFIT - COST RATIO: 2.0 to 1 at 6 1/8 percent (FY 1977).

BASIS OF BENEFIT-COST RATIO: Atlantic Coast of Delaware General Design Memorandum, approved January 1986 at October 1984 price levels and a Reevaluation Report approved February 1984 at October 1983 price levels.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost			$12,600,000
Initial Construction	2,266,000		
Periodic Nourishment	10,334,000		
Estimated non-Federal Cost			18,000,000
Initial Construction		441,000	
Cash Contributions	441,000		
Other Costs	0		
Periodic Nourishment		17,559,000	
Cash Contributions	0		
Other Costs	17,559,000		
Total Estimated Project Cost			30,600,000
Initial Construction		2,707,000	
Periodic Nourishment		27,893,000	

STATUS: (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Initial Construction	100	Jan 1990
Periodic Nourishment	29	Being determined
Entire Project	56	Being determined

PHYSICAL DATA:
Project Area Length: 3,500 feet sand bypass plant designed to provide the necessary volume of sand to the feeder beach. Feeder beach requires bypassing an average of 100,000 cubic yards each year.

SUMMARIZED FINANCIAL DATA (Continued):			ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2000	5,343,000		
Conference Allowance for FY 2001	254,000		
Allocation for FY 2001	254,000		
Allocations through FY 2001	5,597,000		44
Allocation Requested for FY 2002	270,000	1/	47
Programmed Balance to Complete after FY 2002	6,732,000	1/	
Unprogrammed Balance to Complete after FY 2002	0		

1/ Reflects 65% non-Federal cost share

JUSTIFICATION: The reach of shoreline immediately north of Indian River Inlet, commonly referred to as the feeder beach, is being damaged by erosion, and State Highway Route 1 is threatened. The project area has also experienced considerable erosion from waves due to hurricanes and northeasters as a result of the lack of adequate protective beaches. The critical length of shoreline north of Indian River Inlet along which erosion threatens Route 1 is extremely important because it provides the only direct roadway between Bethany Beach and the northern beaches. There would be severe negative social and economic impacts if Route 1 were to be cut by a washover. The authorized project would provide tangible benefits by providing beach erosion control measures which in turn reduce annual beach erosion maintenance costs and reduce wave damages from coastal storms. The average annual benefits, are $9,549,20 based on 1 October 1984 price levels of which $9,121,100 are for prevention of erosion damages and $428,100 are for prevention of loss of land.

FISCAL YEAR 2002: The requested funding will be used to provide periodic nourishment through the operation of a sand bypass plant. The funds will be applied as follows:

Periodic Nourishment	$ 238,000
Planning, Engineering, and Design	$ 22,000
Construction Management	$ 10,000
Total	$ 270,000

NON-FEDERAL COSTS: 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, and Replacement Costs
Bear all costs of operation, maintenance and replacement of shoreline protection features.		$120,000
Pay 65 percent of the cost of periodic nourishment. for FY02 and beyond	$18,000,000	
Bear 100 percent of operation, maintenance, and replacement for mitigation of shore damages attributable to navigation projects.		203,000
Total non-Federal Costs	$18,000,000	$323,000

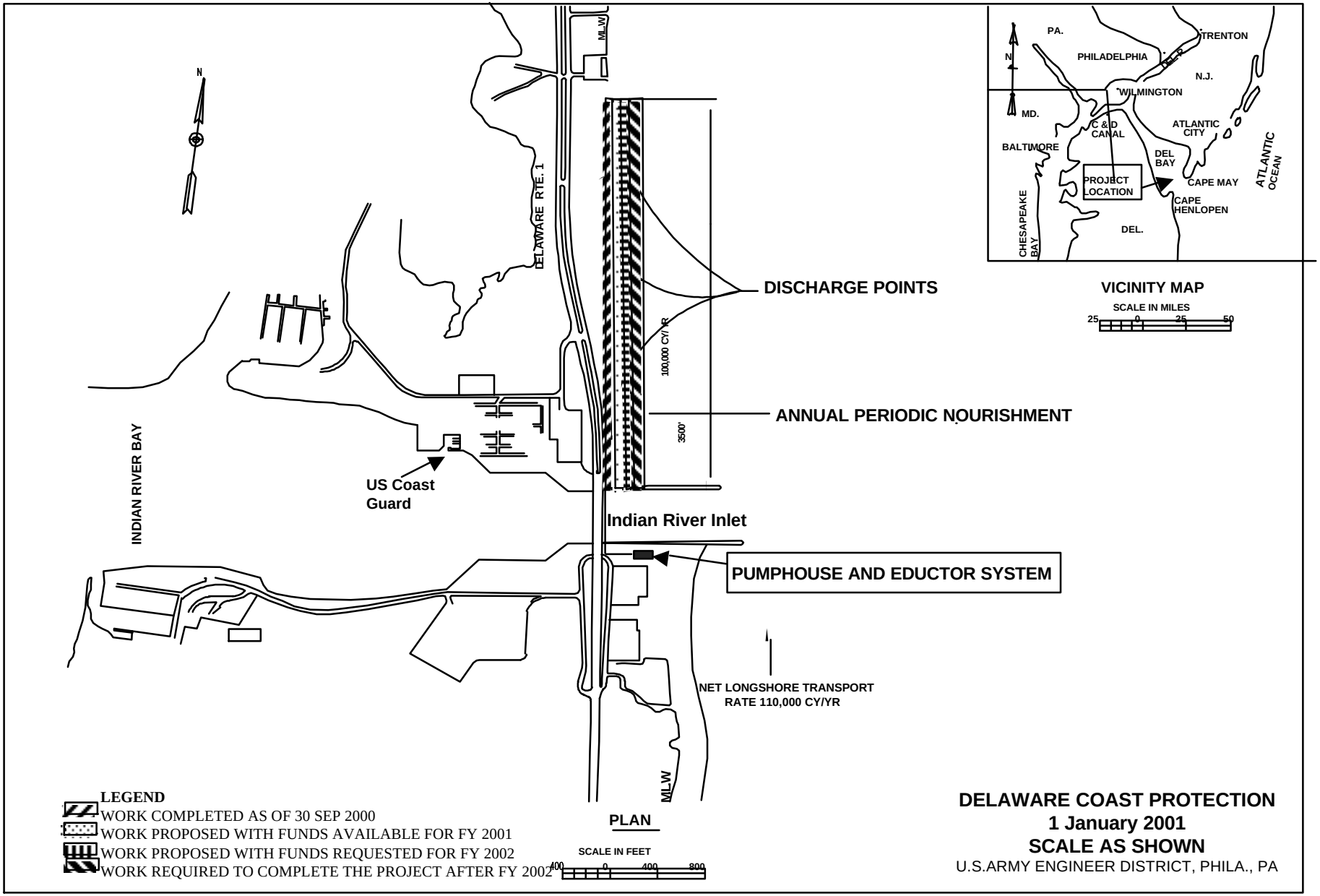
STATUS OF LOCAL COOPERATION: A Local Cooperation Agreement was executed in October 1988 with the State of Delaware. The previously executed PCA will be modified to incorporate the non-Federal share of 65 percent of the cost of periodic nourishment for FY02 and beyond before initiating the proposed FY02 nourishment effort.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $12,600,000 is a decrease of $400,000 from the latest estimate ($13,000,000) presented to Congress (FY 2001). This change reflects the anticipated incorporation of the revised cost sharing for FY02 and beyond and includes the following items:

Item	Incremental Change
Price Escalation on Construction Features	$1,100,000
Change in cost share	- 1,500,000
Total	- $ 400,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (FEIS) was filed with the Council on Environmental Quality on 1 June 1971. A draft supplement to the FEIS was filed on 18 April 1975. An Environmental Assessment and a Finding of No Significant Impact were completed on 26 November 1984. Listing of Piping Plover (Charadrius Melodus) as an endangered bird species in January 1986 and recent determination by State wildlife officials that the species nests in the project area has necessitated review procedures in accordance with Section 7 of the Endangered Species Act of 1973. A letter from U.S. Fish and Wildlife Service, dated 4 May 1987, expressed that the project operations would cause no impact, provided an operational window is observed. Coordination with the Service is continuing.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1971, and funds to initiate construction were appropriated in FY 1977. Section 869 of the Water Resources Development Act of 1986 deauthorized the unprogrammed portion of the project.


N
MLW
DELAWARE RTE. 1
DISCHARGE POINTS
100,000 CY/YR
ANNUAL PERIODIC NOURISHMENT
3500'
INDIAN RIVER BAY
US Coast Guard
Indian River Inlet
PUMPHOUSE AND EDUCTOR SYSTEM
NET LONGSHORE TRANSPORT RATE 110,000 CY/YR
MLW
PLAN
SCALE IN FEET
400 0 400 800
LEGEND
WORK COMPLETED AS OF 30 SEP 2000
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2002
PA.
TRENTON
PHILADELPHIA
N.J.
WILMINGTON
MD.
C & D CANAL
ATLANTIC CITY
BALTIMORE
DEL BAY
ATLANTIC OCEAN
PROJECT LOCATION
CAPE MAY
CAPE HENLOPEN
CHESAPEAKE BAY
DEL.
VICINITY MAP
SCALE IN MILES
25 0 25 50
DELAWARE COAST PROTECTION
1 January 2001
SCALE AS SHOWN
U.S.ARMY ENGINEER DISTRICT, PHILA., PA

APPROPRIATION TITLE: Construction, General – Beach Erosion Control

PROJECT: Delaware Coast, Rehoboth Beach to Dewey Beach, DE (Continuing)

LOCATION: The Rehoboth Beach to Dewey Beach project area stretches for approximately 2 miles along the northern part of the Atlantic Ocean coast of Delaware in Sussex County, Delaware. From north to south the project area includes the Town of Rehoboth Beach, the unincorporated region in front of Silver Lake (under Sussex County jurisdiction), and the Town of Dewey Beach.

DESCRIPTION: The recommended project consists of providing 1.4 million cubic yards initial beachfill, with subsequent nourishment of 360,000 cubic yards every three years. Berm widths will be 125 and 150 feet at an elevation of +8.0 feet NGVD for Rehoboth Beach and Dewey Beach respectively, with dunes at elevation of +14.0 feet NGVD. The project length is 13,500 feet.

AUTHORIZATION: Water Resources Development Act of 1996 and Water Resources Development Act of 2000.

REMAINING BENEFIT-REMAINING COST RATIO: 1.7 to 1 at 7 1/8 percent

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

INITIAL BENEFIT-COST RATIO: 1.7 to 1 at 7 1/8 percent (FY 2000)

BASIS OF BENEFIT-COST RATIO: Benefits (October 1995 price level) are from the Chief of Engineers Report dated 23 December 1996.

SUMMARIZED FINANCIAL DATA			STATUS: (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 64,900,000	Initial Beachfill	0	Being determined
Initial Construction	6,957,000		Periodic Nourishment	0	Being determined
Periodic Nourishment	57,943,000		Entire Project	0	Being determined
Estimated non-Federal Cost		$111,600,000			
Initial Construction	3,904,000				
Cash Contributions	3,654,000				
Other Costs	250,000				
Periodic Nourishment	107,696,000				
Cash Contributions	107,696,000				
Other Costs	0				
Total Estimated Project Cost		$176,500,000			
Initial Construction	10,861,000				
Periodic Nourishment	165,639,000				

PHYSICAL DATA:
Beachfill: Rehoboth Beach-125 foot wide berm elevation of +8 feet NGVD; dune elevation of +14 foot NGVD: Dewey Beach-150 foot wide berm with an elevation of +14 foot NGVD: Dune grass, dune fence.
Periodic Nourishment: every 3 years with a Placement of approx. 360,000 cubic yards of material

		ACCUMULATED PCT OF EST. FED. COST
Allocations to 30 September 2000	723,000	
Conference Allowance for FY 2001	3,000,000	
Allocation for FY 2001	2,514,000 1/	
Allocations through FY 2001	3,243,000	5
Allocations Requested for FY 2002	100,000	5
Programmed Balance to Complete after FY 2002	61,563,000 2/	
Unprogrammed Balance to Complete after FY 2002	0	

1/ Reflects $480,000 reduction assigned as savings and slippage, and $6,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.
2/ Reflects 65% non-Federal cost share

JUSTIFICATION: The project area has been subject to major flooding, erosion and wave attack during storms, causing damage to structures, and, since 1992, twice resulting in the Rehoboth Beach/Dewey Beach area being declared a National Disaster Area. In recent years, continued erosion has resulted in a reduction of the height and width of the beachfront, including the virtual destruction of the existing dune system, which has increased the potential for storm damage. Storms of record that have caused significant damage occurred in August 1933, September 1944, and March 1962.

Division: North Atlantic District: Philadelphia Delaware Coast, Rehoboth Beach to Dewey Beach, DE

JUSTIFICATION: (Continued)
Damages to 544 residences and 50 businesses, at an estimated cost of $4 million resulted, from the March 1962 storm. In addition, winter northeasters often buffet the coastline resulting in erosion and associated losses. The most notable of these occurred in December 1974, October 1977, March 1984, March 1989, October 1991, January 1992, December 1992, and January 1996. Average annual benefits are $3,476,000 at Oct. 1995 price levels

FISCAL YEAR 2002: The requested amount will be applied as follows:

Planning, Engineering and Design	$ 100,000
Total	$ 100,000

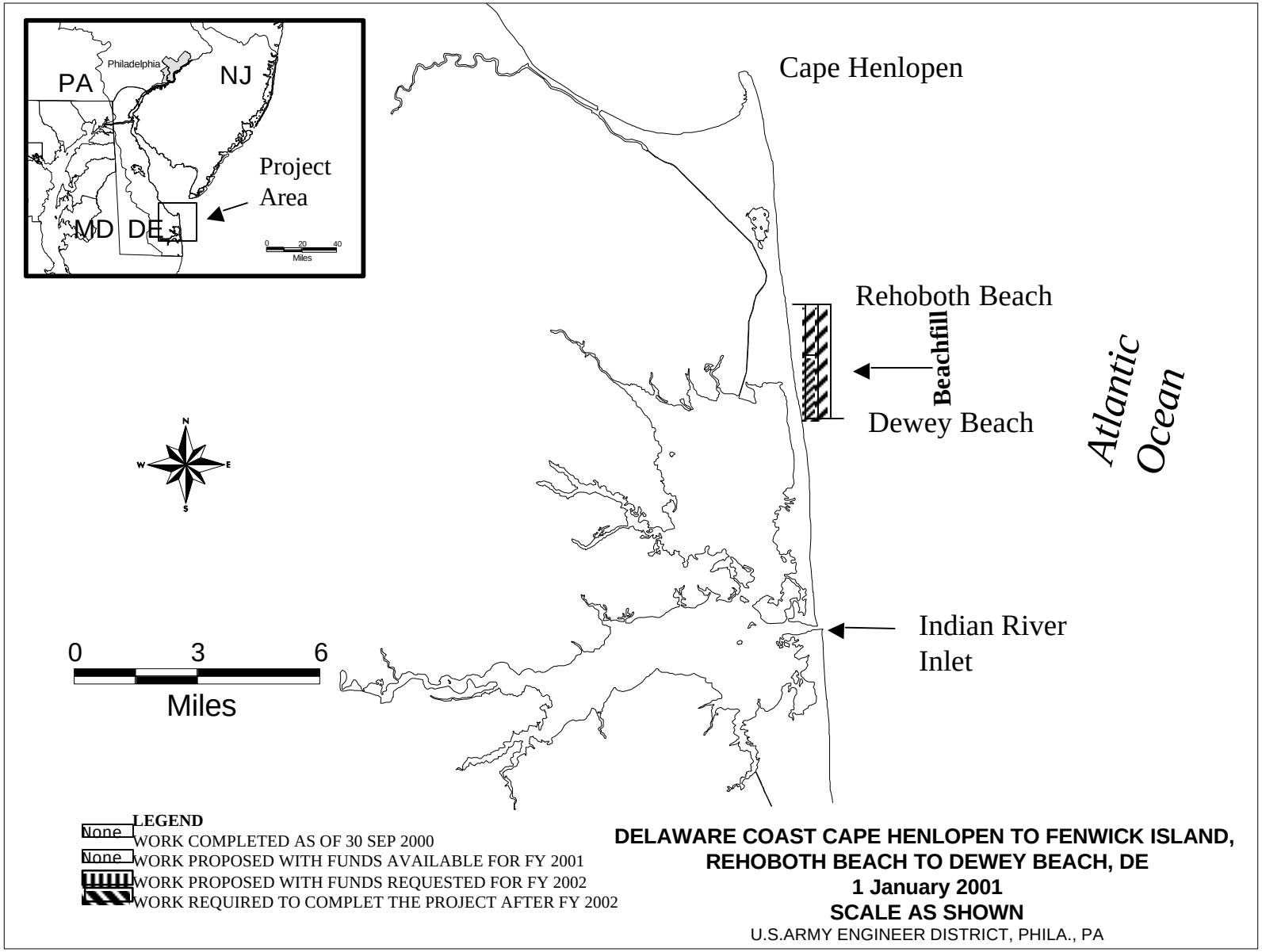
NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, and rights of way	$ 250,000	$ 1,850,000
Pay 35 percent of the initial costs allocated to hurricane and storm damage reduction	$ 3,654,000	
Pay 65 percent of the cost of periodic nourishment	$ 107,696,000	
Total Non-Federal Costs	$ 111,600,000	$ 1,850,000

STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the State of Delaware. A Project Cooperation Agreement with the State of Delaware is scheduled to be executed in December 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $64,900,000 is the initial cost estimate submitted to Congress.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1998. Funds to initiate construction were appropriated in FY 2000.



DELAWARE COAST CAPE HENLOPEN TO FENWICK ISLAND, REHOBOTH BEACH TO DEWEY BEACH, DE
1 January 2001
SCALE AS SHOWN
U.S.ARMY ENGINEER DISTRICT, PHILA., PA

APPROPRIATION TITLE: Construction, General – Beach Erosion Control

PROJECT: Assateague Island, Maryland (Continuing)

LOCATION: The Town of Ocean City and adjacent areas of Worcester County comprise an area of 625 square miles including Assateague Island, Ocean City Inlet, and Chincoteague, Sinepuxent, Assawoman, and Isle of Wight Bays on the eastern shore of Maryland. Adjacent to Ocean City is the Assateague Island National Seashore and Assateague Island State Park.

DESCRIPTION: The project involves the short-term and long-term restoration of Assateague Island. Short-term work includes dredging of about 1.8 million cubic yards from Great Gull Bank and placing it on the Island in the area between 1.6 miles and 7.2 miles south of the jetty. Long-term work includes mobile bypassing of 185,000 cubic yards of sand annually. The project area is composed of 4.7 miles of National Park Service and 0.9 miles of State of Maryland land.

AUTHORIZATION: Water Resources Development Act of 1996

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (COE)	25,800,000				
Estimated Appropriation Requirement (OFA)	9,200,000		Initial construction (short-term)	0	Being determined
Total Estimated Construction Cost	$35,000,000 1/				
Allocations to 30 September 2000	0		Long-term	0	Being determined
Conference Allowance for FY 2001	2,500,000				
Allocation for FY 2001	2,095,000 2/		PHYSICAL DATA:		
Allocations through FY 2001	2,095,000	8	Environmental Restoration		
Allocation Requested for FY 2002	10,000,000	47	Assateague Island – 5.6 miles x 95 foot width		
Programmed Balance to Complete after FY 2002	13,705,000				
Unprogrammed balance to Complete after FY 2002	0				

1/ Reflects appropriation limit reflected in the Water Resources Development Act of 1996.
2/ Reflects $400,000 reduction assigned as savings and slippage, and $5,000 rescinded in accordance with Consolidated Appropriations Act, 2001.

Division: North Atlantic District: Baltimore Assateague Island, MD

JUSTIFICATION: Existing Federal, state and local projects combined with development and agriculture have caused extensive degradation to the Ocean City and vicinity environment, particularly the coastal bays. It is estimated that nearly 2000 acres of tidal wetland habitat, and thousands of acres of non-tidal wetland habitat have been lost in the coastal bay watershed. Construction of Corps navigation channels through the inlet, harbor and back bays have contributed to the degradation of approximately 265 acres of benthic habitat. Construction of the jetties by the Corps of Engineers in 1934 to stabilize the Ocean City Inlet interrupted the natural longshore transport of sand from Ocean City to Assateague, starving the northern end of Assateague Island. The northern 1.5-7 miles of Assateague has eroded at an accelerated rate since 1933. It is estimated that the induced erosion rate for this section of the island was 10.8 feet per year. The island is now at severe risk of breaching which would change the dynamics of the area resulting in adverse physical, biological, and economic impacts in the area and threaten the habitat of several endangered species such as the piping plover.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Dredging/restoration at Assateague Island	$9,200,000
Planning, Engineering and Design	300,000
Construction Management	500,000
Total	$10,000,000

NON-FEDERAL COSTS: None.

STATUS OF LOCAL COOPERATION: The sponsor for the project is the National Park Service who administers the Assateague Island National Seashore. The National Park Service will provide lands, easements and rights-of-way for the initial construction work and will cost share 50% of the long-term work. An agreement between the Park Service and the Corps is scheduled for execution by June 2001. The project is strongly supported by the State of Maryland, Worcester County, and the Town of Ocean City.

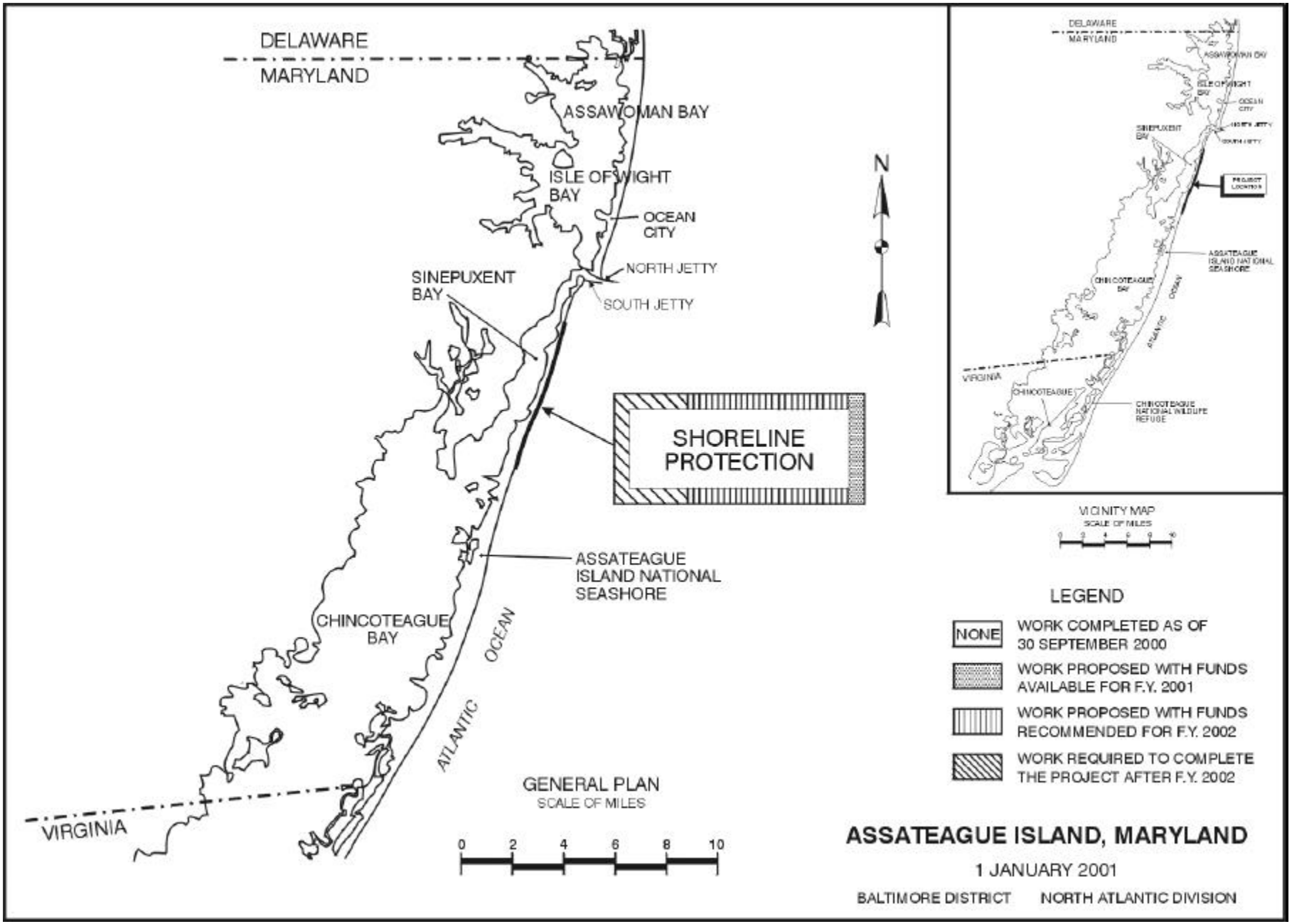
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of $25,800,000 is an increase of $8,900,000 over the latest estimate ($16,900,000) submitted to Congress (FY 2001). This change includes the following items:

ITEM	AMOUNT
Other Estimating Adjustments	$8,900,000
Total	$8,900,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A draft Environmental Impact Statement was incorporated in the draft Integrated Interim Report dated May 1997. The final Environmental Impact Statement was incorporated in the final feasibility report completed in June 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1997. Funds to initiate construction were appropriated in FY 2001. The current appropriation limit of $35 million only allows for about 10 years of the 25-year long-term period, and would have to be increased to $61.2 million to complete the long-term work.

Due to two severe storms in January/February 1998, the Corps performed emergency work at Assateague Island in September 1998 to correct an erosion problem that threatened to breach the Island. Work involved placement of about 150,000 cubic yards of sand at a total cost of $2.1 million.


DELAWARE
MARYLAND
ASSAWOMAN BAY
ISLE OF WIGHT BAY
OCEAN CITY
NORTH JETTY
SOUTH JETTY
SINEPUXENT BAY
SHORELINE PROTECTION
ASSATEAGUE ISLAND NATIONAL SEASHORE
CHINCOTEAGUE BAY
ATLANTIC OCEAN
VIRGINIA
N
GENERAL PLAN
SCALE OF MILES
0 2 4 6 8 10
VICINITY MAP
LEGEND
NONE
WORK COMPLETED AS OF 30 SEPTEMBER 2000
WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2001
WORK PROPOSED WITH FUNDS RECOMMENDED FOR F.Y. 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2002
ASSATEAGUE ISLAND, MARYLAND
1 JANUARY 2001
BALTIMORE DISTRICT
NORTH ATLANTIC DIVISION

APPROPRIATION TITLE: Construction, General - Beach Erosion Control

PROJECT: Atlantic Coast of Maryland (Continuing)

LOCATION: Fenwick and Assateague Islands form the Atlantic Coast of Maryland and extend in a north-south direction from Delaware Bay to Chincoteague Inlet, Virginia. The project is located in Worcester County, Maryland.

DESCRIPTION: The project includes a dune beginning at 27th Street extending north to the Delaware line, a steel sheet pile bulkhead from 27th Street south to Fourth Street, a widened and raised beach from Third Street to just beyond the Delaware line, and periodic nourishment over the 50-year project life. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1986 modified by the Energy and Water Development Appropriations Act of 1990.

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

TOTAL BENEFIT - COST RATIO: Not applicable because initial construction is complete.

INITIAL BENEFIT - COST RATIO: 1.3 to 1 at 8 5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: Benefits are from the General Design Memorandum completed in October 1989 at October 1989 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETE SCHEDULE
Estimated Federal Cost	$189,000,000				
Initial Construction	$ 29,172,000		Initial Construction	100	Dec 1994
Periodic Nourishment	159,828,000		Periodic Nourishment	2	Being determined
			Entire Project	9	Being determined

SUMMARIZED FINANCIAL DATA: (CONT'D)

Estimated Non-Federal Cost		311,000,000	
Initial Construction		15,709,000	
Cash Contributions	$15,175,000		
Other Costs	534,000		
Periodic Nourishment		295,291,000	
Cash Contributions	295,291,000		
Other Costs	0		
Total Estimated Project Cost		$500,000,000	
Initial Construction		44,881,000	
Periodic Nourishment		455,119,000	
Allocations to 30 September 2000		34,796,000	
Conference Allowance for FY 2001		185,000	
Allocation for FY 2001		155,000	1/
Allocations through FY 2001		34,951,000	18
Allocation Requested for FY 2002		2,300,000	2/ 20
Programmed Balance to Complete after FY 2002		151,749,000	3/
Unprogrammed Balance to Complete after FY 2002		0	

PHYSICAL DATA

Steel Bulkhead	- 1.5 miles
Sand Dune	- 6.7 miles
Beach	- 1.5 miles x 165 feet wide
	- 6.7 miles x 100 feet wide
	- 0.3 mile transition into Delaware

1/Reflects $30,000 reduction assigned as savings and slippage.
2/ Reflects 65% non-Federal cost share

JUSTIFICATION: Fenwick Island (Ocean City, MD) is highly developed since it is the primary ocean resort for the metropolitan centers of Washington, DC and Baltimore, MD. The Ocean City portion of the shore with its highly developed recreation facilities contributes greatly to the economy of the State and to a lesser extent the nation. The current value of development in Ocean City is over $2 billion. Major portions of Ocean City’s beaches have been subjected to erosion which has averaged about 2 feet per year over the past 130 years. This reach of shoreline is subject to severe damage from high tides and wave attack during major storms such as occurred in the hurricane of August 1993 and in the northeast storm of March 1962, with estimated damages of $76.1 million. Since 1962, significant development has occurred in the damage prone area. Damages to the public and private property at Ocean City from Hurricane Gloria in September 1985 were estimated at $11.9 million. Severe beach erosion was also caused by the remnants of Hurricane Juan in November 1985 with damages estimated at $944,000. On 30 and 31 October 1991, and 9 and 10 November 1991, Atlantic storms hit the northeast coast; however, only minor damage occurred at Ocean City as a result of the essentially

JUSTIFICATION: (continued)
completed project. Damages prevented by the project were estimated at about $32 million. On 4 and 5 January 1992 a more devastating storm hit Ocean City causing about $300,000 in property damages. Damages prevented by the project during that storm were estimated at $61 million. The average annual benefits, essentially all storm damage reduction, are $13,712,000 based on 1 October 1989 price levels.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Periodic Nourishment	$2,200,000
Construction Management	100,000
Total	2,300,000

NON-FEDERAL COSTS: 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, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.	$ 494,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges) and other facilities, where necessary in the construction of the project.	40,000	
Pay 35 percent of the first costs and 65 percent of the cost of periodic nourishment for FY02 and beyond and bear all costs of operation, maintenance, replacement, and major rehabilitation of storm damage reduction facilities.	310,466,000	$1,656,000
Total Non-Federal Costs	311,000,000	$1,656,000

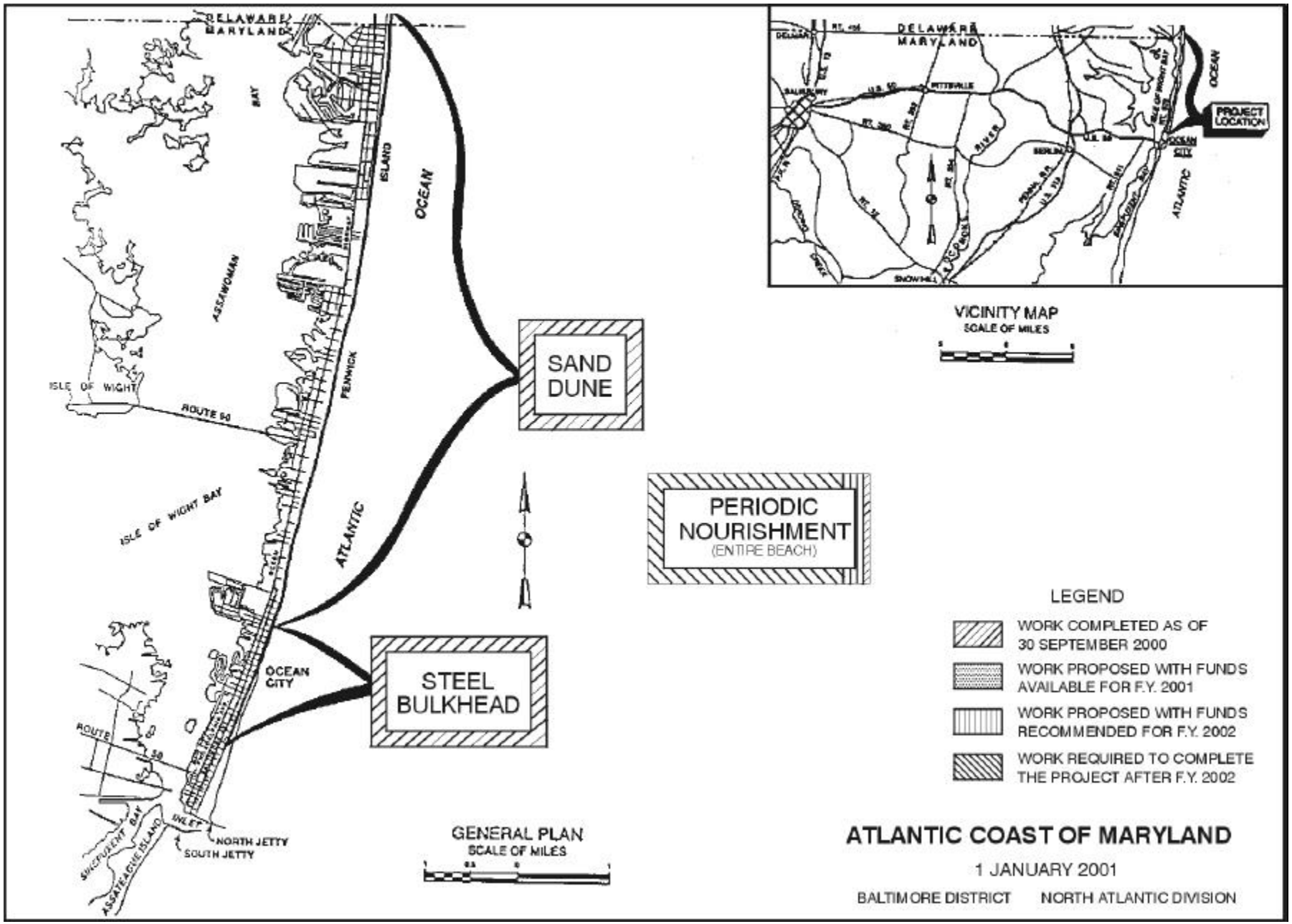
STATUS OF LOCAL COOPERATION: The State of Maryland is the local sponsor for the project. The Local Cooperation Agreement was executed in March 1990. To date, the State of Maryland has fully complied with local requirements on the project. The previously executed PCA will be modified to incorporate a non-Federal share of 65 percent of the cost of periodic nourishment for FY02 and beyond before initiating the proposed FY02 nourishment effort.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $189,000,000 is a decrease of $81,300,000 from the latest cost estimate ($270,300,000) submitted to Congress (FY 2001). This change reflects the anticipated incorporation of the revised cost sharing for FY02 and beyond and includes the following items:

Item	Amount
Change in cost share	- $81,300,000
Total	,- $81,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with the Environmental Protection Agency in May 1981. An environmental assessment dated June 1989 is included in the final General Design Memorandum.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1986. Funds to initiate construction were appropriated in FY 1990.


DELAWARE
MARYLAND
ISLAND
OCEAN
ASSEAWOMAN
BAY
PENNWICK
ISLE OF WIGHT
ROUTE 90
ISLE OF WIGHT BAY
ATLANTIC
OCEAN CITY
ROUTE 50
INLET
NORTH JETTY
SOUTH JETTY
SINCLUENT BAY
ASSATEAGUE ISLAND
SAND DUNE
PERIODIC NOURISHMENT
(ENTIRE BEACH)
STEEL BULKHEAD
GENERAL PLAN
SCALE OF MILES
DELAWARE
MARYLAND
PITTSVILLE
SALISBURY
SNOWHILL
OCEAN CITY
ATLANTIC
OCEAN
PROJECT LOCATION
VICINITY MAP
SCALE OF MILES
LEGEND
WORK COMPLETED AS OF 30 SEPTEMBER 2000
WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2001
WORK PROPOSED WITH FUNDS RECOMMENDED FOR F.Y. 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2002
ATLANTIC COAST OF MARYLAND
1 JANUARY 2001
BALTIMORE DISTRICT
NORTH ATLANTIC DIVISION

APPROPRIATION TITLE: Construction, General – Beach Erosion Control

PROJECT: Brigantine Inlet to Great Egg Harbor Inlet, NJ (Absecon Island, NJ) (Continuing)

LOCATION: This project is located along Atlantic Coast of New Jersey, approximately 50 miles east of Philadelphia, Pennsylvania.

DESCRIPTION: The recommended project consists of providing 6.2 million cubic yards of initial beachfill, with subsequent periodic nourishment of 1.6 million cubic yards every three years, for a 200-foot-wide berm at elevation 8.5 feet above mean low water and a dune to elevation 16 feet above mean low water for Atlantic City, and a 100-foot-wide berm at elevation 8.5 feet above mean low water and a dune to 14 feet above mean low water for Ventnor, Margate and Longport along 8.1 miles of shoreline. The plan also includes 0.3 miles of bulkhead construction along the Absecon Inlet frontage of Atlantic City.

AUTHORIZATION: Section 101(b)(13) of WRDA 1996

REMAINING BENEFIT-REMAINING COST RATIO: 1.9 to 1 at 7 1/8 percent

TOTAL BENEFIT-COST RATIO: 1.9 to 1 at 7 1/8 percent

INITIAL BENEFIT-COST RATIO: 1.9 to 1 at 7 1/8 percent (FY 2000)

BASIS OF BENEFIT-COST RATIO: Brigantine Inlet to Great Egg Harbor Inlet, Absecon Island Interim Feasibility study. The Chief Report is dated December 1996.

SUMMARIZED FINANCIAL DATA			STATUS: (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$290,000,000	Initial Beachfill	0	Being determined
Initial Construction	42,384,000		Periodic Nourishment	0	Being determined
Periodic Nourishment	247,616,000		Bulkhead	0	Being determined
			Entire Project	0	Being determined

SUMMARIZED FINANCIAL DATA: (Continued)

Estimated non-Federal Cost		$482,000,000
Initial Construction	22,822,000	
Cash Contributions	21,898,000	
Other Costs	924,000	
Periodic Nourishment	459,178,000	
Cash Contributions	459,178,000	
Other Costs	0	
Total Estimated Project Cost		$772,000,000
Initial Construction	65,206,000	
Periodic Nourishment	706,794,000	

PHYSICAL DATA: 200-foot-wide berm at elevation +8.5 feet NGVD and a dune to elevation +16 feet for Atlantic City, and a 100-foot-wide berm at elevation +8.5 feet NGVD and a dune to +14 feet for Ventnor, Margate and Longport along 8.1 miles of shoreline. The plan also includes 0.3 miles of bulkhead construction along the Absecon Inlet frontage of Atlantic City. Initial placement of 6.2 million cubic yards of sand. Periodic Nourishment: every 3 years with a placement of approx. 1.6 million cubic yards of material

			ACCUMULATED PCT OF EST. FED. COST
Allocations to 30 September 2000	1,084,000		
Conference Allowance for FY 2001	5,000,000		
Allocation for FY 2001	4,190,000	1/	
Allocations through FY 2001	5,274,000		2
Allocations Requested for FY 2002	100,000		2
Programmed Balance to Complete after FY 2002	284,626,000	2/	
Unprogrammed Balance to Complete after FY 2002	0		

1/ Reflects $800,000 reduction assigned as savings and slippage, and.$10,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.
2/ Reflects 65% non-Federal cost share.

JUSTIFICATION: The area has been subject to major flooding, erosion and wave attack during storms, causing damage to structures, and since 1992, was twice declared a National Disaster Area. In recent years, continued erosion has resulted in a reduction of the height and width of the beachfront, which has increased the potential for storm damage. The project provides average annual benefits of $3,476,000 at an annual cost of $1,988,000, resulting in a benefit to cost ratio of 1.7 to 1 (October 1995 price level).

FISCAL YEAR 2002: The requested amount will be applied as follows:

Planning, Engineering, and Design	$ 100,000
Total	$ 100,000

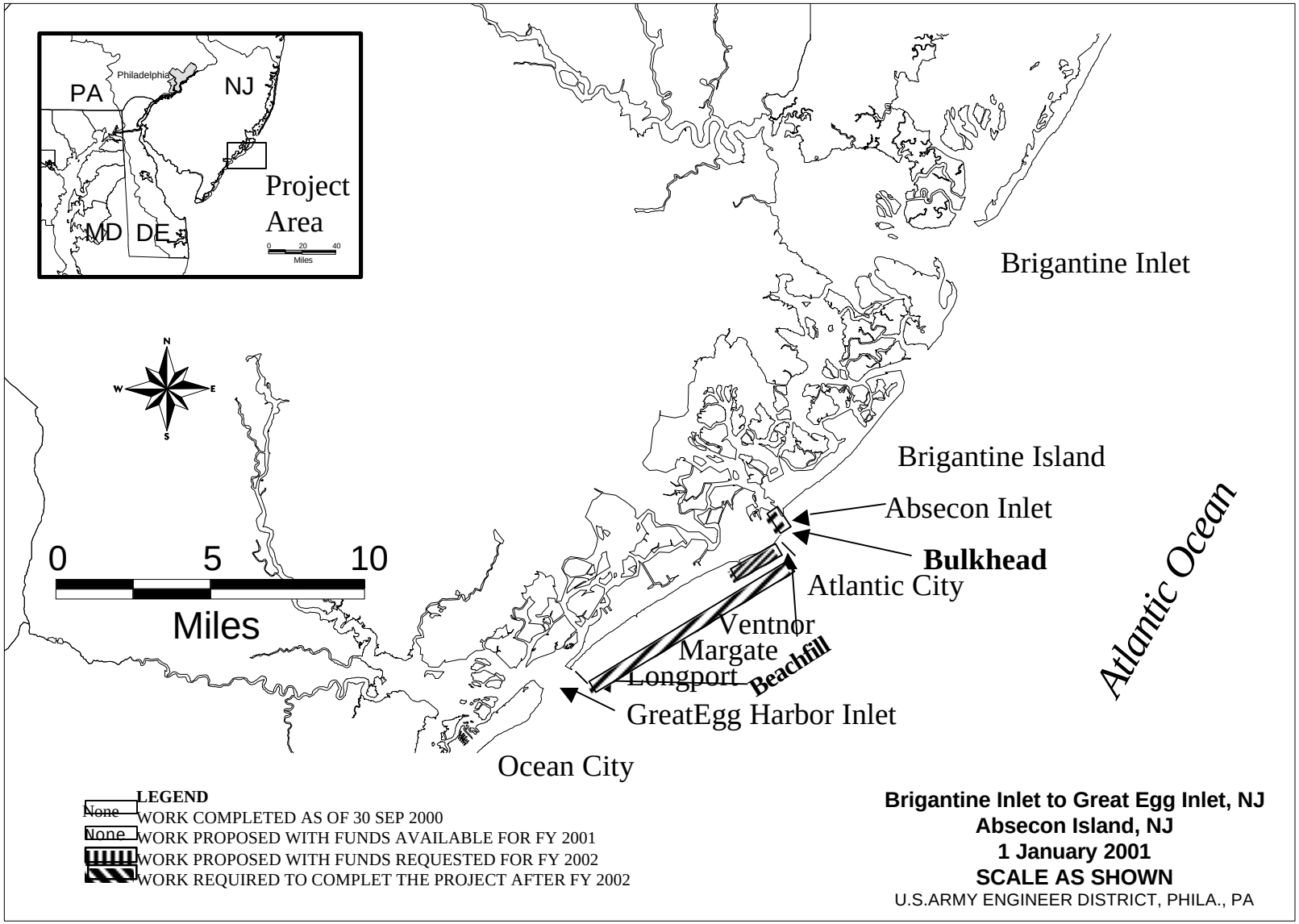
NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, and rights of way	$ 924,000	
Pay 35 percent of the initial costs allocated to hurricane and storm damage reduction	21,898,000	
Pay 65 percent of the cost of periodic nourishment	459,178,000	
Total Non-Federal Costs	$ 482,000,000	

STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the State of New Jersey Department of the Environmental Protection (NJDEP). The Project Cooperation Agreement is scheduled to be executed in October 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $290,000,000 is the initial estimate presented to Congress.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1997. Funds to initiate construction were appropriated in FY 2000.


PA
Philadelphia
NJ
MD
DE
Project Area
0 20 40
Miles
N
W
E
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0 5 10
Miles
Brigantine Inlet
Brigantine Island
Absecon Inlet
Bulkhead
Atlantic City
Ventnor
Margate
Longport
Beachfill
GreatEgg Harbor Inlet
Ocean City
Atlantic Ocean
LEGEND
None WORK COMPLETED AS OF 30 SEP 2000
None WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2002
WORK REQUIRED TO COMPLET THE PROJECT AFTER FY 2002
Brigantine Inlet to Great Egg Inlet, NJ
Absecon Island, NJ
1 January 2001
SCALE AS SHOWN
U.S.ARMY ENGINEER DISTRICT, PHILA., PA

APPROPRIATION TITLE: Construction General - Beach Erosion Control

PROJECT: Cape May Inlet to Lower Township, New Jersey (Continuing)

LOCATION: The site of the recommended project is located on the Atlantic Coast of New Jersey, approximately 38 miles southwest of Atlantic City. It includes the communities of Cape May City including the United States Coast Guard Training Center and Lower Township in Cape May County.

DESCRIPTION: The plan of improvement consists of construction of two groins and placing beachfill and periodic nourishment which are programmed and the construction of a weir breakwater which is unprogrammed.

AUTHORIZATION: Water Resources Development Act of 1986.

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

TOTAL BENEFIT-COST RATIO: Not applicable because initial construction is complete.

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 8 5/8 percent (FY 1986).

BASIS OF BENEFIT-COST RATIO: Cape May Inlet to Lower Township, New Jersey, Benefits Reevaluation Report approved March 1988 at June 1987 price levels.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost (COE)		53,400,000
Programmed Construction		46,370,000
Initial Construction	5,930,000	
Periodic Nourishment	40,440,000	
Unprogrammed Construction		7,030,000
Initial Construction	7,030,000	
Periodic Nourishment	0	

STATUS: (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Initial Construction	100	June 1991
Breakwaters	0	Indefinite 1/
Entire Project	16	Being determined

PHYSICAL DATA:
Beachfill: Elev +8 Feet (NGVD), 25-180 foot width
Groins: 7 existing and 2 new groins, 360-786 feet
Weir Breakwater: 2,560 linear feet rubble mound
Periodic Nourishment: 180,000 cubic yards per year

1/ Completion of the breakwater element is indefinite pending a decision to construct this feature.

SUMMARIZED FINANCIAL DATA (Continued)

Estimated Federal Cost (USCG)				$53,900,000
Programmed Construction			50,019,500	
Initial Construction		3,458,000		
Periodic Nourishment		46,561,500		
Unprogrammed Construction			3,880,500	
Initial Construction		3,880,500		
Periodic Nourishment		0		
Estimated Non-Federal Cost				58,900,000
Programmed Construction			58,122,700	
Initial Construction		656,000		
Cash Contributions	656,000			
Other Costs		0		
Periodic Nourishment		57,466,000		
Cash Contributions	57,466,000			
Other Costs		0		
Unprogrammed Construction			778,000	
Initial Construction		778,000		
Cash Contributions	778,000			
Other Costs		0		
Total Estimated Programmed Construction			154,511,000	
Initial Construction		10,044,000		
Periodic Nourishment		144,467,000		
Total Estimated Unprogrammed Construction Cost			11,689,000	
Initial Construction		11,689,000		
Periodic Nourishment		0		
Total Estimated Project Cost				$166,200,000
Initial Construction		21,733,000		
Periodic Nourishment		144,467,000		

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM. PCT. OF EST. FED COST
Allocations to 30 September 2000	16,150,000	
Conference Allowance for FY 2001	100,000	
Allocation for FY 2001	100,000	
Allocations through FY 2001	16,250,000	30
Allocations Requested for FY 2002	780,000 1/	32
Programmed Balance to Complete after FY 2002	29,340,000 1/	
Unprogrammed Balance to Complete after FY 2002	7,030,000	

1/ Reflects 65% non-Federal cost share

JUSTIFICATION: The project area has experienced substantial erosion since the construction of the Cape May Inlet jetties in 1911 by the Federal Government. The jetties interrupt the natural movement of sand along the coast which serves to replenish downdrift beach areas. The City of Cape May and State of New Jersey have spent nearly $4 million since 1945 to combat the resulting erosion. This erosion has left Cape May with little or no protective beach, thus endangering many hotels, small businesses, prominent homes, and a U.S. Coast Guard Training Center. This project would partially restore the beaches of Cape May lost as the direct result of the Cape May Inlet jetties. The potential for future storm damages and maintenance of the seawall would be greatly reduced. The commercial tourism industry would also be enhanced by the provision of sufficient beach area for recreational usage. The project prevented approximately $9 million worth of damages during the 3-5 January 1992 storm, and approximately $500,000 in damages during the 7-8 January 1996 storm.

Federal facilities have existed at the present site since the establishment of a U.S. Navy Section Base in 1918. The U.S. Coast Guard became the sole occupant in 1948 when the Recruit Training Center was transferred from Florida. In addition to being the sole site for Coast Guard recruit training for the entire nation, the site also includes a Group/Air Station complex, a Search and Rescue Station, a small boat maintenance facility, and berths for four cutters ranging from 82 to 210 feet in length. The Commandant of the U.S. Coast Guard (USCG) offered to seek funds to support a cost-shared project with the Corps of Engineers, because of the erosion at the Training Center and the need for a cooperative effort to solve the problem. The average annual benefits are $3,993,000 at June 1987 price levels. These include annual storm damage reduction benefits of $2,977,000, reduced annual maintenance costs of $160,000, and annual recreation benefits of $856,000.

Fiscal Year 2002: The requested amount will be applied as follows:

Periodic nourishment	$ 725,000
Planning, Engineering and Design	13,000
Construction Management	42,000
Total	$ 780,000

NON-FEDERAL COST: In accordance with Section 101 of the Water Resources Development Act of 1986, costs of constructing measures for mitigation of erosion damages attributable to the Federal navigation project at Cape May Inlet shall be shared in the same proportion as the cost sharing provisions applicable to the original project at Cape May Inlet. The original project was constructed at a Federal cost of approximately $900,000 with a local contribution of $100,000. The distribution of initial costs between the USCG and Cape May City is based on the ratio of benefits accrued by the feeder beach between the two locations. Costs for the remaining features of the recommended project will be allocated to Cape May City. The non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Reimbursement Costs
Make cash contributions equal to 10 Percent of the initial construction cost	$ 656,000	
Pay 65 percent of the cost of periodic nourishment. for FY02 and beyond	57,466,000	
Total Non-Federal Costs	$58,122,000	$0

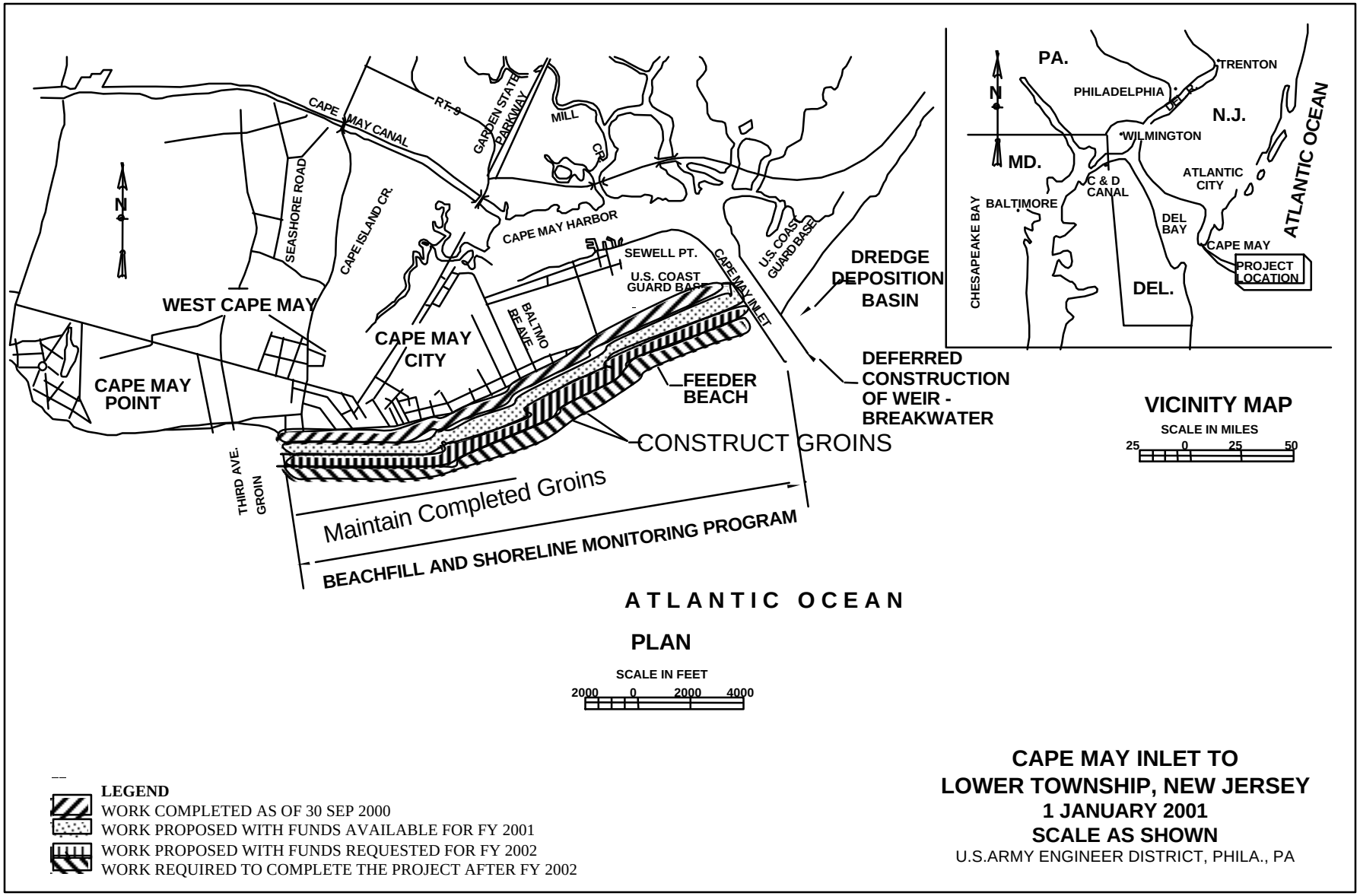
STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the State of New Jersey. A Memorandum of Agreement with the USCG was executed on 4 August 1988. A Local Cooperation Agreement with the State of New Jersey was executed on 31 October 1988. The previously executed PCA will be modified to incorporate the non-Federal share of 65 percent of the cost of periodic nourishment for FY02 and beyond before initiating the proposed FY02 nourishment effort.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps of Engineers) cost estimate of $53,400,000 is a decrease of $39,300,000 from the latest estimate ($92,700,000) presented to Congress (FY 2001). This change reflects the anticipated incorporation of the revised cost sharing for FY02 and beyond and includes the following items:

ITEM	AMOUNT
Price Escalation on Construction Features	$ 9,300,000
Change in cost share	- 48,600,000
Total	- $39,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with the Council on Environmental Quality on 8 October 1976 and a Final Supplement was filed with the Environmental Protection Agency on 14 August 1981. Listing of Piping Plover (Charadrius Melodus) as an endangered bird species in January 1986 and the recent determination by State wildlife officials that the species nests in the project area have necessitated informal consultation in accordance with Section 7 of the Endangered Species Act of 1973. A letter from U.S. Fish and Wildlife Service, dated 20 August 1987 determined that the proposed project is not likely to adversely affect the Piping Plover, provided an operational window is observed. Coordination with the Service is continuing.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1978. Funds to initiate construction were appropriated in FY 1986. Section 111 of the River and Harbor Act of 1968 is applicable to this proposed project due to the shore damages caused in Cape May City by the Federal navigation project at Cape May Inlet.



LEGEND

- WORK COMPLETED AS OF 30 SEP 2000
- WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2001
- WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2002
- WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2002

CAPE MAY INLET TO
LOWER TOWNSHIP, NEW JERSEY
1 JANUARY 2001
SCALE AS SHOWN
U.S.ARMY ENGINEER DISTRICT, PHILA., PA

APPROPRIATION TITLE: Construction, General – Beach Erosion Control

PROJECT: Great Egg Harbor Inlet and Peck Beach, New Jersey (Continuing)

LOCATION: The project is located in Cape May and Atlantic Counties, New Jersey. Great Egg Harbor Inlet, an unimproved inlet, is about 1.1 miles wide at its narrowest point and provides a tidal connection between the Atlantic Ocean and Great Egg Harbor Bay, the New Jersey Intracoastal Waterway, and Great Egg Harbor River. Peck Beach is occupied in its entirety by the City of Ocean City and extends from Great Egg Harbor Inlet southward to Corson Inlet. The ocean frontage is about eight miles in length.

DESCRIPTION: The recommended plan consists of providing initial beachfill, with subsequent periodic nourishment, with a minimum berm width of 100 feet at an elevation of 8 feet above mean low water. The beachfill extends from Surf Road southwest to 34th Street with a 1000 foot taper south of 34th Street. This plan required the initial placement of roughly 6.2 million cubic yards of material and will require periodic nourishment of about 1.1 million cubic yards every three years. The material for the initial construction, and periodic nourishment will be taken from the ebb shoal area located about 5,000 feet offshore of the Great Egg Harbor Inlet. Additionally, the construction of the project required the extension of 38 storm drain pipes. All work is programmed.

AUTHORIZATION: Committee Resolutions on 15 December 1970 under the provision of Section 201 of the River and Harbor and Flood Control Act of 1965 and the Water Resources Development Act of 1986.

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

TOTAL BENEFIT-COST RATIO: Not applicable because initial construction is complete.

INITIAL BENEFIT-COST RATIO: 2.0 to 1 at 8 5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: The April 1989 General Design Memorandum approved on 2 May 1990 at September 1988 price levels.

SUMMARIZED FINANCIAL DATA :

Estimated Federal Cost		241,500,000	
Initial Construction	20,556,000		
Periodic Nourishment	220,944,000		
Estimated non-Federal Cost		400,500,000	
Initial Construction		11,151,000	
Cash Contributions	8,595,000		
Other Costs	2,556,000		
Periodic Nourishment		389,349,000	
Cash Contributions	389,349,000		
Other Costs	0		
Total Estimated Project Cost		642,000,000	
Initial Construction	31,707,000		
Periodic Nourishment	610,293,000		

STATUS:(1 Jan 2001)	PHYSICAL PERCENT COMPLETE	COMPLETION SCHEDULE
Initial Beachfill (Phase I)	100	Oct 1992
Initial Beachfill (Phase II)	100	Mar 1993
Entire Project	13	Being determined

PHYSICAL DATA:
Beachfill: Elevation +8 feet (NGVD); 100-Foot Width
Periodic Nourishment: 1.1 million cy every three years

		ACCUMULATED PCT OF EST. FED. COST
Allocations to 30 September 2000	31,530,000	
Conference Allowance for FY 2001	5,100,000	
Allocation for FY 2001	5,100,000 1/	
Allocations through FY 2001	36,630,000	15
Allocations Requested for FY 2002	130,000 2/	15
Programmed Balance to Complete after FY 2002	380,120,000 2/	
Unprogrammed Balance to Complete after FY 2001	0	

1/ Reflects $816,000 reduction assigned as savings and slippage, $826,000 reprogrammed to the project, and $10,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.
2/ Reflects 65% non-Federal cost share

JUSTIFICATION: The instability of Great Egg Harbor Inlet and the shoreline along Peck Beach is a significant problem. Peck Beach, a 9-mile-long barrier island along New Jersey's southern coastline contains the entire City of Ocean City. The primary problem at Ocean City is the vulnerability of the beach and the adjacent highly urbanized development to erosion and direct wave attack during major storms. Historical erosion rates for the beaches have averaged five feet per year with severe erosion rates up to 35 feet per year in some locations. In March 1962, a severe storm caused breaching and failing of bulkheads and dunes, and resulted in about $15,000,000 damages of which $4,000,000 was attributed to direct wave attack. It was noted that the area fronting the existing Federal shore protection for

JUSTIFICATION: (continued)
Ocean City sustained less damage than other locations. The storm of 28 to 30 March 1984 caused extensive damage to the beach, boardwalk, properties and buildings due to the vulnerable condition of the beaches. More recently, the storms of 30 and 31 October 1991 and 3 to 5 January 1992 caused extensive damages to the beach, boardwalk, properties and buildings. Since initial construction of the project was completed in March 1993, approximately $20,000,000 worth of damages to the area were prevented during the 3-5 January 1992 storm, $4,000,000 in damages to the boardwalk during Hurricane Felix in August 1995, and $1,000,000 during the storm of 7-8 January 1996.

Beach erosion and loss of protective dunes have left Ocean City extremely vulnerable to inundations and direct wave attack from even minor storm events. The instability and shoaling of Great Egg Harbor Inlet also creates navigation difficulties for commercial and recreation craft, particularly those associated with low tides and ground swells and damages due to running aground. Unsafe navigation conditions due to excessive shoals at Great Egg Harbor Inlet required the State of New Jersey to commence emergency dredging operations in October 1989.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Planning, Engineering, and Design		130,000
Total	$	130,000

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, and Replacement Costs
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	$ 2,556,000	$
Pay 35 percent of initial construction of the costs allocated to hurricane and storm damage reduction and all costs of operation and maintenance of shoreline protection structures and outfalls.	8,595,000	$36,000
Pay 65 percent of the cost of periodic nourishment for FY02 and beyond	389,349,000	
Total Non-Federal Costs	$ 400,500,000	$ 36,000

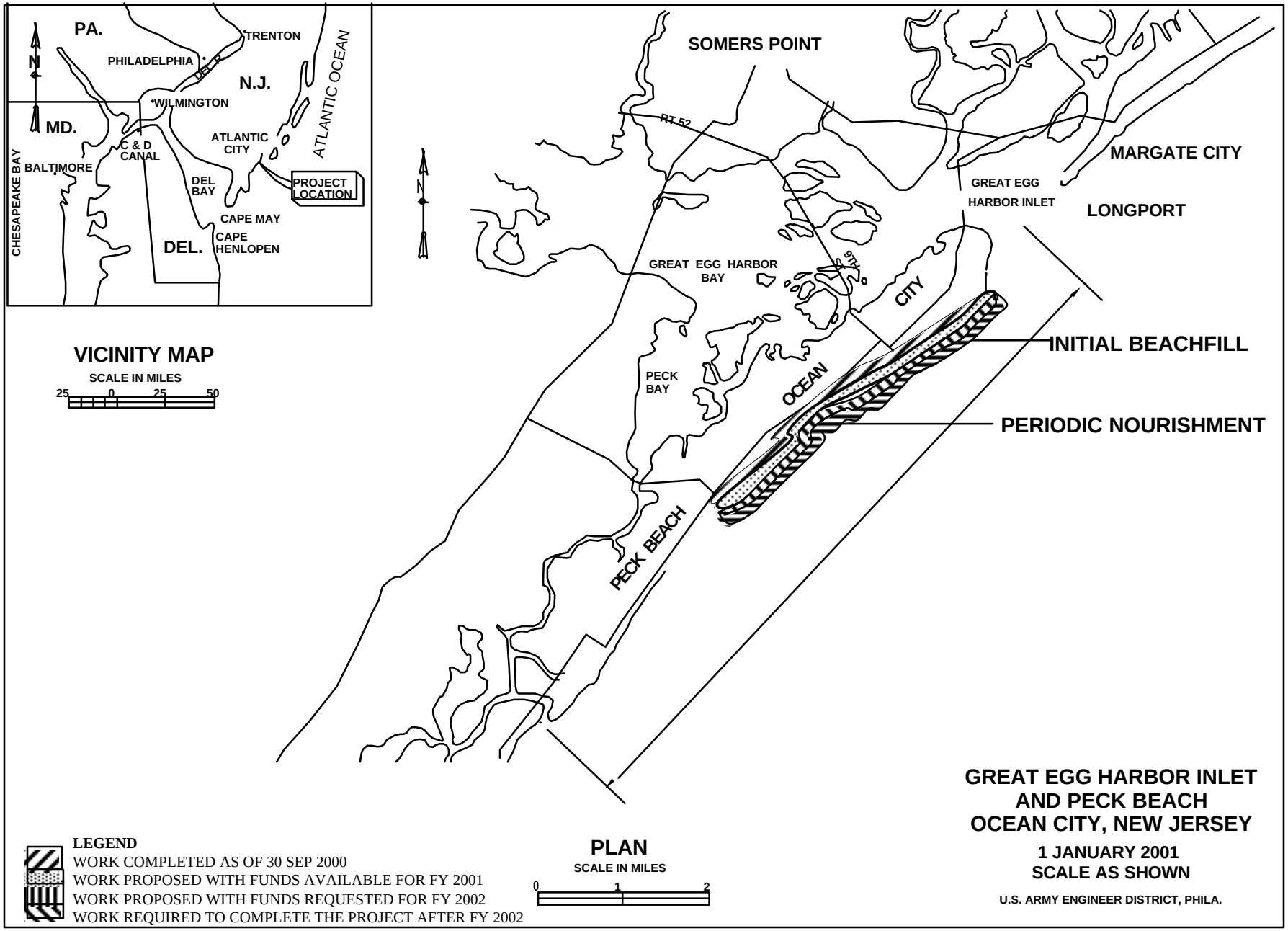
STATUS OF LOCAL COOPERATION: The state of New Jersey is the non-Federal sponsor for the project. The local cooperation agreement was executed in September 1991. The previously executed PCA will be modified to incorporate the non-Federal share of 65 percent of the cost of periodic nourishment for FY02 and beyond before initiating the proposed FY02 construction effort.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $241,500,000 is a decrease of $151,500,000 from the latest estimate ($393,000,000) presented to Congress (FY 2001). This change reflects the anticipated incorporation of the revised cost sharing for FY02 and beyond and includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 24,000,000
Change in cost share	- 175,500,000
Total	-$ 151,500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 13 November 1970 and a Final Supplemental Environmental Impact Statement (FSEIS) was filed with the Environmental Protection Agency (EPA) in August 1990. The Piping Plover (Charadrius melodus) was listed as an endangered bird species in January 1986 and a determination that the species nests in the project area necessitated informal consultation in accordance with Section 7 of the Endangered Species Act of 1973. A letter from the US Fish and Wildlife Service, dated 9 January 1989 directed the Corps to minimize impacts to the Piping Plover in the project area. A detailed plan to protect the Piping Plover was included in the FSEIS. On 31 August 1990, the Advisory Council on Historic Preservation informed the District that it did not concur with the Finding of No Effect issued by the New Jersey State Historic Preservation Office on 12 April 1989. A process Memorandum of Agreement to address cultural resources concerns relating to project effects on the shipwreck Sindia was executed on 4 April 1991.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1973. Funds to initiate construction were appropriated in FY 1990. Initial construction of the project was completed in March 1993.


PA.
TRENTON
PHILADELPHIA
N.J.
WILMINGTON
MD.
ATLANTIC CITY
ATLANTIC OCEAN
C & D CANAL
BALTIMORE
CHESAPEAKE BAY
DEL BAY
PROJECT LOCATION
CAPE MAY
CAPE HENLOPEN
DEL.
N
VICINITY MAP
SCALE IN MILES
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SOMERS POINT
RT 52
MARGATE CITY
GREAT EGG HARBOR INLET
LONGPORT
GREAT EGG HARBOR BAY
ATLANTIC CITY
INITIAL BEACHFILL
PECK BAY
OCEAN
PERIODIC NOURISHMENT
PECK BEACH
GREAT EGG HARBOR INLET
AND PECK BEACH
OCEAN CITY, NEW JERSEY
1 JANUARY 2001
SCALE AS SHOWN
U.S. ARMY ENGINEER DISTRICT, PHILA.
LEGEND
WORK COMPLETED AS OF 30 SEP 2000
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2002
PLAN
SCALE IN MILES
0 1 2

APPROPRIATION TITLE: Construction, General - Beach Erosion Control

PROJECT: Raritan Bay and Sandy Hook Bay, New Jersey (Continuing)

LOCATION: The overall project area encompasses 2.7 miles of shoreline in the Borough of Keansburg and in East Keansburg (located in Middletown Township), Monmouth County, and 0.6 miles of shoreline in Laurence Harbor (located in Old Bridge Township), Middlesex County, New Jersey. The project area lies along the Raritan Bay and Sandy Hook Bays shoreline between Sandy Hook and the mouth of the Raritan River.

DESCRIPTION: In 1973, the U.S. Army Corps of Engineers completed a project that consisted of groins, a beach berm, levees, pump station, floodwall, and a storm closure gate across Way Cake Creek in the Keansburg area. Similarly, the Corps constructed a beach berm and levees at Old Bridge in 1966. The renourishment project consists of the restoration of the previously constructed beach berm and renourishment on a periodic basis to reduce wave induced erosion and provide storm damage protection to commercial, public, and private properties and infrastructure.

AUTHORIZATION: Flood Control Act of October 12, 1962, Section 506 of WRDA 1996 authorized periodic nourishment for 50 years from initiation of construction, subject to a review of the project, in accordance with WRDA 1976 and Section 934 of WRDA 1986, as amended.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because initial construction has been completed.

TOTAL BENEFIT-COST RATIO: Not applicable because initial construction has been completed.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 7 5/8 percent (FY 1998).

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the analysis contained in the General Design Memorandum revised January 1965, at May 1964 price levels. Updated benefits are from the draft Section 934 reevaluation report dated March 2001, at October 2000 price levels.

SUMMARIZED FINANCIAL DATA:			ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 23,500,000		Initial Construction	100	Jan 1973
Initial Construction	7,100,000			Periodic Nourishment	0	Being determined
Periodic Nourishment	16,400,000					
Estimated Non-Federal Cost		32,950,000				
Initial Construction	3,300,000					
Periodic Nourishment	29,250,000					
Other Costs	400,000					
Total Estimated Project Cost		56,450,000				
Initial Construction	10,400,000					
Periodic Nourishment	45,650,000					
Other Costs	400,000					

PHYSICAL DATA:
Initial construction:
Beachfill – 3.4 million cubic yards
Levees, closure gate, pump station, groins

Periodic nourishment: 5 year cycles
Keansburg/East Keansburg – 1.2 million cy first renourishment operation, and 431,000 cy for three subsequent cycles
Old Bridge – 276,000 cy first renourishment operation, and 81,000 cy for two subsequent cycles

Allocation to 30 September 2000	8,222,000
Conference Allowance for FY 2001	0
Allocation for FY 2001	0
Allocations through FY 2001	8,222,000
Allocation Requested for FY 2002	100,000 1/
Programmed Balance to Complete after FY 2002	15,178,000 1/
Unprogrammed Balance to Complete after FY 2002	0

1/ Reflects 65% non-Federal cost share

JUSTIFICATION: Coastal storms have been a continuing source of damage and economic loss along the south shore of Raritan Bay. As a result of recent hurricanes, coastal storm events, and the lack of subsequent storm protection measures in these areas, the shore protection and flood control protection afforded by the Keansburg, East Keansburg, and Old Bridge beaches have been significantly reduced. Erosion has seriously reduced the width and height of the shorelines in the project area with consequent exposure of the shore and inland areas to tidal inundation and wave attack damages. Failure of the dune system at Keansburg, East Keansburg and Old Bridge would render the project levee features useless. A recurrence of the December 1992 northeaster would cause serious flood damages to residential and commercial and public structures in the Keansburg/ East Keansburg area and to structures and significant infrastructure in Old Bridge.

JUSTIFICATION: (continued)
Based on the reevaluation conducted under Section 934 of WRDA of 1986, the average annual benefits are as follows:

Storm Damage Reduction	$ 4,944,000
Recreation	200,000
Total	$ 5,144,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Planning, Engineering and Design	$ 100,000
Total	$ 100,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financial 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 Reimbursement	Annual Operation, Maintenance and Replacement Costs
Pay 48 percent of initial construction costs in Old Bridge and 30 percent of initial construction costs in Keansburg and East Keansburg.	$ 3,300,000	$73,000
Pay 65 percent of the periodic nourishment costs for FY02 and beyond allocated to storm damage reduction, and 50 percent of the costs allocated to recreation, bear all costs of operation, maintenance,and replacement of storm reduction facilities	29,250,000	27,000
Provide lands, easements, and rights of way	$ 400,000	
Total Non-Federal Costs	$ 32,950,000	$0

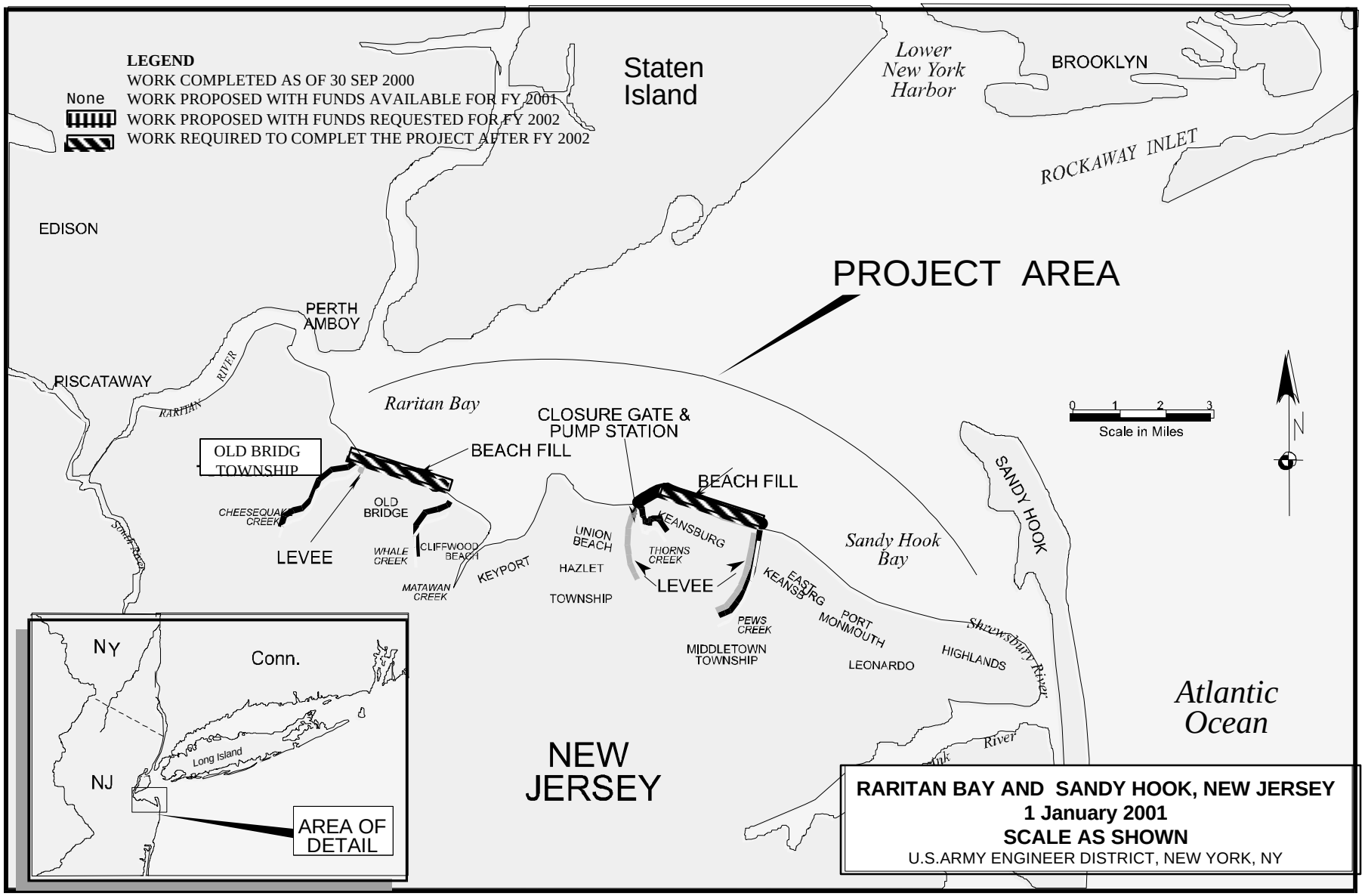
STATUS OF LOCAL COOPERATION: The non-Federal sponsor for this project is the New Jersey Department of Environmental Protection. The Project Cooperation Agreement is scheduled to be executed by May 2003. The New Jersey Department of Environmental Protection was also the sponsor for the initial project completed in 1973.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $23,500,000 is the first estimate to be presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final General Design Memorandum revised January 1965 predated the requirements of the National Environmental Policy Act. An Environmental Assessment for the extension of beach nourishment has been prepared and will be released for public review in May 2001.

OTHER INFORMATION: Funds for initiation of construction of the renourishment phase were appropriated in FY 1998.

The existing Federal project for the Raritan Bay and Sandy Hook Bay was authorized by the Flood Control Act of October 12, 1962, as a dual purpose Beach Erosion Control and Hurricane Protection Project. Funds for construction of the original project were appropriated in FY 1965. A project was completed in the area in 1973. The original project did not include provisions for periodic nourishment. Section 506 of the Water Resources Development Act of 1996 authorizes periodic nourishment for 50 years from initiation of construction, subject to a review of the project, in accordance with WRDA 1976 and Section 934 of WRDA 1986, as amended.


LEGEND
WORK COMPLETED AS OF 30 SEP 2000
None
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2002
WORK REQUIRED TO COMPLET THE PROJECT AFTER FY 2002
Staten Island
Lower New York Harbor
BROOKLYN
ROCKAWAY INLET
EDISON
PROJECT AREA
PERTH AMBOY
PISCATAWAY
RARITAN RIVER
Raritan Bay
CLOSURE GATE & PUMP STATION
BEACH FILL
OLD BRIDG TOWNSHIP
CHEESEQUAKE CREEK
OLD BRIDGE
LEVEE
WHALE CREEK
CLIFFWOOD BEACH
MATAWAN CREEK
KEYPORT
UNION BEACH
HAZLET
TOWNSHIP
THORNS CREEK
KEANSBURG
BEACH FILL
LEVEE
PEWS CREEK
MIDDLETOWN TOWNSHIP
EAST KEANSBURG
PORT MONMOUTH
LEONARDO
HIGHLANDS
Sandy Hook Bay
SANDY HOOK
Shrewsbury River
Atlantic Ocean
NEW JERSEY
0 1 2 3
Scale in Miles
N
NY
Conn.
NJ
Long Island
AREA OF DETAIL
RARITAN BAY AND SANDY HOOK, NEW JERSEY
1 January 2001
SCALE AS SHOWN
U.S.ARMY ENGINEER DISTRICT, NEW YORK, NY

APPROPRIATION TITLE: Construction, General - Beach Erosion Control

PROJECT: Sandy Hook to Barnegat Inlet, New Jersey (Continuing)

LOCATION: The overall project area lies along the Atlantic Ocean shoreline of New Jersey in Monmouth and Ocean Counties between Sandy Hook to the North and Barnegat Inlet to the South. Section I - The Sea Bright to Ocean Township section lies solely within Monmouth County. The Sea Bright to Ocean Township section is the northernmost 12 miles of the project, which includes the following communities: Sea Bright, Long Branch, Deal, Allenhurst, and Ocean Township. Section II - Asbury Park to Manasquan section comprises the southern portion of Monmouth County and is approximately 9 miles long. It includes the following communities: Asbury Park, Ocean Grove, Bradley Beach, Avon-by-the Sea, Belmar, Spring Lake, Sea Girt, State Encampment, and Manasquan.

DESCRIPTION: The recommended plan for Section I, Sea Bright to Ocean Township, includes construction of a 100-foot-wide-berm at an elevation of 10 feet above mean low water with an additional 2-foot-high-storm-berm cap along the entire 12 miles of project shoreline extending from Sea Bright to Ocean Township. The recommended plan for Section II, Asbury Park to Manasquan, includes construction of a berm 100 feet wide at an elevation of 8.4 feet above mean low water. All work on Sections I and II is programmed. Section III, Point Pleasant to Seaside Park, was deauthorized.

AUTHORIZATION: The River and Harbor Act of 3 July 1958 for Sections I and II, the Water Resources Development Act of 1986, and the Water Resources Development Act of 1988.

REMAINING BENEFITS-REMAINING COST RATIO: 1.4 to 1 at 8 1/8 percent.

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

INITIAL BENEFIT-COST RATIO: 1.5 to 1 at 8 1/8 percent (FY 1985).

BASIS OF BENEFITS-COST RATIO: Benefits are from the analysis contained in the General Design Memorandum revised March 1990 at June 1988 price levels. For Section II, Asbury Park to Manasquan Inlet, benefits are from the General Design Memorandum, dated May 1994, at June 1992 price levels.

SUMMARIZED FINANCIAL DATA:			ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 698,200,000		Sea Bright to Ocean Township	14	Being determined
Initial Construction	177,500,000			Asbury Park to Manasquan	10	Being determined
Periodic Nourishment	520,700,000					
Estimated Non-Federal Cost		1,030,100,000		Entire Project	13	Being determined
Initial Construction	101,800,000			Initial Construction	72	Being determined
Cash Contributions	69,200,000			Periodic Nourishment	0	Being determined
Other Costs	32,600,000					
Periodic Nourishment	928,300,000					
Cash Contributions	928,300,000					
Other Costs	0					
Total Estimated Project Cost		$ 1,728,300,000				
Initial Construction	279,300,000					
Periodic Nourishment	1,449,000,000					

PHYSICAL DATA

Sea Bright to Ocean Township; Beach Placement over 12 miles; notching existing groins.

Asbury Park to Manasquan: Beach Placement over 9 miles, notching existing groins.

Allocations to 30 September 2000	115,146,000		
Conference Allowance for FY 2001	6,383,000		
Allocation for FY 2001	5,349,000	1/	
Allocations through FY 2001	120,495,000		17
Allocation Requested for FY 2002	5,000,000	2/	18
Programmed Balance to Complete after FY 2002	572,705,000	2/	
Unprogrammed Balance to Complete after FY 2002	0		

1/ Reflects $1,021,000 reduction assigned as savings and slippage and $13,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

2/ Reflects 65% non-Federal cost share

Division: North Atlantic District: New York Sandy Hook to Barnegat Inlet, NJ

JUSTIFICATION: Erosion has seriously reduced the width of most beaches in the study area with consequent exposure of shore to storm damage. Because of this erosion of the shore, the area does not provide sufficient recreational beaches for the proper accommodation of the present and prospective tributary population. The State of New Jersey and mayors of affected communities are very concerned over the increased potential for damages to structures due to the eroded condition of the existing beaches. The March 1962 storm caused $40,400,000 in damages (October 1993 price levels) along the twenty five mile stretch of shore from Sandy Hook to Manasquan Inlet. Subsequent emergency restoration works in this reach cost $7,383,000 (October 1988 price levels). In Section I, the restored beach has eroded while the area behind the seawall is more densely developed. Section II suffers from eroding beaches also. The storms of 30 and 31 October 1991, and 3 to 5 January 1992, caused $6,500,000 in damages to shore structures and the small beach seaward of the recently rebuilt state seawall within the project area. The rebuilt seawall was overtopped by the significant ocean waves, and its seaward toe is severely threatened by undercutting and collapse because of the lack of beach. The average annual benefits from erosion control measures are $53,151,000. For Section II, the average annual benefits from erosion control measures are $11,878,000.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Section I, Seabright-Ocean Township	
Complete Periodic Nourishment Contract	$ 4,200,000
Planning, Engineering and Design	50,000
Post-Construction Monitoring	100,000
Construction Management	500,000
Section II, Asbury Park to Manasquan	
Planning, Engineering and Design	$ 100,000
Post-Construction Monitoring	50,000
Total	$ 5,000,000

NON-FEDERAL COSTS: Consistent with the Water Resources Development Act of 1988, the non-Federal share of the first $40,000,000 of construction of the Sea Bright to Ocean Township reach consists of monies expended by non-Federal interests for reconstruction of the seawall at Sea Bright and Monmouth Beach, New Jersey. Cost sharing of the project, in excess of the first $40,000,000 increment, is in accordance with Title I of the Water Resources Development Act of 1986. Section I requirements also include lands, easements, rights-of-way and relocations. In Section II, the non-Federal share includes a cash contributions plus lands, easements, rights-of-way, and relocations. The combined Section I and Section II requirements follow:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance and Replacement Costs
Provide all lands, easements, and rights-of-way, and relocations for Sections I and II.	$ 20,400,000	$ 5,180,000
Of the first $40,000,000 in costs for initial construction of Section I, non-Federal interests are required to pay for reconstruction of the seawall at Sea Bright and Monmouth Beach, New Jersey. Thereafter, the non-Federal share is to be 35 percent of the initial project costs in excess of $40,000,000, excluding non-creditable lands, easements, and rights-of way, and bear all costs of operation and maintenance and replacement of storm damage reduction facilities.	47,530,000	11,960,000
Pay 35 percent of the first costs of Section II, excluding non-creditable lands, easements, and rights-of-way, and bear all cost of operation and maintenance and replacement of storm damage reduction facilities.	21,670,000	5,410,000
Pay 65 percent of the cost of periodic nourishment for Sections I and II for FY02 and beyond	928,300,000	
Reconstruct Seawall at Sea Bright and Monmouth Beach (Project requirement).	12,200,000	1,100,000
Total Non-Federal Costs	$1,030,100,000	$23,650,000

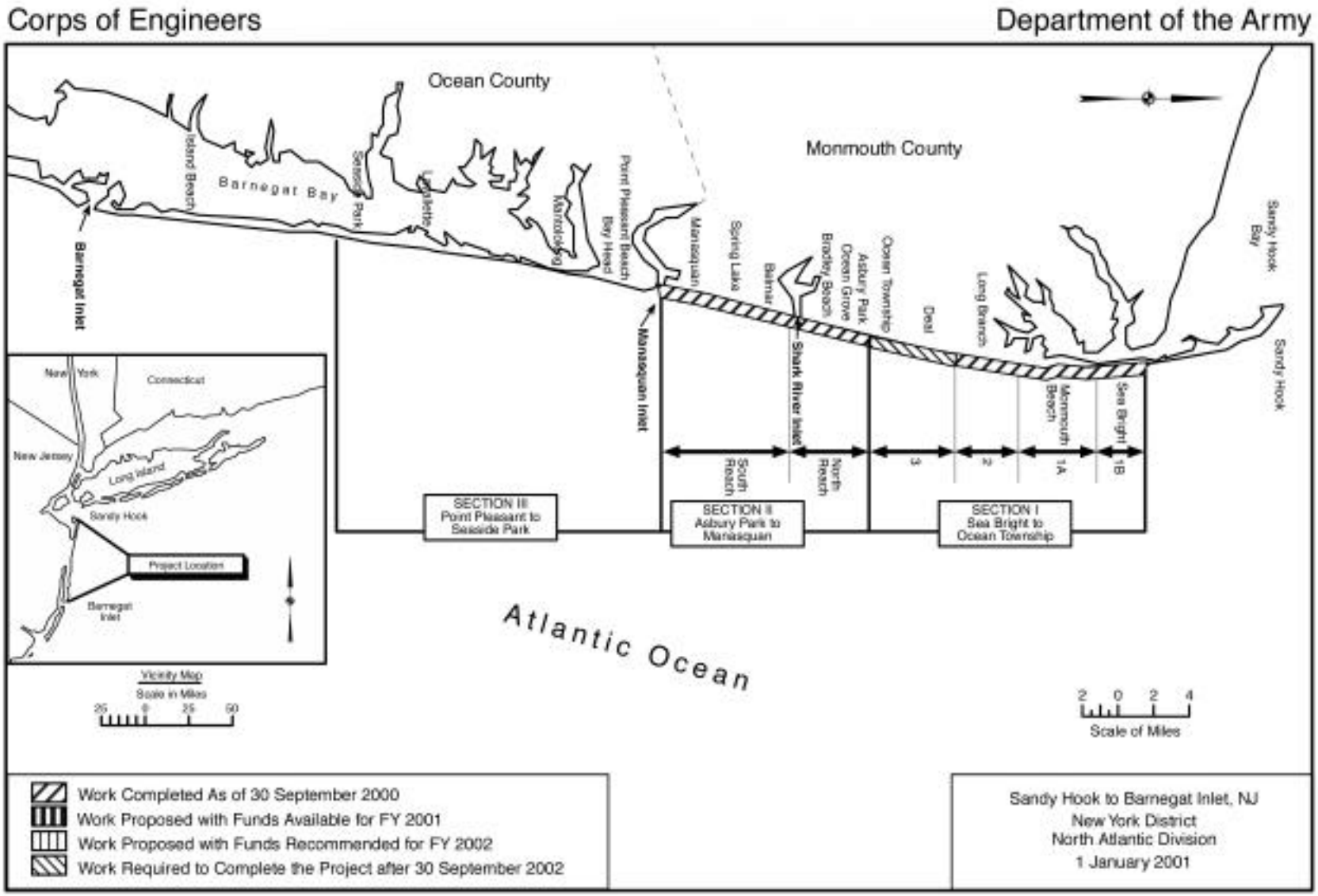
STATUS OF LOCAL COOPERATION: The Local Cooperation Agreement for Section I was signed on 30 July 1992 with the State of New Jersey Department of Environmental Protection (NJDEP). For Section II, the Project Cooperation Agreement was executed in August 1996. The previously executed PCA will be modified to incorporate the non-Federal share of 65 percent of the cost of periodic nourishment for FY02 and beyond before initiating the proposed FY02 construction effort.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $698,200,000 is a decrease of $464,700,000 from the latest estimate ($1,162,900,000) presented to Congress (FY 2001). This change reflects the anticipated incorporation of the revised cost sharing for FY02 and beyond and includes the following items:

Item	Amount
Price Escalation on Construction Features	- $ 39,500,000
Change in cost share	- 425,200,000
Total	- $464,700,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Environmental Impact Statement (EIS) for Section I (Seabright to Ocean Township) was filed with the Environmental Protection Agency (EPA) in June 1990. A Record of Decision was signed on 26 November 1990. The EIS for Section II was filed with the EPA in August 1993. A Record of Decision was signed in April 1996.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1985. Project benefits, costs, and financial data reflect Section I and Section II only.


Corps of Engineers
Department of the Army
Ocean County
Monmouth County
Barnegat Bay
Island Beach
Seaside Park
Long Beach
Manahawkin
Point Pleasant Beach
Bay Head
Manasquan
Spring Lake
Belmar
Shark River Inlet
Bradley Beach
Ocean Grove
Asbury Park
Ocean Township
Deal
Long Branch
Monmouth Beach
Sea Bright
Sandy Hook Bay
Sandy Hook
Barnegat Inlet
Manasquan Inlet
South Reach
North Reach
3
2
1A
1B
SECTION III
Point Pleasant to Seaside Park
SECTION II
Asbury Park to Manasquan
SECTION I
Sea Bright to Ocean Township
Atlantic Ocean
New York
Connecticut
New Jersey
Long Island
Sandy Hook
Project Location
Barnegat Inlet
Vicinity Map
Scale in Miles
25 0 25 50
2 0 2 4
Scale of Miles
Work Completed As of 30 September 2000
Work Proposed with Funds Available for FY 2001
Work Proposed with Funds Recommended for FY 2002
Work Required to Complete the Project after 30 September 2002
Sandy Hook to Barnegat Inlet, NJ
New York District
North Atlantic Division
1 January 2001

APPROPRIATION TITLE: Construction, General – Shoreline Protection

PROJECT: Townsends Inlet to Cape May Inlet, New Jersey (Continuing)

LOCATION: The site of the recommended project is located on the Atlantic Coast of New Jersey, approximately 23 miles southwest of Atlantic City. It includes the communities of Avalon, Stone Harbor, and North Wildwood.

DESCRIPTION: The recommended project consists of five reaches for shoreline protection for Avalon, Stone Harbor and North Wildwood, NJ, and an environmental restoration project for Stone Harbor Point. The shoreline protection portion of the project includes: (1) the construction of stone seawalls for the first and second reaches at the inlet frontages at Avalon and North Wildwood with seawalls at top elevations of 14 feet and 13 feet above mean low water respectively, extending for approximately 2,970 linear feet in Avalon and 8,660 linear feet in North Wildwood and would encompass the existing non-Federal bulkheads, rock revetments, and seawalls; and (2) the placement of 4.6 million cubic yards of initial beachfill with 800,000 cubic yards of periodic nourishment every three years for the third and fourth reaches for the oceanfronts of Avalon and Stone Harbor (Seven Mile Island). The beach fill segments will provide berm widths of 150 feet at elevation 8.5 feet above mean low water and dunes 7.5 feet above grade at elevation 16 feet above mean low water. The dunes would have a total length of 22,500 feet, a crest width of 25 feet, and would include dune grass plantings and sand fencing. The ecosystem restoration portion of the project includes an oceanfront berm 150 feet wide with a crest width of 25 feet at elevation 8.5 feet above mean low water for the fifth reach at Stone Harbor Point. This berm would extend 1,000 linear feet southwest of the terminal groin in Stone Harbor. The plan also includes the planting of approximately 3 acres of dune grass and 64 acres of bayberry and eastern red cedar. No periodic nourishment would be included with this project feature.

AUTHORIZATION: Water Resource Development Act 1999, Section 101(a)(26).

REMAINING BENEFIT-REMAINING COST RATIO: 1.8 to 1 at 6 7/8 percent.

TOTAL BENEFIT-COST RATIO: 1.8 to 1 at 6 7/8 percent

INITIAL BENEFIT-COST RATIO: 1.8 to 1 at 6 7/8 percent (FY 2001)

BASIS OF BENEFIT-COST RATIO: Townsends Inlet to Cape May Inlet feasibility study. Chief’s Report dated 28 September 1998

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		$ 163,000,000
Initial Construction	56,309,000	
Periodic Nourishment	106,691,000	
Estimated non-Federal Cost		$227,000,000
Initial Construction	30,382,200	
Cash Contributions	30,293,200	
Other Costs	89,000	
Periodic Nourishment	196,617,800	
Cash Contributions	196,617,800	
Other Costs	0	
Total Estimated Project Cost		$390,000,000
Initial Construction	86,691,200	
Periodic Nourishment	303,308,800	

STATUS: (1 Jan 2001)	PERCENT COMPLETE	COMPLETION SCHEDULE
Initial Beachfill	0	Being determined
Periodic Nourishment	0	Being determined
Seawalls	0	Being determined
Ecosystem Restoration	0	Being determined
Entire Project	0	Being determined

PHYSICAL DATA: Stone Harbor Point: 4.3 miles of beachfill, berm width of 150-foot and dune height of +16-feet. Avalon and Stone Harbor: 2.2 miles of seawall construction. Stone Harbor Point: Ecosystem restoration of approximately 107 acres of natural barrier island with beach-fill and dune construction with periodic nour-ishment and planting of 67 acres of bayberry and red cedar roosting habitat.

		ACCUMULATED PCT OF EST. FED. COST
Allocations to 30 September 2000	1,350,000	
Conference Allowance for FY 2001	4,000,000	
Allocation for FY 2001	3,352,000 1/	
Allocations through FY 2001	4,702,000	3
Allocations Requested for FY 2002	2,000,000	4
Programmed Balance to Complete after FY 2002	156,298,000 2/	
Unprogrammed Balance to Complete after FY 2002	0	

1/ Reflects $640,000 reduction assigned as savings and slippage, and $8,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.
2/ Reflects 65% non-Federal cost share.

JUSTIFICATION: The area has been subjected to major flooding, erosion and wave attack during storms, causing damage to structures, and, since 1992, was declared a National Disaster Area by the President of the United States on three separate occasions. In recent years, continued erosion has resulted in a reduction of the height and width of the beachfront, which has increased the potential for storm damage. In addition, valuable fish and wildlife habitat along the southern end of Stone Harbor has been lost to erosion.

Division: North Atlantic District: Philadelphia Project: Townsends Inlet to Cape May Inlet, NJ

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue initial construction	$1,800,000
Planning, Engineering and Design	100,000
Construction Management	100,000
Total	$2,000,000

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:

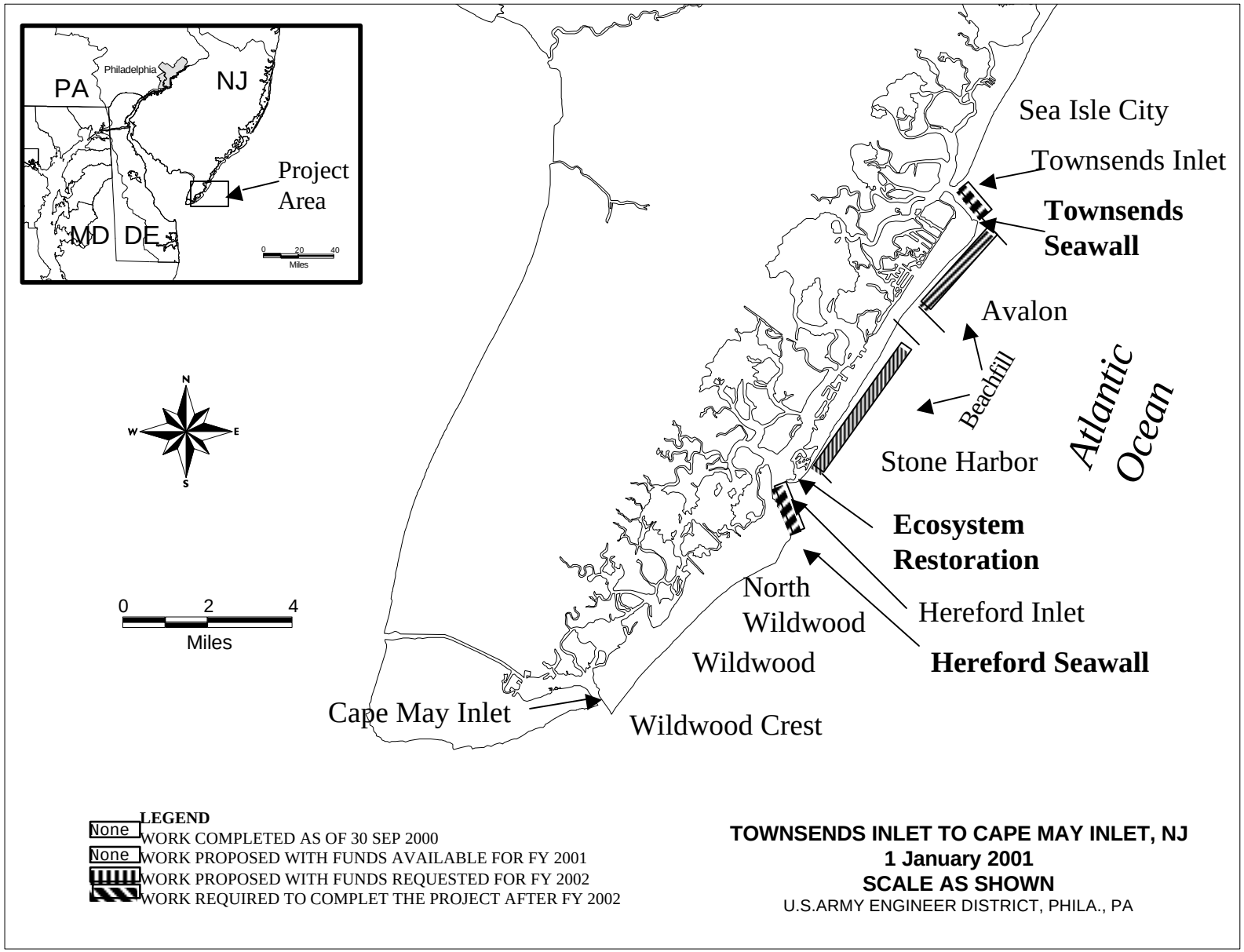
Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, and rights of way	$ 89,000	
Pay 35 percent of the initial costs allocated to hurricane and storm damage reduction and ecosystem restoration	30,293,200	
Pay 65 percent of the cost of periodic nourishment	196,618,800	
Total Non-Federal Costs	$ 227,000,000	

STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the State of New Jersey Department of the Environmental Protection (NJDEP). The Project Cooperation Agreement is scheduled to be executed in July 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $163,000,000 is the initial cost estimate presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was completed in March 1997.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1997. Funds to initiate construction were appropriated in FY 2001.


PA
Philadelphia
NJ
MD
DE
Project Area
0 20 40
Miles
N
W
E
S
0 2 4
Miles
Sea Isle City
Townsends Inlet
Townsends Seawall
Avalon
Beachfill
Atlantic Ocean
Stone Harbor
Ecosystem Restoration
North Wildwood
Hereford Inlet
Wildwood
Hereford Seawall
Cape May Inlet
Wildwood Crest
LEGEND
None WORK COMPLETED AS OF 30 SEP 2000
None WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2002
WORK REQUIRED TO COMPLET THE PROJECT AFTER FY 2002
TOWNSENDS INLET TO CAPE MAY INLET, NJ
1 January 2001
SCALE AS SHOWN
U.S.ARMY ENGINEER DISTRICT, PHILA., PA

APPROPRIATION TITLE: Construction, General - Beach Erosion Control

PROJECT: Atlantic Coast of New York City, Rockaway Inlet to Norton Point, Coney Island, New York (Continuing)

LOCATION: The project is located on the South shore of Long Island in Brooklyn (Kings County), New York, approximately nine miles south of the Battery, New York City.

DESCRIPTION: Programmed work consists of construction of a 100-foot-wide berm at an elevation of 13 feet above mean low water, a groin at the western end of the restored beach, and a fillet of beachfill extending westward from the groin at West 37th Street. Unprogrammed work includes construction of comfort and lifeguard stations, construction of a groin at east end of project and extending beach seaward of historic shoreline.

AUTHORIZATION: Water Resources Development Act of 1986 as modified by the Intermodal Surface Transportation and Efficiency Act of 1991.

REMAINING BENEFIT-REMAINING COST RATIO: 2.7 to 1 at 8 7/8 percent.

TOTAL BENEFIT-COST RATIO: 2.7 to 1 at 8 7/8 percent.

INITIAL BENEFIT-COST RATIO: 2.8 to 1 at 8 7/8 percent (FY 1992).

BASIS OF BENEFIT-COST RATIO: Final General Design Memorandum entitled Atlantic Coast of New York City, Rockaway Inlet to Norton Point (Coney Island Area), New York, dated April 1992, at October 1990 price levels.

STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Programmed Work		
Initial Construction	99	Sep 2001
Periodic Nourishment	0	Being determined
Entire Project	20	Being determined
Unprogrammed Work		
Comfort and Lifeguard Stations	0	Indefinite
Groin and additional Beach Berm	0	Indefinite

1/ For programmed work only; remaining work is indefinite pending a decision to construct these features.

SUMMARIZED FINANCIAL DATA:

				ACCUM. PCT. OF EST. FED COST
Estimated Federal Cost 1/			76,500,000	
Programmed Construction		44,800,000		
Initial Construction	12,500,000			
Periodic Nourishment	29,800,000			
Comfort and Lifeguard Stations	2,500,000			
Unprogrammed Construction		31,700,000		
Initial Construction	14,900,000			
Periodic Nourishment	0			
Comfort and Lifeguard Stations	16,800,000			
Estimated Non-Federal Cost			72,500,000	
Programmed Construction		57,600,000		
Initial Construction	5,500,000			
Cash Contribution	5,500,000			
Other Costs	0			
Periodic Nourishment	52,100,000			
Cash Contributions	52,100,000			
Other Costs	0			
Unprogrammed Construction		14,900,000		
Initial Construction	14,900,000			
Cash Contribution	14,900,000			
Other Costs	0			
Periodic Nourishment	0			
Cash Contributions	0			
Other Costs	0			
Comfort and Lifeguard Stations	0			

PHYSICAL DATA

Berm 100 feet wide at 13 feet NGVD
Extended berm 165 feet wide at 8 feet NGVD.
Groins at the eastern and western ends of the restored beach.

Fillet of beachfill extending westward from groin at West 37th St.
Relocation and/or reconstruction of existing comfort and lifeguard stations.

Division: North Atlantic District: New York Atlantic Coast of New York City, Rockaway Inlet to Norton Point, Coney Island, NY

SUMMARIZED FINANCIAL DATA: (Continued)

				ACCUM. PCT. OF EST. FED COST
Total Estimated Programmed Construction Cost		102,400,000		
Initial Construction	18,000,000			
Periodic Nourishment	81,900,000			
Comfort and Lifeguard Stations	2,500,000			
Total Estimated Unprogrammed Construction Cost		46,600,000		
Initial Construction	29,800,000			
Periodic Nourishment	0			
Comfort and Lifeguard Stations	16,800,000			
Total Estimated Project Cost		149,000,000		
Initial Construction	47,800,000			
Periodic Nourishment	81,900,000			
Comfort and Lifeguard Stations	19,300,000			
Allocation to 30 September 2000		15,342,000		
Conference Allowance for FY 2001		500,000		
Allocation for FY 2001		419,000	1/	
Allocations through FY 2001		15,761,000		16
Allocation Requested for FY 2002		300,000	2/	16
Programmed Balance to Complete after FY 2002		28,739,000	2/	
Unprogrammed Balance to Complete after FY 2002		31,700,000		

1/ Reflects $80,000 reduction assigned as savings and slippage and $1,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.
2/ Reflects 65% non-Federal cost share

JUSTIFICATION: Erosion had caused serious damage to the shoreline extending through the communities of Coney Island, Brighton Beach, and Sea Gate, New York. Due to this erosion, residential and commercial developments had become increasingly susceptible to storm damage from wave attack and inundation. In March 1962, a severe northeast storm caused breaching and failure of the breach and shore protection structures with damages estimated at $18,000,000. A recurrence of the March 1962 storm would have caused damages of approximating $56,000,000 (October 1989 price levels) without the project in place. A 100 year event would cause storm damage by wave attack in excess of $156,000,000 at October 1993 prices. Project implementation has eliminated these damages.

Division: North Atlantic District: New York Atlantic Coast of New York City, Rockaway Inlet to Norton Point, Coney Island, NY

JUSTIFICATION: (continued)
Average annual benefits are as follows:

Benefits	Amount
Shoreline Protection	$6,780,000
Recreation	1,040,000
Total	$7,820,000

Fiscal Year 2002: The requested amount will be applied as follows:

Planning, Engineering and Design (Post-Construction Monitoring)	$ 300,000
Total	$ 300,000

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

Requirement of Local Cooperation	Payments During Construction and Reimbursement	Annual Operation, Maintenance, and Replacement Costs
Pay 65 percent of the costs of periodic nourishment allocated to storm damage reduction for FY02 and beyond, and 50 percent of the costs allocated to recreation, bear all costs,of operation, maintenance and replacement of storm reduction facilities.	$ 72,500,000	$950,000
Total Non-Federal Costs	$ 72,500,000	$950,000

STATUS OF LOCAL COOPERATION: The non-Federal sponsor for this project is the New York State Department of Environmental Conservation. The Local Cooperation Agreement for this project was executed in October 1993. The previously executed PCA will be modified to incorporate the non-Federal share of 65 percent of the cost of periodic nourishment for FY02 and beyond before initiating the proposed FY02 construction effort.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $76,500,000 is a decrease of $24,500,000 from the latest estimate ($101,000,000) presented to Congress (FY 2001). This change reflects the anticipated incorporation of the revised cost sharing for FY02 and beyond and includes the following items:

Item	Amount
Price Escalation on Construction Features	- $ 1,900,000
Change in cost share	- 22,600,000
Total	- $24,500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Supplemental Environmental Impact Statement was filed with the United States Environmental Protection Agency on 5 June 1992.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1988 and funds to initiate construction were appropriated in FY 1992.

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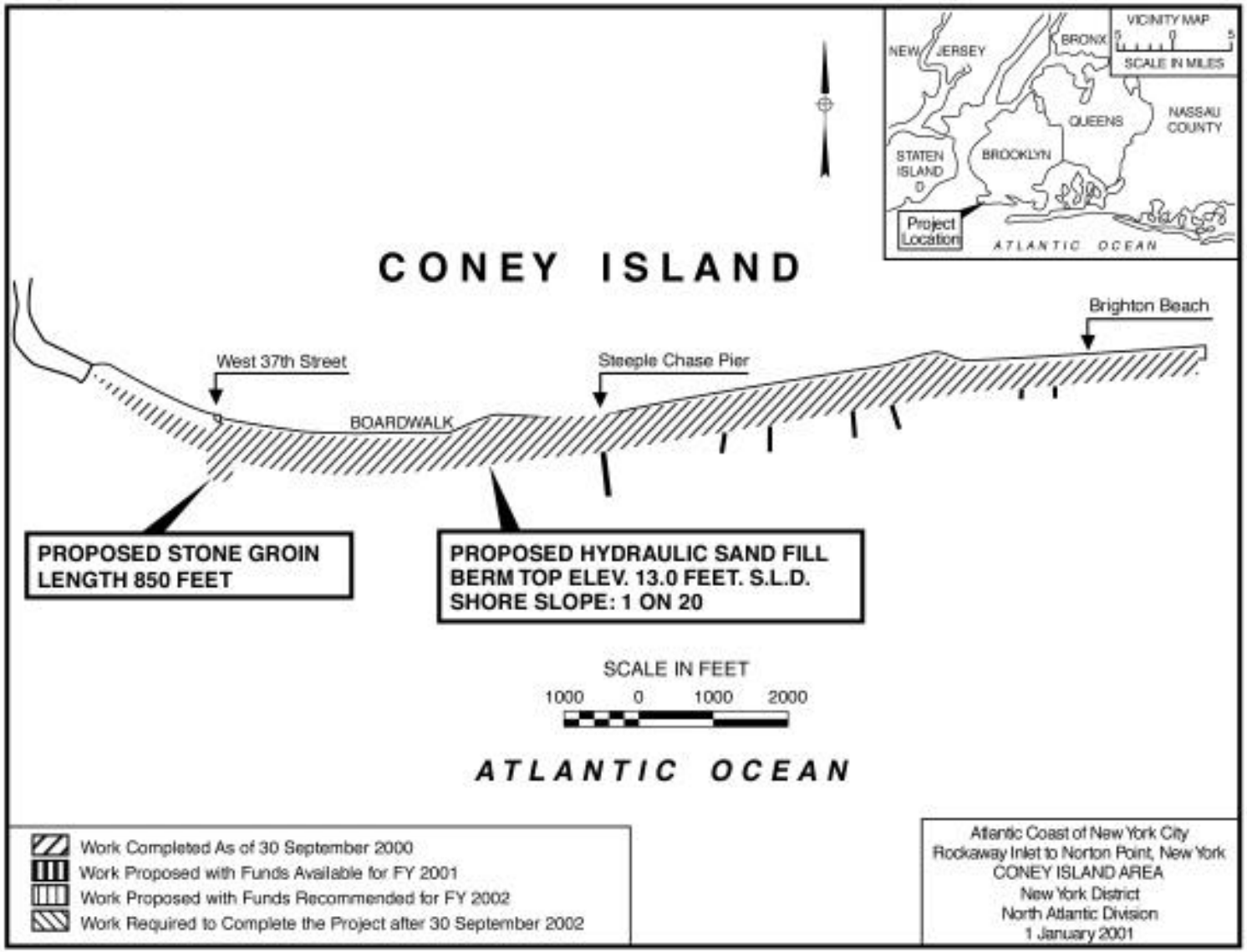

APPROPRIATION TITLE: Construction, General - Beach Erosion Control

PROJECT: East Rockaway Inlet to Rockaway Inlet and Jamaica Bay, New York (Continuing)

LOCATION: The project is located on the South shore of Long Island between East Rockaway Inlet and Rockaway Inlet, approximately seven miles southeast of the Battery, New York City. The coastal area is a peninsula located entirely within the Borough of Queens, New York City. The project also includes the lands within and surrounding Jamaica Bay. The greater portion of Jamaica Bay lies in the Boroughs of Brooklyn and Queens, New York City, with a small section at the easterly end, known as Head of Bay in Nassau County, New York.

DESCRIPTION: The authorized project work consists of nourishing a 100 to 200 foot wide beach at an elevation of 10 feet above mean low water from Beach 149th Street to Beach 19th Street.

AUTHORIZATION: Water Resources Development Act of 1974 and Water Resources Development Act of 1986 (Section 934).

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because initial construction has been completed.

TOTAL BENEFIT-COST RATIO: Not applicable because initial construction has been completed.

INITIAL BENEFIT-COST RATIO: 1.5 to 1 at 5 1/2 percent (FY 1974).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in June 1993 at December 1992 prices.

SUMMARIZED FINANCIAL DATA				ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost			55,000,000				
Initial Construction		8,813,500					
Periodic Nourishment		46,186,500			Contract No. 6	100	Nov 1996
Contracts 1-5	16,386,500				Contract No. 7	99	Apr 2001
Contracts 6-8	29,800,000				Contract No. 7A	0	Being determined
					Contract No. 8	0	Being determined
					Entire Project	52	Being determined
					Beach Nourishment	52	Being determined

SUMMARIZED FINANCIAL DATA: (continued)

				ACCUM. PCT. OF EST. FED. COST
Estimated Non-Federal Cost			55,000,000	
Initial Construction		8,813,500		
Periodic Nourishment		46,186,500		
Contracts 1-5	16,386,500			
Contracts 6-8	29,785,000			
Other Costs	15,000			
Total Estimated Project Cost			110,000,000	
Initial Construction		17,627,000		
Periodic Nourishment		92,358,000		
Other Costs		15,000		
Allocation to 30 September 2000			41,144,000	
Conference Allowance for FY 2001			1,000,000	
Allocation for FY 2001			2,838,000 1/	
Allocations through FY 2001			43,982,000	80
Allocation Requested for FY 2002			1,230,000 2/	83
Programmed Balance to Complete after FY 2002			9,788,000 2/	
Unprogrammed Balance to Complete after FY 2002			0	

PHYSICAL DATA

Original Periodic Nourishment of the beach between Beach 19th Street and Beach 149th Street, a distance of 4 2 miles, to maintain the berm to a width of 100-200 feet at elevation 10 feet above mean low water.

1/ Reflects $ 160,000 reduction assigned for savings and slippage, $2,000,000 reprogrammed to the project, and $2,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.
2/ Reflects 65% non-Federal cost share

JUSTIFICATION: The Rockaway peninsula is subject to frequent and severe damage from tidal inundation from the ocean and the bay. Along the oceanfront, a serious erosion problem has resulted from storms which reduce beach widths, expose waterfront development from wave attack, and cause loss of recreational beach area. The project area is approximately 4 miles of urban shorefront, principally used for recreation purposes. Large sections of the high water beach periodically erodes. Unusually severe storms occurred in September 1921, September 1960, March 1962, and April 1967. The September 1960 storm caused maximum storm tide of record, flooded 3,500 acres of developed land, and resulted in losses exceeding $17,800,000. About 6,000 residences and hundreds of commercial buildings were severely damaged. Boats and waterfront facilities were badly hit. Public utilities and transportation were seriously disrupted. The project area was included in declared disaster areas after the September 1960 and March 1962 storms. Appreciable damage resulted from the April 1967 storm, causing local agencies to place about 250,000 cubic yards of beach fill under emergency conditions at an estimated cost of $400,000. In October 1991 and December 1992, the area experienced flooding

JUSTIFICATION: (continued)
and beach erosion. A Presidential disaster was declared for the area following the December 1992 storm. The reevaluation conducted under Section 934 of WRDA 1986 recommended continued Federal participation in three additional periodic nourishment cycles for the storm damage reduction features of the project. The Section 934 reevaluation report also recommended further analyses to determine whether modifications to the project are warranted to reduce the cost of future periodic nourishment. Based on the reevaluation conducted under Section 934 of WRDA of 1986, the average annual benefits are as follows:

Storm Damage Reduction	$ 3,400,000
Recreation	6,370,000
Total	$ 9,770,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Initiate Periodic Nourishment Contract #7A	$ 300,000
Planning, Engineering and Design	$ 90,000
Construction Management	$ 40,000
Reformulation Study	800,000
Total	$ 1,230,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financial 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 Reimbursement	Annual Operation, Maintenance and Replacement Costs
Pay 50 percent of initial construction cost and nourishment operations 1-5	$25,200,000	
Pay 65 percent of the periodic nourishment costs for FY02 and beyond allocated to storm damage reduction, and 50 percent of the costs allocated to recreation, bear all costs of operation, maintenance, and replacement of storm reduction facilities	29,785,000	
Provide lands, easements, and rights of way	15,000	
Total Non-Federal Costs	$55,000,000	$0

STATUS OF LOCAL COOPERATION: The non-Federal sponsor for this project is the New York State Department of Environmental Conservation. The project cooperation agreement (PCA) for this project, to extend the beach nourishment period was executed in May 1995. The New York State Department of Environmental Conservation was the sponsor for the initial project in 1975 and for the first five nourishment operations through 1988. The previously executed PCA will be modified to incorporate the non-Federal share of 65 percent of the cost of periodic nourishment for FY02 and beyond before initiating the proposed FY02 construction effort.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $55,000,000 is a decrease of $9,000,000 from the latest estimate ($64,000,000) presented to Congress (FY 2001). This change reflects the anticipated incorporation of the revised cost sharing for FY02 and beyond and includes the following items:

Item	Amount
Change in cost share	- $9,000,000
Total	-$9,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 13 May 1974 for the initial project and nourishment. An Environmental Assessment for the extension of beach nourishment was filed with the United States Environmental Protection Agency in April 1994.

OTHER INFORMATION: Funds for initial construction were appropriated in FY 1974. Funds for the original 5 cycles of periodic nourishment were appropriated through FY 1988. Funds to initiate the continuation of periodic nourishment were appropriated in FY 1994. The periodic nourishment period has been extended for an additional 3 nourishment cycles under authority of Section 934 of the Water Resources Development Act of 1986.

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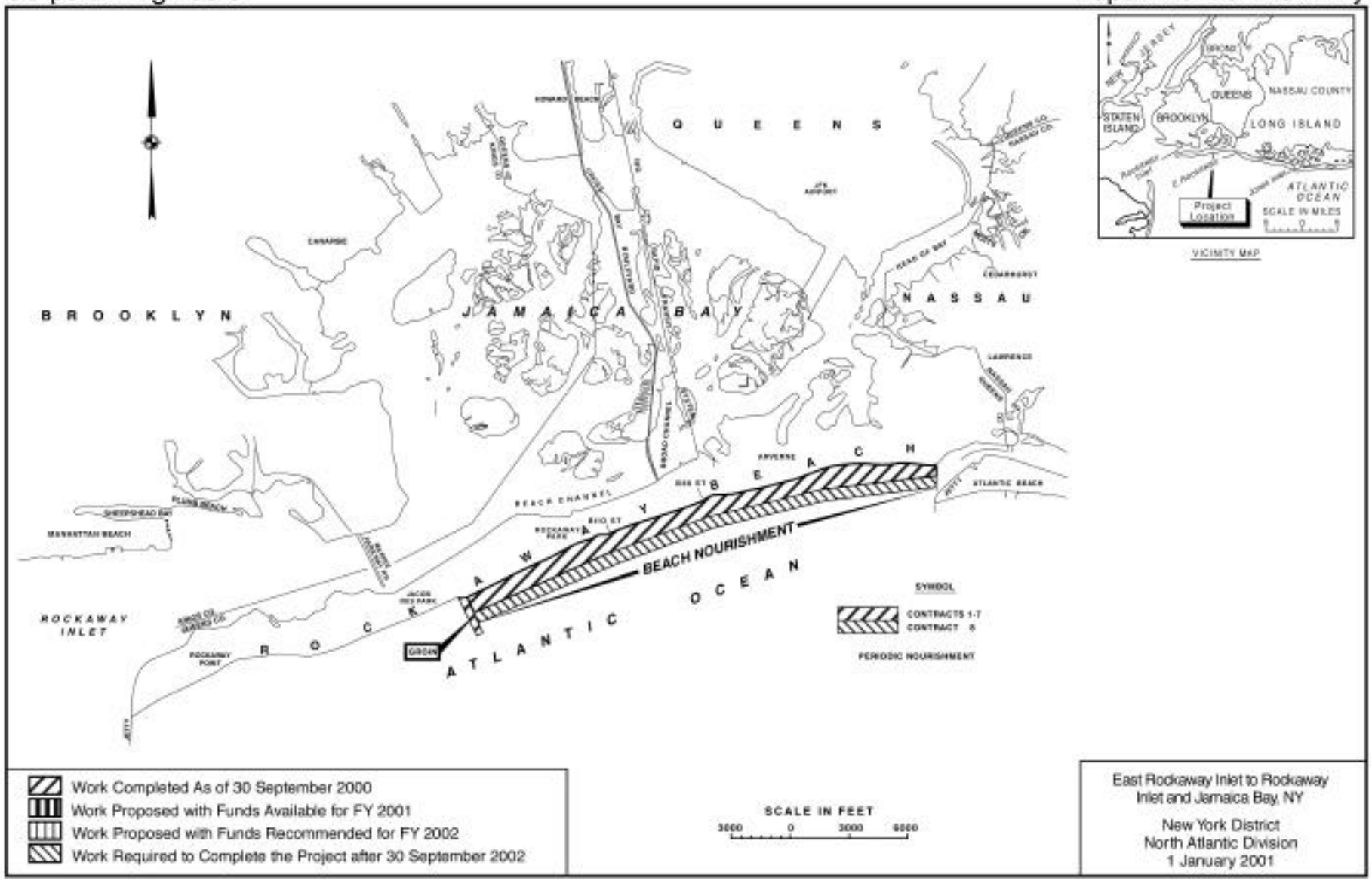


APPROPRIATION TITLE: Construction, General - Beach Erosion Control

PROJECT: Fire Island Inlet to Jones Inlet, New York (Continuing)

LOCATION: Fire Island Inlet is located approximately 40 miles East of the Battery in New York City. The material dredged from the inlet will be placed in the vicinity of Gilgo Beach which lies along the Atlantic Ocean Shoreline of New York State in Suffolk County. The beach is located approximately 6 miles west of Fire Island and extends 14,000 feet to the westerly end of Gilgo Beach.

DESCRIPTION: The project is a multi-purpose beach erosion control and navigation project. The recommended plan of action is the continuation of construction of the authorized combined purpose project because of serious erosion problems threatening the shoreline. This involves placing approximately 1,000,000 cubic yards of sand every two years, from the inlet, along Gilgo Beach to serve as a feeder beach for the area. All work is programmed.

AUTHORIZATION: 1958 Rivers and Harbors Act and 1962 Rivers and Harbors Act, as amended by section 506(b)(5) of the Water Resources Development Act of 1996.

REMAINING BENEFITS-REMAINING COST RATIO: 2.2 to 1 at 3 1/4 percent.

TOTAL BENEFIT-COST RATIO: 2.2 to 1 at 3 1/4 percent.

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 3 1/4 percent (FY 1970).

BASIS OF BENEFITS-COST RATIO: Operations and Maintenance Proposal for Fire Island Inlet, dated October 1991 at October 1991 price levels.

SUMMARIZED FINANCIAL DATA:			ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		119,300,000		Periodic Nourishment	17	Being determined
Initial Construction	9,300,000					
Periodic Nourishment	110,000,000					
Estimated Non-Federal Cost		194,400,000				
Initial Construction	3,100,000					
Cash Contributions	3,100,000					
Other Costs	0					
Periodic Nourishment	194,300,000					
Cash Contributions	194,300,000					
Other Costs	0					
Total Estimated Project Cost		316,700,000				
Initial Construction	12,400,000					
Periodic Nourishment	304,300,000					

PHYSICAL DATA

The project consists of providing a navigation channel and hydraulically placing the dredged material which is 90 percent sand along the shoreline in the vicinity of Gilgo Beach, New York

Allocations to 30 September 2000	35,117,000	
Conference Allowance for FY 2001	1,500,000	
Allocations for FY 2001	1,257,000 1/	
Allocation through FY 2001	36,374,000	30
Allocation Requested for FY 2002	4,700,000 2/	34
Programmed Balance to Complete after FY 2002	78,226,000 2/	
Unprogrammed Balance to Complete after FY 2002	0	

1/ Reflects $240,000 reduction assigned as savings and slippage and $3,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.
2/ Reflects 65% non-Federal cost share

JUSTIFICATION: Construction of the authorized combined purpose project will alleviate serious erosion problems threatening the shoreline. Loss of sand due to lack of bypassing has resulted in a serious erosion problem at Gilgo Beach which is threatening the shoreline which protects a state highway and the Suffolk Counts sewer outfall. The situation has already resulted in two critical areas, and is projected to result in more critical areas in the foreseeable future if erosion is not arrested. Sand from the combined project will ensure adequate protection against continued shoreline erosion. Average annual benefits are as follows:

Annual Benefits	Amount
Shoreline Protection	$ 2,500,000
Road Protection	3,400,000
Protection to Outfall	63,000
Total	$ 5,963,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue periodic nourishment Contract 6	$ 4,200,000
Planning, Engineering, and Design	300,000
Construction Management	200,000
Total	$ 4,700,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financial 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 and Replacement Costs
Pay 65 percent of the periodic nourishment cost for FY02 and beyond, and dredged material disposal	$197,400,000	
Total Non-Federal Costs	$197,400,000	$ 0

STATUS OF LOCAL COOPERATION: The non-Federal sponsor for this project is the New York State Department of Environmental Conservation. The project cooperation agreement was executed June 1973. The previously executed PCA will be modified to incorporate the non-Federal share of 65 percent of the cost of periodic nourishment for FY02 and beyond before initiating the proposed FY02 construction effort.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $119,300,000 is a decrease of $116,700,000 over the latest estimate ($236,000,000) submitted to Congress (FY 2001). This change reflects the anticipated incorporation of the revised cost sharing for FY02 and beyond and includes the following items:

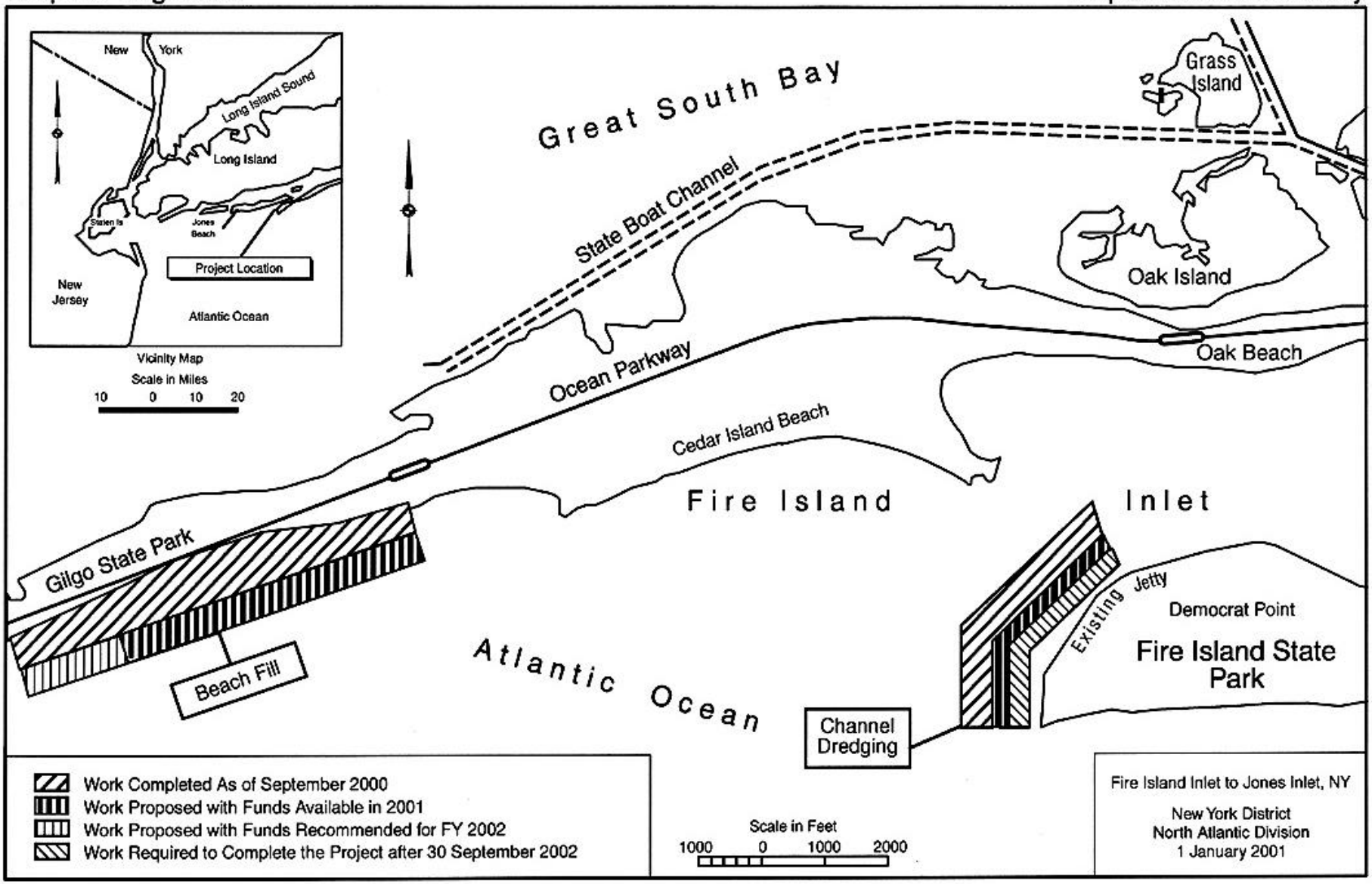
Item	Amount
Price Escalation on Construction Features	$ 2,000,000
Change in cost share	- 118,700,000
Total	-$116,700,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Environmental Impact Statement was filed with the U.S. Department of Environmental Protection on 1 April 1987. A finding of No Significant Impacts was completed on 4 August 1987.

OTHER INFORMATION: Funds were appropriated to initiate construction in FY 1970. During the 1980's this project was undertaken utilizing offshore disposal for sand bypassing under operation and maintenance authority and funding. In March 1988, a plan was recommended for solving both the erosion and navigation needs of the area which is in conformance with the multipurpose project as formulated in the authorizing document and subsequently developed in the General Design Memorandum. The proposed plan was engineered to substantially reduce costs while still providing the required storm protection and the majority of navigation improvements benefits not currently accruing to the natural channel (single purpose project). The proposal which is in accordance with the authorizing document is to maintain a degree of safety to the vessels using the channel during the periods of high waves. Approximately 1,000,000 cubic yards of dredged sand will be hydraulically placed along the shoreline in the vicinity of Gilgo Beach, for shore protection purposes. The plan was approved by the Assistant secretary of the Army for Civil Works on 2 August 1988.

Corps of Engineers

Department of the Army



APPROPRIATION TITLE: Construction, General - Beach Erosion Control

PROJECT: Fire Island to Montauk Point, New York (Continuing)

LOCATION: The overall project area, extends from Fire Island Inlet easterly to Montauk Point along the Atlantic Coast of Suffolk County. The project is about 83 miles long and comprises about 70 percent of the total ocean frontage of Long Island. Fire Island Inlet is located about 50 miles by water East of the Battery, New York City.

DESCRIPTION: The project provides for beach erosion control and hurricane protection along five reaches of the Atlantic Coast of New York from Fire Island Inlet to Montauk Point. Work includes widening the beaches along the developed areas to a minimum width of 100 feet at an elevation of 14 feet above mean sea level and by raising dunes to an elevation of 20 feet above mean sea level from Fire Island Inlet to Hither Hills State Park and at Montauk and opposite Lake Montauk Harbor, supplemented by grass planting on the dunes, interior drainage structures, construction of up to 50 groins, and subsequent periodic beach nourishment. A reformulation study is underway to evaluate storm damage protection measures. An interim project at Westhampton Beach has been constructed prior to completion of an ongoing overall project reformulation effort. This interim project provides for 30 years of periodic nourishment to maintain a beach berm extending westwardly from Groin 15 to Moriches Inlet at an elevation of 9.5 feet above mean sea level backed by a dune with a height of +15 feet above msl. The Westhampton Beach Interim project also includes tapering of the existing westernmost two groins, construction of a new groin between groins 14 and 15, and beachfill as necessary within the existing groinfield to promote sand transport. A Breach Contingency Plan has been developed which permits closing of breaches of the barrier island with use of a pre-approved Project Cooperation Agreement format, provided that estimated breach costs are no greater than $5 million. Studies are also underway for potential interim projects along Fire Island and West of Shinnecock Inlet.

AUTHORIZATION: River and Harbor Act 14 July 1960, modified by the Water Resources Development Act of 1974, the Water Resources Development Act of 1986, and the Water Resources Development Act of 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 2.6 to 1 at 2 5/8 percent.

TOTAL BENEFIT-COST RATIO: 2.6 to 1 at 2 5/8 percent.

INITIAL BENEFIT-COST RATIO: 2.6 to 1 at 2 5/8 percent (FY 1963).

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost			403,400,000
Programmed Construction		135,200,000	
Initial Construction	68,215,000		
Periodic Nourishment	66,985,000		
Unprogrammed Construction		268,200,000	
Initial Construction	105,500,000		
Periodic Nourishment	162,700,000		
Estimated Non-Federal Cost			464,900,000
Programmed Construction		106,050,000	
Initial Construction	22,360,000		
Cash Contributions	19,760,000		
Other Costs	2,600,000		
Periodic Nourishment	83,690,000		
Cash Contribution	83,690,000		
Other Costs	0		
Unprogrammed Construction		358,850,000	
Initial Construction	56,830,000		
Cash Contributions	46,480,000		
Other Costs	10,350,000		
Periodic Nourishment	302,020,000		
Cash Contribution	302,020,000		
Other Costs	0		
Total Estimated Programmed Construction		241,250,000	
Initial Construction	90,575,000		
Periodic Nourishment	150,675,000		

STATUS: (1 Jan 2001)	PERCENT COMPLETE	COMPLETION SCHEDULE
Reach 2		
11 groins	100	Oct 1966
4 groins	100	Nov 1970
8 groins	0	1/
Westhampton Interim	40	Being determined
Initial Construction	100	Dec 1997
Periodic Nourishment	5	Being determined
Balance of Reach	0	1/
Reach 4		
2 groins	100	Sep 1965
Beach Fill-18.4 mi.	0	1/
Balance of Project		
Dune/Beach Fill-39.7 mi.	0	1/
27 groins	0	1/
Reformulation Study	40	Being determined
Studies for Interim Projects		
Fire Island	90	2/
West of Shinnecock	95	Jun 2000
Beach Contingency Plan	100	Jan 1996

1/ Schedule is dependent on the outcome of the Reformulation effort.

2/ Study terminated due to unresolved environmental issues that will be addressed in the overall reformulation effort

PHYSICAL DATA

Dunes and beach replenishment: 73,5 miles
Dunes: raise to elevation 20 feet above msl
Beaches: widen to a minimum of 100 ft.
Interior drainage structures: 3 gated culverts
Groins: 52
Periodic nourishment: 480,000 cubic yards/yr

SUMMARIZED FINANCIAL DATA (Contd.)			ACCUM. PCT. OF EST. FED. COST
Total Estimated Unprogrammed Construction Cost			627,050,000
Initial Construction		162,330,000	
Periodic Nourishment		464,720,000	
Total Estimated Project Cost			868,300,000
Initial Construction	252,905,000		
Periodic Nourishment	615,395,000		

Allocations to 30 September 2000	53,844,000	
Conference Allowance for FY 2001	3,000,000	
Allocation for FY 2001	6,014,000 1/	
Allocations Through FY 2001	59,858,000	15
Allocation Requested for FY 2002	2,275,000 2/	15
Programmed Balance to Complete After FY 2002	69,642,000 2/	
Unprogrammed Balance to Complete After FY 2002	271,600,000	

1/ Reflects $480,000 reduction assigned as savings and slippage, $3,500,000 reprogrammed to the project, and $6,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.
2/ Reflects 65% non-Federal cost share

JUSTIFICATION: Erosion has seriously reduced the width of the shoreline in the study area with consequent exposure of the shore and the mainland to wave attack and inundation damages. A recurrence of the hurricane tide of record (September 1938) when 45 lives were lost, would cause inundation and wave damage estimated at $717,000,000 (April 1996 price levels). As a result of the 11 December 1992 storm, in the Westhampton area (Section 1B of Reach 2), over 200 residential structures were destroyed and two breaches of the barrier island occurred. Closure costs for these breaches in 1992 was approximately $6,600,000.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Reformulation Study	1,530,000
Westhampton Interim (post construction monitoring)	245,000
Initiate West of Shinnecock construction	500,000
Total	$ 2,275,000

NON-FEDERAL COSTS: Local interests are required to bear 30 percent of the total project cost including periodic nourishment, for the Westhampton Interim project and 35 percent of the total project cost for the Reformulation project, which includes the value of lands, easements, and rights-of-way.

Requirements of Local Cooperation:	Payments During Construction and Reimbursements	Annual Operation Maintenance and Replacement Costs
Provide all lands, easements, and rights-of-way, and relocations.	$ 12,950,000	
Pay 30 percent of the first costs for the Westhampton Interim project and 35 percent of the first costs for the remainder of the project including creditable lands and easements and rights of way, and bear all costs of operation and maintenance and replacement of storm damage reduction facilities.	66,240,000	
Pay 65 percent of the periodic nourishment cost for FY02 and beyond	385,710,000	
Total Non-Federal Costs	$464,900,000	$0

STATUS OF LOCAL COOPERATION: The agency responsible for local cooperation is the New York State Department of Environmental Conservation (NYSDEC). Assurances of local cooperation were executed by the NYSDEC on 14 August 1963 and accepted by the Federal Government on 20 August 1963. A project cooperation agreement (PCA) for the Westhampton Interim project was executed in February 1996. A PCA for the West of Shinnecock project is expected to be executed by November 2001. The previously executed PCA will be modified to incorporate the non-Federal share of 65 percent of the cost of periodic nourishment for FY02 and beyond before initiating the proposed FY02 construction effort.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $403,400,000 is a decrease of $169,700,000 from the latest estimate ($573,100,000) presented to Congress (FY 2001). This change reflects the anticipated incorporation of the revised cost sharing for FY02 and beyond and includes the following items:

Item	Amount
Change in cost share	-$169,700,000
Total	-$169,700,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency (USEPA) on 28 January 1978. On 7 March 1978, the Department of the Interior (DOI), supported by other agencies referred the EIS to the Council on Environmental Quality (CEQ) as unacceptable. Subsequent to the strong objections on the projects final environmental impact statement, meetings were held between September 1978 and January 1980 with DOI, USEPA, U.S. Department of Commerce, and NYSDEC. Two public scoping meetings were held in October 1979. Subsequently, the Federal agencies agreed to a basis for the reformulation of the Fire Island to Montauk Point project, including a general agreement on the studies necessary to answer the outstanding concerns. An environmental analysis was included in Supplement No. 2 to GDM No. 1 to determine environmentally acceptable measures of beach protection for the critically eroded areas at Westhampton Beach.

OTHER INFORMATION: Initial planning and construction funds were appropriated in FY 1963. The work remaining to be done is completion of construction of Reach 2-Moriches Inlet to Shinnecock Inlet, Reach 4-Southhampton to Beach Hampton, initiation of construction of Reach 1-Fire Island Inlet to Moriches Inlet, Reach 3-Shinnecock to Southhampton, and Reach 5-Beach Hampton to Montauk, as well as the completion of the reformulation effort. The Corps of Engineers concurred with the request by the State of New York to initially construct 11 groins (Reach 2), and 2 groins (Reach 4) with beach fill to be added as necessary but not sooner than 3 years after groin completion. In recognition of the critical condition of the beaches due to earlier storms, the Corps recommended to the State in June 1967 that the 3 year observation period be waived and that construction of urgent hurricane protection be resumed. The State concurred and requested that work be undertaken on additional groins, replacement of beach fill and dunes in Reach 2, as well as construction of groins, drainage structures and dune fill in Reach 4. Suffolk county, however, did not endorse the placement of beach and dune fills. Continuing negotiations during FY 1969 resulted in agreement on a plan for construction for certain groins, drainage structures, beach fill, and dunes to an interim height of 16 feet in Reaches 2 and 4. In December 1973, the State requested planning for Reach 2 (Section 1b), (Westhampton Beach) and Reach 4 (Georgica Pond), indicating that it would provide funds. Planning resumed and assurances were requested from the State in October 1974. However, strong opposition developed with Suffolk County and the county legislature refusing to provide support. Subsequently, erosion of the shoreline downdrift of the groin field at Westhampton Beach accelerated to the point where Dune Road, the only access to the homes in this area, was under water during normal high tide. In December 1992, two breaches occurred in the barrier island near Westhampton Beach, which were subsequently closed. An interim plan for the severely eroded Westhampton Beach area was prepared in June 1994, which provides for a lower level of protection than that provided in the original authorization. This interim plan has been designed such that it could be modified based on future recommendations in the to-be-completed Reformulation study. The USEPA and DOI agreed in concept to the interim plan, provided that a full environmental assessment and/or environmental impact study was completed, and the reformulation of the overall project was reinstated. The estimated cost of the reformulation effort is $17 million. The reformulation study is scheduled for completion in June 2002. In the interim studies are underway to assess the feasibility of interim projects along Fire Island and west of Shinnecock Inlet. The cost of these interim studies is $4 million. Additionally, a Breach Contingency Plan was approved in January 1996 to provide for rapid response to breaches along the islands while awaiting completion of the reformulation study.

Corps of Engineers

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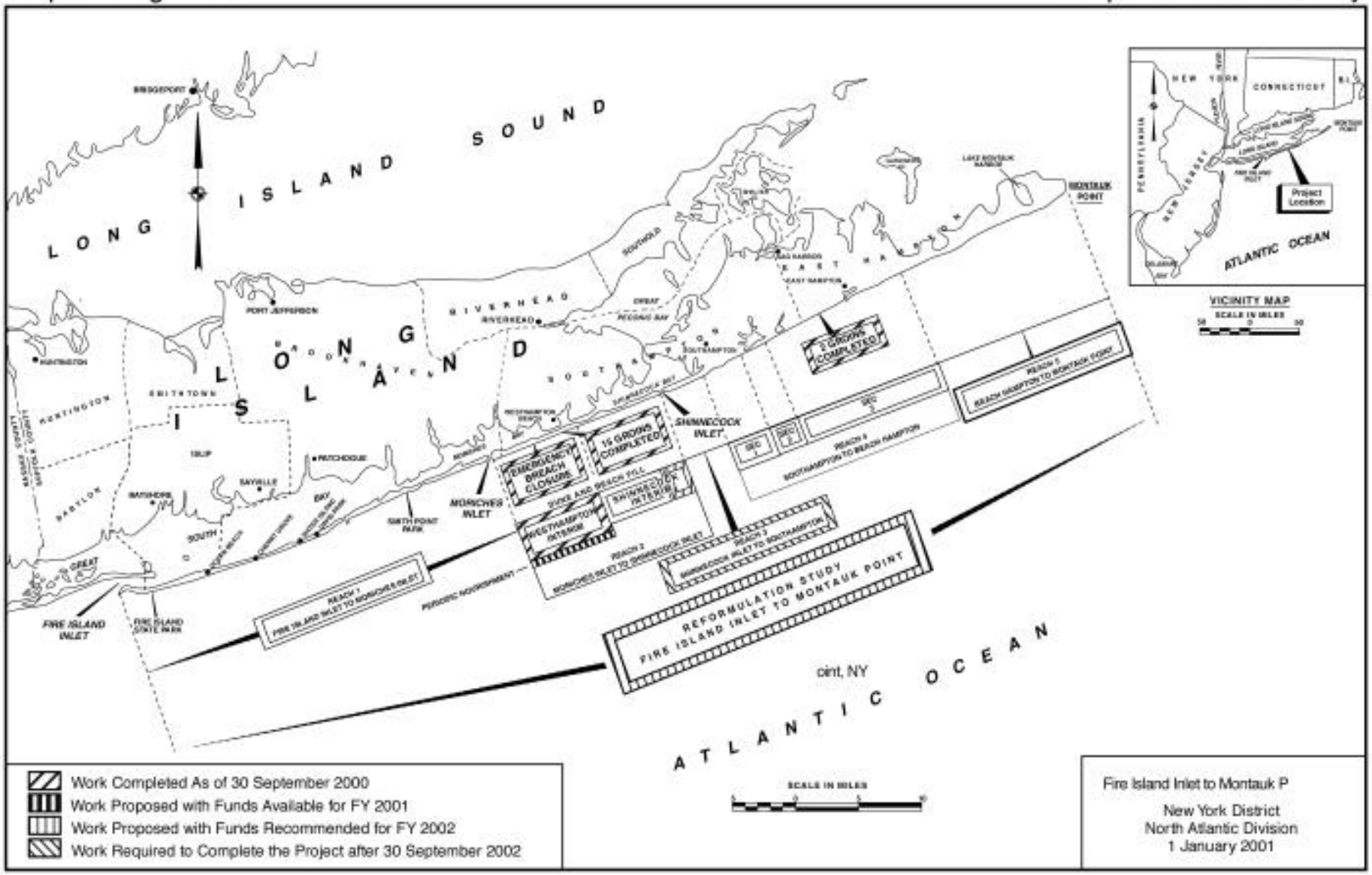


APPROPRIATION TITLE: Construction, General - Beach Erosion Control

PROJECT: Sandbridge Beach, Virginia (Continuing)

LOCATION: Sandbridge is located in the southeastern section of the city of Virginia Beach located along five miles of the Atlantic coast of Virginia.

DESCRIPTION: The project consists of the construction of a beach berm with an average width of 50 feet and at an elevation of 6.0 feet National Geodetic Vertical Datum (NGVD) along the five mile stretch of beach from the Naval Training Facility at Dam Neck to the Back Bay National Wildlife Refuge. The project will also provide for periodic beach nourishment over the 50-year economic life of the project.

AUTHORIZATION: Water Resources Development Act of 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 1.3 to 1 at 6 7/8 percent

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 6 7/8 percent

INITIAL BENEFIT-COST RATIO: 1.3 TO 1 at 6 7/8 percent

BASIS OF BENEFIT-COST RATIO: Benefits are from the draft limited reevaluation report dated April 1996 at October 1996 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED COST
Estimated Federal Cost		107,900,000	
Initial Construction	8,450,000		
Periodic Nourishment	99,450,000		
Estimated Non-Federal Cost		189,100,000	
Initial Construction	4,550,000		
Cash Contribution	4,500,000		
Other Costs	50,000		
Periodic Nourishment	184,550,000		
Cash Contributions	184,550,000		
Other Costs	0		
Total Estimated Cost		297,000,000	
Initial Construction	13,000,000		
Periodic Nourishment	284,000,000		

STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Initial construction	0	Being determined
Periodic nourishment	0	Being determined
Entire Project	10	Being determined

PHYSICAL DATA

Beach Berm

Average width 50 feet

Elevation 6.0 feet NGVD

Length - 5 miles

Periodic Nourishment:

550,000 cubic yards every 2 years

Allocations to 30 September 2000	1,215,000	
Conference Allowance for FY 2001	3,000,000	
Allocation for FY 2001	2,514,000 1/	
Allocations through FY 2001	3,729,000	4
Allocation Requested for FY 2002	3,380,000	8
Programmed Balance to Complete after FY 2002	100,791,000 2/	
Unprogrammed Balance to Complete after FY 2002	0	

1/ Reflects $480,000 reduction assigned as savings and slippage and $6,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

2/ Reflects 65% non-Federal cost share.

JUSTIFICATION: The coastline and adjacent development is vulnerable to direct wave attacks during storms and hurricanes. In March 1962, a northeast storm caused $787,000 in damages at March 1962 prices. A recurrence of this storm would cause $16.4 million in damages at October 1996 prices. A November 1994 storm caused $2.5 million in damages to the Sandbridge area. The average annual benefits of $4,901,000, all for hurricane and storm damage reduction, are based on October 1996 price levels.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue initial construction	$3,380,000
Total	$3,380,000

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.	50,000	
Pay 35 percent of the costs allocated to hurricane and storm damage reduction, and bear all costs of operation maintenance, repair, rehabilitation, and replacement of hurricane and storm damage reduction facilities.	$ 4,500,000	$17,000
Pay 65% of the costs for periodic nourishment	184,550,000	
Total non-Federal costs	$189,100,000	$17,000

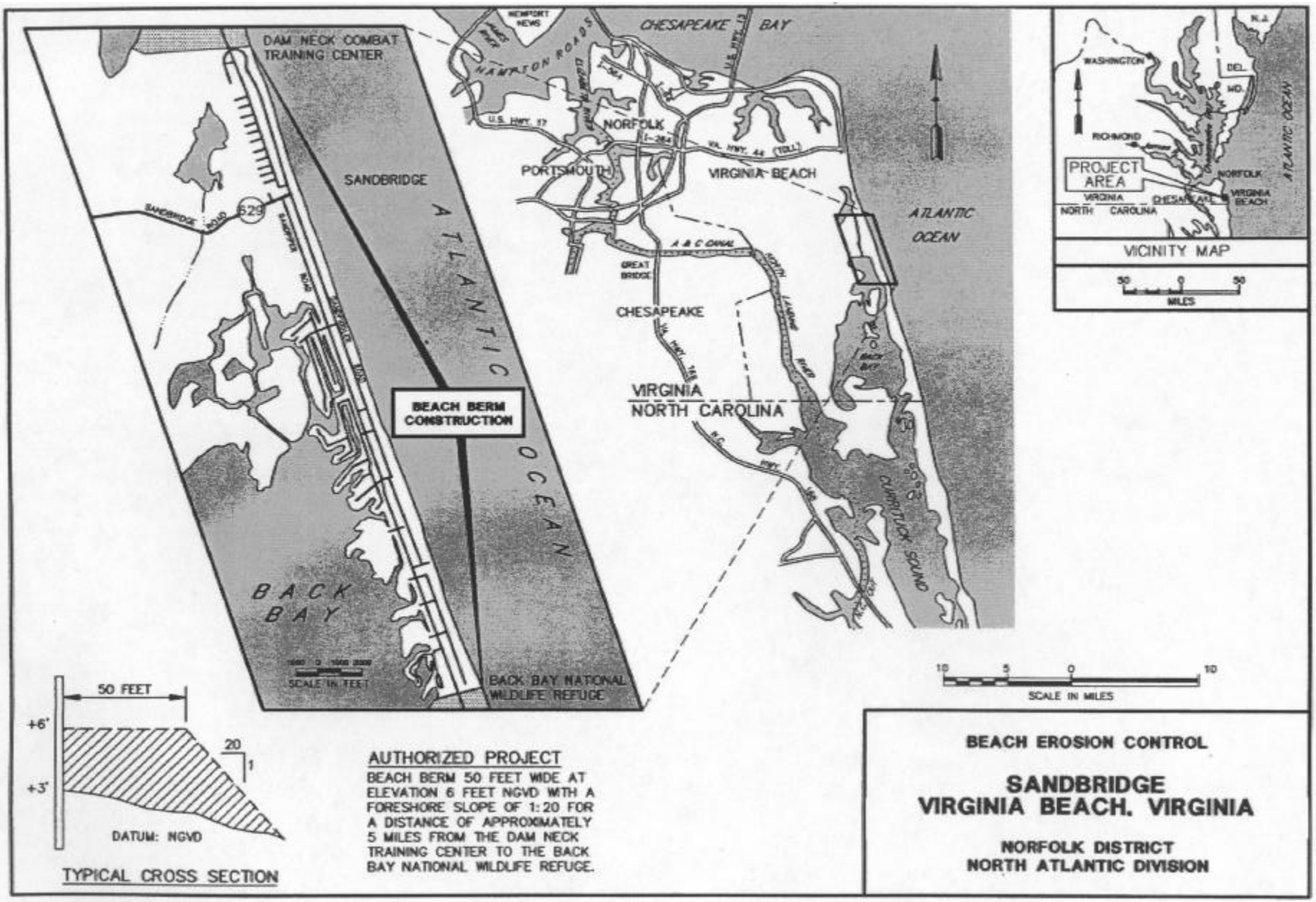
STATUS OF LOCAL COOPERATION: The city of Virginia Beach, Virginia is the local sponsor. The City has indicated their support for the recommended project and their willingness to enter into a Project Cooperation Agreement (PCA). The PCA is currently scheduled for execution in February 2002, and will be supported by the final limited reevaluation report.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $107,900,000 is a decrease of $98,100,000 from the latest estimate ($206,000,000) presented to Congress (FY 1997). This change reflects the anticipated incorporation of the revised cost sharing for FY02 and beyond and includes the following items.

Item	Amount
Price Escalation on Construction Features	$ 1,950,000
Change in cost share	- 100,050,000
Total	-$ 98,100,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment was completed and a Finding of No Significant Impact (FONSI) was signed in March 1992.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1994. Funds to initiate construction were appropriated in FY 2001.


DAM NECK COMBAT TRAINING CENTER
SANDBRIDGE
ATLANTIC OCEAN
BACK BAY
BEACH BERM CONSTRUCTION
BACK BAY NATIONAL WILDLIFE REFUGE
SCALE IN FEET
CHESAPEAKE BAY
HAMPTON ROADS
NEWPORT NEWS
NORFOLK
PORTSMOUTH
VIRGINIA BEACH
CHESAPEAKE
GREAT BRIDGE
A & C CANAL
VIRGINIA
NORTH CAROLINA
CURRITUCK SOUND
U.S. HWY. 17
VA. HWY. 44 (TOLL)
SANDBRIDGE ROAD
50 FEET
+6'
+3'
20
1
DATUM: NGVD
TYPICAL CROSS SECTION
AUTHORIZED PROJECT
BEACH BERM 50 FEET WIDE AT ELEVATION 6 FEET NGVD WITH A FORESHORE SLOPE OF 1:20 FOR A DISTANCE OF APPROXIMATELY 5 MILES FROM THE DAM NECK TRAINING CENTER TO THE BACK BAY NATIONAL WILDLIFE REFUGE.
SCALE IN MILES
WASHINGTON
RICHMOND
PROJECT AREA
VIRGINIA
NORTH CAROLINA
NORFOLK
VIRGINIA BEACH
ATLANTIC OCEAN
VICINITY MAP
MILES
BEACH EROSION CONTROL
SANDBRIDGE
VIRGINIA BEACH, VIRGINIA
NORFOLK DISTRICT
NORTH ATLANTIC DIVISION

APPROPRIATION TITLE: Construction, General - Beach Erosion Control

PROJECT: Virginia Beach, Virginia (Hurricane Protection) (Continuing)

LOCATION: The city of Virginia Beach is located on the eastern coast of Virginia bordered by the Atlantic Ocean on the east, Chesapeake Bay on the north, the cities of Norfolk and Chesapeake on the west, and North Carolina on the south.

DESCRIPTION: The plan of improvement includes construction of a vertical steel sheet-pile wall with concrete cap extending from Rudee Inlet to 58th Street, enhancement of the existing dune system between 58th Street and 89th Street, construction and periodic renourishment of a widened and raised beach berm between Rudee Inlet and 89th Street, a new boardwalk integrated with the vertical wall and placed over the existing boardwalk extending from Rudee Inlet to approximately 40th Street, a storm water runoff system consisting of the offshore discharge by pumped flow through submarine pipelines, appropriate beach access structures consisting of ramps and stairs and dune crossover facilities.

AUTHORIZATION: Water Resources Development Act of 1986, as modified by the Water Resources Act of 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 1.3 to 1 at 8 percent

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

INITIAL BENEFIT-COST RATIO: 1.2 to 1 at 8 percent (FY 1996)

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in July 1994 at October 1993 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED COST
Estimated Federal Cost		187,000,000	
Initial Construction		88,060,000	
Periodic Nourishment		98,940,000	
Estimated Non-Federal Cost		227,100,000	
Initial Construction		43,470,000	
Cash Contributions	43,357,000		
Other Costs	113,000		
Periodic Nourishment		183,630,000	
Cash Contributions	183,630,000		
Other Costs	0		
Total Estimated Project Cost		414,100,000	
Initial Construction		131,530,000	
Periodic Nourishment		282,570,000	

STATUS (13 Mar 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Initial construction	85	Being determined
Periodic nourishment	0	Being determined
Entire Project	21	Being determined

PHYSICAL DATA

Approximately 20,600 LF of vertical sheet-pile seawall with concrete cap between Rudee Inlet and 58th Street which will be integrated into a new boardwalk between Rudee Inlet and 40th Street, enhanced dune system between 58th and 89th Street at elevation 18 ft NGVD and 25 ft crest width, beach berm between Rudee Inlet and 89th Street at elevation 9 ft NGVD and 100 ft crest width, pumped ocean discharge drainage system. Periodic nourishment, 750,000 cubic yards every 3 years, between Rudee Inlet and 89th Street (6.2 miles)

Allocations to 30 September 2000	66,806,000	
Conference Allowance for FY 2001	20,000,000	
Allocation for FY 2001	16,761,000 1/	
Allocations through FY 2001	83,567,000	45
Allocation Requested for FY 2002	9,000,000	50
Programmed Balance to Complete after FY 2002	85,223,000 2/	
Unprogrammed Balance to Complete after FY 2002	0	

1/ Reflects $3,200,000 reduction assigned as savings and slippage and $39,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.
2/ Reflects 65% non-Federal cost share.

JUSTIFICATION: The major problem along the Virginia Beach coastline is the vulnerability of portions of the beach and adjacent development to direct wave attacks during major storms and hurricanes. The most severe hurricane to affect the Virginia Beach area was that of August 1933 where tidal heights reached approximately 9 ft NGVD. In March 1962, a severe northeastern storm caused breaching and failing of bulkheads and dunes, and severe erosion along the beachfront. The intruding waters caused structural damage to buildings behind the bulkheads and dunes which resulted in damages of approximately $9,000,000 (March 1962 price level) to the Virginia Beach area. Although the 1933 hurricane was of greater magnitude, the damaging effect of the 1962 northeaster was the greatest of any storm in the area due to the increased development along the shoreline between 1933 and 1962 and the duration of the storm over several high tides. The average annual benefits amount to $13,853,000 for storm damage reduction based on October 1993 price levels.
Without a storm protection project, damages to commercial, residential and public developments and to existing protective works along the Atlantic Ocean between Rudee Inlet and 89th Street are estimated at $106 million at 1993 price levels for a repeat of the August 1933 hurricane and $64 million for a repeat of the March 1962 storm.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Initiate initial construction of beach berm	$ 7,550,000
Planning, Engineering, and Design	500,000
Construction Management	950,000
Total	$ 9,000,000

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.	$ 113,000	
Pay 35 percent of the costs allocated to hurricane and storm damage reduction, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of hurricane and storm damage reduction facilities.	43,357,000	$1,528,000
Pay 65 percent of the cost of periodic nourishment.	192,830,000	
Total Non-Federal Costs	$236,300,000	$1,528,000

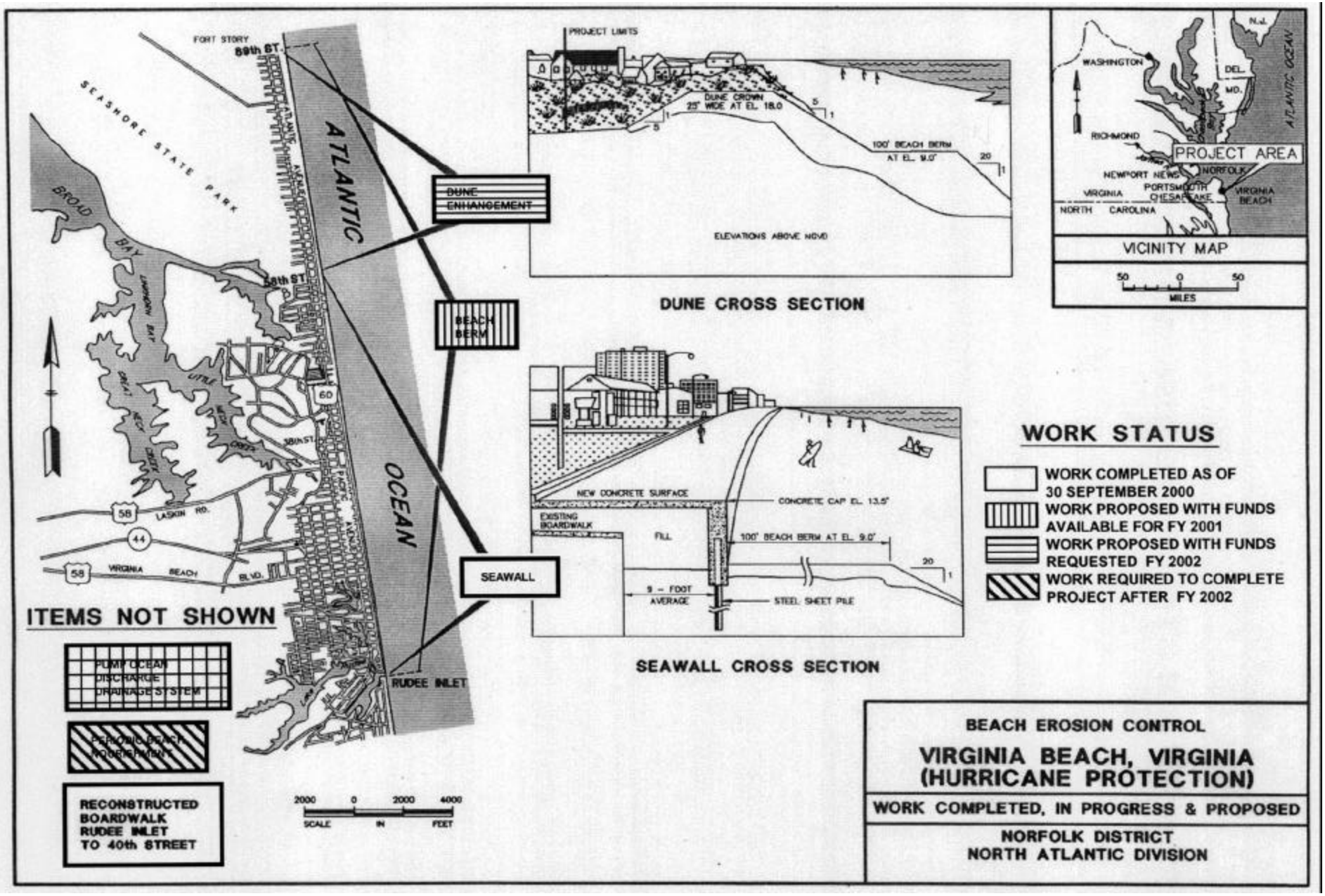
STATUS OF LOCAL COOPERATION: The city of Virginia Beach, Virginia is the local sponsor. The city has indicated their support for the recommended project and signed the PCA on 27 June 1996. The previously executed PCA will be modified to reflect a non-Federal share of 65 percent of the cost of future periodic nourishment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $177,700,000 is a decrease of $69,600,000 from the latest estimate ($247,300,000) presented to Congress (FY 1995). This change reflects the anticipated incorporation of the revised cost sharing for FY02 and beyond and includes the following items:

Item	Amount
Price escalation on Construction Features	$ 1,850,000
Change in cost share	- 71,550,000
Total	- $ 69,600,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (FEIS) was filed with the Presidents Council on Environmental Quality (CEQ) on 19 September 1972 and a supplement was issued on 22 February 1985. An Environmental Assessment was completed and a Finding of No Significant Impact (FONSI) was signed in May 1994.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1986. Funds to initiate construction funds were appropriated in the FY 1996.


FORT STORY
89th ST.
SEASHORE STATE PARK
BROAD BAY
LYNNHAVEN BAY
GREAT NECK CREEK
LITTLE NECK CREEK
58th ST.
60
38th ST.
58
44
LASKIN RD.
VIRGINIA BEACH BLVD.
ATLANTIC OCEAN
DUNE ENHANCEMENT
BEACH BERM
SEAWALL
RUDEE INLET
PROJECT LIMITS
DUNE CROWN 25' WIDE AT EL. 18.0
100' BEACH BERM AT EL. 9.0'
ELEVATIONS ABOVE NGVD
DUNE CROSS SECTION
NEW CONCRETE SURFACE
CONCRETE CAP EL. 13.5'
EXISTING BOARDWALK
FILL
100' BEACH BERM AT EL. 9.0'
9 - FOOT AVERAGE
STEEL SHEET PILE
SEAWALL CROSS SECTION
WASHINGTON
DEL.
MD.
N.J.
ATLANTIC OCEAN
RICHMOND
PROJECT AREA
NEWPORT NEWS
NORFOLK
VIRGINIA
PORTSMOUTH
CHESAPEAKE
VIRGINIA BEACH
NORTH CAROLINA
VICINITY MAP
50 0 50
MILES
WORK STATUS
WORK COMPLETED AS OF 30 SEPTEMBER 2000
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2001
WORK PROPOSED WITH FUNDS REQUESTED FY 2002
WORK REQUIRED TO COMPLETE PROJECT AFTER FY 2002
ITEMS NOT SHOWN
PUMP OCEAN DISCHARGE DRAINAGE SYSTEM
PERIODIC BEACH NOURISHMENT
RECONSTRUCTED BOARDWALK RUDEE INLET TO 40th STREET
2000 0 2000 4000
SCALE IN FEET
BEACH EROSION CONTROL
VIRGINIA BEACH, VIRGINIA
(HURRICANE PROTECTION)
WORK COMPLETED, IN PROGRESS & PROPOSED
NORFOLK DISTRICT
NORTH ATLANTIC DIVISION

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

PROJECT: Passaic River Preservation of Natural Storage Areas, New Jersey (Continuing)

LOCATION: The project is located in Morris, Essex and Passaic Counties, New Jersey

DESCRIPTION: This project element involves the acquisition of 5,350 acres of natural floodplain storage areas in the Central Passaic River Basin to preserve them from future development. This measure is a flood damage reduction element that will prevent increases in flood flows that would be caused by the loss of these areas to new development. This acquisition, in conjunction with nearly 16,000 acres already protected under existing Federal and State programs, will preserve the flood storage and environmental characteristics of the Central Basin wetlands.

AUTHORIZATION: Water Resources Development Act of 1990, Section 101(a)(18) as modified by Section 102(p) of WRDA 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 1.2 to 1 at 7 3/8 percent.

TOTAL BENEFIT-COST RATIO: 1.2 to 1 at 7 3/8 percent.

INITIAL BENEFIT-COST RATIO: 1.2 to 1 at 7 3/8 percent (FY 1998).

BASIS OF BENEFIT-COST RATIO: Benefits and costs are from the Final General Design Memorandum dated July 1996 at October 1994 price levels, approved 30 October 1996 and updated in FY 1998.

SUMMARIZED FINANCIAL DATA	ACCUM. PCT. OF EST. FED. COST	
Estimated Federal Cost	19,700,000	
Estimated Non-Federal Cost	1,700,000	
Total Estimated Project Cost	21,400,000	
Allocations to 30 September 2000	3,180,000	
Conference Allowance for FY 2001	1,700,000	
Allocation for FY 2001	1,425,000 1/	
Allocation through FY 2001	4,605,000	23
Allocation Requested for FY 2002	5,400,000	51
Programmed Balance to Complete After FY 2002	9,695,000	
Unprogrammed Balance to Complete After FY 2002	0	

STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	0	Being determined

PHYSICAL DATA

Nonstructural Flood Control: Acquisition of 5,350 acres of natural floodplain storage areas in the Passaic River Basin

1/ Reflects $ 272,000 reduction assigned as savings and slippage and $3,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The Passaic River Basin suffers average annual damages of $116,016,000 (Oct. 1994 price levels). Properties experiencing damage include residential, commercial, industrial, public and municipal facilities. There are approximately 19,500 structures in the 100-year floodplain. The most severe recent flood occurred in April 1984, claiming 3 lives, with damages estimated at $493,000,000. The entire basin, or portion thereof, was declared a disaster area in 1968, 1971, 1972, 1973, twice in 1975 1984, and 1992. The recurrence of the October 1903 flood of record would cause damages of $2,492,000,000. The project does not support development of the floodplain directly or indirectly. Of the 5,350 acres to be acquired, 5,200 are wetlands. The acquisition of the natural storage areas, in conjunction with maintenance of the existing floodways in acquisition areas, would maintain the environmental characteristics of the basin by preserving wetlands, open space and fish and wildlife habitats. Average annual benefits (Inundation Reduction) are $1,826,300.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Acquisitions	$4,800,000
Construction Management	600,000
Total	$5,400,000

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
Lands already acquired by sponsor for project and to be maintained with project cooperation agreement.	$ 1,700,000	$ 218,000
Pay 25 percent of the costs allocated, to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986 to reflect the non-Federal sponsors ability to pay, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities. Credits as per WRDA 1990/92 will reduce Non-Federal cash share by $3,550,000 from $3,550,000 to $0	$ 0	$ 0
Total non-Federal Costs	$ 1,700,000	$ 218,000

STATUS OF LOCAL COOPERATION: The State of New Jersey, through its Department of Environmental Protection (NJDEP), is the non-Federal sponsor. The PCA was executed in June 1999.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $19,700,000 is an increase of $400,000 over the latest estimate ($19,300,000) presented to Congress (FY 2001). The change includes the following item:

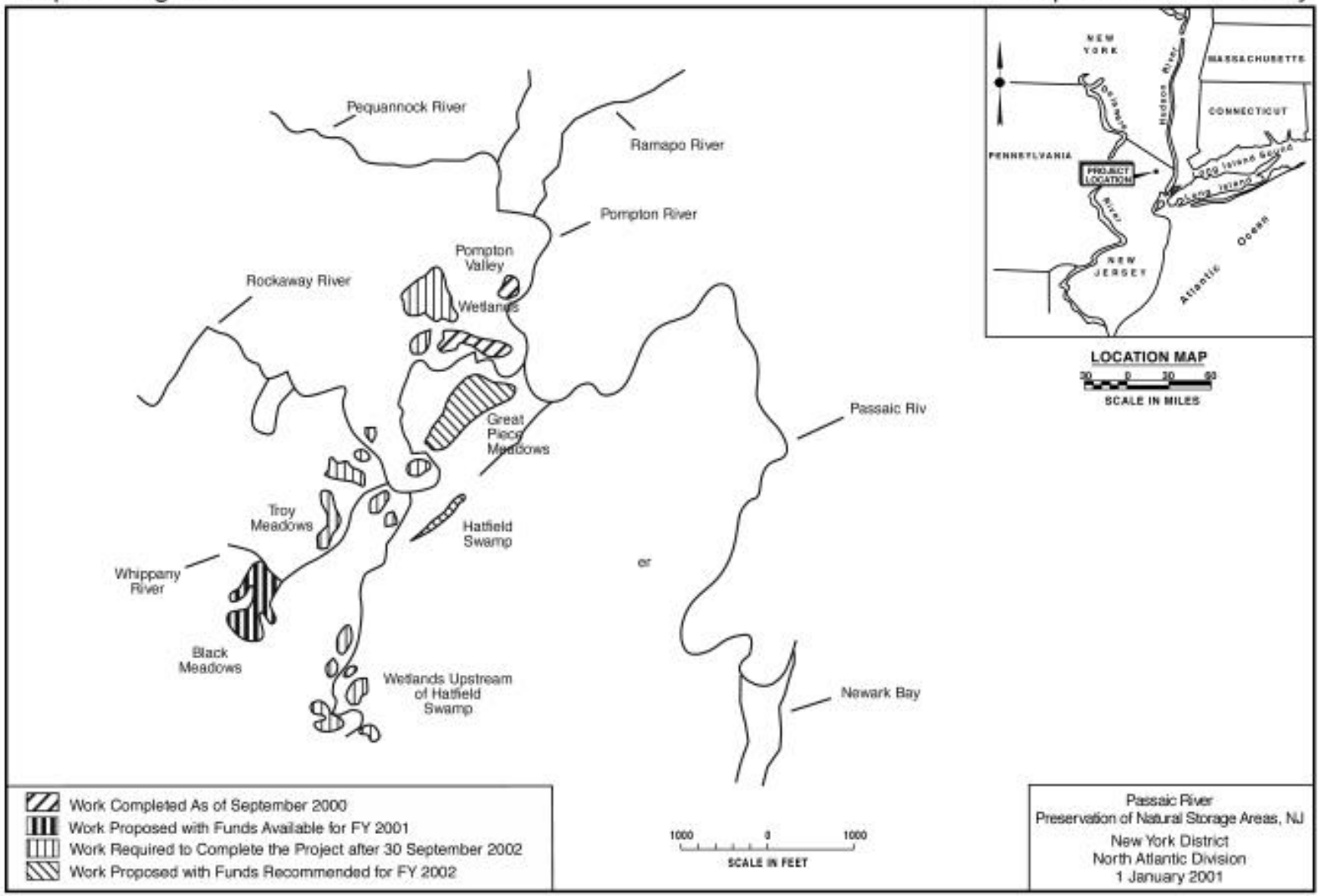
Item	Amount
Price Escalation on Construction Features	$400,000
Total	$400,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The FEIS was filed with EPA on 17 January 1989 and the SEIS with EPA on 20 October 1995 (Note: the SEIS addresses changes to other project elements. No changes have occurred to the Preservation element).

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1988 and funds to initiate construction were appropriated in FY 1998. The Preservation of Natural Floodplain Storage has been determined to be a separable element of the overall Passaic River Flood Damage Reduction Project which can be implemented without adverse impact anywhere in the basin.

Corps of Engineers

Department of the Army



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

PROJECT: Ramapo and Mahwah Rivers, Mahwah, New Jersey and Suffern, New York (Continuing)

LOCATION: The project area, which is approximately 23 miles northwest of New York City, is located near the center of the Ramapo River drainage basin along the Ramapo and Mahwah Rivers in the Township of Mahwah, Bergen County, New Jersey and the Village of Suffern, Rockland County, New York.

DESCRIPTION: The recommended project includes channel modification to the Ramapo River, Mahwah River, and Masonicus Brook. The modifications would include the widening and deepening of the channels, sheet pile walls, and bridge modifications.

AUTHORIZATION: Water Resources Development Act of 1986, Section 401

REMAINING BENEFIT-REMAINING COST RATIO: 1.3 to 1 at 8 5/8 percent

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 8 5/8 percent

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 8 5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: Benefits and costs are from the General Design Memorandum approved August 1987 at October 1986 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$8,400,000		Channel Modification	0	Being determined
Estimated Non-Federal Cost		2,600,000		Entire Project	0	Being determined
Cash Contributions	$ 550,000					
Other Costs	2,050,000					
Total Estimated Project Cost		11,000,000				

		PHYSICAL DATA
Allocations to 30 September 2000	930,500	Channel modifications
Conference Allowance for FY 2001	750,000	Ramapo River – 6,640 feet
Allocation for FY 2001	629,000 1/	Mahwah River – 5,660 feet
Allocation through FY 2001	1,559,500 19	Masonicus Brook – 680 feet
Allocation Requested for FY 2002	100,000 19	Modify Route 17 bridge over Ramapo River
Programmed Balance to Complete After FY 2002	6,740,500	
Unprogrammed Balance to Complete After FY 2002	0	

1/ Reflects $120,000 reduction assigned for savings and slippage and $1,000 rescinded in accordance with the Consolidated Appropriations Act,2001.

JUSTIFICATION: Flooding in the Mahwah/Suffern area affects a wide range of land, varying from small segments of open undeveloped land to highly urbanized areas. As a result, flood damage is incurred due to physical damage to property and loss of commercial, industrial and public activity. There are also significant adverse effects on the environmental quality of the area due to this frequent flooding. Historically, the Mahwah/Suffern area has experienced chronic flooding, with recent floods occurring in 1968, 1971, 1973, 1977, 1979, 1980, 1983, 1984 and Sept 1999. The most damaging flood of record was the 8 November 1977 flood, which has return interval of approximately 40 years. Recurrence of this flood would result in damages in excess of $4,300,000 (October 1986 price levels).

FISCAL YEAR 2002: The requested amount will be applied as follows:

Planning, Engineering and Design	100,000
Total	$ 100,000

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:	Annual Payments During Construction and Reimbursements	Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$2,050,000	
Pay 25 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986 to reflect the non-Federal sponsors ability to pay, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities	$550,000	$ 18,000
Total non-Federal Costs	$2,600,000	$ 18,000

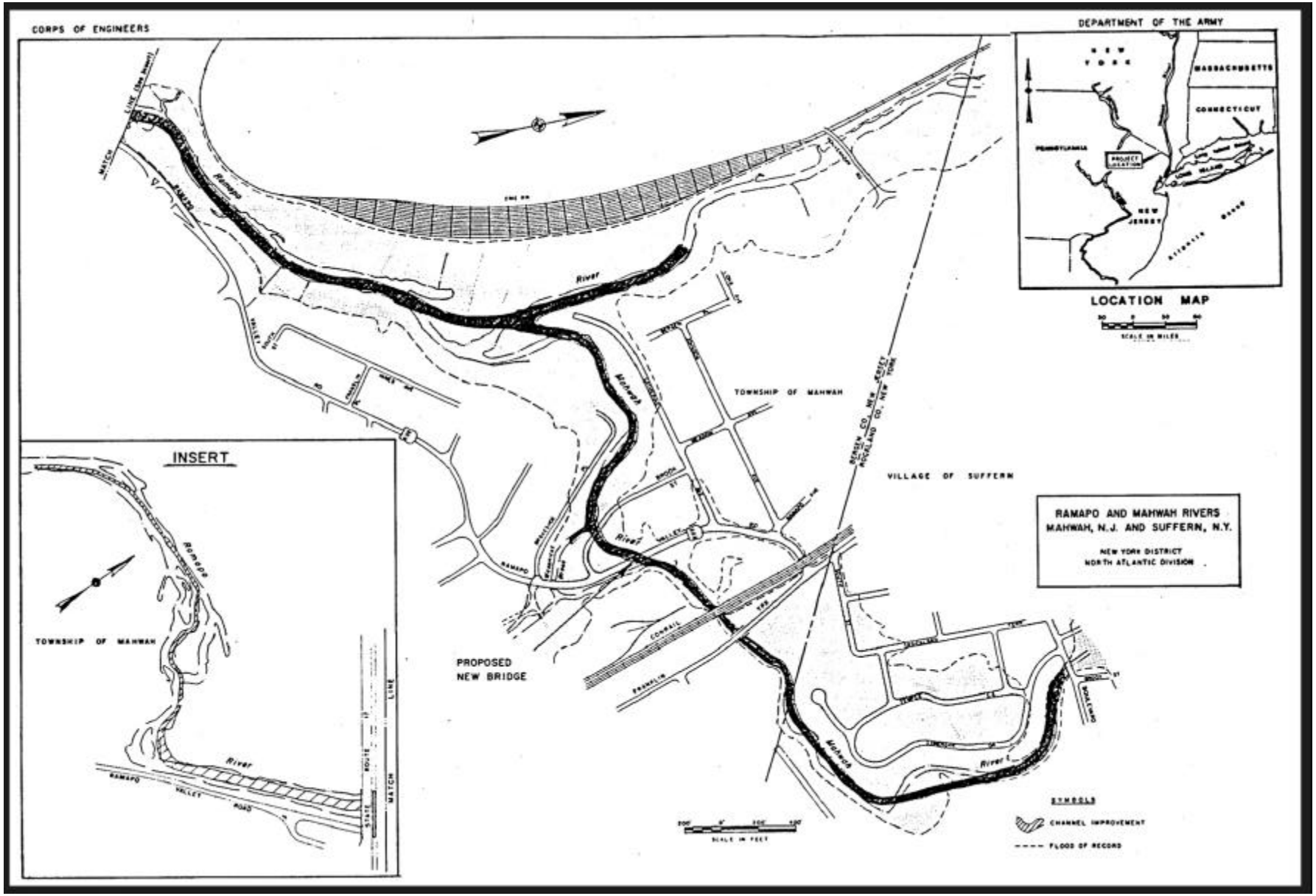
STATUS OF LOCAL COOPERATION: The non-Federal sponsors are: (1) The State of New York, through its Department of Environmental Conservation, and (2) the State of New Jersey, through its Department of Environmental Protection. By letter dated 17 March 2000 NJDEP, and letter dated 10 July 2000 NYDEP, indicated their support for the project. The Project Cooperation Agreement will be executed by August 2002.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $8,400,000 is an increase of $1,410,000 over the latest estimate ($6,990,000) presented to Congress (FY 1991). This change includes the following items:

ITEM	AMOUNT
Price Escalation on Construction Features	$ 1,410,000
Total	$ 1,410,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final EIS for the project was filed with EPA on July 13, 1984.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1985. Funds to initiate construction were appropriated in FY 1990. Construction of this project was never initiated due to lack of willing local sponsors.


CORPS OF ENGINEERS
DEPARTMENT OF THE ARMY
LOCATION MAP
NEW YORK
MASSACHUSETTS
CONNECTICUT
PENNSYLVANIA
NEW JERSEY
PROJECT LOCATION
SCALE IN MILES
TOWNSHIP OF MAHWAH
VILLAGE OF SUFFERN
BERGEN CO., NEW JERSEY
ROCKLAND CO., NEW YORK
PROPOSED NEW BRIDGE
INSERT
TOWNSHIP OF MAHWAH
RAMAPO AND MAHWAH RIVERS
MAHWAH, N.J. AND SUFFERN, N.Y.
NEW YORK DISTRICT
NORTH ATLANTIC DIVISION
SCALE IN FEET
SYMBOLS
CHANNEL IMPROVEMENT
FLOOD OF RECORD

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

PROJECT: Ramapo River at Oakland, New Jersey (Continuing)

LOCATION: The project is located on the Ramapo River in the Borough of Oakland in Bergen County, and Wayne Township and the Borough of Pompton Lakes in Passaic County, New Jersey. The project extends from the Pompton Lake Dam upstream to West Oakland Avenue in Oakland.

DESCRIPTION: The plan of improvement has two major features. The first involves the installation of flood control taintor gates on the existing Pompton Lake Dam. The second feature involves channel modification consisting of widening and deepening 5,800 feet of the Ramapo River. Mitigation for environmental impacts is also included in the form of wetland creation. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1986 and section 301(a)(9) of the Water Resources Development Act of 1996

REMAINING BENEFIT-REMAINING COST RATIO: 1.4 to 1 at 7 3/8 percent.

TOTAL BENEFIT-COST RATIO: 1.4 to 1 at 7 3/8 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 7 3/8 percent (FY 1995).

BASIS OF BENEFIT-COST RATIO: Benefits and costs are from the General Design Memorandum approved July 1994 at October 1993 price levels and updated in FY 1998.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$11,800,000		Channels & Canals	0	Being determined
Estimated Non-Federal Cost		1,400,000		Flood Diversion Structure	0	Being determined
Cash Contributions	$ 650,000			Entire Project	0	Being determined
Other Costs	750,000					
Total Estimated Project Cost		13,200,000				
Allocations to 30 September 2000		4,574,000				
Conference Allowance for FY 2001		2,717,000				
Allocation for FY 2001		2,277,000	1/			
Allocation through FY 2001		6,851,000	58			
Allocation Requested for FY 2002		4,949,000	100			
Programmed Balance to Complete After FY 2002		0				
Unprogrammed Balance to Complete After FY 2002		0				

PHYSICAL DATA

Channels & Canals: 5800 feet of channel modification along the Ramapo River

Flood Diversion Structure: Installation of taintor gates at the Pompton Lake Dam.

1/ Reflects $435,000 reduction for savings and slippage and $5,000 rescinded in accordance with the Consolidated Appropriation Act, 2001.

JUSTIFICATION: The project area suffers annual flood damages of $1,100,000 (Oct 1995 price level) without the project. Damages of $200,000 would occur with the project in place. The level of protection is the 40-year flood. The project would also provide protection against larger flood events. The maximum flood of record was the April 1984 flood; an approximate 40-year event, which resulted in residential damages of $3,500,000, in 1984. This flood would cause damages estimated at $5,200,000 if it occurred today (Oct 1995 price level). Approximately 300 families were evacuated during the 1984 flood and 20 people were trapped and had to be rescued. Flooding also caused traffic disruption causing many businesses to close. Damaging floods have occurred 11 times in the past 20 years with the most recent floods in 1983, 1984, 1987, and 1993. The project does not support the development of the floodplain directly or indirectly. The project does avoid, where possible, both long and short term environmental impacts. Mitigation includes the construction of 5.0 acres of wetlands in the project area. Average annual benefits, all flood control, are estimated at $1,148,000 at October 1998 price levels.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Complete Channel Modification	$ 4,549,000
Planning, Engineering and Design	100,000
Construction Management	$ 300,000
Total	$ 4,949,000

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:	Annual Payments During Construction and Reimbursements	Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$ 750,000	
Pay 25 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986 to reflect the non-Federal sponsors ability to pay, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities. Credits as per WRDA 1990/92 will reduce Non-Federal cash share by $ 1,855,000 from $2,515,000 to $60,000.	$ 650,000	$ 65,000
Total non-Federal Costs	$ 1,400,000	$65,000

REQUIREMENTS OF LOCAL COOPERATION: Provide lands, easements, right of way, and borrow any excavated or dredged material disposal area; Pay 25 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 WRDA (m) of the Water Resources Development Act of 1986 to reflect the non-Federal sponsors ability to pay, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.

STATUS OF LOCAL COOPERATION: The State of New Jersey, through its Department of Environmental Protection (NJDEP), is the non-Federal sponsor. By letter dated 22 October 1993, NJDEP indicated its commitment to the project. Funds to cover the entire non-Federal share of the project cost have been programmed into the New Jersey State Capital Budget for FY 1995 and FY 1996. The funds will be held in escrow and expended each year as required. NJDEP understands their responsibilities in carrying out the provisions of the PCA and is prepared to enter into such an agreement as documented in their letter of 4 January 1994. The project is also supported by the Borough of Oakland. Oakland has purchased portions of the real estate necessary for the project. The real estate will be turned over to the State of New Jersey, the non-Federal sponsor, as a share in the project cost. The PCA was executed in April 1999.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $11,800,000 is an increase of $100,000 over the latest estimate ($11,700,000) presented to Congress (FY 2001). This change includes the following items:

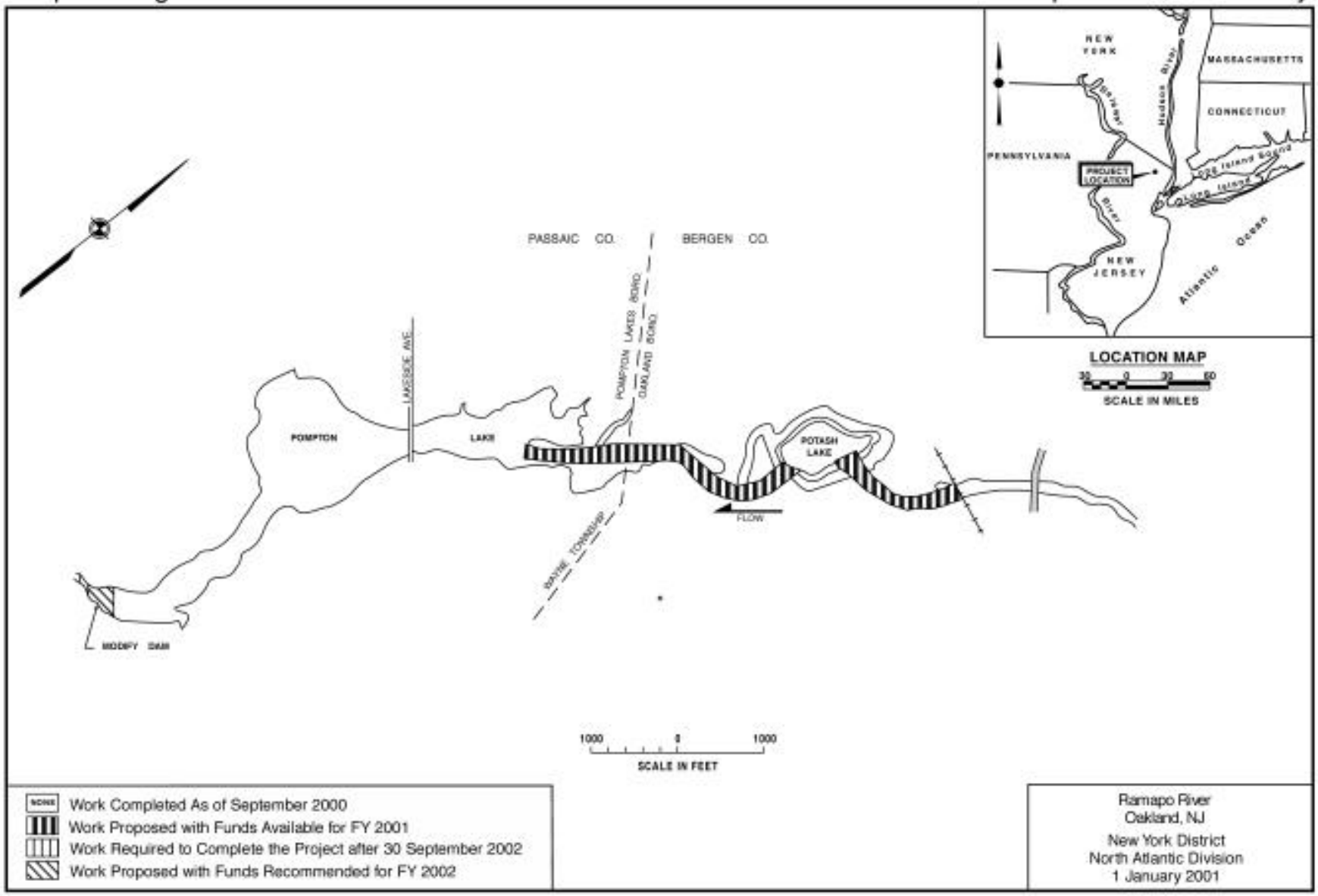
ITEM	AMOUNT
Price Escalation on Construction Features	$ 100,000
Total	$ 100,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with the EPA ON 21 June 1985.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1988 and funds to initiate construction were appropriated in FY 1995. The project cost includes $220,000 for fish and wildlife mitigation and $105,000 for cultural resources preservation.

Corps of Engineers

Department of the Army



Work Completed As of September 2000
Work Proposed with Funds Available for FY 2001
Work Required to Complete the Project after 30 September 2002
Work Proposed with Funds Recommended for FY 2002

Ramapo River
Oakland, NJ
New York District
North Atlantic Division
1 January 2001

APPROPRIATION TITLE: Construction, General - Flood Control

PROJECT: Raritan River Basin, Green Brook Sub-Basin, New Jersey (Continuing)

LOCATION: The Green Brook Sub-Basin project area is located within the Raritan River Basin in north-central New Jersey in Middlesex, Somerset and Union Counties. It drains approximately 65 square miles of primarily urban and industrialized area. It includes the following communities: Dunellen, Middlesex Borough, Piscataway, South Plainfield, Bound Brook, Bridgewater, Green Brook, North Plainfield, Warren, Watchung, Berkeley Heights, Plainfield, and Scotch Plains. The project area is divided into three sub-areas: the lower, upper and Stony Brook portions of the sub-basin.

DESCRIPTION: The NED plan consists of a system of levees and floodwalls in the lower portion of the basin, channel modifications and dry detention basins in the upper portion of the basin, and channel modifications in the Stony Brook portion of the sub-basin. The recommended plan consists of levees and floodwalls in the lower portion of the basin and channel modifications in the Stony Brook portion of the sub-basin. The upper portion of the sub-basin has been deferred.

AUTHORIZATION: Water Development Act of 1986.

REMAINING BENEFITS-REMAINING COST RATIO: 1.3 to 1 at 7 5/8 percent.

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

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 7 5/8 percent (FY 1998).

BASIS OF BENEFIT-COST RATIO: Benefits are from the analysis contained in the Final General Reevaluation Report dated May 1997 at April 1996 price levels.

SUMMARIZED FINANCIAL DATA:			ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		314,400,000		Element 1	0	Being determined
Programmed Construction	274,900,000			Element 2,5	0	Indefinite
Unprogrammed Construction	39,500,000			Elements 3,4,6,7	0	Being determined
				Entire Project	0	Being determined
Estimated Non-Federal Cost		110,800,000				
Programmed Construction	91,700,000					
Cash Contributions	26,600,000					
Other Costs	65,100,000					
Unprogrammed Construction	19,100,000					
Total Estimated Programmed Construction Cost		366,600,000				
Total Estimated Unprogrammed Construction Cost		58,600,000				
Total Estimated Project Cost		425,200,000				
Allocations to 30 September 2000		30,475,000				
Conference Allowance for FY 2001		4,000,000				
Allocation for FY 2001		3,352,000	1/			
Allocations through FY 2001		33,827,000	11			
Allocation Requested for 2002		10,000,000	14			
Programmed Balance to complete after FY 2002		231,073,000				
Unprogrammed Balance to complete after FY 2002		39,500,000				

PHYSICAL DATA

Element 1 is located in Bound Brook Borough and western Middlesex Borough. It consists of levees, floodwalls, closure structures, interior drainage facilities, a bridge reconstruction and non-structural measures including flood proofing and buyouts. Element 2,5(Unprogrammed) consists of channel modifications and two dry detention basins. Elements 3,4,6,7 will consist of levees, floodwalls, closure structures, bridge reconstruction and non-structural measures including floodproofing and buyouts.

1/ Reflects $640,000 reduction for savings and slippage and $8,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The project area suffers annual flood damages of $41,000,000 (Apr 96 P.L.) without the project. On August 28, 1971 Hurricane Doria caused $85,200,000 in damages (Oct 95 P.L.). Another major storm occured on August 2, 1973 which caused $89,300,000 in damages (Oct 95 P.L.). Flooding was so extensive that the area was designated a Major Disaster Area. Six deaths were attributed to this storm, thirty four people were injured and there were more than 1,000 people evacuated from their residences.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Construction of 1st Construction Element	$8,500,000
Planning, Engineering, and Design	1,000,000
Construction Management	500,000
Total	$10,000,000

NON-FEDERAL COSTS: 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, relocations and borrow excavated or dredged material disposal areas.		$ 65,100,000	
Pay 25 percent of cost associated with non-structural flood protection.	(programmed work)	15,300,000	
	(unprogrammed work)	3,800,000	
Pay 6 percent of the costs allocated to flood control, to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	(programmed)	23,500,000	$1,157,000
	(unprogrammed)	3,100,000	
Total Non-Federal Costs		$110,800,000	$1,157,000

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

STATUS OF LOCAL COOPERATION: The State of New Jersey Department of Environmental Protection, provided a letter dated 17 April 1997 stating their support and endorsement of the project. Governor Whitman also provided a letter of support on 26 February 1998. The Green Brook Flood Control Commission has stated their strong support for the project in a letter dated 4 October 1995. Also, several counties and municipalities have adopted resolutions endorsing and supporting the project. The Project Cooperation Agreement was executed in June 1999.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $314,400,000 is an increase of $18,800,000 from the latest estimate ($295,600,000) presented to Congress (FY 2001). This change includes the following items:

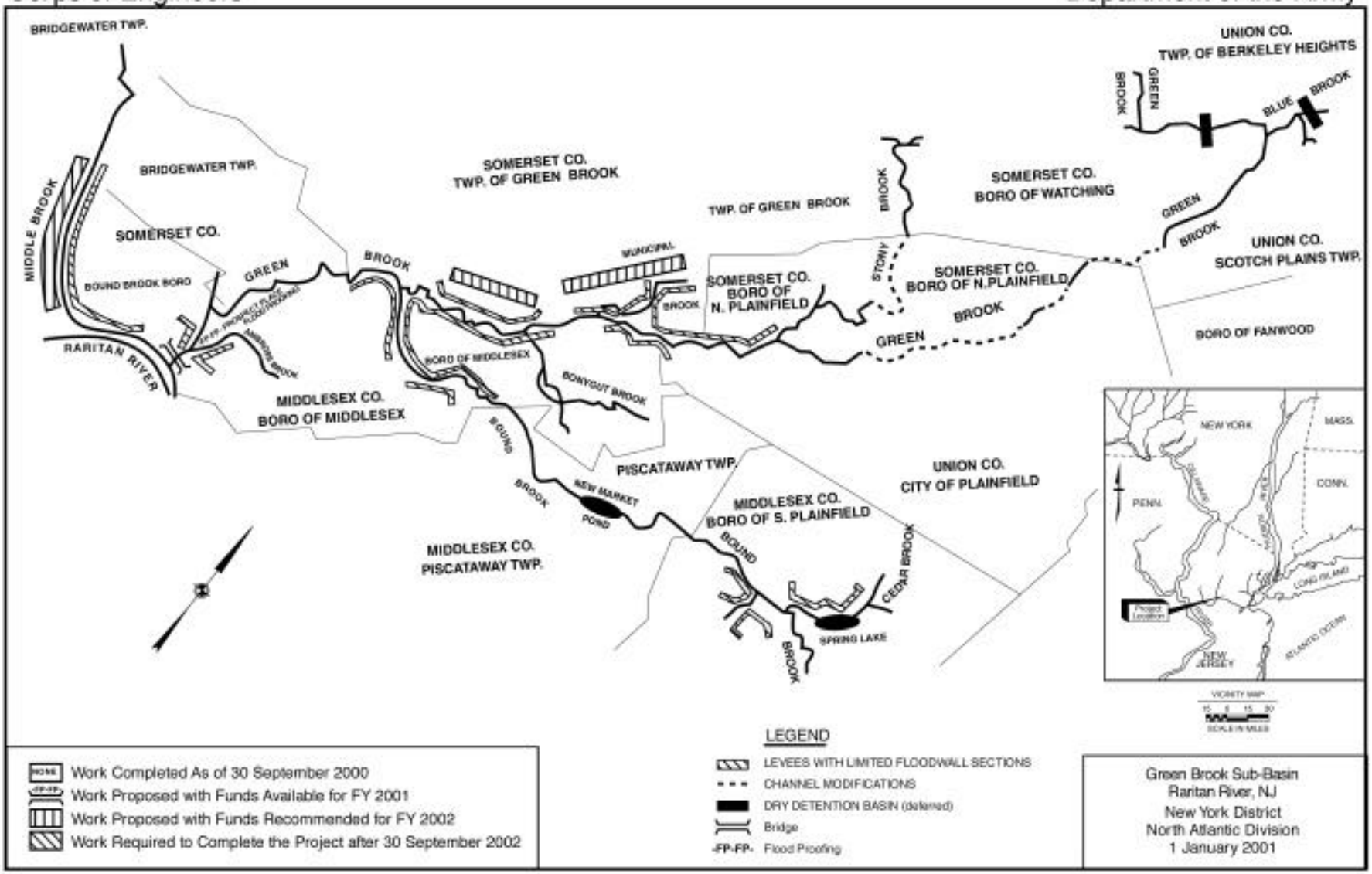
Price Escalation on Construction Features	$18,800,000
Total	$18,800,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed in August 1980. A Supplemental Environmental Impact Statement with the Final General Reevaluation Report was released in May 1997 and the Record of Decision was issued in July 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1986 and funds to initiate construction were appropriated in FY 1998.

Corps of Engineers

Department of the Army



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

PROJECT: Wyoming Valley, Pennsylvania (Levee Raising) (Continuing)

LOCATION: Wyoming Valley is located in northeastern Pennsylvania and extends from Duryea on the Lackawanna River southwestward to Nanticoke on the Susquehanna River. The Wyoming Valley flood control projects are located on the Susquehanna River in Luzerne County and are the four contiguous existing Federal flood control projects at Plymouth, Kingston-Edwardsville, Swoyersville-Forty Fort, and Wilkes-Barre and Hanover Township, which together function as a flood control system within the Valley.

DESCRIPTION: The four existing Federal flood control projects in the Wyoming Valley were designed to protect against a flood equal to the March 1936 event which had a peak flow of 232,000 cubic feet per second. Modifications to the existing project would protect against flood flows of 318,500 cubic feet per second that would be caused by a recurrence of Storm Agnes. The proposed modifications include raising existing levees and floodwalls between 3 and 5 feet, modifying closure structures, relocating utilities, and providing some new floodwalls and levees to maintain the integrity of the flood control system. The proposed project also includes a plan to reduce project-related adverse impacts. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1986 and the Water Resources Development of 1996.

REMAINING BENEFIT - REMAINING COST RATIO: 3.7 to 1 at 8 1/4 percent.

TOTAL BENEFIT - COST RATIO: 2.3 to 1 at 8 1/4 percent.

INITIAL BENEFIT - COST RATIO: 2.8 to 1 at 8 1/4 percent (FY 1995).

BASIS OF BENEFIT - COST RATIO: Benefits are from the final Phase II General Design Memorandum approved February 1996 at January 1993 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$131,000,000				
Estimated Non-Federal Cost:		44,000,000		Levee Raising	53	Being determined
Cash Contributions	$33,538,000			Entire Project	32	Being determined
Other Costs	10,462,000					
Total Estimated Project Cost		$175,000,000				

SUMMARIZED FINANCIAL DATA:(CONT'D)

Allocations to 30 September 2000	53,813,000		
Conference Allowance for FY 2001	23,092,000		
Allocation for FY 2001	13,980,000	1/	
Allocations through FY 2001	67,793,000		52
Allocation Requested for FY 2002	19,000,000		66
Programmed Balance to after FY 2002	44,207,000		
Unprogrammed Balance to Complete after FY 2002	0		

1/ Reflects $3,695,000 reduction assigned as savings and slippage, $5,372,000 reprogrammed from the project, and $45,000 rescinded in accordance with Consolidated Appropriations Act, 2001.

PHYSICAL DATA

Swoyersville-Forty Fort		Plymouth	
Completed Work	Raising Work	Completed Work	Raising Work
Levees - Earthfill: 16,970 ft. Floodwall - Steel sheetpile: 2,490 ft. Channel - 3,900 ft.	Levees - Earthfill: 16,500 ft. x 3-5 ft. Floodwall - Steel sheetpile: 4,000 ft. x 3-5 ft.	Levees - Earthfill: 8,700 ft. Channel - 2,670 ft. Pump Stations - 2	Levees - 8,600 ft. x 2-4 ft. Floodwall - Concrete: 200 ft. x 2-4 ft. Steel sheetpile: 200 ft. x 2-4 ft. Earth: 500 ft. x 2-4 ft. Pump Station Modification- 2

Kingston-Edwardsville		Wilkes-Barre and Hanover Township	
Completed Work	Raising Work	Completed Work	Raising Work
Levees - Earthfill: 18,430 ft. Conduit - 16.5 ft. x 6,660 ft. Channel - 3,640 ft. Pump Stations - 3	Levees - Earthfill: 17,300 ft. x 3-5 ft. Floodwall - Concrete: 500 ft. x 3-5 ft. Earth: 500 ft. x 3-5 ft. Closures - 3 new Pump Station Modifications - 3	Levees - Earthfill: 27,860 ft. Floodwall - Concrete: 160 ft. Pump Stations - 5 stormwater 8 sanitary Channel - 1,000 ft.	Levees - Earthfill: 20,600 ft. x 3-5 ft. Floodwall - Concrete: 500 ft. x 3-5 ft. Sheetpile 4,300 ft. x 3-5 ft. Earth: 600 ft. x 3-5 ft. Closures - 3 new & 1 modified Pump Station Modification - 13

JUSTIFICATION: The four existing local protection projects which comprise the Wyoming Valley system were constructed between 1935 and 1976 and provide protection for an area of 5,160 acres and a population of 225,000. Over the past 200 years at least 32 floods have been recorded which exceeded a stage of 25 feet at Wilkes-Barre compared to the flood stage of 22 feet. The discharge of 345,000 cubic feet per second during June 1972 (Storm Agnes) without the now completed Cowanesque and Tioga-Hammond Lakes projects in operation overtopped the protection and resulted in the greatest flood of record with damages of $730,000,000. A recurrence of Storm Agnes would result in damages to about 25,000 structures with an estimated value of about $4 billion (October 1997 price level). In January 1996, a combination of rainfall and snowmelt resulted in a flood stage of about 34 feet at Wilkes-Barre, PA. Although the existing system prevented flood damages of nearly $500 million, residual damages were estimated at about $6 million in the Wyoming Valley area. The average annual benefits amount to $27,143,000 essentially all for flood control, based on the final Phase II General Design Memorandum approved February 1996 at January 1993 price levels.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue construction of Wilkes-Barre & Hanover Township Levee	3,000,000
Complete construction of Plymouth Levee	3,800,000
Continue construction of Stormwater Pump Stations	8,500,000
Continue construction of Recreation Facilities	300,000
Continue Non-Structural Mitigation Measures	800,000
Planning, Engineering and Design	10,000
Initiate Construction of Relief Culverts	1,500,000
Construction Management	1,090,000
Total	$19,000,000

NON-FEDERAL COSTS: 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:

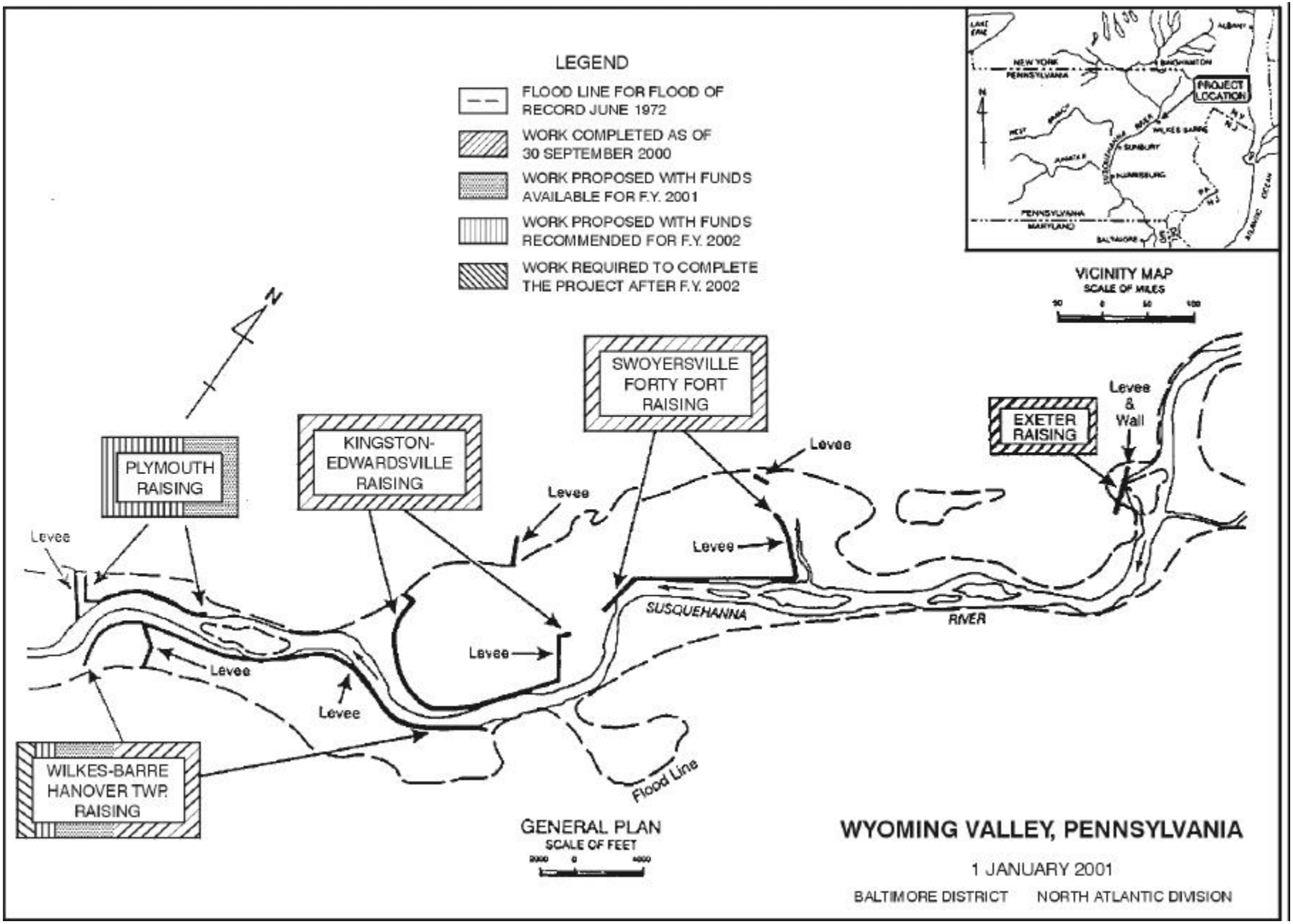
Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, and rights of way.	4,272,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges) and other facilities where necessary in the construction of the project.	6,190,000	
Pay 18 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation, maintenance and replacement of flood control facilities.	31,735,000	161,000
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	1,803,000	36,000
Total Non-Federal Costs	$44,000,000	$198,000

STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the Luzerne County Flood Protection Authority. The Pennsylvania Department of Environmental Protection has committed to provide 45 percent of the non-Federal share of project costs. Letters of intent to provide the required local cooperation requirements were furnished by Luzerne County (19 January 1995) and the Commonwealth of Pennsylvania (30 December 1994). A Project Cooperation Agreement was executed in October 1996. To date, the County has fully complied with the local requirements on the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $131,000,000 is the same as the latest estimate ($131,000,000) submitted to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Supplemental Environmental Impact Statement is included in the final General Design Memorandum approved February 1996. The Record of Decision was signed 24 June 1996.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1984, and funds to initiate construction were appropriated in FY 1995.


LEGEND
FLOOD LINE FOR FLOOD OF RECORD JUNE 1972
WORK COMPLETED AS OF 30 SEPTEMBER 2000
WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2001
WORK PROPOSED WITH FUNDS RECOMMENDED FOR F.Y. 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2002
VICINITY MAP
SCALE OF MILES
PROJECT LOCATION
NEW YORK
PENNSYLVANIA
PENNSYLVANIA
MARYLAND
PLYMOUTH RAISING
KINGSTON-EDWARDSVILLE RAISING
SWOYERSVILLE FORTY FORT RAISING
EXETER RAISING
Levee & Wall
WILKES-BARRE HANOVER TWP. RAISING
Levee
SUSQUEHANNA
RIVER
Flood Line
GENERAL PLAN
SCALE OF FEET
WYOMING VALLEY, PENNSYLVANIA
1 JANUARY 2001
BALTIMORE DISTRICT
NORTH ATLANTIC DIVISION

APPROPRIATION TITLE: Construction, General - Environmental Restoration

PROJECT: Chesapeake Bay Oyster Recovery, Maryland & Virginia (Continuing)

LOCATION: The Chesapeake Bay in Maryland & Virginia

DESCRIPTION: The project will contribute to multi-agency and private efforts to restore oyster populations in the Chesapeake Bay. Project elements include: construction or rehabilitation of oyster reefs to create sanctuary and harvestable oyster habitats; construction of hatchery and seed bar facilities for production and collection of disease-free oyster seed or "spat"; planting spat and brood-stock oysters in locations which best foster oyster reproduction and health; and monitoring the performance of the project to increase oyster populations.

AUTHORIZATION: Water Resources Development Act of 1986, as amended by Section 505 of WRDA ’96 and Section 342 of WRDA ‘00.

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 (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	20,000,000				
Estimated Non-Federal Cost:	6,667,000		Entire Project	12	Being determined
Cash Contributions $ 0					
Other Costs $6,667,000					
Total Estimated Project Cost	$26,667,000				

SUMMARIZED FINANCIAL DATA: (CONT'D)		
Allocations to 30 September 2000	2,506,000	
Conference Allowance for FY 2001	3,000,000	
Allocation for FY 2001	2,514,000	1/
Allocations through FY 2001	5,020,000	25
Allocation Requested for FY 2002	1,500,000	33
Programmed Balance to Complete after FY 2002	13,480,000	
Unprogrammed Balance to Complete after FY 2002	0	

PHYSICAL DATA	
New oyster bars constructed	2000 acres
Existing oyster bars rehabilitated	135 acres
Oyster seed production	
Hatchery Spat transplanted	- 41 million
Seed bars created	- 27 million
Natural Spat transplanted	- 58,000 Bushels

1/ Reflects $480,000 reduction assigned for savings and slippage, and $6,000 rescinded in accordance with the Consolidated Appropriations Act, 2001

JUSTIFICATION: The Chesapeake Bay oyster population has declined dramatically since the turn of the century, largely due to the parasitic diseases, MSX, Dermo, and overharvesting. These diseases kill oysters before they reach maturity and marketable size. As a result, there has been a collapse in the oyster industry, with the 1995 harvest equating to less than one percent of the harvest 100 years ago. More significantly, the reduced oyster population has adversely impacted water quality in the Bay, due to the smaller size and numbers of oyster beds to filter and clean the water. Activities to restore physical oyster habitat and maintain water quality are critical to the economic and environmental survival of the Chesapeake Bay. Restoration of oyster populations in the bay is a high priority of the State of Maryland, the Commonwealth of Virginia, and the Chesapeake Bay Program. Currently, there is a Chesapeake Bay goal to increase oyster habitat 10-fold by 2010. The project will help implement recommendations in the June 1999 scientific consensus document on Chesapeake Bay oyster restoration which fall within the Corps' environmental restoration mission. As part of this project, the Corps will develop a long-term master plan to document the Corps’ role in these recommendations.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Fish and Wildlife Facilities:		
	Maryland	735,000
	Virginia	490,000
Planning, Engineering, and Design:		
	Maryland	45,000
	Virginia	30,000
Construction Management:		
	Maryland	120,000
	Virginia	80,000
Total		1,500,000

NON-FEDERAL COSTS: 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 and Replacement Costs
Pay 25 percent of the cost allocated to fish and wildlife restoration (by work-in-kind credits) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of fish and wildlife facilities.	$6,667,000	$0
Total Non-Federal Costs	$6,667,000	

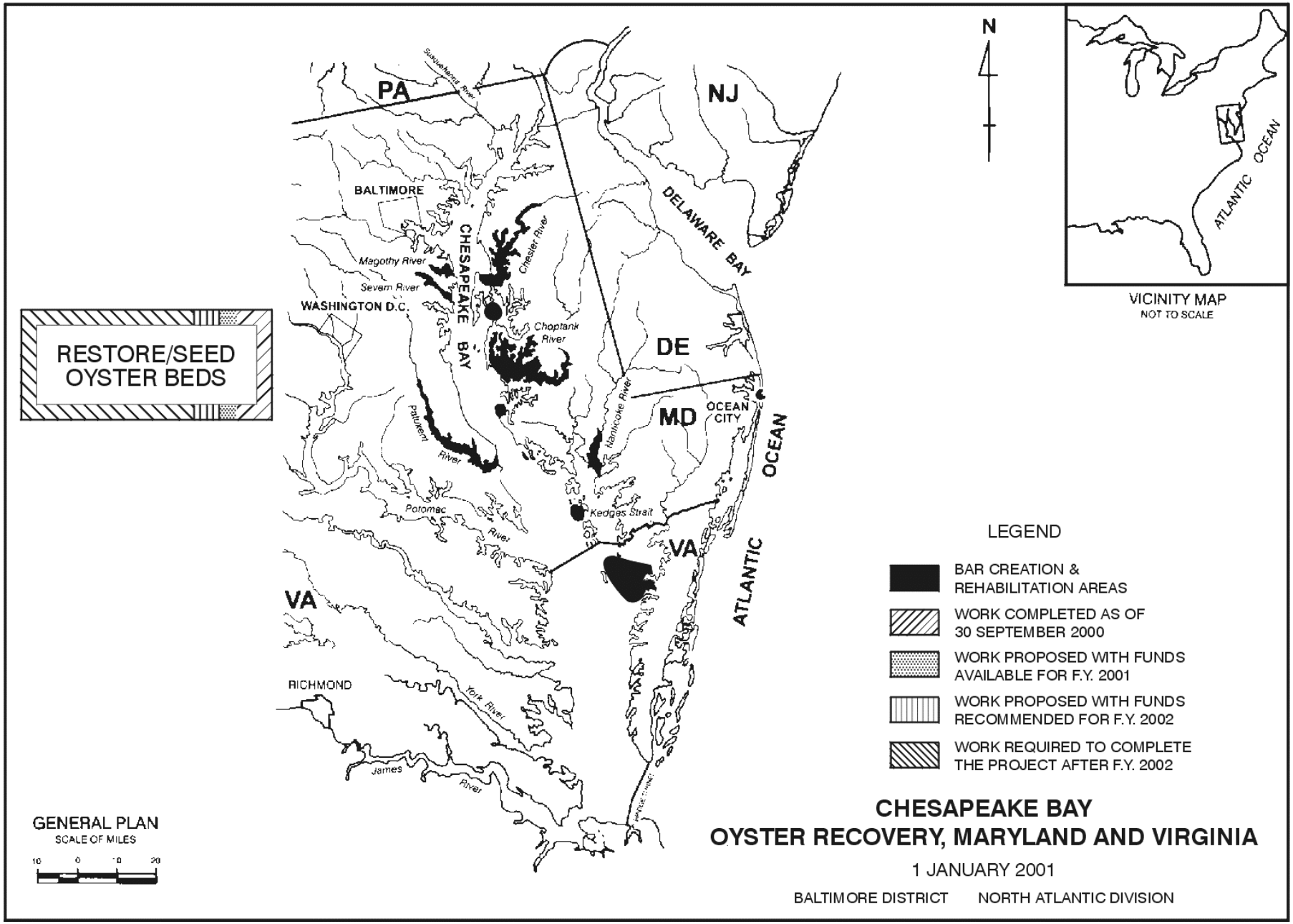
STATUS OF LOCAL COOPERATION: The State of Maryland and the Commonwealth of Virginia are the non-Federal project sponsors. The Project Cooperation Agreement between the Corps of Engineers and the State of Maryland was executed in February 1997. To date, the State has fully complied with the requirements of local cooperation. An amendment to this Project Cooperation Agreement is scheduled for execution in July 2001. The Project Cooperation Agreement between the Corps and the Commonwealth of Virginia is scheduled for execution in May 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal estimate of $20,000,000 is an increase of $17,500,000 from the latest estimate ($2,500,000) submitted to Congress (FY 2000). This increase is due to the following:

Item	Amount
Authorized Modifications	$17,500,000
Total	$17,500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment and finding of no significant impact was completed in January 1996. A supplemental environmental assessment and finding of no significant impact will be prepared in the spring of 2001 for the Maryland activities. A separate environmental assessment and finding of no significant impacts will be prepared in spring of 2001 for the Commonwealth of Virginia activities.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1995.


RESTORE/SEED OYSTER BEDS
PA
NJ
DE
MD
VA
VA
BALTIMORE
WASHINGTON D.C.
RICHMOND
CHESAPEAKE BAY
DELAWARE BAY
ATLANTIC OCEAN
OCEAN CITY
Susquehanna River
Magothy River
Severn River
Chester River
Choptank River
Patuxent River
Potomac River
Nanticoke River
Kedges Strait
York River
James River
N
VICINITY MAP
NOT TO SCALE
ATLANTIC OCEAN
LEGEND
BAR CREATION & REHABILITATION AREAS
WORK COMPLETED AS OF 30 SEPTEMBER 2000
WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2001
WORK PROPOSED WITH FUNDS RECOMMENDED FOR F.Y. 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2002
GENERAL PLAN
SCALE OF MILES
10 0 10 20
CHESAPEAKE BAY
OYSTER RECOVERY, MARYLAND AND VIRGINIA
1 JANUARY 2001
BALTIMORE DISTRICT NORTH ATLANTIC DIVISION

APPROPRIATION TITLE: Construction, General - Environmental Restoration

PROJECT: Poplar Island, Maryland (Continuing)

LOCATION: Poplar Island is a group of islands located in the upper middle Chesapeake Bay approximately 34 nautical miles southeast of the Port of Baltimore.

DESCRIPTION: The project consists of reconstructing Poplar Island to its approximate size in 1847 (1,140 acres), using an estimated 38 million cubic yards of uncontaminated dredged material from maintenance dredging of the southern approach channels of the Baltimore Harbor and Channels navigation project. This will be accomplished through the construction of approximately 35,000 feet of dikes to contain the dredged material necessary to form the low and high marsh wetlands and upland habitat and to protect the 1,140-acre dredged material placement area from the severe wave activity in this region of the Chesapeake Bay.

AUTHORIZATION: Water Resources Development Acts of 1996 and 2000.

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 (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		320,000,000				
Estimated Non-Federal Cost:		107,000,000		Entire Project	16	Being determined
Cash Contributions	106,917,000					
Other Costs	83,000					
Total Estimated Project Cost		427,000,000				

SUMMARIZED FINANCIAL DATA:(CONT'D)

Allocations to 30 September 2000	51,218,000	
Conference Allowance for FY 2001	19,190,000	
Allocation for FY 2001	26,482,000 1/	
Allocations through FY 2001	77,700,000	24
Allocation Requested for FY 2002	18,200,000	30
Programmed Balance to Complete after FY 2002	224,100,000	
Unprogrammed balance to Complete after FY 2002	0	

PHYSICAL DATA

Earth dikes	35,000 feet
Wetlands created	555 acres
Uplands created	555 acres
Submerged aquatic vegetation	1,000 acres

1/ Reflects $3,070,000 reduction assigned as savings and slippage, $10,400,000 reprogrammed to the project, and $38,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: Valuable island habitat at Poplar Island is being lost through erosion. Islands are preferentially selected by many fish and wildlife species as nesting/production areas. The lack of human disturbance and fewer predators make islands more productive. Poplar Island is currently eroding at more than 13 feet per year and will disappear by the turn of the century. The plan to restore the island using uncontaminated dredged material from maintenance dredging of the Baltimore Harbor and Channels navigation project has been developed through the cooperative efforts of many state and Federal agencies, as well as private organizations. The Port of Baltimore is rapidly reaching a point where available placement area capacity will be insufficient to meet the port's dredging needs. A disruption in the constant maintenance that is required to keep the Port of Baltimore operational would result in significant adverse effects to both the local and national economy.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Dredging	$12,561,000
Complete Phase 2 Dike Construction	4,814,000
Planning, Engineering, and Design	223,000
Construction Management	602,000
Total	$18,200,000

NON-FEDERAL COSTS: 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:

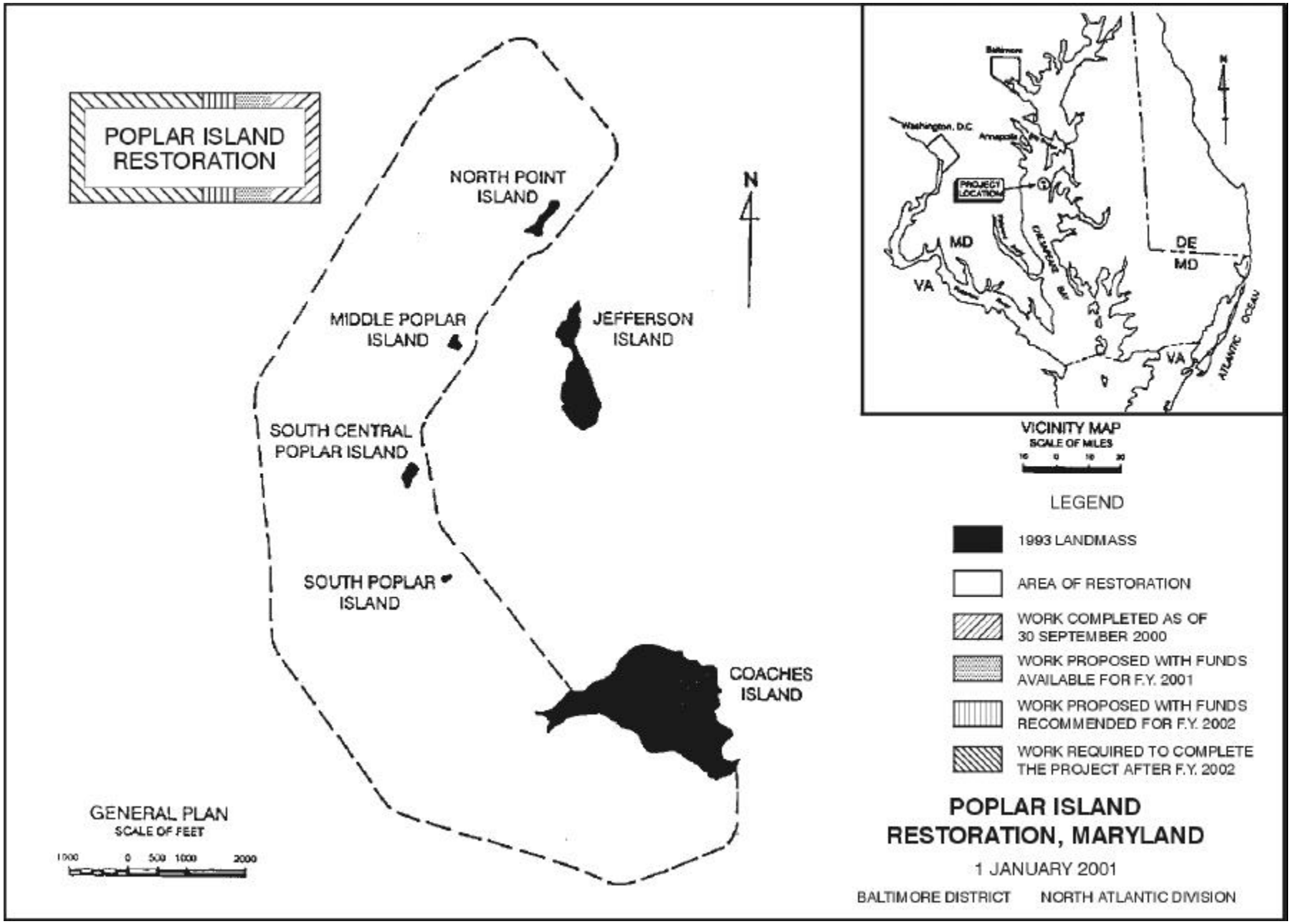
Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation Maintenance and Replacement Costs
Provide lands, easements, and rights-of-way	$ 83,000	
Pay 25 percent of the cost allocated to fish & wildlife restoration and bear all costs of operation, maintenance, repair, rehabilitation and replacement of fish and wildlife facilities.	106,917,000	410,000
Total Non-Federal Costs	$107,000,000	410,000

STATUS OF LOCAL COOPERATION: The State of Maryland is the non-Federal sponsor. By letter dated 16 May 1996, the State of Maryland stated its intent to be the non-Federal sponsor and participate in project cost sharing in accordance with the Water Resources Development Act of 1986. The Project Cooperation Agreement was executed in April 1997. To date, the State has fully complied with the local requirements on the project. By letter dated 30 December 1998, the State requested that the Corps proceed with Phase 2 construction of the project by January 2000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $320,000,000 is the same as the latest estimate ($320,000,000) submitted to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The EIS was distributed for review and was finalized in February 1996 under the authority of Section 204 of the Water Resources Development Act of 1992.

OTHER INFORMATION: Planning for this project was accomplished under the authority of Section 204 of the Water Resources Development Act of 1992. The feasibility study was initiated in September 1994, completed in February 1996, and approved by the Assistant Secretary of the Army for Civil Works in September 1996. Funds to initiate construction were appropriated in FY 1997.


POPLAR ISLAND RESTORATION
NORTH POINT ISLAND
MIDDLE POPLAR ISLAND
JEFFERSON ISLAND
SOUTH CENTRAL POPLAR ISLAND
SOUTH POPLAR ISLAND
COACHES ISLAND
N
GENERAL PLAN
SCALE OF FEET
1000 0 500 1000 2000
Baltimore
Washington, D.C.
Annapolis
PROJECT LOCATION
MD
VA
DE
MD
VA
ATLANTIC OCEAN
VICINITY MAP
SCALE OF MILES
LEGEND
1993 LANDMASS
AREA OF RESTORATION
WORK COMPLETED AS OF 30 SEPTEMBER 2000
WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2001
WORK PROPOSED WITH FUNDS RECOMMENDED FOR F.Y. 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2002
POPLAR ISLAND RESTORATION, MARYLAND
1 JANUARY 2001
BALTIMORE DISTRICT NORTH ATLANTIC DIVISION

APPROPRIATION TITLE: Construction, General - Major Rehabilitation - Navigation

PROJECT: Cape Cod Canal Railroad Bridge, Massachusetts (Continuing)

LOCATION: The Cape Cod Canal is located about 50 miles south of Boston, Massachusetts, and extends from Cape Cod Bay 7.7 miles to Buzzards Bay. The railroad bridge is located close to the western end of the Canal near Buzzards Bay and provides rail access across the Canal.

DESCRIPTION: The bridge is 806 feet long and carries a single track on an open timber tie deck across the Cape Cod Canal. The bridge was constructed in 1935 and consists of a 550-foot moveable center span, flanked by a tower and 128-foot fixed span at each end. The bridge is normally kept in the raised position, with a vertical clearance of about 136 feet above mean high water to allow passage of marine traffic. The plan for rehabilitation includes replacement of the counterweight cables, counterweight trunion bearings, electrical control system and main switchboard; repair or replacement of steel members; and cleaning and painting of the steel superstructure. All work is programmed.

AUTHORIZATION: The existing Cape Cod Canal project is authorized by the Rivers and Harbors Act of 1935. Authorization to construct three bridges, two vehicular and one railroad, was included in the Public Works Administration Program of 1933.

REMAINING BENEFIT-REMAINING COST RATIO: 5.0 to 1 at 7 1/8 percent.

TOTAL BENEFIT-COST RATIO: 4.6 to 1 at 7 1/8 percent.

INITIAL BENEFIT-COST RATIO: 4.6 to 1 at 7 1/8 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits are based on a supplemental economic analysis to the Major Rehabilitation Report, Vertical Lift Railroad Bridge, Cape Cod Canal, Massachusetts, dated May 1997 at April 1997 price levels.

SUMMARIZED FINANCIAL DATA		ACCUMULATED PCT. OF EST. FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$31,800,000		Phase I	5	Being determined
Estimated Non-Federal Cost	0		Phase II	0	Being determined
Total Estimated Project Cost	$31,800,000 1/		Entire Project	2	Being determined

1/ Excludes $300,000 in design funded by Operations & Maintenance Appropriation.

SUMMARIZED FINANCIAL DATA (Continued)		ACCUMULATED PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2000	$ 1,168,000		Phase I
Conference Allowance for FY 2001	8,600,000		Repair or replace steel members.
Allocation for FY 2001	7,207,000 1/		Clean and paint steel superstructure.
Allocations through FY 2001	8,375,000	26	Phase II
Allocation Requested for FY 2002	12,500,000	66	Replace counterweight cables and trunion bearings.
Programmed Balance to Complete After FY 2002	10,925,000		Replace electrical control system and main switchboard.
Unprogrammed Balance to Complete After FY 2002	0		

1/ Reflects $1,376,000 assigned savings and slippage, and $17,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The railroad bridge is a critical link connecting Cape Cod with the mainland of southeastern Massachusetts. The bridge is used primarily for waste removal with an average of four crossings per day, six days a week. Waste removal is extremely important as there are no refuse disposal facilities on Cape Cod and train service is the most economical method of transport. During the tourist season, the bridge is also used by passenger trains with service from New York. An inspection and condition report performed in 1984 revealed the need for major rehabilitation of the bridge to ensure reliable operation of the structure. An August 1995 inspection confirmed the critical need for rehabilitation work to arrest further deterioration and possible bridge replacement. Federal interest in the major rehabilitation of the Cape Cod Canal Railroad Bridge is contained in Article 16 of the 1935 Agreement with the railroad which states "It is understood and agreed that the Government shall sustain the obligation of the operation, maintenance, renewals and repairs of said new railroad bridge...". Failure of the bridge in the down position would close the canal to marine traffic for up to a year. Marine traffic would need to be rerouted around Cape Cod greatly increasing shipping costs and reducing navigational safety. Average annual benefits for the major rehabilitation project are $51,000,000 at April 1997 prices.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Phase I of Construction	$ 6,900,000
Initiate Phase II of Construction	3,580,000
Planning, Engineering and Design	50,000
Construction Management	1,970,000
Total	$12,500,000

NON-FEDERAL COSTS: None Required.

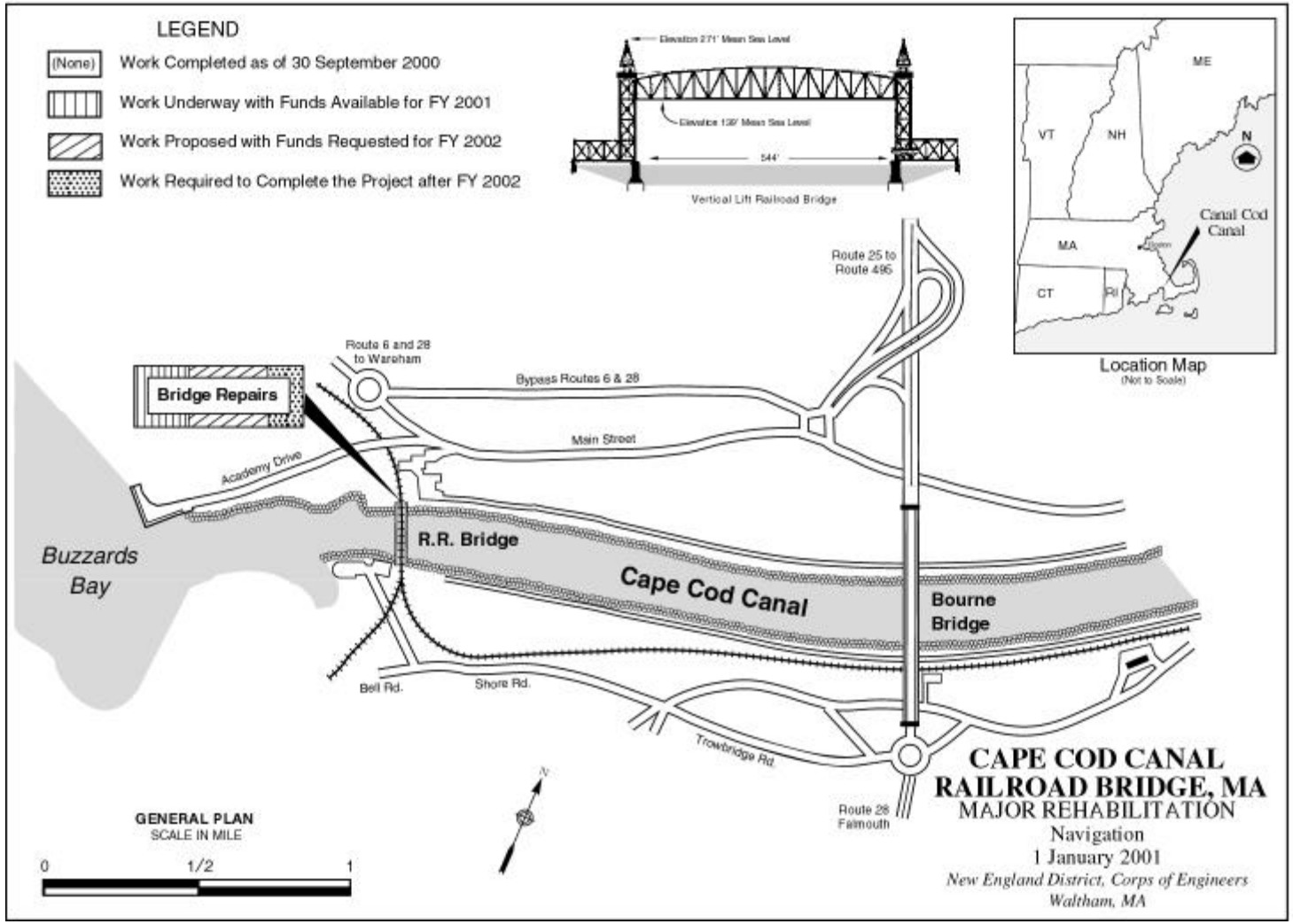
STATUS OF LOCAL COOPERATION: None Required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $31,800,000 is an increase of $400,000 from the latest estimate ($31,400,000) submitted to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 100,000
Other Estimating Adjustments	300,000
Total	$ 400,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment and Finding of No Significant Impact were completed in May 1997.

OTHER INFORMATION: Preconstruction Engineering and Design (PED) efforts were initiated in Fiscal Year 1999 using Operation and Maintenance Appropriation funds. Funds to initiate construction were appropriated in FY 2000.


LEGEND
(None) Work Completed as of 30 September 2000
Work Underway with Funds Available for FY 2001
Work Proposed with Funds Requested for FY 2002
Work Required to Complete the Project after FY 2002
Elevation 271' Mean Sea Level
Elevation 139' Mean Sea Level
544'
Vertical Lift Railroad Bridge
ME
VT
NH
N
Canal Cod Canal
MA
CT
RI
Location Map
(Not to Scale)
Route 25 to Route 495
Route 6 and 28 to Wareham
Bypass Routes 6 & 28
Bridge Repairs
Main Street
Academy Drive
Buzzards Bay
R.R. Bridge
Cape Cod Canal
Bourne Bridge
Bell Rd.
Shore Rd.
Trowbridge Rd.
Route 28 Falmouth
GENERAL PLAN
SCALE IN MILE
0
1/2
1
CAPE COD CANAL
RAILROAD BRIDGE, MA
MAJOR REHABILITATION
Navigation
1 January 2001
New England District, Corps of Engineers
Waltham, MA

APPROPRIATION TITLE: Construction, General – Dam Safety Assurance – Flood Control

PROJECT: West Hill Dam, Massachusetts (Continuing)

LOCATION: West Hill Dam is located in the town of Uxbridge in south central Massachusetts, about 14 miles southeast of Worcester, Massachusetts. The dam site is located along the West River about 3 miles above its confluence with the Blackstone River.

DESCRIPTION: West Hill Dam was constructed in 1961 as a single-purpose flood control project. The main dam is composed of an earth filled embankment with rock slope protection, 2,400 feet in length, with a maximum height of 48 feet above the river bed. The project includes four small dikes totalling 1,300 feet in length. Storage capacity of the reservoir is 12,440 acre-feet at spillway crest, pool stage of 30 feet. The project has prevented $30 million in damages to date. Proposed rehabilitation work involves the construction of a concrete panel cut-off wall along 2,160 feet of the main dam embankment and foundation to provide seepage control.

AUTHORIZATION: Flood Control Act of 1944.

REMAINING BENEFIT-REMAINING COST RATIO: 1.4 to 1 at 6 7/8 percent.

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

INITIAL BENEFIT-COST RATIO: 1.2 to 1 at 6 7/8 percent (FY 2001).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the economic analysis to the Dam Safety Assurance Report, West Hill Dam, Massachusetts, dated May 1999 at March 1999 price levels.

SUMMARIZED FINANCIAL DATA		ACCUMULATED PCT. OF EST. FED COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$13,200,000		Entire Project	0	Being determined
Estimated Non-Federal Cost	0				
Total Estimated Project Cost	$13,200,000 1/				

1/ Excludes $430,000 in design funded by Operations & Maintenance Appropriation.

SUMMARIZED FINANCIAL DATA (Continued)		ACCUMULATED PCT. OF EST. FED COST	PHYSICAL DATA
Allocations to 30 September 2000	$ 0		Construct 2,160 feet of concrete cutoff wall along dam embankment and foundation.
Conference Allowance for FY 2001	0		
Allocation for FY 2001	1,000,000		
Allocations through FY 2001	1,000,000	8	
Allocation Requested for FY 2002	$ 9,000,000	76	
Programmed Balance to Complete After FY 2002	3,200,000		
Unprogrammed Balance to Complete After FY 2002	0		

JUSTIFICATION: West Hill Dam was constructed of available, on-site random and impervious fill, with a limited upstream impervious blanket and no significant foundation seepage control features. During each of the last four flood storage events, the main dam embankment has experienced seepage problems. The most recent event occurred in March 1998, when storage of only 13.5 feet of water, which is less than 20 percent of the dam's design capacity, caused boils and piping of foundation materials downstream of the dam. Reservoir regulation procedures have been modified to keep pool levels below 15 feet during minor to moderate floods. Seepage and boil activity is occurring at lower pool levels, indicating that the problem is worsening and raising concerns that there is a real risk of dam failure at high pool stages. Catastrophic failure of the dam would cause extensive property damage and place over 10,000 people at risk in the densely populated downstream communities. Average annual benefits for dam safety modifications are $1.1 million at March 1999 prices.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Construction	$8,260,000
Planning, Engineering and Design	160,000
Construction Management	580,000
Total	$9,000,000

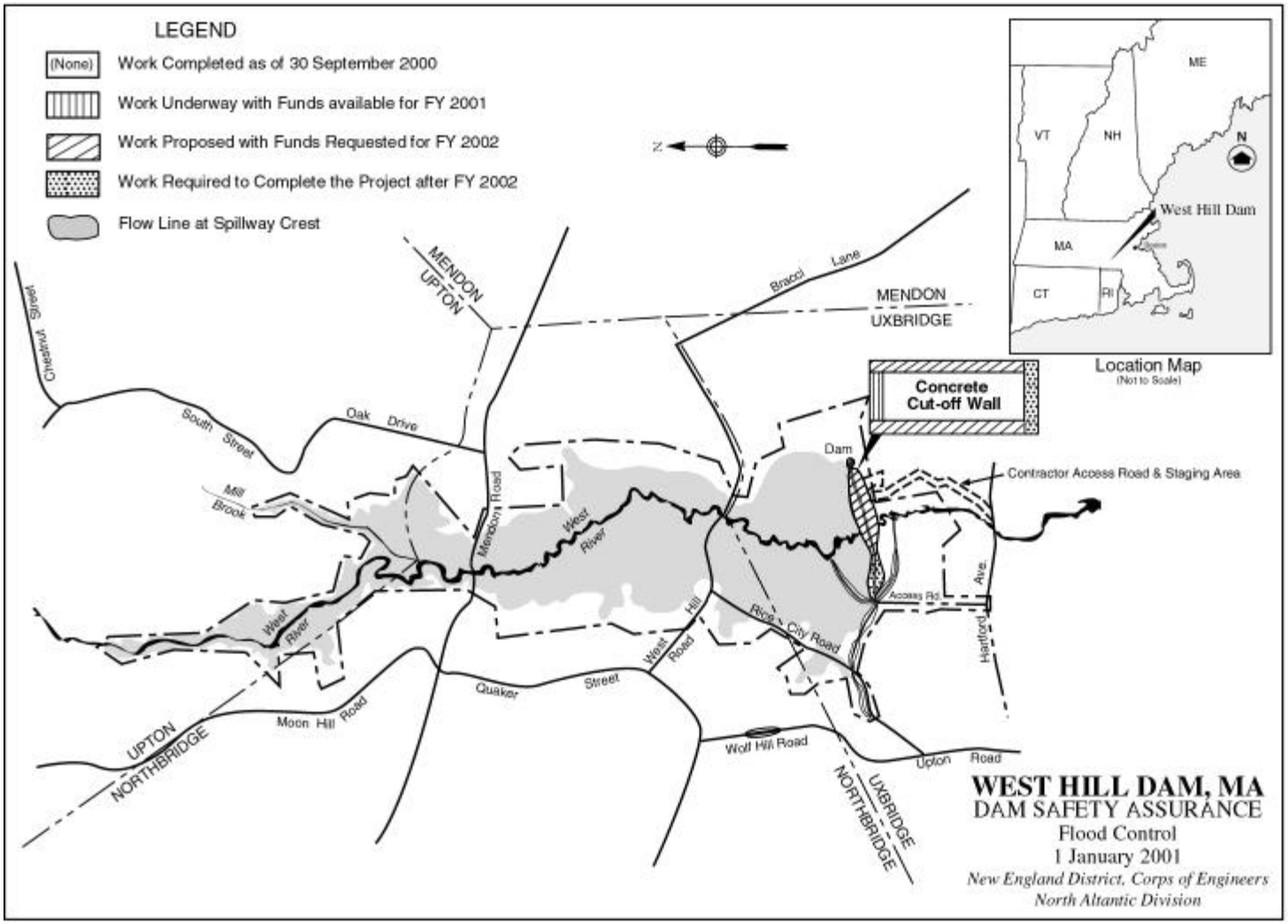
NON-FEDERAL COSTS: None Required.

STATUS OF LOCAL COOPERATION: None Required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $13,200,000 is the initial estimate presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment and Finding of No Significant Impact were completed in May 1999.

OTHER INFORMATION: Preconstruction Engineering and Design (PED) efforts were completed in December 2000 with Operation and Maintenance Appropriation funds.



RESERVOIR PLAN

NORTH ATLANTIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation

a. Channels and Harbors

The budget estimate of $ 133,154,000 provides for essential operation and maintenance work on 57 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 dredged material 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.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reason for change in Operations from FY 2001 to FY 2002 (10% +/-) 2. Major Maintenance items budgeted in FY 2002 (Threshold $ 500,000)
Delaware			
IWW, from Delaware River to Chesapeake Bay, DE & MD	20,203,000 (1,843,000) (18,360,000)	12,223,000 (2,463,000) (9,760,000)	1. Monitor stabilized disposal site in FY 2001 2. Dredge navigation channel. Remove lead paint and repaint St. Georges Bridge in FY 2001.
IWW Rehoboth Bay to Delaware Bay	418,000 (43,000) (375,000)	888,000 (43,000) (845,000)	1. None. 2. Dredge navigation channel.
Mispillion River	0 (0) (0)	140,000 (0) (140,000)	1. None. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Delaware (Cont'd)			
Murderkill River	0	140,000	
	(0)	(0)	1. None.
	(0)	(140,000)	2. None.
Wilmington Harbor	6,293,000	2,985,000	
	(464,000)	(65,000)	1. Dredged Material Management Plan study, FY 2001.
	(5,829,000)	(2,920,000)	2. Dredge navigation channel.
District of Columbia			
Washington Harbor	37,000	48,000	
	(0)	(0)	1. None.
	(37,000)	(48,000)	2. None.
Maine			
Union River	1,568,000)	230,000	
	(0)	(0)	1. None.
	(1,568,000)	(230,000)	2. Dredge Navigation Channel, FY 2001/2002

NORTH ATLANTIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Maryland			
Baltimore Harbor and Channels	18,169,000 (2,123,000) (16,046,000)	22,568,000 (2,567,000) (20,001,000)	1. Conduct sediment testing in FY 2002. 2. Variation in dredging requirements.
Nanticoke River (Northwest Fork)	15,000 (0) (15,000)	865,000 (0) (865,000)	1. None. 2. Dredge navigation channel.
Ocean City Harbor and Inlet and Sinepuxent Bay	1,767,000 (0) (1,767,000)	2,798,000 (0) (2,798,000)	1. None. 2. Repair to the south jetty in FY 2001/2002.
Rhodes Point to Tylerton	68,000 (0) (68,000)	736,000 (0) (736,000)	1. None. 2. Dredge navigation channel.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002(Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Maryland (Cont'd)			
Tolchester Channel	1,553,000 (0) (1,553,000)	1,901,000 (0) (1,901,000)	1. None. 2 Dredge navigation channel, FY 2001/2002.
Twitch Cove and Big Thorofare River	72,000 (0) (72,000)	742,000 (0) (742,000)	1. None. 2. Dredge navigation channel.
Wicomico River	660,000 (0) (660,000)	450,000 (0) (450,000)	1. None. 2. None.
Massachusetts			
Cape Cod Canal	8,479,000 (3,831,000) (4,648,000)	10,150,000 (4,471,000) (5,679,000)	1. Inspect Bourne and Railroad Bridge FY 2002. 2. Repair pavement on Bourne Bridge, FY 2001/2002.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Massachusetts (Cont'd)			
Green Harbor	0 (0) (0)	378,000 (0) (378,000)	1. None. 2. Dredge navigation channel.
Plymouth Harbor	482,000 (0) (482,000)	3,356,000 (0) (3,356,000)	1. None. 2. Repair Long Beach dike, FY 2001/2002.
New Hampshire			
Portsmouth Harbor, Piscataqua River, NH and ME	541,000 (0) (541,000)	287,000 (0) (287,000)	1. None. 2. None.
New Jersey			
Barnegat Inlet	1.770,000 (0) (1,770,000)	1,400,000 (0) (1,400,000)	1. None. 2. Dredge navigation channel.

NORTH ATLANTIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
New Jersey (Cont'd)			
Cold Spring Inlet	400,000 (0) (400,000)	410,000 (0) (410,000)	1. None. 2. None.
Delaware River, Philadelphia to the Sea, NJ, PA and DE	15,171,000 (1,135,000) (14,036,000)	17,105,000 (1,335,000) (15,770,000)	1. None. 2. Dredge navigation channel.
Delaware River at Camden	18,000 (18,000) (0)	19,000 (19,000) (0)	1. None. 2. None.
Delaware River, Philadelphia, PA, to Trenton, NJ	3,094,000 (370,000) (2,724,000)	3,465,000 (390,000) (3,075,000)	1. None. 2. Dredge navigation channel.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
New Jersey (Cont'd)			
Newark Bay, Hackensack, & Passaic Rivers	700,000 (0) (700,000)	2,900,000 (0) (2,900,000)	1. None. 2. Variation in dredging navigation channels.
New Jersey Intracoastal Waterway	1,668,000 (400,000) (1,268,000)	2,800,000 (365,000) (2,435,000)	1. None. 2. Dredge navigation channel.
Shark River	0 (0) (0)	100,000 (0) (100,000)	1. None. 2. None.
New York			
East River	1,261,000 (0) (1,261,000)	600,000 (0) (600,000)	1. None. 2. Dredge navigation channel, FY 2001/2002.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
New York (Cont'd)			
East Rockaway Inlet	1,808,000 (0) (1,808,000)	250,000 (0) (250,000)	1. None. 2. Dredge navigation channel, FY2000/2001.
Fire Island Inlet to Jones Inlet	148,000 (0) (148,000)	2,300,000 (0) (2,300,000)	1. None. 2. Dredge navigation channel, FY 2001/2002.
Flushing Bay and Creek	1,583,000 (0) (1,583,000)	3,000,000 (0) (3,000,000)	1. None. 2. Dredge navigation channel, FY 2001/2002.
Great South Bay	122,000 (0) (122,000)	100,000 (0) (100,000)	1. None. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
New York (Cont'd)			
Hudson River	3,791,000	3,865,000	
(Maintenance and O&C)	(1,485,000)	(1,525,000)	1. None.
	(2,306,000)	(2,340,000)	2. Dredge navigation channel.
Jamaica Bay	1,420,000	250,000	
	(0)	(0)	1. None.
	(1,420,000)	(250,000)	2. Dredge navigation channel, FY 2001/2002.
Jones Inlet	124,000	100,000	
	(0)	(0)	1. None.
	(124,000)	(100,000)	2. None.
Lake Montauk Harbor	10,000	80,000	
	(0)	(0)	1. None.
	(10,000)	(80,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
New York (Cont'd)			
Long Island Intra-Coastal Waterway	1,284,000 (0) (1,284,000)	70,000 (0) (70,000)	1. None 2. Dredge navigation channel, FY 2001/2002.
Moriches Inlet	120,000 (0) (120,000)	80,000 (0) (80,000)	1. None. 2. None.
New York Harbor	12,524,000 (1,034,000) (11,490,000)	5,570,000 (1,370,000) (4,200,000)	1. Variation in environmental/monitoring studies. 2. Variation in dredging navigation channels.
New York & New Jersey Channels	5,052,000 (0) (5,052,000)	4,250,000 (0) (4,250,000)	1. None. 2. Variation in dredging navigation channels.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
New York (Cont'd)			
Roundout Harbor	0	475,000	
	(0)	(0)	1. None.
	(0)	(475,000)	2. None.
Sag Harbor	1,543,000	925,000	
	(0)	(0)	1. None.
	(1,543,000)	(925,000)	2. Repair breakwater, FY 2001/2002.
Shinnecock Inlet	1,900,000	100,000	
	(0)	(0)	1. None.
	(1,900,000)	(100,000)	2. Repair jetty, FY 2001/2002.
Pennsylvania			
Schuylkill River	796,000	1,315,000	
	(46,000)	(50,000)	1. None.
	(750,000)	(1.265,000)	2. Dredge navigation channel.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Rhode Island			
Providence River & Harbor	1,529,000 (0) (1,529,000)	2,110,000 (0) (2,110,000)	1. None. 2. Dredge navigation channel.
Vermont			
Burlington Harbor	1,965,000 (0) (1,965,000)	250,000 (0) (250,000)	1. None. 2. Repair breakwater, FY 2001/2002.
Narrows of Lake Champlain	795,000 (10,000) (785,000)	95,000 (60,000) (35,000)	1. Perform cultural resources study. 2. Dredge navigation channel, FY 2001/2002.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Virginia			
Appomattox River	572,000 (0) (572,000)	749,000 (0) (749,000)	1. None. 2. None.
Atlantic Intracoastal Waterway (ACC) & (DSC)	2,968,000 (1,890,000) (1,078,000)	2,630,000 (2,630,000 (0)	1. Operate bridges, canals, locks and spillway. 2. None.
Chincoteague Bay Channel	0 (0) (0)	430,000 (0) (430,000)	1. None. 2. None.
Chincoteague Inlet	715,000 (36,000) (679,000)	898,000 (40,000) (858,000)	1. None. 2. Dredge navigation channel.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Virginia (Cont'd)			
James River Channel	4,144,000 (287,000) (3,857,000)	3,680,000 (295,000) (3,385,000)	1. None. 2. None.
Lynnhaven Inlet	100,000 (0) (100,000)	916,000 (0) (916,000)	1. None. 2. Dredge navigation channel.
Norfolk Harbor	5,614,000 (275,000) (5,339,000)	6,439,000 (445,000) (5,994,000)	1. Channel surveys to identify shoals. 2. Dredge navigation channel and continue raising of the dikes and levees, and installation of strip drains at Craney Island
Pagan River	140000 (0) (140,000)	145,000 (0) (145,000)	1. None. 2. None.
Rudee Inlet	512,000 (0) (512,000)	1,053,000 (0) (1,053,000)	1. None. 2. Dredge navigation channel.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

1. Navigation (Cont'd)

a. Channels and Harbors (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Virginia (Cont'd)			
Waterway on the Coast of Virginia	828,000 (270,000) (558,000)	1,190,000 (270,000) (920,000)	1. None. 2. Dredge navigation channel.
York River	0 (0) (0)	155,000 (0) (155,000)	1. None. 2. None.
Other Projects Maintained Periodically	11,517,000 (964,000) (10,553,000)	0 (0) (0)	
Total-Channels & Harbors	148,031,000 (16,524,000) (131,507,000)	133,154,000 (18,403,000) (114,751,000)	

b. Locks and Dams: NONE

TOTAL NAVIGATION	148,031,000 (16,524,000) (131,507,000)	133,154,000 (18,403,000) (114,751,000)	

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control

a. Reservoirs

The budget estimate of $40,167,000 provides for the operation of 51 flood control reservoirs. Requirements include: operation and ordinary maintenance of project facilities, labor, supplies, materials, and parts for day-to-day functioning; periodic maintenance, repairs and replacements; and contract law enforcement. The requested amount also includes application of special recreation use fees for recreation areas.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Connecticut			
Black Rock Lake	298,000 (254,000) (44,000)	490,000 (278,000) (212,000)	 1. None. 2. None.
Colebrook River Lake	391,000 (354,000) (37,000)	454,000 (369,000) (85,000)	 1. None. 2. None.
Hancock Brook Lake	260,000 (222,000) (38,000)	221,000 (183,000) (38,000)	 1. Perform periodic inspection in FY 2001. 2. None.
Hop Brook Lake	790,000 (644,000) (146,000)	979,000 (687,000) (292,000)	 1. None. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

Reservoirs (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Connecticut (Cont'd)			
Mansfield Hollow Lake	340,000 (238,000) (102,000)	424,000 (273,000) (151,000)	1. Increase in service levels. 2. None.
Northfield Brook Lake	371,000 (302,000) (69,000)	294,000 (250,000) (44,000)	1. Conduct periodic inspection in FY 2001. 2. None.
Thomaston Dam	575,000 (507,000) (68,000)	516,000 (428,000) (88,000)	1. Perform periodic inspection in FY 2001. 2. None.
West Thompson Lake	491,000 (396,000) (95,000)	711,000 (329,000) (382,000)	1. Perform periodic inspection in FY 2001. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

a. Reservoirs (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Maryland			
Jennings Randolph Lake	1,884,000 (1,786,000) (98,000)	2,074,000 (1,887,000) (187,000)	1. None. 2. None.
Massachusetts			
Barre Falls Dam	524,000 (322,000) (202,000)	489,000 (374,000) (115,000)	1. Perform additional water control analysis and flood control activities in FY 2002. 2. None.
Birch Hill Dam	565,000 (342,000) (223,000)	511,000 (416,000) (95,000)	1. Perform periodic inspection in FY 2002. 2. None.
Buffumville Lake	400,000 (236,000) (164,000)	427,000 (251,000) (176,000)	1. None. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

a. Reservoirs (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Massachusetts (Cont'd)			
Charles River Natural Valley Storage Area	206,000 (160,000) (46,000)	294,000 (223,000) (71,000)	1. Conduct environmental studies in FY 2002. 2. None.
Conant Brook Lake	205,000 (163,000) (42,000)	234,000 (165,000) (69,000)	1. None. 2. None.
East Brimfield Lake	326,000 (189,000) (137,000)	325,000 (217,000) (108,000)	1. Perform periodic inspection in FY 2002. 2. None.
Hodges Village Dam	464,000 (347,000) (117,000)	416,000 (252,000) (164,000)	1. Conduct periodic inspection and environmental studies in FY 2001. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

a. Reservoirs (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Massachusetts (Cont'd)			
Knightville Dam	847,000 (395,000) (452,000)	648,000 (403,000) (245,000)	1. None. 2. None.
Littleville Lake	518,000 (404,000) (114,000)	476,000 (409,000) (67,000)	1. None. 2. None.
Tully Lake	500,000 (309,000) (191,000)	665,000 (413,000) (252,000)	1. Conduct periodic inspection in FY 2002 2. None.
West Hill Dam	659,000 (479,000) (180,000)	607,000 (390,000) (217,000)	1. Conduct periodic inspection in FY 2001. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

a. Reservoirs (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Massachusetts (Cont'd)			
Westville Lake	356,000 (261,000) (95,000)	397,000 (269,000) (128,000)	1. None. 2. None.
New Hampshire			
Blackwater Dam	525,000 (346,000) (179,000)	607,000 (343,000) (264,000)	1. None. 2. None.
Edward MacDowell Lake	447,000 (362,000) (85,000)	460,000 (381,000) (79,000)	1. None. 2. None.
Franklin Falls Dam	637,000 (410,000) (227,000)	1,104,000 (380,000) (724,000)	1. None. 2. Repair intake walls.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

a. Reservoirs (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
New Hampshire (Cont'd)			
Hopkinton Everett Lakes	1,178,000	1,412,000	
	(857,000)	(975,000)	1. Conduct periodic inspection in FY 2002.
	(321,000)	(437,000)	2. None.
Otter Brook Lake	535,000	781,000	
	(400,000)	(582,000)	1. Perform spillway design review and sippage analysis in FY 2002.
	(135,000)	(199,000)	2. None.
Surry Mountain Lake	453,000	749,000	
	(356,000)	(329,000)	1. None.
	(97,000)	(420,000)	2. None.
New York			
Almond Lake	452,000	463,000	
	(414,000)	(422,000)	1. None.
	(38,000)	(41,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

a. Reservoirs (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
New York (Cont'd)			
Arkport Dam	248,000 (227,000) (21,000)	252,000 (230,000) (22,000)	1. None. 2. None.
East Sidney Lake	457,000 (376,000) (81,000)	513,000 (413,000) (100,000)	1. None. 2. None.
Whitney Point Lake	509,000 (427,000) (82,000)	564,000 (462,000) (102,000)	1. None. 2. None.
Pennsylvania			
Alvin R. Bush Dam	591,000 (497,000) (94,000)	622,000 (504,000) (118,000)	1. None. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

a. Reservoirs (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Pennsylvania (Cont'd)			
Aylesworth Creek Lake	208,000 (189,000) (19,000)	229,000 (208,000) (21,000)	1. None. 2. None.
Beltzville Lake	965,000 (945,000) (20,000)	1,355,000 (925,000) (430,000)	1. None. 2. None.
Blue Marsh Lake	2,224,000 (2,204,000) (20,000)	2,285,000 (2,265,000) (20,000)	1. None. 2. None.
Cowanesque Lake	1,970,000 (1,543,000) (427,000)	1,887,000 (1,300,000) (587,000)	1. Update master plan in FY 2001 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

a. Reservoirs (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Pennsylvania (Cont'd)			
Curwensville Lake	637,000 (543,000) (94,000)	676,000 (555,000) (121,000)	 1. None. 2. None.
Foster Joseph Sayers Dam	688,000 (604,000) (84,000)	729,000 (614,000) (115,000)	 1. None. 2. None.
Francis E. Walter Dam	653,000 (648,000) (5,000)	797,000 (792,000) (5,000)	 1. Periodic inspection, FY 2002. 2. None.
General Edgar Jadwin Dam and Reservoir	280,000 (280,000) (0)	365,000 (365,000) (0)	 1. Survey monumentation, FY 2002. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

a. Reservoirs (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Pennsylvania (Cont'd)			
Prompton Lake	686,000 (681,000) (5,000)	482,000 (477,000) (5,000)	 1. Hydro-Deficiency design memo in FY 2001. 2. None.
Raystown Lake	4,623,000 (2,348,000) (2,275,000)	3,902,000 (2,395,000) (1,507,000)	 1. None. 2. None.
Stillwater Lake	322,000 (281,000) (41,000)	350,000 (306,000) (44,000)	 1. None. 2. None.
Tioga-Hammond Lakes	3,237,000 (1,911,000) (1,326,000)	2,501,000 (1,691,000) (810,000)	 1. Update master plan in FY 2001 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

a. Reservoirs (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Pennsylvania (Cont'd)			
York Indian Rock Dam	499,000 (444,000) (55,000)	547,000 (487,000) (60,000)	1. None. 2. None.
Vermont			
Ball Mountain Lake	912,000 (422,000) (490,000)	743,000 (510,000) (233,000)	1. Perform stability analysis in FY 2002. 2. None.
North Hartland Lake	576,000 (441,000) (135,000)	635,000 (321,000) (314,000)	1. Replace equipment in FY 2001. 2. None.
North Springfield Lake	747,000 (459,000) (288,000)	700,000 (497,000) (203,000)	1. None. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

a. Reservoirs (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Vermont (Cont'd)			
Townshend Lake	767,000 (441,000) (326,000)	764,000 (531,000) (233,000)	 1. Conduct periodic inspection and report FY 2002. 2. None.
Union Village Dam	448,000 (357,000) (91,000)	506,000 (314,000) (192,000)	 1. Realignment of operation and maintenance funding to more realistically reflect work being accomplished. 2. None.
Virginia			
Gathright Dam and Lake Moomaw	1,414,000 (1,060,000) (354,000)	1,535,000 (946,000) (589,000)	 1. Decrease in operational activities. 2. None.
Total reservoirs	38,858,000 (28,783,000) (10,075,000)	40,167,000 (28,986,000) (11,181,000)	

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

a. Reservoirs (Cont'd)

Scheduling Reservoir Operations

The $142,000 requested in FY 2002 supports preparation, review and updating of water control manuals, real-time data collection to monitor hydrologic conditions, and the issuance of gate regulation instructions as necessary at 2 non-Corps dam and reservoir projects at which the Corps is responsible for flood control.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Maryland	81,000 (81,000) (0)	85,000 (85,000) (0)	1. None. 2. None.
Pennsylvania	54,000 (54,000) (0)	57,000 (57,000) (0)	1. None. 2. None.
Total Scheduling of Reservoir Operations	135,000 (135,000) (0)	142,000 (142,000) (0)	
Total Reservoirs and Scheduling of Reservoir Operations	38,993,000 (28,918,000) (10,075,000)	40,309,000 (29,128,000) (11,181,000)	

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

b. Channel Improvements

The budget estimate of $2,175,000 provides for the essential annual requirement of 5 local flood protection projects, including 10 separate units of the Southern New York projects.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Connecticut			
Stamford Hurricane Barrier	363,000 (220,000) (143,000)	485,000 (260,000) (225,000)	 1. Analyze and evaluate barrier gate operations. 2. None.
Maryland			
Cumberland, MD and Ridgeley, WV	136,000 (136,000) (0)	157,000 (157,000) (0)	 1. Increased cost of service contract. 2. None.
Massachusetts			
New Bedford, Fairhaven & Acushnet Hurricane Barrier	463,000 (231,000) (232,000)	358,000 (137,000) (221,000)	 1. Conduct periodic inspection in FY 2001. 2. None.

NORTH ATLANTIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

Channel Improvements (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
New Jersey			
Passaic River Flood Flood Warning System	410,000 (410,000) (0)	425,000 (425,000) (0)	1. None. 2. None.
New York			
Southern New York Projects	716,000 (230,000) (486,000)	750,000 (230,000) (520,000)	1. None. 2. None.
Total Channel Improvements	2,088,000 (1,227,000) (861,000)	2,175,000 (1,209,000) (966,000)	

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

b. Channel Improvements (Cont'd)

Inspection of Completed Works and Miscellaneous Maintenance

The $789,000 requested in FY 2002 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, and floodwalls, drainage structures, and pumping plants.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Connecticut	33,000 (33,000) (0)	33,000 (33,000) (0)	1. None. 2. None.
District of Columbia	6,000 (6,000) (0)	7,000 (7,000) (0)	1. None. 2. None.
Maine	15,000 (15,000) (0)	15,000 (15,000) (0)	1. None. 2. None.
Maryland	32,000 (32,000) (0)	33,000 (33,000) (0)	1. None. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

b. Channel Improvements (Cont'd)

Inspection of Completed Works and Miscellaneous Maintenance (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Massachusetts	68,000 (68,000) (0)	82,000 (82,000) (0)	1. Inspect increased number of projects. 2. None.
New Hampshire	10,000 (10,000) (0)	10,000 (10,000) (0)	1. None. 2. None.
New Jersey	54,000 (54,000) (0)	55,000 (55,000) (0)	1. None. 2. None.
New York	248,000 (248,000) (0)	267,000 (267,000) (0)	1. None. 2. None.
Pennsylvania	130,000 (130,000) (0)	137,000 (137,000) (0)	1. None. 2. None.

NORTH ATLANTIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

b. Channel Improvements (Cont'd)

Inspection of Completed Works and Miscellaneous Maintenance (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Rhode Island	5,000 (5,000) (0)	5,000 (5,000) (0)	 1. None. 2. None.
Vermont	28,000 (28,000) (0)	50,000 (50,000) (0)	 1. Inspect increased number of projects. 2. None.
Virginia	91,000 (91,000) (0)	75,000 (75,000) (0)	 1. None. 2. None.
West Virginia	19,000 (20,000) (0)	20,000 (19,000) (0)	 1. None. 2. None.

NORTH ATLANTIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

2. Flood Control (Cont'd)

b. Channel Improvements (Cont'd)

Inspection of Completed Works and Miscellaneous Maintenance (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Total Inspection and Miscellaneous Maintenance	739,000 (739,000) (0)	789,000 (789,000) (0)	
Total Channel Improvements, Inspections and Miscellaneous Maintenance	2,827,800 (1,966,000) (861,000)	2,964,000 (1,998,000) (966,000)	
TOTAL-FLOOD CONTROL	41,820,000 (30,884,000) (10,936,000)	43,273,000 (31,126,000) (12,147,000)	

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

3. Multiple Purpose Power Projects - NONE

4. Protection of Navigation

The budget estimate of $9,132,000 provides for accomplishing the work essential to the administration and enforcement of specific laws enacted for the protection of navigation, including the prevention of obstructive and injurious deposits in the tidal waters of three major harbors; removal of drift and debris.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Prevention of Obstructive and Injurious Deposits:			
Baltimore Harbor, MD	685,000 (685,000) (0)	650,000 (650,000) (0)	1. None. 2. None.
New York Harbor, NY & NJ	739,000 (739,000) (0)	750,000 (750,000) (0)	1. None. 2. None.
Norfolk Harbor, VA	217,000 (217,000) (0)	215,000 (215,000) (0)	1. None. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

Protection of Navigation (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Collection and Removal of Drift:			
Baltimore Harbor Drift Removal, MD	439,000 (0) (439,000)	464,000 (0) (464,000)	1. None. 2. None.
New York Harbor Drift Removal, NY & NJ	5,005,000 (0) (5,005,000)	5,030,000 (0) (5,030,000)	1. None. 2. None.
Removal of Drift & Debris from the Potomac and Anacostia River, DC	879,000 (0) (879,000)	928,000 (0) (928,000)	1. None. 2. None.
Hampton Roads Drift Removal, VA	960,000 (0) (960,000)	1,095,000 (0) (1,095,000)	1. None. 2. None.
Total Protection of Navigation	8,924,000 (1,641,000) (7,283,000)	9,132,000 (1,615,000) (7,517,000)	

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

4. Protection of Navigation (Cont'd)

a. Project Condition Surveys

The $8,151,000 requested in FY 2002 supports hydrographic surveys, inspections, and studies to determine the condition of navigation channels that do not have any other maintenance work included in the budget 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 the users can be advised of channel conditions and future maintenance can be scheduled.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Connecticut	782,000 (782,000) (0)	1,197,000 (1,197,000) (0)	1. Variations in inspections. 2. None.
Delaware	50,000 (50,000) (0)	50,000 (50,000) (0)	1. None. 2. None.
District of Columbia	24,000 (24,000) (0)	32,000 (32,000) (0)	1. Variations in inspections. 2. None.
Maine	488,000 (488,000) (0)	520,000 (520,000) (0)	1. None. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

4. Protection of Navigation (Cont'd)

a. Project Condition Surveys (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Maryland	230,000 (230,000) (0)	312,000 (312,000) (0)	1. Variations in surveys. 2. None.
Massachusetts	1,338,000 (1,338,000) (0)	1,210,000 (1,210,000) (0)	1. Variations in inspections. 2. None.
New Hampshire	116,000 (116,000) (0)	276,000 (276,000) (0)	1. Variations in inspections. 2. None.
New Jersey	672,000 (672,000) (0)	723,000 (723,000) (0)	1. Variations in surveys. 2. None.
New York	843,000 (843,000) (0)	893,000 (893,000) (0)	1. Variations in surveys. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

4. Protection of Navigation (Cont'd)

a. Project Condition Surveys (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Rhode Island	280,000 (280,000) (0)	333,000 (333,000) (0)	1. Variations in inspections. 2. None.
Virginia	680,000 (680,000) (0)	745,000 (745,000) (0)	1. None. 2. None.
Disposal Area Monitoring	1,023,000 (1,023,000) (0)	1,130,000 (1,130,000) (0)	1. None. 2. None.
Long Island Sound, CT and NY	1,206,000 (1,206,000) (0)	730,000 (730,000) (0)	1. Conducted sediment sampling and testing, FY 2001 2. None.
Total Project Condition Survey	7,732,000 (7,732,000) (0)	8,151,000 (8,151,000) (0)	

APPROPRIATION TITLE: Operation and Maintenance, General FY 2002 (Cont'd)

4. Protection of Navigation (Cont'd)

b. Surveillance of Northern Boundary Waters.

The $17,000 requested in FY 2002 supports meeting US obligations under provisions of boundary water treaties and other international agreements. Data collection includes current velocity measurements, presence and intensity of ice, water levels, land use patterns and estimating potential damages caused by extreme levels. This information can be used to enhance water level forecasts, develop crises response plans, and provide advance warning to area residents and waterway users of impending floods or ice jams.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	ESTIMATED OBLIGATIONS FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items
Maine			
International St. Croix River Board	16,000 (16,000) (0)	17,000 (17,000) (0)	1. None. 2. None.
Total Surveillance of Northern Boundary Waters	16,000 (16,000) (0)	17,000 (17,000) (0)	
Total Protect. of Navig., Project Condition Survey & Surveillance of Northern Boundary Waters	16,672,000 (9,389,000) (7,283,000)	17,300,000 (9,783,000) (7,517,000)	
GRAND TOTAL-NORTH ATLANTIC DIVISION	206,523,000 (56,797,000) (149,726,000)	193,727,000 (59,312,000) (134,415,000)	