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of the Army (Civil Works)

FISCAL YEAR 2015
Civil Works
Budget Details of the
U.S. Army Corps of Engineers
for
Construction
VOL. II: SAD - SWD

March 2014

Report Documentation Page

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South Atlantic Division

28 March 2014

CONSTRUCTION

FLORIDA

APPROPRIATION TITLE: Construction – (Flood Risk Management – Dam Safety Action Classification (DSAC) I Replacement)

PROJECT: Herbert Hoover Dike, Florida (Continuing)

LOCATION: The Herbert Hoover Dike (HHD) is located in Lake Okeechobee, Florida. The HHD system encircles Lake Okeechobee entirely, except in the vicinity of Fisheating Creek on the western shore. The existing embankments total about 143 miles in length with typical crest elevations rising about 25 feet above adjacent land elevations.

DESCRIPTION: The Major Rehabilitation Report (MRR), approved in November 2000, divided the dike into 8 Reaches and included a detailed analysis of alternatives in Reach 1. The MRR proposed construction of a seepage/drainage berm along the landside toe of the dike for Reach 1. Following input from a variety of expert sources, the U.S. Army Corps of Engineers (Corps) convened an independent technical review panel to further evaluate the design of the proposed repairs, which were underway. After reviewing the findings of this panel, the Corps decided to fundamentally alter its plans for strengthening the HHD. The new design concept includes toe-ditch fill, cut-off wall at the center of the dike, and seepage berm. The former Reach by Reach approach has now been replaced with a system wide risk reduction approach as required for safety modifications to dams. This risk reduction strategy is being implemented by addressing the culvert structures as the first order of work while completing the ongoing Dam Safety Modification Study (DSMS) which includes the entire HHD system. The cutoff wall installation to address seepage and piping in Reach 1 between the cities of Port Mayaca and Belle Glade, Florida has been completed.

AUTHORIZATION: HHD is a component of the Central and Southern Florida (C&SF) Project for Flood Control and Other Purposes. The C&SF Project was authorized in the Rivers and Harbors Act of 1930, the Flood Control Acts of 1948, 1954, 1958, 1960, 1965 and 1968; 1970, Section 103 and, the Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996, 2007.

REMAINING BENEFIT - REMAINING COST RATIO for the project as a whole: Not applicable since the project is a dam safety project.

TOTAL BENEFIT - COST RATIO: Not applicable since the project is a dam safety project.

INITIAL BENEFIT - COST RATIO: Not applicable since the project is a dam safety project.

BASIS OF BENEFIT - COST RATIO: Not applicable since the project is a dam safety project.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$2,077,252,000		Initial Levees	100	October 2012
Estimated Non-Federal Cost	\$32,586,000		Culverts	20	TBD
Cash Contributions	\$32,586,000		Remaining Levees	0	TBD
Other Costs	\$0				
Total Estimated Project Cost	\$2,109,838,000		Entire Project	29	TBD
Allocation to 30 September FY 2011	\$427,942,000				
Allocations for FY 2012	\$85,000,000				
Allocations for FY 2013	\$129,740,000				
Allocation for FY 2014	\$86,000,000				
Allocations through FY 2014	\$728,682,000	<u>1/</u> <u>2/</u> <u>3/</u> <u>5/</u>	35.1		
Estimated Unobligated Carry-In Funds	\$0	<u>4/</u>	38.7		
President's Budget Amount for FY 2015	\$75,000,000				
Programmed Balance to Complete after FY 2015	\$1,273,570,000	<u>6/</u>			
Un-programmed Balance to Complete after FY 2015	\$0				

1/ \$(12,284,000) reprogrammed from the project.

2/ \$(8,150,000) rescinded from the project.

3/ \$0 transferred to the Flood Control and Coastal Emergencies account.

4/ Estimated Unobligated Carry-In Funding: The actual unobligated balance from FY 2013 to FY 2014 (3011A report) for this project is \$6,235,000. As of the date this justification was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this project effort is \$0. This amount will be used to perform work on the project as follows: N/A.

5/ PED costs of \$0 are included in this amount.

6/ For programmed work only; remaining work is un-programmed pending a decision to construct these features.

PHYSICAL DATA: The HHD system consists of implementation of risk reduction features throughout approximately 143 miles of levee surrounding Lake Okeechobee, with the replacement and/or removal or abandonment of 32 culverts.

JUSTIFICATION: The Corps has classified the HHD as a Dam Safety Action Classification (DSAC) 1 (Very High Urgency). These are dams where progression toward failure is confirmed to be taking place under normal operations and the dam is almost certain to fail under normal operations within a few years without intervention; or the incremental risk – combination of life or economic consequences with likelihood of failure – is very high. USACE considers this level of life-risk to be unacceptable except in extraordinary circumstances. Work on the HHD involves three simultaneous efforts: completion of Reach 1 cutoff wall, replacement of

Division: South Atlantic

District: Jacksonville

Herbert Hoover Dike, FL

existing culverts, and completion of a new dam safety modification report which will describe remediation for Reaches 2 through 8. The work on HHD involves the construction of a cutoff wall between Port Mayaca and Belle Glade and the replacement of 28 water control structures (culverts) and the removal or abandonment of 4 culverts. As an interim measure, the Corps has changed the operating regime for Lake Okeechobee to lower the probability of failure from seepage. However, it is also proceeding to repair the dike as quickly as is practical in order to further mitigate the risk. Landside construction includes features such as partial seepage berms, relief trenches and structural solutions for removing or replacing existing culverts and other penetrations through the embankment. Chance of breach or failure is dependent on lake elevation and other factors such as hurricanes that could affect a population of 40,000 at risk with a risk-warning time of 1 hour. Currently, the probability of catastrophic dike failure due to piping is unacceptably high. Such an event would produce flooding, which could (depending on its location) lead to the loss of life and/or significant economic damage. The Corps is proceeding first with work in the areas of the dike where the potential risk is the greatest. Any such failure would also adversely affect the ecosystem of Lake Okeechobee (directly) and the estuaries of the Indian River Lagoon and the Caloosahatchee River (indirectly). It would also reduce the ability to store water in the lake for release in dry years for consumptive uses and to benefit the ecosystem of the Everglades.

FISCAL YEAR 2014: The Total unobligated dollars are being applied as follows:

Continue Construction of Culverts	\$71,764,000
Continue Engineering During Construction	\$4,566,000
Continue Design/Field Investigation	\$3,100,000
Continue Dam Safety Modification Study	\$3,750,000
Continue Construction Management	\$9,055,000
Total	\$92,235,000

FISCAL YEAR 2015: The budget amount plus carry-in funds will be applied as follows:

Continue Construction of Culverts	\$51,776,000
Continue Engineering During Construction	\$4,202,000
Continue Design/Field Investigation	\$4,826,000
Continue Dam Safety Modification Study	\$3,500,000
Continue Construction Management	\$10,696,000
Total	\$75,000,000

NON-FEDERAL COST: There is no cost share requirement for the current project as authorized for construction. Non-Federal cost listed in the previous financial summary table are in accordance with the cost sharing and financing concepts reflected in the original, 1930's-era legislation.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights of way	\$0	\$0
Total Non-Federal Costs	\$0	\$0

STATUS OF LOCAL COOPERATION: A Partnership Agreement (PA) was not required for the Herbert Hoover Dike Project. There are resolutions through which the sponsor, South Florida Water Management District (SFWMD), commits to items of local cooperation. This consists of Resolutions 12 (1948) and 398 (1949). The repairs to the Herbert Hoover Dike are being 100% federally funded. Any additional real estate or easements required for the repairs are the responsibility of the local sponsor.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$2,077,252,000 is an increase of \$32,586,000 from the latest estimate (\$2,044,666,000) presented to Congress (FY 2014). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$25,013,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	\$7,573,000
Total	\$32,586,000

The project schedule is based on maximum capability for reduction of risk for the entire system. The project is scheduled with the last culvert replacement construction contract being awarded in FY 2017 pending results of the Dam Safety Modification Report. The subsequent project estimate increased due to substantial cost information based on actual construction and more definitive land side rehabilitation cost estimates. The rehabilitation will be analyzed for risk and risk reduction and there may come a point in time where the risk is decreased to a point that rehabilitation features will either no longer be needed or reduced below the costs of rehabilitation.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT (EIS) COMPLIANCE: A Supplemental EIS was prepared in January 2005 and the Record of Decision was signed in September 2005.

The preparation of a required Environmental Assessment (EA) for the removal and replacement of the federal culverts within the HHD system was completed in May 2011.

The preparation of a required Environmental Assessment (EA) for the seepage collection/filtering system pilot test was completed in December 2011.

OTHER INFORMATION: Funding for the major rehabilitation was first appropriated in FY 2001. All funding prior to FY 2001 was appropriated through dam safety.

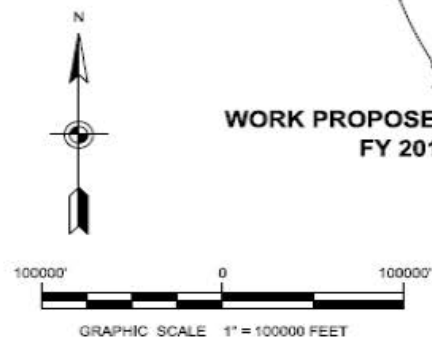
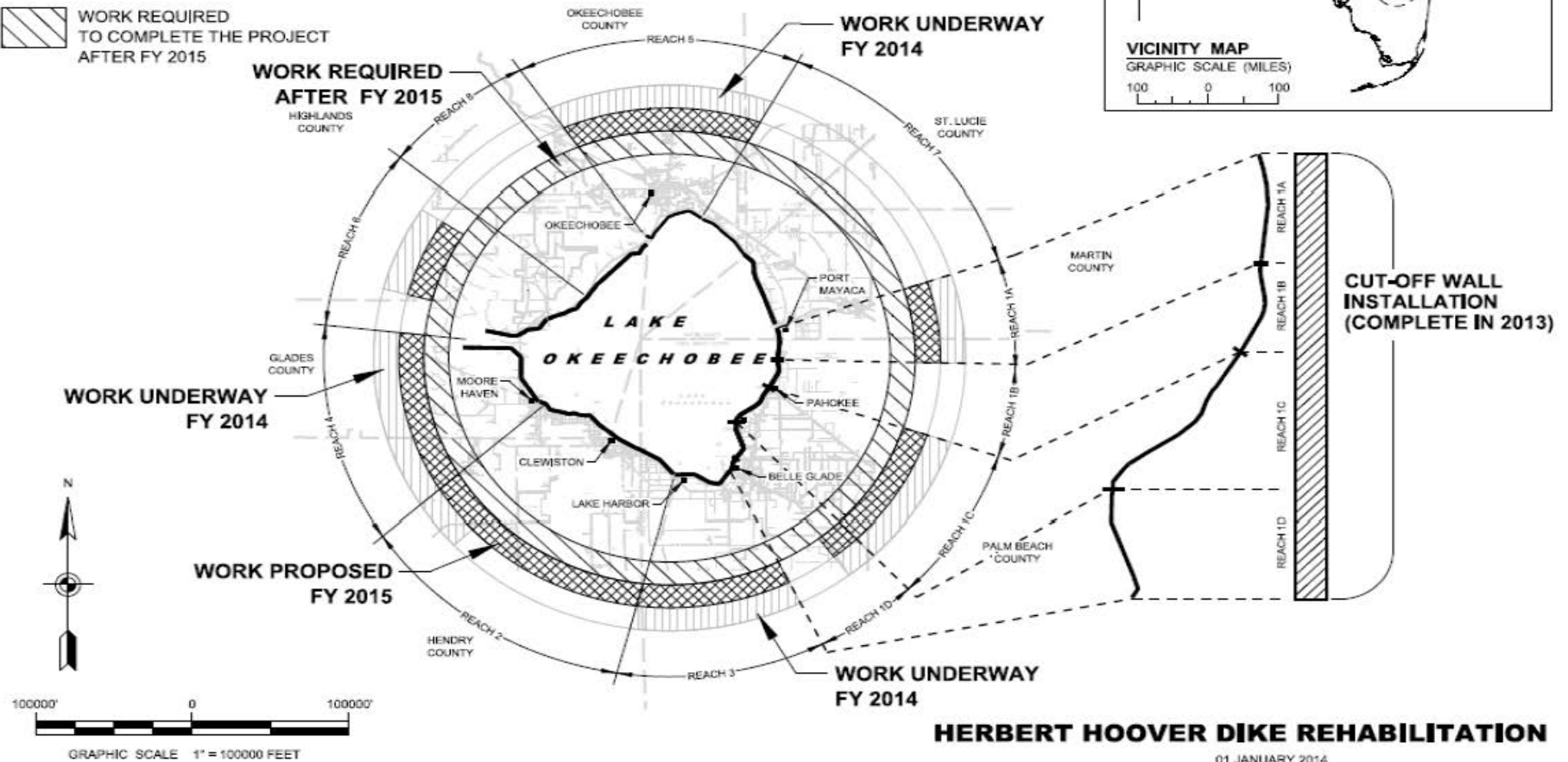
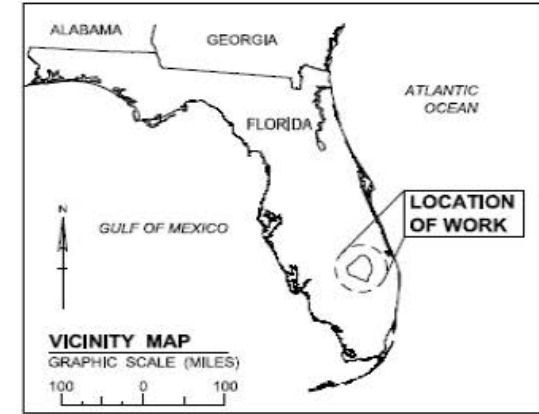
A value engineering (VE) study was done on design for Reach 1 described in the 2000 MRR. The VE recommendation was a modified plan of the recommended plan in the MRR. Subsequently, a Detailed Design Report (DDR) analyzed the VE plan and determined that it permitted too much seepage flow through the section and impacted local flood control. Following input from a variety of expert sources, the Corps convened an independent technical review panel to further evaluate the design of the proposed repairs, which were underway. After reviewing the findings of this panel, the Corps fundamentally altered its design for strengthening the HHD. Preliminary analyses indicated that construction of a cut-off wall in conjunction with landside repairs would be required within a 27-mile stretch in the southwestern portion of the dike, which when complete would increase reliability of the portion of the dike at greatest risk of failure to authorized levels of protection. A HHD Dam Safety Modification Report is being prepared for the entire HHD system, which will also evaluate alternative designs for their feasibility and potential to reduce the project cost.

The HHD Project is a multi-purpose project authorized for flood control, water supply, and navigation. The Comprehensive Everglades Restoration Plan (CERP) assumed the dike was fully functional. A fully functional dike will support the authorized ecosystem restoration benefits of the CERP. The current effort to strengthen the dike, when completed, will allow the Corps to hold more water safely in the lake. This will enable the Corps to release excess water to the estuaries of the Indian River Lagoon and the Caloosahatchee River in a more controlled, less damaging, fashion. In the long-term, it will also enable the Corps to release more water during dry periods to benefit the ecosystem of the Everglades.

LEGEND

-  WORK COMPLETED AS OF 30 JANUARY 2013
-  WORK UNDERWAY WITH FUNDS AVAILABLE FOR FY 2014
-  WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2015
-  WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2015

CUT-OFF WALL	
REACH	MILES
1A	4.9
1B	4.0
1C	6.2
1D	7.4



APPROPRIATION TITLE: Construction – Environmental Restoration

PROJECT: South Florida Ecosystem Restoration Program, Florida (SFER) (Continuing)

LOCATION: The South Florida Ecosystem Restoration (SFER) Program stretches from the southern Orlando area southward across the Everglades, the Florida Keys, and the contiguous and near-shore waters of South Florida, and across South Florida from east to west including portions of the drainage areas of the Indian River Lagoon and the Caloosahatchee River, as well as population centers along the southeast and southwest coasts. The project area is defined by the political boundaries of the South Florida Water Management District (SFWMD), and includes all of the Everglades. It encompasses an area of approximately 18,000 square miles, which includes all or part of 18 counties in the southeast part of the state of Florida. Principle areas are the Kissimmee River Basin, Lake Okeechobee, Everglades Agricultural Area, Upper East Coast, Lower East Coast, Big Cypress Basin, Water Conservation Areas, Everglades National Park, Southwest Florida, Florida Bay and the Florida Keys.

DESCRIPTION: The objective of the SFER Program is to restore, protect and preserve the South Florida ecosystem including the Everglades, while providing for other water related needs of the region. The SFER Program includes the Central and Southern Florida (C&SF) Project, the Kissimmee River Restoration Project, the Everglades and South Florida (E&SF) Restoration Project, and the Modified Waters Deliveries Project.

The completed C&SF Project includes 1,000 miles of canals, 720 miles of levees and several hundred water control structures, which provide water supply, flood damage reduction, water management and other benefits to south Florida. Under SFER, numerous C&SF projects—including West Palm Beach Canal, C-111 (South Dade), Comprehensive Everglades Restoration Plan (CERP), and Manatee Pass Thru Gates—are being undertaken to address adverse environmental impacts caused by the C&SF project's modification of historic Everglades flows.

The CERP Picayune Strand (Southern Golden Gate Estates) Restoration Project was authorized under Section 1001(15) of the Water Resources Development Act (WRDA) of 2007. The purpose of this project is to restore and enhance 55,247 acres of wetlands in the Southern Golden Gates Estates area of Picayune Strand and in adjacent public lands by restoring historical overland waterflows to the South while maintaining flood control measures for areas to the North. Implementation of the restoration plan would restore the cypress/freshwater marsh and wet prairie improving the functionality of habitat for the Florida Panther, Smalltooth Sawfish, Manatee and Wood Stork and improve the water quality of coastal estuaries by moderating the large salinity fluctuations caused by freshwater point discharge of the Faka Union Canal. The plan would also aid in protecting the City of Naples eastern Golden Gate wellfield by improving groundwater and aquifer recharge. The project includes a combination of spreader canals, canal plugs, road and tram removal and pump stations for the Prairie, Merritt, Faka Union and Miller Canals.

The CERP Indian River Lagoon (IRL) project was authorized under Section 1001(14) of the Water Resources Development Act of 2007. It is identified as one of the most biologically diverse estuarine system in all of North America by the Smithsonian Marine Institute. The Project Implementation Report (PIR) recommends a plan in Martin, St. Lucie, and Okeechobee Counties that will reduce the damaging effects of watershed runoff, reduce high peak discharges, reduce nutrient loads, provide water quality benefits to control salinity, pesticides, and other pollutants presently discharged to the estuary, restores 117 acres of wetlands including seagrass, restores and improves the functionality of habitats for the Wood Stork, Green Sea Turtle and West Indian Manatee, and provide water supply for agriculture to offset reliance on the Floridian Aquifer. The plan includes 170,000 acre-feet of reservoir storage (C-44 Reservoir, C-23/24 North/South Reservoirs and C-25 Reservoir), and storm water treatment areas (C-44 West/East, C-23, C-24, and C-25), and provides storage on 92,000 acres of natural storage areas (Allapattah, Palmar, and Cypress Creek). The plan may also include steps to remove up to 7,900,000 cubic yards of muck from the St. Lucie River and Estuary.

Division: South Atlantic

District: Jacksonville

South Florida Ecosystem Restoration, FL

28 March 2014

SAD - 9

The CERP Site 1 Impoundment project was authorized under Section 1001(16) of the Water Resources Development Act of 2007. The purpose of the project is to restore 147,000 acres of degraded sawgrass wetlands, reduce water withdrawals and seepage losses from Loxahatchee National Wildlife Refuge and restore and improve the functionality of the habitat for the Wood Stork and Snail Kite. It includes a 1,660-acre project footprint with an eight foot deep above ground impoundment, pump station, discharge gated culvert, one combined service / auxiliary non-gated spillway and one auxiliary non-gated spillway, and a seepage control canal with an associated seepage pump station and overflow weir. An additional gated culvert structure is designed to control stages in L-36 Borrow Canal and North Springs Improvement District discharges into the Hillsboro Canal. Recreation features include boardwalks, viewing platforms, picnic shelters, canoe launches and information kiosks at one site within the footprint.

The Kissimmee Basin includes 3,000 square miles stretching from Orlando to Lake Okeechobee in central Florida. The Kissimmee River Restoration project involves the ecosystem restoration of the historic floodplain to re-establish wetland conditions by implementing the following: modifications to the operation of the upper chain of lakes; modification of various structures; enlargement of canals 36 and 37; backfilling 22 miles of canal 38; excavation of about nine miles of new river channel; removal of two water control structures and locks, floodproofing of developments around the lakes and land acquisition of over 100,000 acres. It restores 110,000 acres of riverine wetland system including beakrush wet prairies, broadleaf march, hardwoods, cypress strands and sawgrass and restores/improves the functionality of habit for the Wood Stork, Caracara, Snail Kite and Bald Eagle. The project also includes acquisition of fee title for lands within the 5-year-floodplain and acquisition of flowage easements for lands between the five-year-flood line and the 100-year-flood line.

The E&SF Restoration projects include the following separable elements: East Coast Canal Structures, Western C-11 Basin, Seminole Big Cypress, Ten Mile Creek, Tamiami Trail (Western Culverts), Florida Keys Carrying Capacity, Lake Okeechobee Water Retention, Southern CREW, and Lake Trafford.

The E&SF Project separable elements must meet the following criteria: be within the C&SF Project and its near shore waters; provide immediate, independent, and substantial ecosystem restoration, protection, and preservation benefits; cost less than \$25 million in Federal funds; be consistent with the Governor's Commission's Conceptual Plan; and have a local sponsor to contribute a minimum of 50% of the total project cost. The Water Resources Development Act of 2007 amended authorization for the Seminole Big Cypress project to increase the Federal share of project costs from \$25 million to \$30 million.

The Modified Water Deliveries to Everglades National Park (MWD) involves construction of certain modifications to the C&SF Project water management system and related operational changes to improve water deliveries to Everglades National Park (ENP). The project consists of structural features with the intended purpose of improving the conveyance of water between Water Conservation Areas (WCA) north of ENP and the Shark River Slough within the Park. It also involves acquisition of structures and provides flood mitigation to remaining structures in the 8.5 Square Mile Area (SMA), a residential area adjacent to the Park expansion boundary in East Everglades.

AUTHORIZATION: Flood Control Acts of 1948, 1954, 1960, 1962, 1965, and 1968; Authorization in 1970 under Section 201 of the Flood Control Act of 1965, and the Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996, 1999, 2000 and 2007. The Modified Water Deliveries to Everglades National Park was authorized under the Everglades Expansion Act of 1989 (PL 101-229). PL 101-229 specifically directs the Secretary of the Army, in consultation with the Secretary of Interior, to construct modifications to the C&SF Project to improve water deliveries to ENP. The Upper St. Johns River Basin was authorized under Flood Control Acts of 1948, 1954, 1958, 1965, Post Authorization Report 1984 and Water Resources Development Act 1986.

REMAINING BENEFIT-REMAINING COST RATIO: N/A; Ecosystem Restoration Project

Division: South Atlantic

District: Jacksonville

South Florida Ecosystem Restoration, FL

28 March 2014

SAD - 10

TOTAL BENEFIT-COST RATIO: The total benefit cost ratio for the entire project is not applicable because environmental benefits were not quantified in monetary terms. Incremental cost analysis (CE/ICA) was used to calculate the cost effectiveness of building the selected plans for each separable element within the SFER Program. For the CERP each of the projects highlighted in the Plan were further developed and analyzed in Project Implementation Reports and a CE/ICA was completed for each based on cost and environmental benefits. In addition, all projects recommended under the CERP alternative, undergo a Next Added Increment (NAI) analysis to determine what benefits the selected plan contributes to without regard to future CERP projects. It also determines whether sufficient benefits will accrue to justify the cost of the project if no additional CERP projects (other than those already existing or authorized) are implemented.

INITIAL BENEFIT-COST RATIO: The initial benefit-cost ratio for the entire project is not applicable because environmental benefits have not been quantified in monetary terms.

BASIS OF BENEFIT-COST RATIO: N/A; Ecosystem Restoration Project

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (CoE)		\$5,354,494,000		Misc. Completed Works	100	October 1992
Programmed Construction	\$4,732,597,000			CERP	27	TBD
Un-programmed Construction	\$621,897,000			West Palm Beach C-111 (South Dade)	93	TBD
Estimated Federal Cost (OFA)		\$391,308,000		Manatee Pass Gates	88	TBD
Programmed Construction	\$391,308,000			E Coast Canal	100	September 2012
Un-programmed Construction	\$0			Western C-111	100	September 2004
Estimated Total Federal Cost		\$5,745,802,000		Seminole Big Cypress	84	April 2015
Programmed Construction	\$5,123,905,000			Ten Mile Creek	99	TBD
Un-programmed Construction	\$621,897,000			Tamiami Trail: Western Culverts	68	TBD
Estimated Non-Federal Cost		\$4,497,597,000		Florida Keys: Carrying Capacity	100	December 2004
Programmed Construction	\$4,169,515,000			Lake Okeechobee: Water Retention and Phosphorus Removal	99	September 2014
Cash Contributions	\$1,946,708,000			Southern CREW	90	TBD
Other Costs	\$2,222,807,000			Lake Trafford	95	TBD
Un-programmed Construction	\$328,082,000			Kissimmee	86	TBD
Cash Contributions	\$173,398,000			Mod Waters Deliveries	99	TBD
Other Costs	\$154,684,000			Picayune Strand	67	TBD
Total Estimated Programmed Construction Cost		\$9,293,420,000		Upper St. John's River Basin	98	September 2014
Total Estimated Un-programmed Construction Cost		\$949,979,000		Entire Project	50	TBD
Total Estimated Project Cost		\$10,243,399,000				

Division: South Atlantic

District: Jacksonville

South Florida Ecosystem Restoration, FL

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT Cmpl	PHYSICAL COMPLETION SCHEDULE
Allocations to 30 September FY 2011	\$2,000,387,000				
Allocations for FY 2012	\$136,849,000				
Allocations for FY 2013	\$85,261,000				
Allocation for FY 2014	\$47,133,000				
Allocations through FY 2014	\$2,269,131,000	<u>1/</u> <u>2/</u> <u>3/</u> <u>5/</u> 47.9			
Estimated Unobligated Carry-In Funds	\$25,083,000	<u>4/</u>			
President's Budget for FY 2015	\$65,551,000		49.3		
Programmed Balance to Complete after FY 2015	\$2,397,415,000	<u>6/</u>			
Un-programmed Balance to Complete after FY 2015	\$621,897,000				

1/ \$(11,429,000) reprogrammed from the project.

2/ \$(3,733,000) rescinded from the project.

3/ \$(26,500,000) transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-In Funding: The actual unobligated balance from FY 2013 into FY 2014 for this project is \$25,083,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2015 from prior appropriations for use on this project effort is \$11,249 (x1000) This amount will be used to perform work on the project as follows: Kissimmee River Project \$9,756,000: Construct the McArthur Ditch, review land acquisition packages, project monitoring, completion of the River Acres construction and project oversight; and, funding in the amount of \$1,493,000 will be used towards close-out of the E&SF projects..

5/ PED costs of \$544,542 are included in this amount.

6/ For programmed work only; remaining work is un-programmed pending a decision to construct these features.

PHYSICAL DATA:

Pumping Plants	38	Each
Floodway Control & Diversion Structures	263	Each
Recreation	5	Each
Relocations		
Highway Bridges	2	Each
Railroads Bridges	58	Each
Canals		
New River Channel	9	Each
Water Control Structures Removal	2	Each
Locks	25	Each
Canals	1,014	Miles
Levees	820	Miles
Bridge	7	Each

JUSTIFICATION:

Central and Southern Florida (C&SF) Project:

The C&SF project was originally authorized and designed as a flood control project in response to the maximum flood of record in 1947. The 1947 flood frequency averages 1 in 25 years over the project area, with an average duration of 70 days. Minor floods occur almost yearly in the project area and major floods occur frequently. This situation is aggravated by wet antecedent conditions followed by heavy seasonal rainfall. The average degree of protection provided by the completed project is about a 10-year flood frequency protection. Approximately 2,853,700 acres are protected. This encompasses 2,765,100 agricultural acres and 88,600 urban acres. The present value of property subject to flood damages is about \$12,300,000,000. Property types include residential, commercial, industrial, public, and agricultural.

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

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

JUSTIFICATION: (continued)

Restoration projects in the Central and South Florida Project are being conducted under a variety of authorities. Examples include Picayune Strand, which restores 55,247 acres of wetlands and is a key component to connect state and federal preserve lands for plant and animal species as well as enhancement to adjacent wetland habitats; the Indian River Lagoon South project moderates unnatural salinity changes which cause detrimental effects to estuarine communities; the Site 1 Impoundment Project reduces seepage losses from the natural system and provides habitat improvement, while shifting consumptive water demands off of Loxahatchee National Wildlife Refuge (NWR) and Lake Okeechobee; the West Palm Beach Canal (C-51) project improves the quality of water entering Loxahatchee NWR & Lake Worth Lagoon as well as reducing freshwater pulse flows which adversely affect habitat in Lake Worth Lagoon.

Everglades and South Florida Restoration Project:

WRDA 1996 authorized implementation of the Everglades and South Florida (E&SF) Restoration Project in order to provide immediate, independent, and substantial ecosystem restoration, protection and preservation benefits. The authorization permitted implementation of nine projects that were justified on the basis of those benefits. Florida Keys Carrying Capacity Study, East Coast Canal Structure and Western C-11 projects have been completed. Lake Okeechobee Water Retention and Phosphorus Removal project will be completed and transferred to the sponsor in FY 2013. The Ten Mile Creek project, as originally planned, was physically completed in 2006. However, prior to turnover of the project, a determination was made that additional work will need to be performed to allow the project to perform properly. The Seminole Tribe Water Conservation Project located on the Big Cypress Reservation consists of building conveyance canals that will feed newly constructed impoundments. The impoundments function as natural habitats while improving water quality. The water flows from the Big Cypress Reservation and into the Big Cypress National Preserve.

Kissimmee River Restoration Project:

Local water resource development of the Kissimmee River began in the late 1800's. In the 1960's, the river was channelized as part of the C&SF Project. Although the project has provided for navigation and reduced flood damages as intended, it also resulted in long-term degradation of the natural ecosystem. The 103-mile river that historically meandered across and inundated about 35,000 acres of wetlands over a broad flood plain was reduced to a 56-mile canal that has successfully contained almost all flows since its completion. The channelization coupled with the modifications of the Lower Basin tributary watersheds and efficient control of floodwaters and regulation of inflows from the Upper Basin significantly altered hydrologic characteristics of the ecosystem. Project formulation and scoping was based on the most cost-effective plan that would meet fish and wildlife resources objectives for restoring ecological integrity. Completion of the project will result in the restoration of 52 miles of river; 27,000 acres of wetlands; improved water quality characteristics for the Kissimmee River; and restored conditions for over 300 fish and wildlife species.

Modified Water Deliveries to Everglades National Park and C-111 (South Dade) Projects:

The Corps is working in stages to restore natural hydrological conditions in Everglades National Park (ENP). Public Law 90-483 and Public Law 101-229 (Everglades National Park Protection and Expansion Act) authorized modifications to the C&SF project for environmental restoration in the C-111 basin and Shark River Slough. The C-111 (South Dade) effort will help restore natural hydrologic conditions in Taylor Slough within Everglades National Park by providing immediate improvement in flow between upper Everglades Marsh (WCA 3a) and ENP which directly improves habitat for endangered species. Modified Water Deliveries (MWD) will take steps to restore natural hydrological flows to Shark River Slough in the Park. In addition, the Tamiami Trail portion of MWD provides immediate improvement in flow from north across Tamiami Trail (US Hwy 41) to south into ENP which directly improves habitat for endangered species. The

JUSTIFICATION: (continued)

Corps will evaluate the success of these projects, and incorporate the lessons learned into implementation efforts conducted under the WRDA 2000 Comprehensive Everglades Restoration Plan (CERP) authority with further steps to improve water deliveries to the park. Due to a significant increase in the costs of the option selected in November 2005 for the Tamiami Trail (Eastern Segment) feature of the Modified Water Deliveries Project, the Corps completed a Limited Reevaluation Report (LRR) to re-examine prior reports and environmental documentation associated with this feature in an effort to re-evaluate the immediate steps to increase flows of water under the highway and into the Park. The Integrated LRR and Environmental Assessment were approved by the Assistant Secretary of the Army for Civil Works on 1 August 2008. The approved plan provides improved flows under the eastern Tamiami Trail and begins the restoration of flow into the historic headwaters of the Shark River Slough in northern Everglades National Park.

Average annual benefits of the CS&F Project, excluding restoration projects are as follows:

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

FISCAL YEAR 2014: The Total unobligated dollars are being applied as follows:

Central and Southern Florida:

Non-SFER

Upper St. John's Project

Initiate Construction of Three Forks Marsh Conservation Area	\$	1,500,000
Initiate Three Forks Marsh Conservation Area Cultural Resources Mitigation	\$	350,000
Engineering and Design for S252 Design Deficiency Report and remaining work	\$	561,000
Construction Management for Upper St. John's River Basin	\$	250,000
Complete physical close out of the project and initiate financial close out	\$	500,000
Non-SFER Sub-Total	\$	3,161,000

Non-CERP

Complete Construction - C-51 West Palm Beach Canal Trash Rake S-319 Mod	\$	1,000,000
Continue Construction on the C-51 West Palm Beach Canal Culvert Repairs	\$	4,012,000
Engineering and Design for C-51 West Palm Beach Canal	\$	1,000,000
Construction Management for C-51 West Palm Beach	\$	3,000,000
Engineering and Design for C-111 (South Dade)	\$	100,000
Manatee Pass Thru Gates – Close out Project	\$	5,000
Non-CERP Sub-Total	\$	9,117,000

CERP

CERP Picayune Strand

Continue Construction on the CERP Picayune Strand Miller Pump Station	\$	4,059,000
Continue Construction on the CERP Picayune Strand Faka Union Pump Station	\$	900,000
Complete Construction on the CERP Picayune Strand Merritt Pump Station	\$	500,000
Construction Management for CERP Picayune Strand	\$	3,536,000
Engineering and Design for CERP Picayune Strand	\$	1,141,000
CERP Picayune Strand Sub-total	\$	10,136,000

CERP Indian River Lagoon South

Complete Construction on the CERP Indian River Lagoon South C-44 Troup IT	\$	5,800,000
Construction Management for CERP Indian River Lagoon South	\$	500,000
Engineering and Design CERP Indian River Lagoon South	\$	500,000
Plans and Specifications for CERP Indian River Lagoon South	\$	2,292,000
CERP Indian River Lagoon South Sub-total	\$	9,092,000

FISCAL YEAR 2014: The total funds appropriated in FY 2014 including unobligated carry-in is being applied as follows: (continued)

CERP Site 1		
Continue Construction on the CERP Site 1 Phase I Impoundment	\$	1,607,000
Construction Management for CERP Site 1 Impoundment Phase 1	\$	1,000,000
Engineering and Design CERP Site 1 Impoundment Phase 1	\$	400,000
CERP Site 1 Sub-total	\$	3,007,000
CERP:Melaleuca Eradication Facility		
Melaleuca Eradication - Financially close out project	\$	55,000
CERP Design		
Engineering and Design for CERP Remaining Items (Includes Adaptive Assessment and Monitoring)	\$	16,209,000
CERP Sub-Total	\$	38,499,000
Subtotal : Central and Southern Florida	\$	50,777,000
Kissimmee:		
Lower Basin:		
Complete Construction of River Acres Supplemental	\$	500,000
Construction Management	\$	735,000
Monitoring	\$	90,000
Review of Land Acquisition Credit Packages	\$	1,300,000
Continue Limited Re-evaluation Report and Project Oversight	\$	1,700,000
Planned Carry-In for FY15 <u>7/</u>	\$	14,371,000
Lower Basin Sub-total <u>7/</u>	\$	18,696,000
Upper Basin:		
Continue Real Estate Crediting	\$	215,000
Planned Carry-In for FY15	\$	185,000
Upper Basin Sub-total	\$	400,000
Subtotal: Kissimmee	\$	19,096,000
Everglades and South Florida Ecosystem Restoration:		
Continue Construction Seminole Big Cypress Basin 2	\$	688,000
Continue caretaker oversight for Ten Mile Creek	\$	25,000
Complete Lake Okeechobee Water Retention Project	\$	137,000
Planned Carry-In for FY15	\$	1,493,000
Subtotal: Everglades and South Florida Ecosystem Restoration	\$	2,343,000
South Florida Ecosystem Restoration FY 2014 Total Unobligated Dollars <u>7/</u>	\$	72,216,000

7/ The FY2014 Total Unobligated Dollars includes \$4,800,000 in donor funds used for regional reconciliation of obligations incurred during the FY 2014 continuing resolution authority timeframe. And, as of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried out of FY 2014 from prior appropriations for use on this project in FY 2015 is \$11,749,000: \$\$9,756,000 will be used for construction of the Kissimmee River project; \$1,493,000 will be used towards close-out of the E&SF projects.

FISCAL YEAR 2015: The budget amount plus carry-in funds will be applied as follows:

Central and Southern Florida:

Non-CERP		
Complete Construction on the C-51 West Palm Beach Canal Trash Rake S-319 Mod	\$	200,000
Continue Construction on the C-51 West Palm Beach Canal Culvert Repairs	\$	1,000,000
Construction Management for C-51 West Palm Beach	\$	2,850,000
Initiate Design for the Gate Structures	\$	500,000
Non-CERP Sub-Total	\$	4,550,000
CERP		
CERP Picayune Strand		
Continue Construction on the CERP Picayune Strand Miller Pump Station	\$	2,000,000
Complete Construction on the CERP Picayune Strand Faka Union Pump Station	\$	400,000
Construction Management for CERP Picayune Strand	\$	2,075,000
Engineering and Design for CERP Picayune Strand	\$	3,152,000
CERP Picayune Strand Sub-total	\$	7,627,000
CERP Indian River Lagoon South		
Initiate Construction on the CERP Indian River Lagoon South C-44 Reservoir	\$	30,647,000
Construction Management for CERP Indian River Lagoon South	\$	5,000,000
Engineering and Design CERP Indian River Lagoon South	\$	1,600,000
Plans and Specifications for CERP Indian River Lagoon South	\$	900,000
CERP Indian River Lagoon South Sub-total	\$	38,147,000
CERP Site 1		
Complete Construction on the CERP Site 1 Phase I Impoundment	\$	727,000
Construction Management for CERP Site 1 Impoundment Phase 1	\$	1,500,000
CERP Site 1 Sub-total	\$	2,227,000
CERP Design		
Engineering and Design for CERP Remaining Items (includes Adaptive Assessment and Monitoring)	\$	13,000,000
CERP Sub-Total	\$	61,001,000
Subtotal : Central and Southern Florida	\$	65,551,000

FISCAL YEAR 2015: The budget amount plus carry-in funds will be applied as follows: (continued)

Kissimmee:

Lower Basin:

Initiate Construction of the McArthur Ditch	\$	5,000,000
Plans and Specifications	\$	500,000
Engineering During Construction	\$	544,000
Construction Management	\$	690,000
Review of Land Acquisition Credit Packages	\$	1,100,000
Monitoring	\$	75,000
Continue Limited Re-evaluation Report and Project Oversight	\$	1,662,000

Lower Basin Sub-total \$ **9,571,000**

Upper Basin:

Continue Real Estate Crediting	\$	185,000
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Subtotal: Kissimmee \$ **9,756,000**

Everglades and South Florida Ecosystem Restoration:

Complete E&SF Critical Projects	\$	1,493,000
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Subtotal: Everglades and South Florida Ecosystem Restoration \$ **1,493,000**

South Florida Ecosystem Restoration FY 2015 Total Unobligated Dollars \$ **76,800,000**

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in specific authorizing legislation and the Water Resources Development Act of 1986, 1996, 2000 and 2007 as applicable, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Completed Central and Southern Florida Works:		
Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities	\$176,459,000	\$0
Cash Contribution/Work-In-Kind	\$232,241,000	\$0
Subtotal Non-Federal Costs: Completed Central and Southern Florida Works	\$408,700,000	\$0
Upper St. Johns River Basin		
Provide lands, easements, rights of way, and dredged material disposal areas.	\$87,239,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	\$11,079,000	
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operations, maintenance, repair, and replacement of recreational facilities.	\$3,456,000	\$82,000
Subtotal Non-Federal Costs: Upper St. Johns River Basin	\$101,774,000	\$82,000
C&SF C-111 (South Dade)		
Provide lands, easements, rights of way, and dredged material disposal areas	\$112,991,000	\$0
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	\$419,000	\$0
Pay one-half of the cost of the project assigned to flood control and bear a percentage of costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	\$21,152,000	\$2,119,000
Subtotal Non-Federal Costs: C-111 (South Dade)	\$134,562,000	\$2,119,000
C&SF West Palm Beach Canal:		
Provide lands, easements, rights of way, and dredged material disposal areas.	\$16,011,000	\$0
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	\$ 1,471,000	\$0
Pay 12.8 percent of the separable costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of facilities.	\$13,010,000	\$290,000
Subtotal Non-Federal Costs: West Palm Beach Canal	\$30,492,000	\$290,000

Division: South Atlantic

District: Jacksonville

South Florida Ecosystem Restoration, FL

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
C&SF Manatee Pass-Through Gates:		
Pay applicable percentage of 0%, 15% or 20% based upon authorized cost share of each particular feature of the project and bear cost of operation, maintenance, repair, rehabilitation, and replacement of manatee protection features except for structures S-77, S-78, S-79, S-308 and S308B.	\$2,187,000	\$450,000
Subtotal Non-Federal Costs: Manatee Pass-Through Gates	\$2,187,000	\$450,000
C&SF Comprehensive Everglades Restoration Plan (CERP) :		
Provide lands, easements, rights of way, and dredged material disposal areas	\$675,607,000	\$0
Pay one-half of the cost of the project assigned to flood control and bear one half of the cost of operation, maintenance, repair, rehabilitation, and replacement of CERP facilities.	\$996,475,000	\$0
Subtotal Non-Federal Costs: Comprehensive Everglades Restoration Plan (CERP)	\$1,672,082,000	\$0
CERP Indian River Lagoon South		
Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities	\$793,728,000	\$0
Cash Contribution/Work-In-Kind/Bear 50% off costs of operation, maintenance, repair, rehabilitation, and replacement.	\$407,070,000	\$6,145,000
Subtotal Non-Federal Costs: CERP Indian River Lagoon South	\$1,200,798,000	\$6,145,000
CERP Picayune Strand		
Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities	\$138,601,000	\$0
Cash Contribution/Work-In-Kind/Bear 50% off costs of operation, maintenance, repair, rehabilitation, and replacement.	\$145,442,000	\$2,950,000
Subtotal Non-Federal Costs: CERP Picayune Strand	\$284,043,000	\$2,950,000
CERP Site 1 Impoundment		
Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities/	\$45,000,000	\$0
Cash Contribution/Work-In-Kind/Bear 50% off costs of operation, maintenance, repair, rehabilitation, and replacement. <u>9/</u>	\$108,419,000	\$347,000
Subtotal Non-Federal Costs: CERP Site 1 Impoundment	\$153,419,000	\$347,000
<u>9/OMRR&R is for Phase 1 only</u>		

Division: South Atlantic

District: Jacksonville

South Florida Ecosystem Restoration, FL

Requirements of Local Cooperation (Continued)		Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
CERP Melaleuca Eradication			
Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities.		\$0	\$0
Cash Contribution/ Work-In-Kind/Bear 50% off costs of operation, maintenance, repair, rehabilitation, and replacement.		\$2,356,000	\$335,000
Subtotal Non-Federal Costs: CERP Melaleuca Eradication		\$2,356,000	\$335,000
E&SF Lake Okeechobee Water retention & Phosphorus Removal			
Provide, with credit toward the non-Federal 50 percent share of project costs, all lands, easements, rights of way, and excavated or dredged material disposal areas		\$3,077,000	\$0
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project		\$0	\$0
Pay 50 percent of the costs allocated to environmental restoration, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement.		\$11,198,000	\$364,000
Subtotal Non-Federal Costs: Lake Okeechobee Water retention & Phosphorus Removal		\$14,275,000	\$364,000
E&SF Southern CREW			
Provide, with credit toward the non-Federal 50 percent share of project costs, all lands, easements, rights of way, and excavated or dredged material disposal areas.		\$28,664,000	\$0
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.		\$0	\$0
Pay 50 percent of the costs allocated to environmental restoration, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement.		\$11,008,000	\$175,000
Subtotal Non-Federal Costs: Southern CREW		\$39,672,000	\$175,000
E&SF East Coast Canal Structures			
Provide, with credit toward the non-Federal 50 percent share of project costs, all lands, easements, rights of way, and excavated or dredged material disposal areas.		\$0	
Modify or relocate, with credit toward the non-Federal 50 percent share of project costs, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.		\$0	
Pay 50 percent of the costs allocated to environmental restoration, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement.		\$1,890,000	\$150,000
Subtotal Non-Federal Costs: East Coast Canal Structures		\$1,890,000	\$150,000

Division: South Atlantic

District: Jacksonville

South Florida Ecosystem Restoration, FL

Requirements of Local Cooperation (Continued)		Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
E&SF Western C-11 Basin			
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.		\$0	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.		\$0	
Pay 50 percent of the costs allocated to environmental restoration, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement.		\$9,287,000	
Subtotal Non-Federal Costs: Western C-11 Basin		\$9,287,000	
E&SF Seminole Big Cypress			
Provide, with credit toward the non-Federal 50 percent share of project costs, all lands, easements, rights of way, and excavated or dredged material disposal areas.		\$7,500,000	\$0
Modify or relocate, with credit toward the non-Federal 50 percent share of project costs, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.		\$0	\$0
Pay 50 percent of the costs allocated to environmental restoration, and bear 50% costs of operation, maintenance, repair, rehabilitation, and replacement.		\$22,500,000	\$1,075,000
Subtotal Non-Federal Costs: Seminole Big Cypress		\$30,000,000	\$1,075,000
E&SF Ten-Mile Creek			
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.		\$5,074,000	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.		\$0	
Pay 50 percent of the costs allocated to environmental restoration, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement.		\$23,426,000	
Subtotal Non-Federal Costs: Ten-Mile Creek		\$28,500,000	

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
E&SF Tamiami Trail Western Culverts		
Provide, with credit toward the non-Federal 84 percent share of project costs, all lands, easements, rights of way, and excavated or dredged material disposal areas	\$0	\$0
Modify or relocate, with credit toward the non-Federal 84 percent share of project costs, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	\$0	\$0
Pay 50 percent of the costs allocated to environmental restoration, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement.	\$2,622,000	\$250,000
Subtotal Non-Federal Costs: Tamiami Trail Western Culverts	\$2,622,000	\$250,000
E&SF Lake Trafford		
Provide, with credit toward the non-Federal 95 percent share of project costs, all lands, easements, rights of way, and excavated or dredged material disposal areas.	\$1,356,000	\$0
Modify or relocate, with credit toward the non-Federal 95 percent share of project costs, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	\$0	\$0
Pay 84 percent of the costs allocated to environmental restoration, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement.	\$20,554,000	\$70,000
Subtotal Non-Federal Costs: Lake Trafford	\$21,910,000	\$70,000
E&SF Florida Keys Carrying Capacity		
Provide, with credit toward the non-Federal 50 percent share of project costs, all lands, easements, rights of way, and excavated or dredged material disposal areas.	\$0	\$0
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	\$0	\$0
Pay 50 percent of the costs allocated to environmental restoration, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement.	\$3,000,000	\$0
Subtotal Non-Federal Costs: Florida Keys Carrying Capacity	\$3,000,000	\$0

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Kissimmee River		
Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities	\$269,236,000	\$0
Cash Contribution/ Work-In-Kind/Bear all costs of operation, maintenance, repair, rehabilitation, and replacement.	\$86,637,000	\$477,000
Subtotal Non-Federal Costs: Kissimmee River	\$355,873,000	\$477,000
Modified Water Deliveries to Everglades National Park (OFA Costs)		
Provide, with credit toward Department of Interior's share of the project costs, all lands, easements, rights of way, and excavated or dredged material disposal areas.	\$156,000	\$0
Pay share of project costs and bear a percentage of costs of operation, maintenance, repair, rehabilitation, and replacement of the completed project, or functional portion of the project except water control structures and outlets in Water Conversation Area 3.	\$0	\$200,000
Subtotal Non-Federal Costs: Modified Water Deliveries to Everglades National Park (applied to OFA Costs)	\$156,000	\$200,000

STATUS OF LOCAL COOPERATION: Assurances of local cooperation have been accepted from the local sponsor, the South Florida Water Management District, for all works authorized under the Central and Southern Florida (C&SF) project. Assurances of local cooperation were accepted from the St. Johns River Water Management District for the Upper St. Johns River portion on 30 December 1987. The Project Cooperation Agreement (PCA) for the C-111 (South Dade) separable element was executed with the South Florida Water Management District in January 1995. A PCA amendment is under negotiation with the Sponsor and a Post Authorization Change document is being developed for approval of the increase to total project cost and minor design changes. The Design Agreement for the South Florida Water Management District segment of the Comprehensive Everglades Restoration Plan (CERP) was signed on May 12, 2000. Additional Design Agreements for CERP features maybe executed with Seminole Tribe of Florida, the Miccosukee Tribe of Florida, the Florida Department of Environmental Protection and Miami-Dade County.

The Kissimmee Project Cooperation Agreement which reflects the cost sharing outlined in House Document 102-286 dated April 7, 1992 was executed with the South Florida Water Management District (SFWMD) in March 1994. The local sponsor will be required to provide a cash contribution for project costs in excess of land credit (reflecting credit for lands, easements, rights of way, relocations, and disposal areas).

PCAs were executed January 7, 2000 for East Coast Canal Structures, Tamiami Trail Culverts, Western C-11, Seminole Big Cypress, Southern Crew, Lake Okeechobee Water Retention, 10-Mile Creek, and Lake Trafford. A Feasibility Cost Share Agreement (FCSA) was executed December 1998 for Florida Keys Carrying Capacity. Local sponsors include: South Florida Water Management District (SFWMD), Seminole Tribe of Florida, and the Florida Department of Community Affairs (DCA).

Division: South Atlantic

District: Jacksonville

South Florida Ecosystem Restoration, FL

STATUS OF LOCAL COOPERATION (continued)

PCAs were executed with the South Florida Water Management District September 1994 and July 2001 for the Modified Water Deliveries Project to implement modifications to the C&SF Project to improve water deliveries into Everglades National Park. PCA Amendment No. 2 was executed August 2008 for Tamiami Trail Modification

The CERP Master Agreement was executed on 13 August 2009 between the Corps and the South Florida Water Management District. A Project Partnering Agreement (PPA) was executed on the CERP: Picayune Strand project in August 2009 with the South Florida Water management District. The CERP Design Agreement was amended on 13 August 2009 to reflect authority to balance cost share of design and construction activities across CERP projects. Four additional PPAs were executed with SFWMD for CERP projects in FY 2010: Melaleuca Eradication and Other Exotic Plants (July), L-31 North Seepage Management Pilot Project (July), Site 1 Impoundment Project – Part 1 (August), and the Indian River Lagoon South Project – Phase 1 (September). Five Pre-Partnership Credit Agreements (PPCA) were executed with the South Florida Water management District in August 2009: Picayune Strand, Indian River Lagoon South, C-43 Caloosahatchee River West Basin Storage Reservoir, C-111 Spreader Canal, and the Biscayne Bay Costal Wetlands projects.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps cost estimate for the Corps' share of the overall restoration effort) cost estimate of \$5,354,494,000 is an increase of \$358,931,000 from the latest estimate (\$4,995,563,000) presented to Congress (FY 2014). The changes include the following:

Item	Amount
Price Escalation on Construction Features	\$114,687,000
Cost increases for remaining construction on CERP Picayune Strand,	\$19,328,000
Cost increases for remaining construction on CERP Indian River Lagoon South	\$185,367,000
Cost increases for remaining construction on CERP Site 1	\$79,125,000
Price escalation on Real Estate	\$ 3,213,000
Additional un-programmed balance for the E&SF Ten Mile Creek Project	\$3,500,000
Reduced scope of work for construction of C-111 South Dade	(\$70,680,000)
Adjustments in required cost share for the non-federal sponsor on Kissimmee River due to sponsor's reduction in estimated land costs and Work-In-Kind credits.	(\$102,068,000)
Cost increases for remaining construction on Upper St. John's project	\$2,157,000
Inclusion of the Upper St. John's total project cost	\$124,302,000
Total	\$358,931,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT:

The latest Programmatic Environmental Impact Statements for Central and Southern Florida project was the Comprehensive Review Study in April 1999. NEPA documents have also been completed for the Indian River Lagoon South, Picayune Strand, Site 1 Impoundment, Melaleuca Eradication, C-111 Spreader Canal, Caloosahatchee River (C-43) West Basin Storage Reservoir, Broward County Water Preserve Areas, and Biscayne Bay Coastal Wetlands projects.

The final Environmental Impact Statement for the Kissimmee project was filed with EPA on April 5, 1992. A supplement to the Environmental Impact Statement was integrated into the Upper Basin project modification report.

NEPA documents were completed prior to execution of the PCA for East Coast Canal Structures, Tamiami Trail Culverts (Western Culverts), Western C-11, Seminole Big Cypress, Southern Crew, Lake Okeechobee Water Retention, 10-Mile Creek, and Lake Trafford.

The Programmatic Environmental Impact Statement for the Upper St. Johns River Basin Project was approved September 4, 1986. The Three Forks Marsh Supplemental Environmental Impact Statement was approved January 2004.

OTHER INFORMATION: Funds to initiate preconstruction planning and construction on the Central and Southern Florida project were appropriated in FY 1950.

The Water Resources Development Act of 1992 authorizes the Chief of Engineers to review the Central and Southern Florida (C&SF) project to determine whether modifications to the existing project are advisable at the present time due to significantly changed physical, biological, demographic, or economic conditions, with particular reference to modifying the project or its operation for improving the quality of the environment, improving protection of the aquifer, and improving the integrity, capability, and conservation of urban water supplies affected by the project or its operation. The central organizing theme of the Comprehensive Restudy was the restoration of the South Florida ecosystem while accommodating other demands for water and related land resources in south Florida. Recognizing the complexity of ecological restoration and the extensive interaction between the ecosystem and other uses of water and related land resources, oversight of the reconnaissance level study effort was provided by the interagency South Florida Ecosystem Restoration Task Force, which continues to provide policy guidance, interagency coordination, and facilitate appropriate agency participation. The Water Resources Development Act of 1996 (Section 528) required that a Comprehensive Restudy feasibility report be submitted to Congress, along with a Programmatic Environmental Impact Statement, in July 1999. The Final Integrated Feasibility Report and Programmatic Environmental Impact Statement were submitted to Congress on July 1, 1999. The report provided a Comprehensive Everglades Restoration Plan (CERP). Congress authorized this plan in WRDA 2000 as a conceptual framework for modifications and operational changes to the C&SF Project, providing specific authorization for 10 projects totaling \$1,100,000,000 (including \$100,000,000 for adaptive assessment and monitoring programs) and 4 pilot projects totaling \$69,000,000, and to allow for implementation of projects under a programmatic authority, not to exceed \$206,000,000. Two additional pilot projects that were part of the CERP were authorized in the WDRA of 1999 for \$29,000,000. The Energy and Water Appropriations Act of FY 2000, Public Law 106-50 appropriated the first funds to initiate design of elements of the CERP.

The Water Resources Development Act of 2007 provided authorization for the following three CERP projects: Picayune Strand, Indian River Lagoon South and Site 1 Impoundment. It also provided a new authorized project cost for the Hillsboro and Lake Okeechobee ASR Pilot and the Caloosahatchee ASR Pilot projects; and a provision for the establishment of Section 902 limits for the Programmatic Authority projects.

OTHER INFORMATION (continued)

Funds to initiate preconstruction, planning and construction for the C&SF Upper St. Johns River Basin were appropriated in 1966. The project was halted in 1972 pending completion of the Environmental Impact Statement (EIS). The Post Authorization Report was approved in 1984. The original EIS was approved in 1986, Chief of Engineers approved the revised General Design Memorandum (GDM) in 1986, and construction recommenced in 1988. The revised GDM approved a semi-structural Flood Control Project where storm water would be stored on existing and restored floodplain wetlands. Under this approach, flood protection and ecosystem restoration benefits could be gained from restoring floodplain wetlands and reducing freshwater discharges to the coastal estuary. The supplemental EIS for Three Forks Marsh was approved January 2004. The Three Forks Marsh feature is critical to allow the earlier completed components of the project to properly function to provide the designed flood control and ecosystem restoration benefits of this Federal project. Although this C&SF project provides both ecosystem restoration and flood protection, a decision was made to remove this separable element from the SFER environmental restoration program and capture only Environmental Restoration in the SFER Justification sheet.

The Kissimmee Restoration Project was authorized by the Water Resources Development Act of 1992. The project cooperation agreement was executed in March 1994. Engineering and design and construction are on-going. Construction was initiated in FY 1997. A Post Authorization Change Report is being developed to address engineering solutions performed by the non-Federal sponsor in lieu of real estate acquisition where those actions resulted in a more cost effective solution. The Kissimmee Basin Modified Water Control Plan (KBMWCP) Environmental Impact Statement effort will include an operational and structural analysis of the post-Kissimmee River Restoration operations for the existing and new structures in the Upper and Lower Kissimmee Basins.

Funds to initiate construction for the Kissimmee River Restoration were appropriated in FY 1993. The Project Cost Share Agreement was signed with the South Florida Water Management District March 22, 1994. The current Total Project cost is approximately \$711,847,000 and will complete in FY 2019. The project was authorized in WRDA 1992 and separated the total project cost into two separate portions, the Kissimmee River known as the "Lower Basin" at a cost of \$426,885,000 and the Kissimmee River Headwaters known as the "Upper Basin" at a cost of \$92,210,000. The current Section 902 limit for the Lower Basin with inflation is \$781,334,000 and the current Section 902 limit in the Upper Basin with inflation is \$173,601,000. The current project cost in the Lower Basin with inflation is \$548,393,000 which does not exceed the Section 902 Limit. The current project cost in the Upper Basin with inflation is \$163,454,000 which does not exceed the 902 limit based on crediting of real estate packages received and remaining credits that the Sponsor has estimated they will submit for final crediting. A proposed change to the authorized limit to combine both the Upper and Lower Basin cost estimates into one total authorized project cost was included in the Fiscal Year 2013 Senate Committee Mark Up.

Modified Water Deliveries to Everglades National Park Project: The Everglades National Park Protection and Expansion Act, signed December 13, 1989, authorized construction of works required to take steps to improve water deliveries to Shark River Slough in Everglades National Park, construction of flood mitigation works for the residential area in the East Everglades, and acquisition of 107,600 acres of privately owned wetlands in the East Everglades. The Department of the Interior and the State of Florida acquired the lands included in the ENP expansion area and the Secretary of the Army has responsibility for constructing all project modifications. Under the initial implementation plan, funds were appropriated to the National Park Service and transferred to the Corps of Engineers for this purpose. From FY 2006 to FY 2008, Congress provided funding for this project to both the National Park Service and the Corps of Engineers. All subsequent funding is expected to be provided through National Park Service appropriations. The construction of the final project components, the Tamiami Trail bridge and roadway raising, was initiated in FY 2010.

OTHER INFORMATION (continued)

The Indian River Lagoon South Feasibility Study was initiated in 1996. This study evaluated potential modifications to the C&SF Project for ecological restoration of Indian River Lagoon ecosystem. A final feasibility report, which included components of the CERP, was submitted to HQUSACE in FY02. The Project Implementation Report (PIR), required by WRDA 2000, for Indian River Lagoon South was completed August 2004. A Chief's Report on the PIR was signed August 4, 2004. Construction was authorized in WRDA 2007. Construction of the intake canal of the C-44 Reservoir and STA component was initiated in July 2011 and is scheduled for completion in FY 2014. Construction of the C-44 Reservoir and pump station is scheduled to be initiated in the 2nd quarter of FY 2015.

The Picayune Strand Restoration Project: This project involves the restoration of natural flow across roughly 90 square miles in western Collier County, which were drained in the early 1960's. The project will restore wetlands in Picayune Strand (an abandoned real estate development formerly known as Southern Golden Gates Estates) and adjacent public lands by reducing over drainage while restoring a natural and beneficial sheetflow of water to the Ten Thousand Islands National Wildlife Refuge. Additionally, the project will benefit the endangered Florida panther, and improve wetland/upland mosaic habitat west of the Everglades. The Picayune Strand Project Implementation Report, which is a component of the Comprehensive Plan, was completed in December 2004. A Chief's Report on the PIR was signed on September 15, 2005. Construction was authorized in WRDA 2007. Construction was initiated with funds provided by the non-Federal sponsor and continues with the COE appropriated funds. Specifically, the local sponsor, South Florida Water Management District, completed construction of some of the road demolition and plugging of the Prairie canals. The Corps will complete the remaining construction of 3 pump stations (with capacities of 800, 2650 and 1200 cubic feet per second), road removal and plugging of canals. FY 2009 regularly appropriated and ARRA funds were used to award the first pump station, the Merritt pump station, in October 2009 and it is scheduled for completion in FY 2014 and transfer to the sponsor in FY 2015. The second pump station (Faka Union) was awarded on November 22, 2010 and is scheduled for completion in FY 2015 with transfer to the sponsor in FY 2016. The construction contract for the Miller Pump station was awarded in September FY 2013. A flood mitigation levee will be necessary to maintain current (year 2000) levels of flood risk southwest of the project and is scheduled to be initiated by the sponsor in FY 2016 pending completion of a Post Authorization Change Report and an increase in the total authorized project cost. A multi-agency sub-team determined that the project will likely affect an established manatee warm-water refuge at the southern end of the project and as a result will necessitate design and implementation of a mitigation component. The Post Authorization Change Report is being finalized to address increased costs for the project, which are due to increases in the cost of supplies and materials for construction of the pump stations. Current ongoing construction efforts will not exceed the section 902 limit and are currently scheduled for completion in FY 2018. Additional new construction efforts cannot be initiated until the section 902 limit has been changed.

The Site 1 Impoundment Project Implementation Report, which is a component of the Comprehensive Plan, was completed in August 2006. A Chief's Report on the PIR was signed on December 19, 2006, construction was authorized in WRDA 2007 and the Phase 1 construction contract was awarded in August 2010 using ARRA funds with an expected completion in March 2015

A Project Implementation Report for Broward County WPA, which is a component of the Comprehensive Plan, was completed in April 2007. However the final report was on hold pending a decision on the CERP land valuation policy, which was resolved in August 2009. The final report has been modified to reflect current CERP land valuation guidance as well as policy updates required since 2007. The Chief's Report was signed on May 21, 2012. The Record of Decision was signed and transmitted to Congress on November 2, 2012, and the project is awaiting authorization.

OTHER INFORMATION (continued)

The Caloosahatchee River (C-43) West Basin Storage Reservoir Project Implementation Report, which is a component of the Comprehensive Plan, was completed in September 2007. However the final report was on hold pending a decision on the CERP land valuation policy, which was resolved in August 2009. A final report was prepared based on current CERP land valuation guidance and submitted to Headquarters November 17, 2009. The Chief's Report was signed in March 2010 and a Supplemental Chief's Report was signed in January 2011 to clarify cost sharing requirements on recreational features. The Record of Decision was signed and transmitted to Congress on April 13, 2011, and the project is awaiting authorization.

The C-111 Spreader Canal Project Implementation Report, which is a component of the Comprehensive Plan, was completed in September 2009. The final PIR and Environmental Impact Statement (EIA) were approved at the Civil Works Review Board in December 2009. The Chief's Report was signed on January 31, 2012. The Record of Decision was signed on July 19, 2012 and transmitted to Congress on July 20, 2012, and the project is awaiting authorization.

The Biscayne Bay Coastal Wetlands Project Implementation Report, which is a component of the Comprehensive Plan, was completed in August 2011. The final PIR and Environmental Impact Statement (EA) were approved at the Civil Works Review Board in September 2011. The Chief's Report was signed on May 2, 2012. The Record of Decision was signed and transmitted to Congress on September 19, 2012, and the project is awaiting authorization.

The Everglades and South Florida Restoration program authorization limit of a total federal funding of \$75 million was increased to \$95 million in WRDA 2007. It also provided for an increased project Federal funding cap on the Seminole Big Cypress project from \$25 million to \$30 million. The local sponsors have elected, on some projects, to fund more than 50% of project costs to complete those projects. These projects are Lake Trafford, Western Tamiami Trail and Southern CREW.

The Enacted Energy and Water Development Appropriations Act of 2010 included a general provision to increase the Everglades and South Florida Ten Mile Creek federal funding cap by \$3.5 million, an increase from \$25 million to \$28.5 million, to complete a Post Authorization Change Report (PAC) and continue preventative maintenance. The PAC would evaluate options to address project design deficiencies and identify cost effective remedies. The constructed facility is being maintained in a minimum caretaker status to protect the property for health and safety. Discussions are ongoing with the sponsor who is interested in terminating the current Project Cooperation Agreement and assuming responsibility for the project.

SUMMARIZED FINANCIAL DATA – Separable Elements

C&SF Miscellaneous Completed Work

Estimated Federal Cost (CoE)		\$934,900,000
Programmed Construction	\$316,503,000	
Un-programmed Construction	\$618,397,000	
Estimated Federal Cost (OFA)		\$0
Programmed Construction	\$0	
Un-programmed Construction	\$0	
Estimated Total Federal Cost		\$934,900,000
Programmed Construction	\$316,503,000	
Un-programmed Construction	\$618,397,000	
Estimated Non-Federal Cost		\$408,700,000
Programmed Construction	\$84,118,000	
Cash Contributions	\$58,843,000	
Other Costs	\$25,275,000	
Un-programmed Construction	\$324,582,000	
Cash Contributions	\$173,398,000	
Other Costs	\$151,184,000	
Total Estimated Programmed Construction Cost		\$400,621,000
Total Estimated Un-programmed Construction Cost		\$942,979,000
Total Estimated Project Cost		\$1,343,600,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

Modified Water Deliveries to Everglades National Park

Estimated Federal Cost (CoE)			\$77,493,000
Programmed Construction	\$77,493,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$339,507,000
Programmed Construction	\$339,507,000		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$417,000,000
Programmed Construction	\$417,000,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$156,000
Programmed Construction		\$156,000	
Cash Contributions	\$156,000		
Other Costs	\$0		
Un-programmed Construction		\$0	
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$417,156,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$417,156,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

C&SF C-111 (South Dade)

Estimated Federal Cost (CoE)			\$128,752,000
Programmed Construction <u>10/</u>	\$128,752,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$5,800,000
Programmed Construction	\$5,800,000		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$134,552,000
Programmed Construction	\$134,552,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$134,562,000
Programmed Construction	\$134,562,000		
Cash Contributions <u>11/</u>	\$21,152,000		
Other Costs	\$113,410,000		
Un-programmed Construction	\$0	\$0	
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$269,114,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$269,114,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

10/ Fed cost includes \$106,000 for Independent External Peer Review which is included in the total project cost, but is not to be cost shared with the local sponsor.

11/ Non-federal cost includes \$114,000 for betterment.

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

C&SF West Palm Beach Canal

Estimated Federal Cost (CoE)			\$295,503,000
Programmed Construction	\$295,503,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$46,000,000
Programmed Construction	\$46,000,000		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$341,503,000
Programmed Construction	\$341,503,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$30,492,000
Programmed Construction		\$30,492,000	
Cash Contributions	\$13,010,000		
Other Costs	\$17,482,000		
Un-programmed Construction		\$0	
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$371,995,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$371,995,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

C&SF Manatee Pass-Through Gates

Estimated Federal Cost (CoE)			\$15,269,000
Programmed Construction	\$15,269,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$15,269,000
Programmed Construction	\$15,269,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$2,187,000
Programmed Construction	\$2,187,000		
Cash Contributions	\$2,187,000		
Other Costs	\$0		
Un-programmed Construction	\$0		
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$17,456,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$17,456,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

**C&SF Upper St. John’s River Basin
(Completing in 2014)**

Estimated Federal Cost (CoE)			\$126,955,000
Programmed Construction	\$126,955,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$126,955,000
Programmed Construction	\$126,955,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$101,774,000
Programmed Construction	\$101,774,000		
Cash Contributions	\$3,456,000		
Other Costs	\$98,318,000		
Un-programmed Construction	\$0		
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$228,729,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$228,729,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

Comprehensive Everglades Restoration Plan (CERP)

Estimated Federal Cost (CoE) ^{12/}			\$3,1,679,849,000
Programmed Construction	\$1,679,849,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$3,1,679,849,000
Programmed Construction	\$1,679,849,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$3,1,672,082,000
Programmed Construction	\$1,672,082,000		
Cash Contributions	\$996,475,000		
Other Costs	\$675,607,000		
Un-programmed Construction	\$0		
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$3,351,931,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$3,351,931,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

^{12/} The Federal cost also includes \$539,000 for Independent External Peer Review which is included in the total project cost, but is not to be cost shared with the local sponsor.

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

E&SF Lake Okeechobee

Estimated Federal Cost (CoE)			\$14,275,000
Programmed Construction	\$14,275,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$14,275,000
Programmed Construction	\$14,275,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$14,275,000
Programmed Construction	\$14,275,000		
Cash Contributions	\$11,198,000		
Other Costs	\$3,077,000		
Un-programmed Construction	\$0		
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$28,550,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$28,550,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

E&SF Southern CREW

Estimated Federal Cost (CoE)			\$4,182,000
Programmed Construction	\$4,182,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$4,182,000
Programmed Construction	\$4,182,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost ^{13/}			\$39,672,000
Programmed Construction	\$39,672,000		
Cash Contributions	\$11,008,000		
Other Costs	\$28,664,000		
Un-programmed Construction	\$0		
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$43,854,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$43,854,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

^{13/}Construction assigned to sponsor due to Federal funding cap on Everglades and South Florida program.

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

E&SF East Coast Canal Structures

Estimated Federal Cost (CoE)			\$1,890,000
Programmed Construction	\$1,890,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$1,890,000
Programmed Construction	\$1,890,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$1,890,000
Programmed Construction	\$1,890,000		
Cash Contributions	\$1,890,000		
Other Costs	\$0		
Un-programmed Construction	\$0		
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$3,780,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$3,780,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

E&SF Western C-11 Basin

Estimated Federal Cost (CoE)			\$9,208,000
Programmed Construction	\$9,208,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$9,208,000
Programmed Construction	\$9,208,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$9,287,000
Programmed Construction	\$9,287,000		
Cash Contributions <u>14/</u>	\$9,287,000	1/	
Other Costs	\$0		
Un-programmed Construction	\$0		
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$18,495,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$18,495,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

14/ Non Federal Cash Contribution includes \$79,500 for a betterment which is not included as part of cost share with the local sponsor.

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

E&SF Seminole Big Cypress

Estimated Federal Cost (CoE)			\$30,000,000
Programmed Construction	\$30,000,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$30,000,000
Programmed Construction	\$30,000,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$30,000,000
Programmed Construction		\$30,000,000	
Cash Contributions	\$22,500,000		
Other Costs	\$7,500,000		
Un-programmed Construction		\$0	
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$60,000,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$60,000,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

E&SF Ten Mile Creek

Estimated Federal Cost (CoE)			\$28,500,000
Programmed Construction		\$25,000,000	
Un-programmed Construction		\$3,500,000	
Estimated Federal Cost (OFA)			\$0
Programmed Construction		\$0	
Un-programmed Construction		\$0	
Estimated Total Federal Cost			\$28,500,000
Programmed Construction		\$25,000,000	
Un-programmed Construction		\$3,500,000	
Estimated Non-Federal Cost			\$28,500,000
Programmed Construction		\$25,000,000	
Cash Contributions	\$19,926,000		
Other Costs	\$5,074,000		
Un-programmed Construction		\$3,500,000	
Cash Contributions	\$3,500,000		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$57,000,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$57,000,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

E&SF Tamiami Trail (Western Culverts)

Estimated Federal Cost (CoE)		\$2,622,000
Programmed Construction	\$2,622,000	
Un-programmed Construction	\$0	
Estimated Federal Cost (OFA)		\$0
Programmed Construction	\$0	
Un-programmed Construction	\$0	
Estimated Total Federal Cost		\$2,622,000
Programmed Construction	\$2,622,000	
Un-programmed Construction	\$0	
Estimated Non-Federal Cost ^{15/}		\$2,622,000
Programmed Construction	\$2,622,000	
Cash Contributions	\$2,622,000	
Other Costs	\$0	
Un-programmed Construction	\$0	
Cash Contributions	\$0	
Other Costs	\$0	
Total Estimated Programmed Construction Cost		\$5,244,000
Total Estimated Un-programmed Construction Cost		\$0
Total Estimated Project Cost		\$5,244,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

^{15/} Construction assigned to sponsor due to Federal funding cap on Everglades and South Florida program.

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

E&SF Lake Trafford

Estimated Federal Cost (CoE)			\$3,784,000
Programmed Construction	\$3,784,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$3,784,000
Programmed Construction	\$3,784,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost ^{15/}			\$21,910,000
Programmed Construction		\$21,910,000	
Cash Contributions	\$20,554,000		
Other Costs	\$1,356,000		
Un-programmed Construction		\$0	
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$25,694,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$25,694,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

^{15/} Construction assigned to sponsor due to Federal funding cap on Everglades and South Florida program.

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

E&SF Florida Keys Carrying Capacity

Estimated Federal Cost (CoE)			\$3,000,000
Programmed Construction	\$3,000,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$3,000,000
Programmed Construction	\$3,000,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$3,000,000
Programmed Construction	\$3,000,000		
Cash Contributions	\$3,000,000		
Other Costs	\$0		
Un-programmed Construction	\$0		
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$6,000,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$6,000,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

E&SF Letter Report Development

Estimated Federal Cost (CoE)			\$1,039,000
Programmed Construction	\$1,039,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$1,039,000
Programmed Construction	\$1,039,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$0
Programmed Construction		\$0	
Cash Contributions	\$0		
Other Costs	\$0		
Un-programmed Construction		\$0	
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$1,039,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$1,039,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

CERP Indian River Lagoon South

Estimated Federal Cost (CoE)			\$1,200,798,000
Programmed Construction	\$1,200,798,000		
Un-programmed Construction		\$0	
Estimated Federal Cost (OFA)			\$0
Programmed Construction		\$0	
Un-programmed Construction		\$0	
Estimated Total Federal Cost			\$1,200,798,000
Programmed Construction	\$1,200,798,000		
Un-programmed Construction		\$0	
Estimated Non-Federal Cost			\$1,200,798,000
Programmed Construction		\$1,200,798,000	
Cash Contributions	\$,407,070,000		
Other Costs	\$793,728,000		
Un-programmed Construction		\$0	
Cash Contributions		\$0	
Other Costs		\$0	
Total Estimated Programmed Construction Cost			\$2,401,596,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$2,401,596,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

CERP Picayune Strand

Estimated Federal Cost (CoE) <u>16/</u>			\$284,170,000
Programmed Construction	\$284,170,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$284,170,000
Programmed Construction	\$284,170,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$284,043,000
Programmed Construction	\$284,043,000		
Cash Contributions	\$145,442,000		
Other Costs	\$138,601,000		
Un-programmed Construction	\$0		
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$568,213,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost <u>17/</u>			\$568,213,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

16/Fed cost includes \$127K for Independent External Peer Review that is part of the total project cost, but is not to be cost shared with the local sponsor.

17/Total project cost exceeds current Section 902 limit.

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

CERP Site 1 Impoundment

Estimated Federal Cost (CoE) <u>18/</u>			\$153,975,000
Programmed Construction	\$153,975,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$153,975,000
Programmed Construction	\$153,975,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$153,419,000
Programmed Construction	\$153,419,000		
Cash Contributions	\$108,419,000		
Other Costs	\$45,000,000		
Un-programmed Construction	\$0		
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$307,394,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost <u>19/</u>			\$307,394,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

18/ Federal cost includes \$556,000 for Independent External Peer Review that is part of the total project cost, but is not to be cost shared with the local sponsor.

19/ Estimated total project cost (based on authorized plan) exceeds current Section 902 limit. PH I costs are \$87,972,000. PH II costs are under development in coordination with the sponsor to re-scope Phase II.

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

CERP Melaleuca Eradication

Estimated Federal Cost (CoE)			\$2,356,000
Programmed Construction	\$2,356,000		
Un-programmed Construction	\$0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$2,356,000
Programmed Construction	\$2,356,000		
Un-programmed Construction	0		
Estimated Non-Federal Cost			\$2,356,000
Programmed Construction	\$2,356,000		
Cash Contributions	\$2,356,000		
Other Costs			
Un-programmed Construction	\$0		
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$4,712,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$4,712,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

Kissimmee River Lower Basin

Estimated Federal Cost (CoE) <u>20/</u>			\$304,674,000
Programmed Construction	\$304,674,000		
Un-programmed Construction	0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$304,674,000
Programmed Construction	\$304,674,000		
Un-programmed Construction	\$0		
Estimated Non-Federal Cost			\$243,719,000
Programmed Construction	\$243,719,000		
Cash Contributions	\$278,252,000		
Other Costs	\$165,467,000		
Un-programmed Construction	\$0		
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$548,393,000
Total Estimated Unprogrammed Construction Cost			\$0
Total Estimated Project Cost			\$548,393,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

20/ Kissimmee project cost shared 50/50. Federal cost for the Lower Basin includes \$51,000 for Independent External Peer Review which is included in the total project cost, but is not to be cost shared with the local sponsor.

SUMMARIZED FINANCIAL DATA – Separable Elements (Continued)

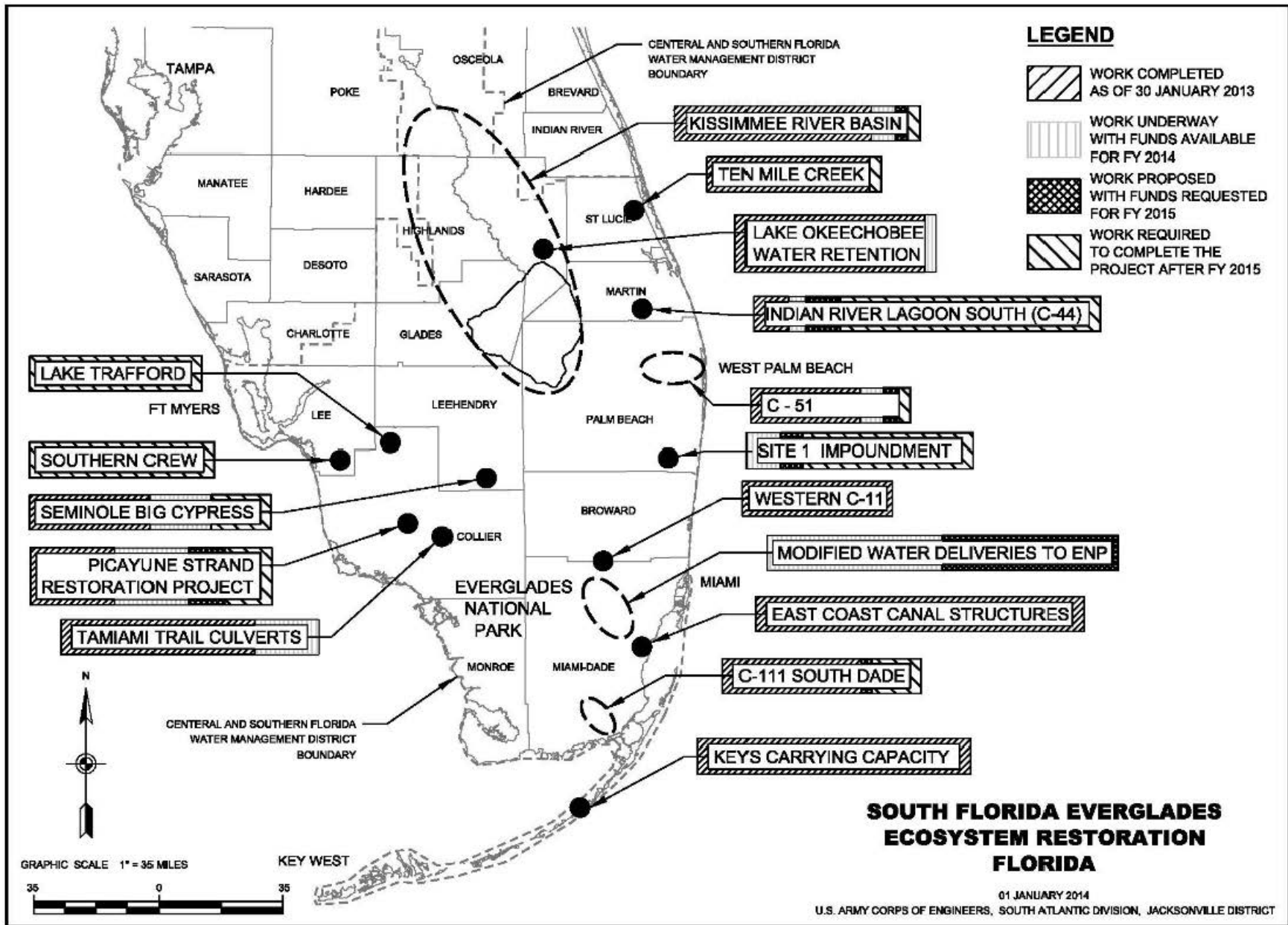
Kissimmee River Upper Basin

Estimated Federal Cost (CoE) <u>21/</u>			\$51,300,000
Programmed Construction	\$51,300,000		
Un-programmed Construction	\$ 0		
Estimated Federal Cost (OFA)			\$0
Programmed Construction	\$0		
Un-programmed Construction	\$0		
Estimated Total Federal Cost			\$51,300,000
Programmed Construction	\$51,300,000		
Un-programmed Construction	\$0000		
Estimated Non-Federal Cost			\$112,154,000
Programmed Construction	\$112,154,000		
Cash Contributions	\$8,385,000		
Other Costs	\$103,769,000		
Un-programmed Construction	\$0		
Cash Contributions	\$0		
Other Costs	\$0		
Total Estimated Programmed Construction Cost			\$163,454,000
Total Estimated Un-programmed Construction Cost			\$0
Total Estimated Project Cost			\$163,454,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

21/ Kissimmee project cost shared 50/50. Federal cost for the Upper Basin includes \$50,000 for Independent External Peer Review which is included in the total project cost, but is not to be cost shared with the local sponsor.



GEORGIA

APPROPRIATION TITLE: Construction – Channels and Harbors (Environmental Restoration)

PROJECT: Lower Savannah River Basin, Georgia and South Carolina (Completion)

LOCATION: The project is located on the Savannah River between river mile 40.9 and river mile 42.0, approximately 20 river miles above the city of Savannah, Georgia. The project area itself is located within Effingham County, Georgia and Jasper County, South Carolina. A portion of the project is within the US Fish and Wildlife Service's Savannah National Wildlife Refuge.

DESCRIPTION: The project includes a large partial diversion structure at Savannah River Cut Number 3, a plug in Bend Number 3 below the mouth of Bear Creek and the realignment and restoration of the mouths of Bear and Mill Creek's to provide improved flows into both creeks. Five years of post construction monitoring is required per the Environmental Assessment (EA) and Finding of No Significant Impact (FONSI).

AUTHORIZATION: Water Resources Development Act of 1996, Public Law 104-103, dated 12 October 1996, Section 101.

REMAINING BENEFIT - REMAINING COST RATIO: The initial benefit-cost ratio for the entire project is not applicable because environmental benefits have not been quantified in monetary terms.

TOTAL BENEFIT - COST RATIO: The initial benefit-cost ratio for the entire project is not applicable because environmental benefits have not been quantified in monetary terms.

INITIAL BENEFIT - COST RATIO: The initial benefit-cost ratio for the entire project is not applicable because environmental benefits have not been quantified in monetary terms.

BASIS OF BENEFIT - COST RATIO: The initial benefit-cost ratio for the entire project is not applicable because environmental benefits have not been quantified in monetary terms.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$2,980,000		Cuts and Plugs	100	Sep 2002
Estimated Non-Federal Cost	\$993,000		Creek Realignments	100	Sep 2002
Cash Contributions	\$982,000		Monitoring	40	Dec 2016
Other Costs	\$11,000				
Total Estimated Project Cost	\$3,973,000		Entire Project	73	Dec 2016
Allocations to 30 September 2011	\$2,754,000				
Allocation for FY 2012	\$86,000				
Allocation for FY 2013	\$30,000				
Allocation for FY 2014	\$30,000				
Allocations through FY 2014	\$2,900,000	<u>1/</u> <u>2/</u> <u>3/</u> <u>5/</u>	97.3		
Estimated Unobligated Carry-in Funds	\$0	<u>4/</u>			
President's Budget for FY 2015	\$80,000		100		
Programmed Balance to Complete after FY 2015	\$0	<u>6/</u>			
Unprogrammed Balance to Complete after FY 2015	\$0				

1/ \$352,000 reprogrammed to the project.

2/ (\$4,000) rescinded from the project.

3/ \$0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2013 into FY 2014 (3011A report) for this project is \$5,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this project effort is \$0. This amount will be used to perform work on the project as follows: N/A

5/ PED costs of \$374,250 are included in this amount.

6/ For programmed work only; remaining work is un-programmed pending a decision to construct these features.

PHYSICAL DATA: The Lower Savannah River Basin environmental restoration project consists of the following features: Diversion Structure at Cut 3; Bear Creek Plug; and, Bear and Mill Creek Realignment.

JUSTIFICATION: The Rivers and Harbor Act of 1950 authorized a 9-foot Federal navigation project extending from Augusta, Georgia to the upper limit of Savannah Harbor in Savannah, Georgia. As a method to improve navigation on the river, cuts were installed in the 1960's and 1970's. These cuts straightened and shortened the river course and, as a result, channeled flow away from the original watercourse. Depletion of natural river flows through the cutoff bends resulted in rapid siltation and loss of flow to creeks originating at the bends and their surrounding wetland areas. The authorized project restored the natural flow regime in creeks and wetland areas while simultaneously restoring the environment and wildlife habitat to their pre-navigation conditions. Environmental benefits consist of fish habitat and bottomland hardwoods. In addition, improvements to the environment will directly benefit at least nine species of plants and animals found on the Federal list of threatened and endangered species, including the shortnose sturgeon, peregrine falcon, bald eagle, and wood stork. This project restores 4,700 acres of bottomland habitat. The projects expected benefits are 1,000 habitat units annually and 1,900 bottomland functional values. No significant factors affecting the cost have been identified.

FISCAL YEAR 2014: The fiscal year 2014 appropriations, plus unobligated carry-in dollars, are being applied as follows:

Initiate year 3 of Post Construction Monitoring	\$35,000
Total	\$35,000

FISCAL YEAR 2015: The budget amount of \$80,000 plus carry-in funds of \$0 will be applied as follows:

Complete year 3 and initiate year 4 of Post Construction Monitoring in FY 2015	\$30,000
Complete year 4 and initiate year 5 of Post Construction Monitoring in FY2016	\$30,000
Complete year 5 of Post Construction Monitoring and fiscal closeout in FY2017	\$20,000
Total	\$80,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 as amended, and in the PCA executed on 24 July 2000, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and dredged or excavated material disposal areas.	\$11,000	\$0
Pay 25% of the costs allocated ecosystem restoration to bring the total non-Federal share of ecosystem costs to 35%, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of ecosystem restoration features.	\$982,000	\$0
Total Non-Federal Costs	\$993,000	\$0

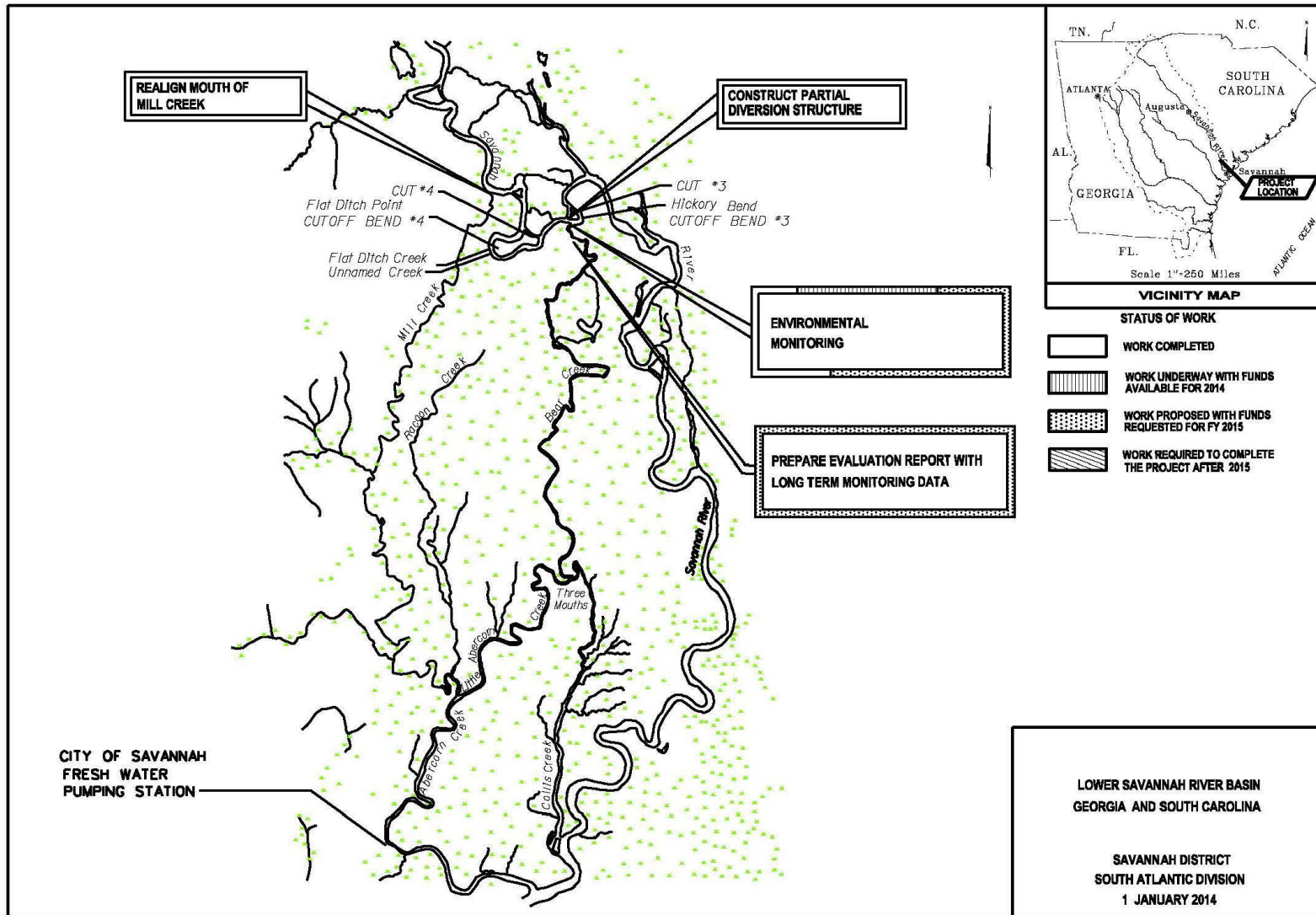
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The City of Savannah, Georgia is the non-Federal project sponsor. The Project Cooperation Agreement was executed on 24 July 2000. The project sponsor verbally indicated continued support on 9 April 2012.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$2,980,000 is \$273,000 less than the latest estimate presented to Congress (FY 2014). This change is based on fully funding the remainder of the monitoring and accounting for actual costs incurred to date.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) was prepared for the project and a Finding of No Significant Impact (FONSI) was signed on 22 March 1996.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1996. Funds to initiate construction were appropriated in FY 2000. The construction was physically complete in FY 2002. The EA/FONSI, project authorization and permits require five years of post construction monitoring be conducted and an environmental close out report be prepared. The FY2015 amount of \$80,000 will fully fund the remaining project efforts to include the full five years of required environmental monitoring and fiscal closeout of the project.



APPROPRIATION TITLE: Construction - Multi Purpose Power (Hydropower)

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

LOCATION: Richard B. Russell Dam is located on the Savannah River 275.1 miles above its mouth, 29.9 miles below Hartwell Dam, and about 37.4 miles above J. Strom Thurmond Dam (formerly Clark Hill Dam). This is approximately 16 miles southeast of Elberton, Georgia.

DESCRIPTION: The project consists of a concrete, gravity-type dam, flanked by earth embankments with a maximum height of 200 feet above the river. The total length of the dam is 5,616 feet and consists of a 1,884-foot concrete section and embankments with a total length of 3,732 feet. The gate-controlled spillway has a edesign capacity of 80,000 cubic feet per second. The project includes the installation of 328 megawatts of conventional power completed in January 1986 and 320 megawatts of reversible pumped storage power for a total available capacity of 648 megawatts completed in 1992. The installation of new main circuit breakers and static frequency converter system (MCB/SFC) was completed in 2013 yielding reliable pump back operations and full hydropower generation capability; an especially important feature during periods of drought. The project will be considered complete after the 5 years of required environmental monitoring when full pump back operations is completed.

AUTHORIZATION: Flood Control Act of 1966, P.L. 89-789 dated 7 November 1966, modified by Section 182 of the Water Resources Development Act of 1976, P.L. 94-587 dated 22 October 1976, and Section 601 of the Water Resources Development Act of 1986, P. L. 99-662 dated 17 November 1986

REMAINING BENEFIT - REMAINING COST RATIO: N/A; funding is for environmental monitoring only

TOTAL BENEFIT - COST RATIO: N/A; funding is for post-construction environmental monitoring only

INITIAL BENEFIT - COST RATIO: N/A; funding is for post-construction environmental monitoring only

BASIS OF BENEFIT - COST RATIO: N/A; funding is for post-construction environmental monitoring only

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (CoE)		\$649,086,000			
Future Non-Federal Reimbursement	\$590,583,000		Dam & Spillway Power Generation	100	1984
Estimated Federal Cost (Ultimate)	\$56,603,000		Conventional (4) Pump Storage (4) MCB/SFC (4) Monitoring	100 100 100	1985 2002 2013 TBD
Estimated Non-Federal Cost	\$592,483,000		Pre-construction Post-construction Entire Project	100 0 99.4	2012 TBD TBD
Cash Contributions	\$1,900,000				
Other Costs	\$0				
Reimbursements	\$590,583,000				
Power	\$590,583,000				
Total Estimated Project Cost		\$649,086,000			
Allocations to 30 September 2011	\$638,585,000				
Allocation for FY 2012	\$3,132,000				
Allocation for FY 2013	\$155,000				
Allocation for FY 2014	\$880,000				
Allocations through FY 2014	\$642,752,000	<u>1/</u> <u>2/</u> <u>3/</u> <u>5/</u>		99.0	
Estimated Unobligated Carry-In Funds	\$0	<u>4/</u>			
President's Budget for FY 2015	\$850,000			99.2	
Programmed Balance to Complete after FY 2015	\$5,484,000	<u>6/</u>			
Unprogrammed Balance to Complete after FY 2015	\$0				

1/ \$1,153,000 reprogrammed to the project.

2/ (\$103,000) rescinded from the project.

3/ \$0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated "Carry-in" Funding: The actual unobligated balance from FY 2013 into FY 2014 (3011A report) for this project is \$13,700. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this project effort is \$0. This amount will be used to perform work on the project as follows: N/A

5/ PED costs of \$0 are included in this amount.

6/ For programmed work only; remaining work is un-programmed pending a decision to construct these features.

PHYSICAL DATA: The Richard B. Russell Lake and Dam project consists of the following features:

Dam – Concrete Gravity; 200 feet high, 5,616 feet long

Spillway – Gate Controlled; 80,000 cubic feet per second

Power Generation

Conventional (4), 82 mega watts each

Pump Storage (4), 80 mega watts each

Reservoir Capacity (acre-feet)

Flood Control - 140,000

Power - 126,800

Dead Storage - 899,400

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

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

FISCAL YEAR 2014: The TOTAL unobligated dollars are being applied as follows:

Initiate year 2 of the required Post Construction Environmental Monitoring	\$893,700
Total	\$893,700

Division: South Atlantic

District: Savannah

Richard B. Russell Dam and Lake, GA and SC

28 March 2014

SAD - 64

FISCAL YEAR 2015: The budget amount of \$850,000 plus carry-in funds of \$0 will be used as follows:

Complete year 2 and initiate year 3 of the required Post Construction Environmental Monitoring	\$850,000
Total	\$850,000

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

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay all capital costs allocated to hydropower and bear annual costs of operation, maintenance, repair, rehabilitation and replacement of hydropower features.	\$590,583,000	\$3,557,000
Pay (repayment not to exceed 50 years with interest) or contribute in kind, one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation or replacement of recreation features.	\$1,900,000	\$249,000
Total Non-Federal Costs	\$592,483,000	\$3,806,000

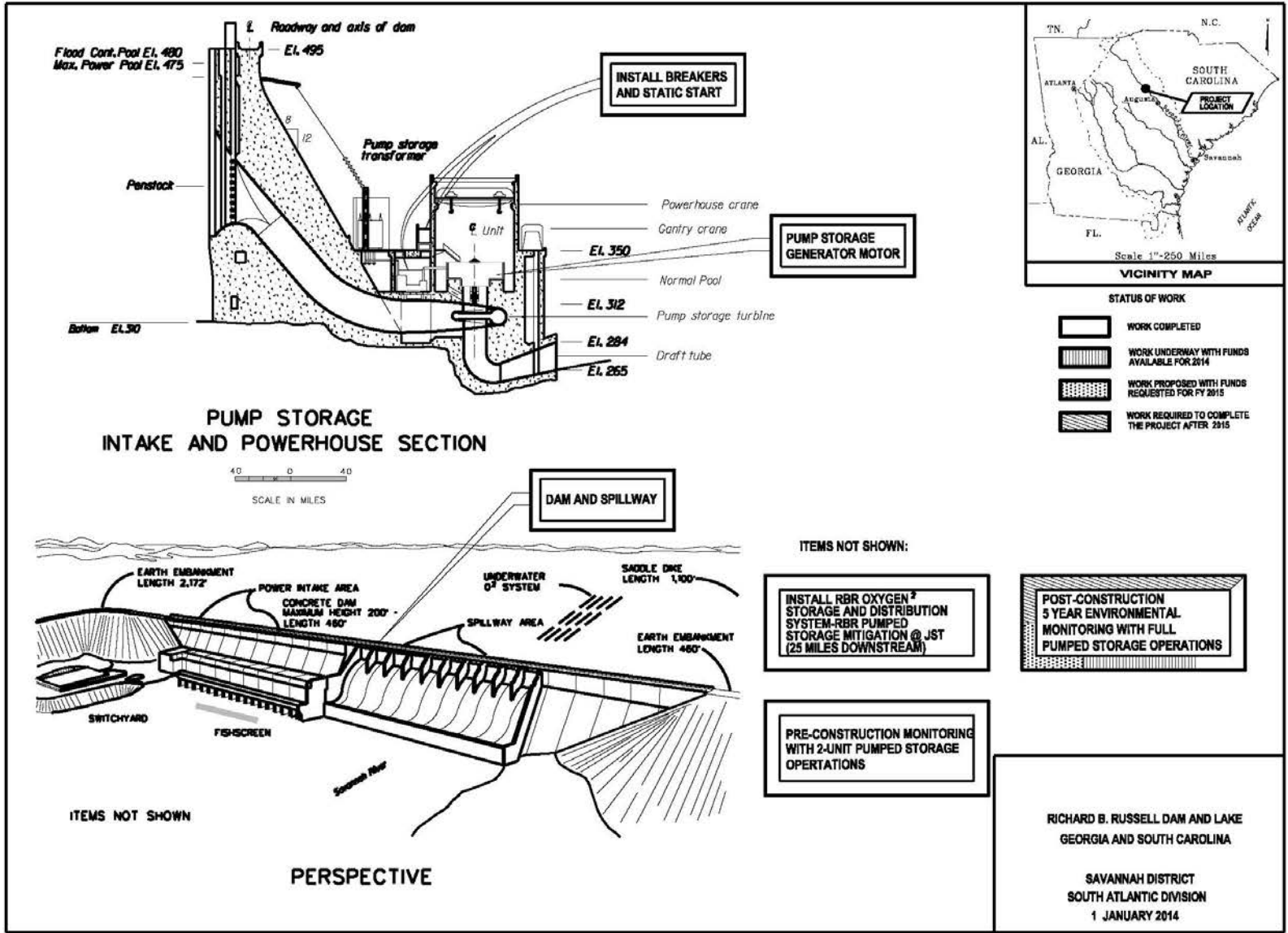
STATUS OF LOCAL COOPERATION: The State of Georgia began payments for recreation reimbursements in May 1985. The State of South Carolina began payments in August 1985. Responsibility for repayment of power costs rests with the Southeastern Power Administration (SEPA) pursuant to Federal Laws.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$649,086,000 is the same as the latest estimate presented to Congress (FY 2014).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) on conventional installation was submitted to the Council on Environmental Quality (CEQ) on 31 May 1974. A supplement on water quality to the final EIS was filed with CEQ in May 1976. The final EIS on pumped storage was filed with the Environmental Protection Agency (EPA) in October 1979. The supplement on fish and wildlife mitigation to the final EIS was filed with the EPA in December 1981. A supplement to the final EIS on pumped storage was filed in August 1991. The final National Environmental Policy Act (NEPA) document is an Environmental Assessment (EA) which requires 7 years of environmental testing. It embodies those technical items that the Corps of Engineers (COE) and South Carolina have reached agreement on, relating to operational measures, construction of an oxygenation (O2) system to improve fish habitat and continued environmental monitoring of a commercial operation. The EA for Pumped Storage was completed in FY 1999 and the Finding of No Significant Impact was signed in August 1999.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1968. Funds to initiate land acquisition were appropriated in FY 1971 and allocated in FY 1972. Initial construction funds were appropriated in FY 1975. Pumped Storage was declared commercially available on 1 September 2002 with a favorable decision from U.S. District Court granted 03 May 2002. In accordance with the NEPA Decision previously signed in August 1999, the District agreed to construct an O2 system in JST Lake to mitigate the environmental impacts, from the potential summer time temperature rise, to the striped bass habitat in the tail water regime below Richard B. Russell Dam. This mitigation feature has to be in place before there can be full use of the 4 Pump-Back units year round. The District agreed to limit pumping with two units from June to September prior to the completion of the O2 System and full pumped storage operations. The substantial completion of the O2 system allowed Richard B. Russell to generate power using three pump units during the summer of 2011. This saved SEPA approximately \$2,000,000 per month. With the completion of the O2 system in April 2012 and the installation of the MCB/SFC System, scheduled for the spring of 2013, SEPA will gain full benefits from the power generated at Richard B. Russell Power Plant using full pumped storage capability.

The 1999 NEPA document also requires that the COE continue environmental monitoring for seven years. Two years of monitoring were completed with 2 unit operations before the installation of the O2 System. The five years of required post-construction environmental monitoring was initiated in FY 2013.



PUERTO RICO

APPROPRIATION TITLE: Construction - (Flood Risk Management)

PROJECT: Rio Puerto Nuevo, Puerto Rico (Continuing)

LOCATION: The Rio Puerto Nuevo project is located within the San Juan Metropolitan Area along the north central coast of Puerto Rico. The Rio Puerto Nuevo basin joins the southeast side of San Juan Harbor and extends south and up into the foothills of the central mountains of Puerto Rico. The Rio Piedras, Rio Puerto Nuevo, Quebrada Margarita, Quebrada Josefina, Quebrada Dona Ana, Quebrada Buena Vista, and Quebrada Guaracanal traverse the basin. The Río Puerto Nuevo Basin drains 24 square miles.

DESCRIPTION: The plan of improvement provides flood damage protection by the construction in the Puerto Nuevo River and its tributaries of 1.7 miles of earth lined channel, 9.5 miles of concrete lined channels (of which 5.1 miles are high velocity), 2 debris basins and 2 stilling areas. The plan will also require the construction of 5 new bridges, the replacement of 17 bridges, and the modification of 8 existing bridges. Based on current estimates for Lands Easements Rights-of-way and Relocations, cost sharing for the flood control features of the project is 88.88% Federal and 11.12% non-Federal.

AUTHORIZATION: Section 401(a) of Water Resources Development Act of 1986 (P.L. 99-662 approved 17 November 1986) authorized the project for construction.

REMAINING BENEFIT - REMAINING COST RATIO: 5.4 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 1.3 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 1.2 to 1 at 8 percent (FY 1994).

BASIS OF BENEFIT - COST RATIO: Benefit-to-Cost Ratios are based on the latest Level 2 Economic Update dated March 2012 at FY 2012 price levels, which was amended with the revised cost estimate at 1 Oct 2012 price levels. The economic update is based off the benefits from the economic analysis in the revised General Design Memorandum dated June 1991 at October 1989 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$489,200,000		Relocations	37.4	TBD
Estimated Non-Federal Cost	\$179,100,000		Roads, Railroads, Bridges	33	TBD
Cash Contributions	\$ 69,281,000		Channels and Canals	31.5	TBD
Other Costs	\$109,819,000		Recreation	0	TBD
Total Estimated Project Cost	\$668,300,000		Entire Project	23.7	TBD
Allocations to 30 September 2011	\$276,768,000				
Allocation for FY 2012	\$ 6,860,000				
Allocation for FY 2013	\$ 14,172,000				
Allocation for FY 2014	\$ 17,250,000				
Allocations through FY 2014	\$315,050,000	<u>1/ 2/ 3/5/</u>		64.4	
Estimated Unobligated Carry-In Funds	\$ 0	<u>4/</u>			
President's Budget for FY 2015	\$ 3,000,000			65.0	
Programmed Balance to Complete after FY 2015	\$171,150,000	<u>6/</u>			
Un-programmed Balance to Complete after FY 2015	\$ 0				

1/ \$20,380,000 reprogrammed to the project.

2/ \$10,169,000 rescinded from the project.

3/ \$0 transferred to the Flood Control and Coastal Emergencies account.

4/ Estimated Unobligated Carry-in Funding: The actual unobligated balance from FY 2013 into FY 2014 (3011A report) for this project is \$12,407,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$0 (x1000). This amount will be used to perform work on the project as follows: N/A

5/ PED costs of \$7,489,000 are included in this amount.

6/ For programmed work only; remaining work is un-programmed pending a decision to construct these features.

PHYSICAL DATA: The project includes 17 bridge replacements, 8 bridge modifications, 5 new bridge constructions, 1.7 miles of earth lined channel, 9.5 miles of rectangular concrete canals, 2 debris basins and 2 stilling areas.

JUSTIFICATION: The primary purpose of the project is to provide flood risk management benefits for structures, contents, and transportation infrastructure in the Rio Puerto Nuevo Basin and the San Juan, Puerto Rico Metropolitan Area. A combined property value of over \$ 2,000,000,000 is subject to flooding, including: over 7,000 residential structures, 800 commercial establishments, the city's major transportation facilities, 1.5 square miles of major port facilities, recreation facilities, government offices, a major electrical power plant, and several wastewater/water treatment facilities. Therefore, flood waters from the Rio Puerto Nuevo represent a continuous threat to a significant portion of the population and the economic activity of the San Juan Metropolitan area. Intense development in the basin has altered the natural drainage patterns, significantly increased the runoff, and restricted the flow capacity of streams. More than thirty highway bridges have been identified as impeding flood flows and causing increased flooding. Development has progressed to the point where some of the tributary channels are not capable of carrying the two-year storm without causing flooding. In many areas, houses and other buildings are built adjacent to the banks of the channels and further restrict flood flows. The city of San Juan is always contained within the Presidential Disaster Declarations associated with Flooding in Puerto Rico. There have been 8 such events during the last 20 years. Tropical Storm Jeanne (in 2004) resulted in the Federal Emergency Management Agency expending over \$350,000,000 in damage relief over the island. The average annual damages for the without project condition are \$41,575,000. Average annual damages for the with project condition are \$5,024,000. The budget amount will complete the Upper Margarita concrete channel protecting a densely populated urban area. The budget amount will also complete plans and specifications for upstream channel work between Roosevelt Avenue Bridge and the De Diego Bridge. The average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	\$ 36,551,000
Total	\$ 36,551,000

FISCAL YEAR 2014: The TOTAL unobligated dollars are being applied as follows:

Initiate Contract 2C1 Stilling Basin <u>7/</u>	\$22,792,000
Post Authorization Change Report	\$300,000
Planning, Engineering, and Design for Contract 2C1 Stilling Basin	\$2,732,000
Planning, Engineering, and Design for Contract 2C3 Upstream Channel	\$513,000
Construction Management	\$3,320,000
Total	\$29,657,000

7/ Actual Unobligated Carry-In Funding: The actual unobligated balance carried into FY2014 from prior appropriations for use on this project effort is \$12,407,000 will be used for award of Contract 2C1 Stilling Basin.

FISCAL YEAR 2015: The budget amount plus carry-in funds will be applied as follows:

Construction Management	\$3,000,000
Total	\$3,000,000

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

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights of way.	\$41,106,000	\$0
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	\$68,713,000	\$0
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreation features.	\$536,000	\$0
Pay 12.33 percent of the costs allocated to flood risk management to bring the total non-Federal share of flood risk management costs to 25 percent as determined under Section 103 of the Water Resources Development Act, as amended, to reflect the non-Federal sponsor's ability to pay, but no less than 5 percent of the costs allocated to flood risk management, and bear all cost of operation, maintenance, repair, rehabilitation, and replacement of flood risk management features.	\$68,745,000	\$0
Total Non-Federal Cost	\$179,100,000	\$0

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

STATUS OF LOCAL COOPERATION: The Commonwealth of Puerto Rico Department of Natural and Environmental Resources is the local sponsor. A Project Cooperation Agreement for the project was executed in March 1994. The non-Federal sponsor's funds are derived from a combination of general revenue and sponsored funds budgeted by the Commonwealth of Puerto Rico. The non-Federal sponsor is willing and able to continue contributions.

Division: South Atlantic

District: Jacksonville

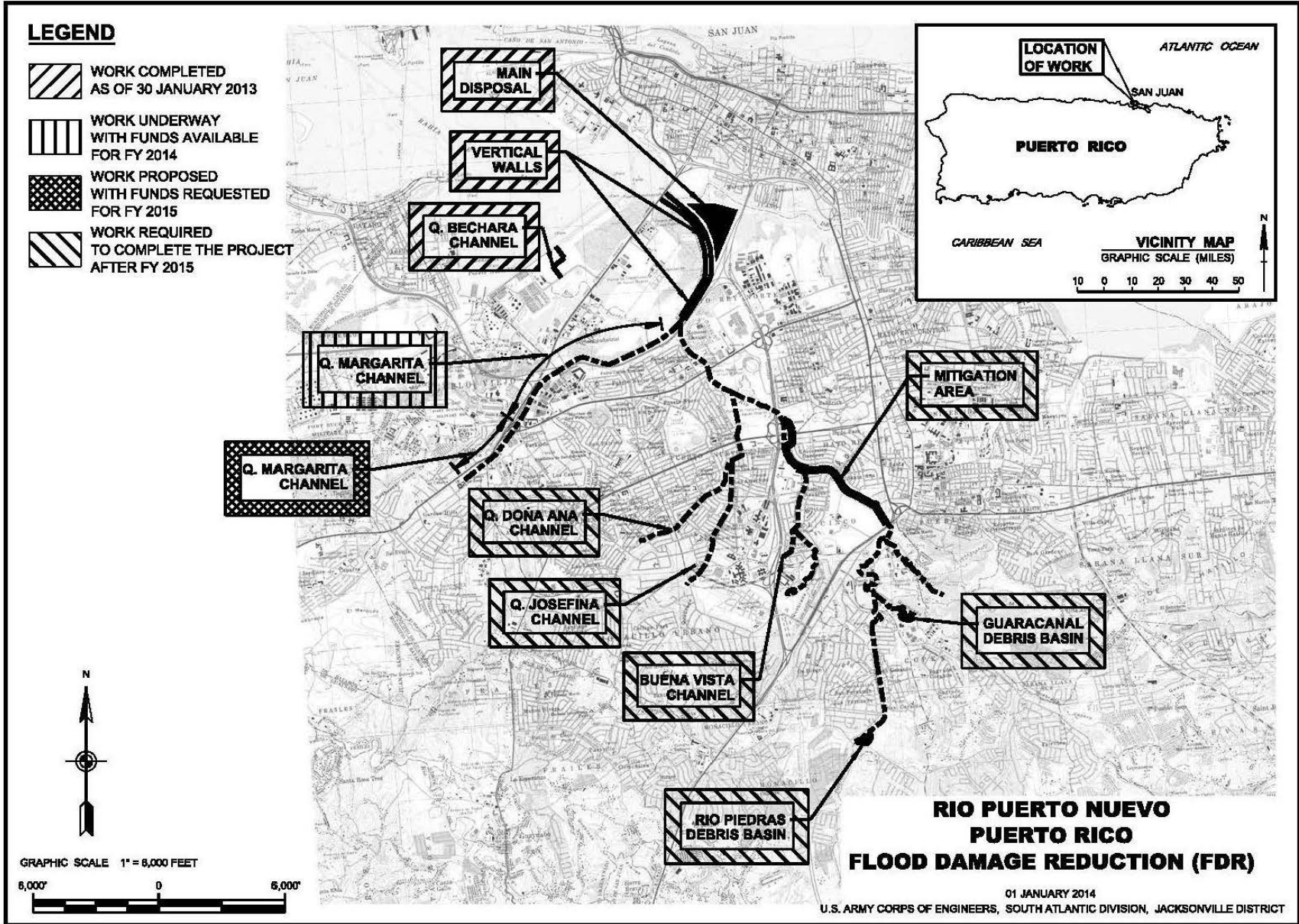
Rio Puerto Nuevo, PR

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$489,200,000 reflects an increase of \$600,000 from the latest estimate (\$488,600,000) presented to Congress (FY 2014). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	\$4,090,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	\$(3,490,000)
Total	\$600,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement for the project was filed on 6 December 1985. The Finding of No Significant Impact was approved in July 1992. An Environmental Assessment (EA) was completed in May of 1993 with the associated General Design Memorandum, and another EA was completed in February of 2001 for the Bechera Lower Basin.

OTHER INFORMATION: Funds to initiate preconstruction, engineering and design were appropriated in Fiscal Year 1987. Funds to initiate construction were appropriated in Fiscal Year 1994. FY 2014 carry-in funds in the amount of \$12,407,000 were made available as a result of contractor negotiations and land acquisition on the 2C1 Contract that moved the award into FY2014. Delays on existing contracts, to include De Diego Bridge, which impact follow on project features will delay the overall schedule for this project; additionally the non-Federal sponsor is still procuring real estate interests for pending future contracts.



Division: South Atlantic

District: Jacksonville

Rio Puerto Nuevo, PR

28 March 2014

SAD - 74

SOUTH CAROLINA

APPROPRIATION TITLE: Construction – Navigation (Dredged Material Disposal Facility)

PROJECT: Charleston Harbor, South Carolina (Continuing)

LOCATION: The Charleston Harbor Clouter Creek Dredge Material Disposal Facility (DMDF) is located on the east bank of the Cooper River to the east of North Charleston, South Carolina. It is bounded on the north, west and south by the Cooper River and on the east by Clouter Creek and is approximately 1,475 acres in size and subdivided into four cells – North, South, Middle, and Highway.

DESCRIPTION: The Clouter Creek DMDF contains material from maintenance dredging of the completed project. A dike raising or capacity expansion to contain maintenance material is required periodically and budgeted as needed. A Project Partnership Agreement was executed with the South Carolina State Ports Authority in September 2010 for costs through FY 2018. The costs were documented in the Dredged Material Management Plan (DMMP) Preliminary Assessment for Charleston Harbor dated 23 June 2009 and approved by the South Atlantic Division Commander on 17 February 2010.

AUTHORIZATION: P.L. 104-303 dated 12 October 1996, Section 101

REMAINING BENEFIT - REMAINING COST RATIO: N/A; Benefits are related to the on-going operation and maintenance of the authorized navigation project.

TOTAL BENEFIT - COST RATIO: N/A; Benefits are related to the on-going operation and maintenance of the authorized navigation project.

INITIAL BENEFIT - COST RATIO: N/A; Benefits are related to the on-going operation and maintenance of the authorized navigation project.

BASIS OF BENEFIT - COST RATIO: N/A; Benefits are related to the on-going operation and maintenance of the authorized navigation project.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement		\$ 10,658,000	North Cell Raising	0	JAN 2016
Future Non-Federal Reimbursement	\$ 1,421,000		Middle Cell Raising	0	TBD
			South Cell Raising	100	JAN 2012
			Highway Cell Raising (2 cycles)	50	TBD
Estimated Federal Cost (Ultimate)		\$ 9,237,000			
Estimated Non-Federal Cost		\$ 4,973,000	Entire Project	40	TBD
Cash Contributions	\$ 3,552,000				
Other Costs	\$ 0				
Reimbursements	\$ 1,421,000				
Navigation	\$ 1,421,000				
Total Estimated Project Cost		\$ 14,210,000			
Allocations to 30 September 2011	\$ 3,650,000				
Allocation for FY 2012	\$ 0				
Allocation for FY2013	\$ (4,000)				
Conference Allocation for FY 2014	\$ 120,000				
Allocations through FY2014	\$ 3,766,000	<u>1/</u> <u>2/</u> <u>3/</u> <u>5/</u>	35.3		
Estimated Unobligated Carry-In Funds	\$ 0	<u>4/</u>			
President's Budget for FY2015	\$ 1,572,000		50		
Programmed Balance to Complete after FY2015	\$ 5,320,000	<u>6/</u>			
Un-programmed Balance to Complete after FY2015	\$ 0				

1/ \$4,000 reprogrammed from the project.

2/ \$0 rescinded from the project.

3/ \$0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2013 into FY 2014 (3011A report) for this project is \$61,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2015 from prior appropriations for use on this effort is \$0.

5/ PED cost of \$0 are included in this amount.

6/ For programmed work only; remaining work is un-programmed pending a decision to construct these features.

PHYSICAL DATA: The Clouter Creek DMDF is approximately 1,475 acres in size and subdivided into four cells – North (190 acres), South (415 acres), Middle (410 acres), and Highway (460 acres). The current average dike elevations are: North Cell - 20 ft, Highway Cell -14 ft, Middle Cell - 20 ft, and South Cell - 27 ft. The North Cell is scheduled to be raised to 31 ft in FY 2015. The Middle Cell is scheduled to be raised to 25 ft in FY 2016. The Highway Cell is scheduled to be raised to 25 ft in FY 2018. The Charleston Harbor dikes, as a matter of practice, are raised 5 feet in each cycle as the minimum and will go higher if the usage demand warrants it.

JUSTIFICATION: Latest commercial tonnage as reported by the Waterborne Commerce Statistics Center for FY 2012 was 18.8 million tons of cargo. The major commodity imported and exported is manufactured equipment and machinery. Charleston Harbor is listed as one of 17 United States (US) strategic ports because of the presence of the Joint Base Charleston, Military Surface Deployment and Distribution Command, Defense Energy Support Center and Army Strategic Logistics Activity Charleston. International trade through South Carolina ports facilitates 280,600 jobs across the state in the maritime, transportation, distribution and manufacturing industries while providing an overall economic impact of \$45 billion each year. Per United States Department of Commerce (USDOC)/Bureau of the Census, the 2012 value of waterborne commerce through Charleston was \$62.7 billion. The Clouter Creek DMDF is broken into four cells. As of the date of this justification sheet, the Highway and South cells are available for the receipt of maintenance material. These cells have a combined capacity of 6,800,000 cubic yards which is adequate to accommodate up to five years of maintenance dredging at an annual anticipated rate of 1,360,000 cubic yards. The North cell is at full capacity and is undergoing ditching and drying in preparation for FY 2015 construction contract to increase capacity. The ditching and drying process typically requires twenty-four to thirty-six months to complete. The North cell dike construction is scheduled to commence in FY 2015 with construction being physically complete in FY 2016. This ensures that the North Cell will be available for use when Highway Cell is scheduled to be taken out of service for ditching and drying. The sequential raising of dikes in the DMDF is critical to the ability of the U.S. Army Corps of Engineers to maintain the Charleston Harbor Federal Navigation project and FY 2015 funding of construction supports the stated schedule. If the disposal areas are not available to receive the dredge material, the material would need to be taken to an offshore disposal site, increasing costs of maintenance dredging by over \$10 million.

FISCAL YEAR 2014: The fiscal year 2014 appropriation, plus unobligated carry-in dollars, are being applied as follows:

Initiate and complete plans and specifications for the North Cell to raise dikes from elevation 20 ft to 31 ft	\$181,000
Total	\$ 181,000

FISCAL YEAR 2015: The budget amount plus carry-in funds will be applied as follows:

Initiate and complete construction for the North Cell to raise dikes from elevation 20 ft to 31 ft	\$1,515,000
Construction Management	\$57,000
Total	\$ 1,572,000

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

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights of way	\$ 0	\$ 0
Pay 25 percent of the costs allocated to general navigation facilities during construction.	\$ 3,552,000	\$ 0
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction, as reduced by a credit allowed or the value of lands, easements, rights of way, and relocations provided for commercial navigation.	\$ 1,421,000	\$ 0
Total Non-Federal Costs	\$ 4,973,000	\$ 0

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

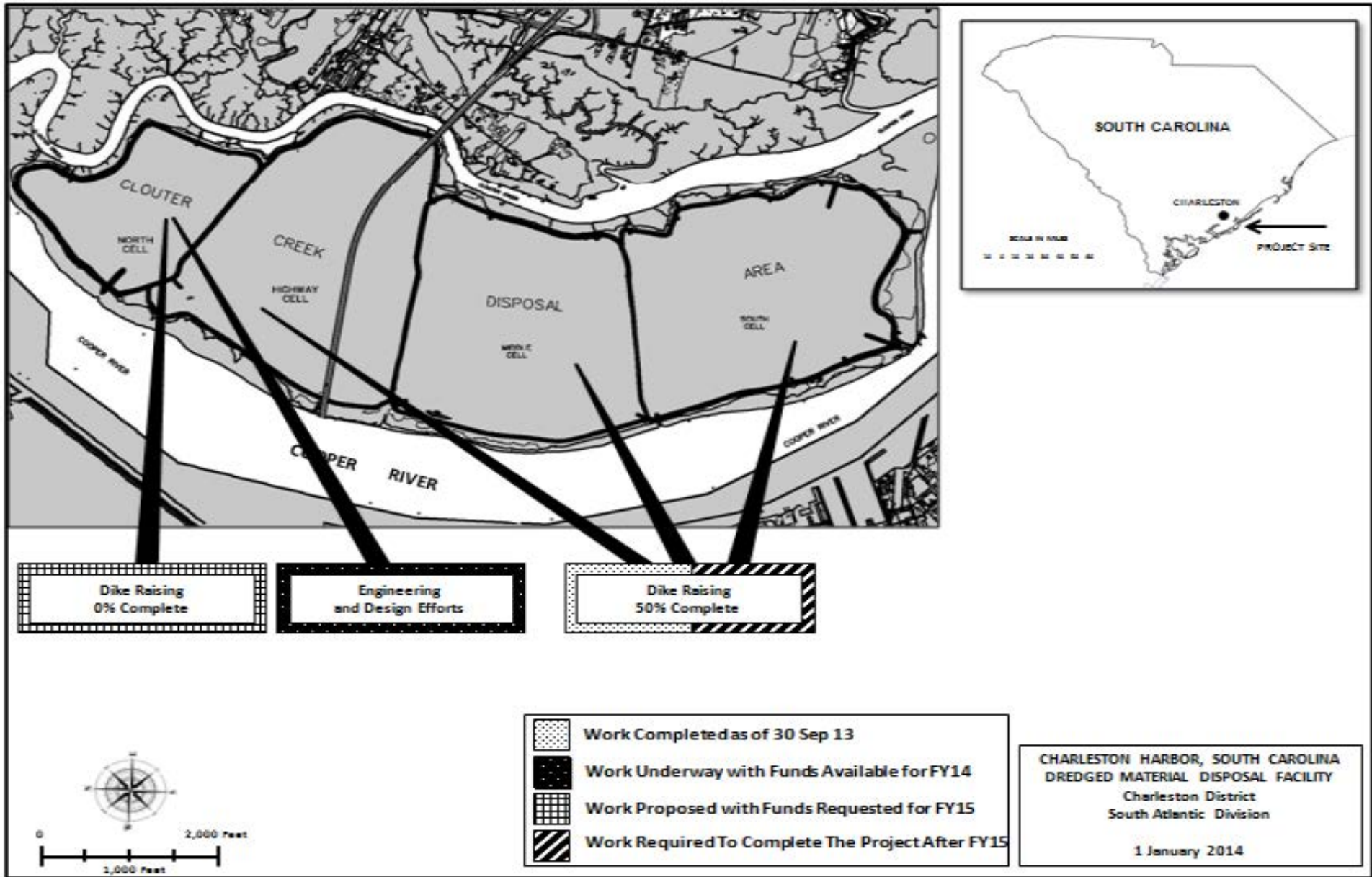
STATUS OF LOCAL COOPERATION: A Project Partnership Agreement was executed with the South Carolina State Ports Authority in September 2010. The non-Federal sponsor is financially capable and willing to contribute the non-Federal share.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$10,658,000 is an increase of \$1,988,000 from the latest estimate (\$8,670,000) presented to Congress (FY 2014). This change includes the following items.

Item	Amount
Price Escalation or De-escalation on Construction Features	\$772,000
Design Changes	\$1,216,000
Total	\$1,988,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental Assessment was completed as part of preparation of the Dredged Material Management Plan Preliminary Assessment for Charleston Harbor, dated 23 June 2009 and approved by the South Atlantic Division Commander on 17 February 2010. The Finding of No Significant Impact (FONSI) was signed in September 2009.

OTHER INFORMATION: Funds to initiate engineering and design work were appropriated in FY 2007 under the Operation and Maintenance account. Funds to initiate construction were budgeted in FY 2008 under the Operation and Maintenance account, however; they were appropriated under the Construction appropriation. Currently, maintenance Dredged Material Disposal Facilities are cost shared as a General Navigation Feature and budgeted in the Construction account.



VIRGINIA

APPROPRIATION TITLE: Construction - Flood Risk Management

PROJECT: Roanoke River Upper Basin, Virginia, Headwaters Area (Completion)

LOCATION: The project is located in south central Virginia on the Roanoke River in the city of Roanoke, Virginia.

DESCRIPTION: The project includes about 6.2 miles of channel widening along the 10 miles of river through the city of Roanoke, Virginia. Channel widening has been accomplished with the construction of a benched channel above the elevation of the average stream flow. Other flood risk management features include flood proofing at two locations, training walls to prevent floodwater intrusion into low areas along the river, and a flood warning system. These flood risk management features were physically completed in 2011. The Roanoke Logperch, which is located in the project area, was listed as an endangered species effective 18 September 1989 and is being monitored. The Corps has negotiated with U.S. Fish and Wildlife Service to amend the monitoring requirement to only extend thru FY 2015. The Budget presumes that no additional monitoring will be required. The budgeted funds will be used to complete the required monitoring and fiscally closeout the project.

AUTHORIZATION: Public Law 99-662, 21 January 1986, Section 401, and amended by Public Law 101-640, 28 November 1990, Section 102.

REMAINING BENEFIT - REMAINING COST RATIO: N/A; The project is substantially complete. Funds are for required monitoring in accordance with the biological opinion.

TOTAL BENEFIT - COST RATIO: N/A; The project is substantially complete. Funds are for required monitoring in accordance with the biological opinion.

INITIAL BENEFIT - COST RATIO: N/A; The project is substantially complete. Funds are for required monitoring in accordance with the biological opinion.

BASIS OF BENEFIT - COST RATIO: N/A; The project is substantially complete. Funds are for required monitoring in accordance with the biological opinion.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 January 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$ 48,091,000				
Programmed Construction	\$ 44,032,000			Channel Excavation	100	Dec 2011
Un-programmed Construction	\$ 4,059,000			Training Walls	100	Jun 2009
Estimated Non-Federal Cost		\$ 24,189,000		Recreation Trail	70	TBD
Programmed Construction	\$ 20,130,000			Parking Areas	100	Mar 2005
Cash Contributions	\$ 8,782,000			Riprap	100	Jun 2011
Other Costs	\$ 11,348,000			Relocations	100	Jun 2011
Un-programmed Construction	\$ 4,059,000			Land Acquisitions	100	May 2010
Cash Contributions	\$ 4,059,000			Monitoring	80	Sep 2015
Other Costs	\$ 0			Entire Project	97	Sep 2016
Total Estimated Project Cost		\$ 72,280,000				
Allocations to 30 September 2011		\$ 42,107,000				
Allocation for FY 2012		\$ 1,533,000				
Allocation for FY 2013		\$ 1,000				
Allocation for FY 2014		\$ 91,000				
Allocations through FY 2014		\$ 43,732,000	<u>1/</u> <u>2/</u> <u>3/</u> <u>5/</u>	99.3		
Estimated Unobligated Carry-In Funds		\$ 0	<u>4/</u>			
President's Budget for FY 2015		\$ 300,000		100.0		
Programmed Balance to Complete after FY 2015		\$ 0	<u>6/</u>			
Un-programmed Balance to Complete after FY 2015		\$ 4,059,000				

1/ \$ 240,965 reprogrammed to the project.

2/ \$ (106,229) rescinded from the project.

3/ \$ 0 transferred to the Flood Control and Coastal Emergencies account.

4 Unobligated Carry-in Funding: The actual unobligated balance from FY 2013 into FY 2014 (3011A report) for this project is \$209,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$ 0. This amount will be used to perform work on the study as follows: N/A

5/ PED costs of \$ 2,142,000 are included in this amount.

6/ For programmed work only; remaining work is un-programmed recreation features that are not funded in the Budget.

Division: South Atlantic

District: Wilmington

Roanoke River Upper Basin, VA

28 March 2014

SAD - 84

PHYSICAL DATA: This flood risk reduction project includes the following features: 27,000 feet of channel excavation, 6,300 linear feet of training wall construction, a 50,160 linear foot paved recreation trail, one parking area, one access area, and 28,000 tons of riprap placement. In addition to these features relocations were required as follows: 3,880 linear feet of utilities, 2,000 linear feet of roadway, 6,350 linear feet of overhead lines, and 13 buildings. Real estate requirements included 195 total rights of way, 185 flood risk reduction rights of way, and 40 temporary disposal areas.

JUSTIFICATION: The project provides improvements for flood risk management and recreation. Most of the property that would receive flood damage reduction serve industrial and commercial uses with a value of \$1,421,051,000 at October 2013 price levels. The average annual damages in the project area are estimated at \$12,074,000 at October 2013 price levels and 2013 level of development over the next 50 years if no flood risk management facilities were provided. The project would reduce these damages by \$4,962,000. The maximum flood of record, November 1985, caused damages estimated at \$250,807,000 at 2013 price levels. Floodplain development is not promoted by the project. Return on investments by local businesses is adversely affected by the flooding problem. Industrial and commercial property owners have to use their resources to repair and attempt flood proofing that could be used for expansion and modernization. In this respect, return on investment is suppressed. The project has a beneficial effect on a variety of businesses and increases return on investment throughout the floodplain. The average annual benefits are as follows at October 2013 price levels:

Annual Benefits	Amount
Flood Damage Reduction	\$7,112,000
Recreation	\$2,571,000
Total	\$9,683,000

FISCAL YEAR 2014: The fiscal year 2014 appropriations, plus unobligated carry-in dollars, are being applied as follows:

Continue Monitoring of Endangered Species and Associated Project Management Tasks	\$ 300,000
Total	\$ 300,000

FISCAL YEAR 2015: The budget amount plus carry-in funds will be applied as follows:

Complete Monitoring of Endangered Species and Associated Project Management Tasks	\$ 300,000
Total	\$ 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, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way and dredged or excavated material disposal areas.	\$ 6,206,000	
Modify or relocate buildings, utilities, roads and other facilities except railroad bridges, where necessary for construction of the project.	\$ 5,142,000	
Pay 25 percent of the cost of the flood warning system (partially offset by a credit for lands, easements, rights of way, and relocations).	\$ 10,000	
Pay 5 percent of the total cost allocated to flood risk management in cash in addition to all lands, easements, rights of way and relocations, and bear all costs of operation, maintenance, and replacement of flood risk management facilities.	\$ 5,653,000	\$ 101,000
Pay one-half of the separable cost allocated to recreation (partially offset by a credit for land, easements, rights of way and relocations) and bear all costs of operation, maintenance and replacement of recreation facilities.	\$ 6,811,000	\$ 9,000
Pay 25 percent of the cost of the non-structural flood proofing (partially offset by a credit for lands, easements, rights of way and relocations).	\$ 367,000	
Total Non-Federal Costs	\$ 24,189,000	\$ 110,000

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

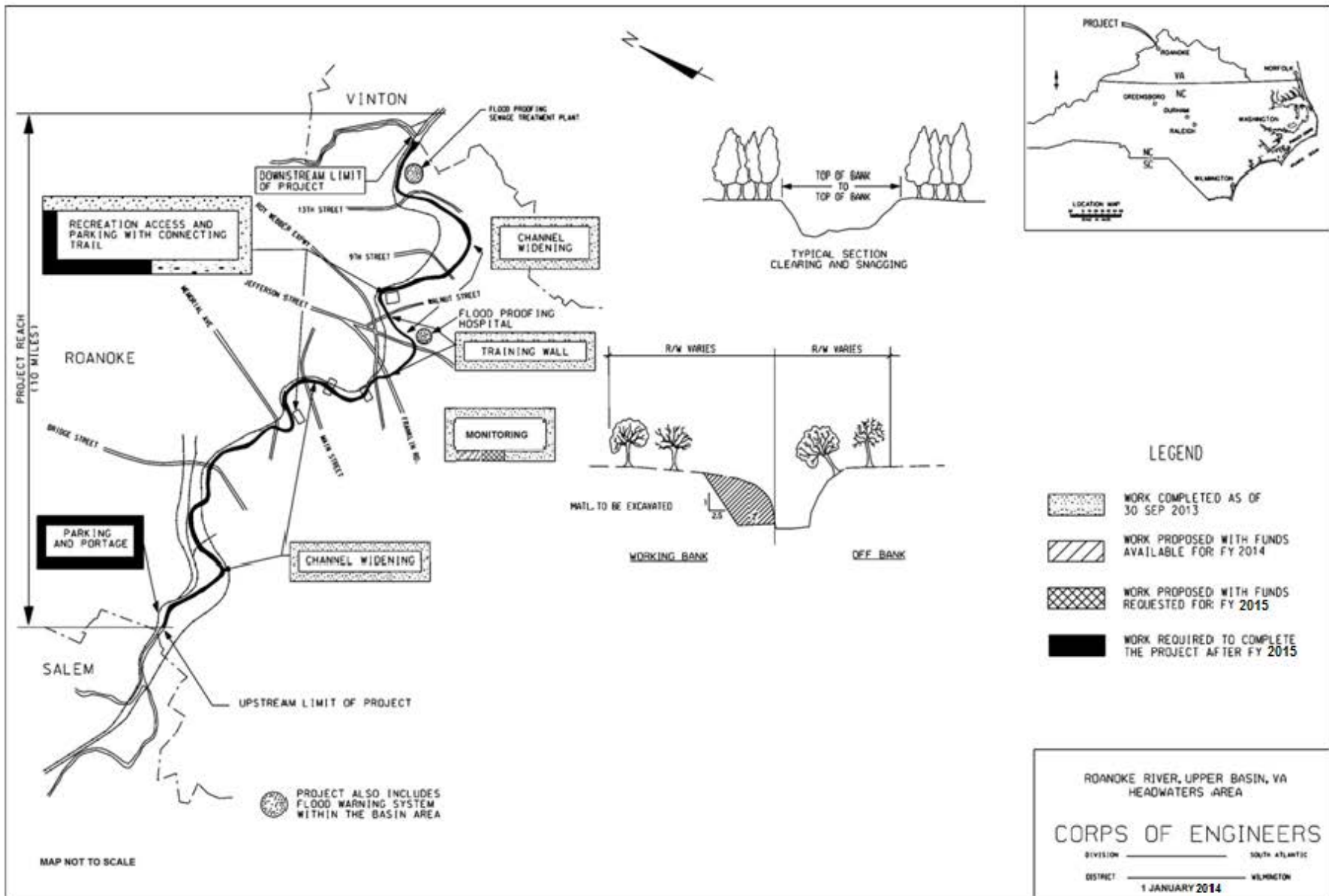
STATUS OF LOCAL COOPERATION: The city of Roanoke is the project sponsor. On 11 April 1989, the voters of the city of Roanoke approved the sale of \$7,500,000 worth of bonds to pay Roanoke's required cash contribution, acquire lands that are not currently owned and pay for relocation of bridges and utilities. The sponsor has already provided the appropriate amount of non-Federal funds estimated to meet their funding requirements through FY 2015. The local cooperation agreement was executed on 25 June 1990. A supplement to the local cooperation agreement, executed in January 1993, addressed the reimbursement for the flood proofing of the Roanoke Hospital. Initiation of construction of flood risk management features was delayed for eight years due to concerns the sponsor had over assuming liability for potential hazardous, toxic, and radioactive waste issues that might arise during project construction. The city in conjunction with the Corps of Engineers, Environmental Protection Agency and the Virginia Department of Environmental Quality conducted an extensive investigation and review of the project right of way to alleviate these concerns. Hazardous material was found at two sites. The landowner has cleaned these sites. Soil contamination was found at 14 other sites. A project action plan for the screening and disposal of this material was prepared and approved by the sponsor and the Virginia Department of Environmental Quality. The non-Federal Sponsor has provided their share of the project cost for all project features constructed to date.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of \$48,091,000 is a decrease of \$209,000 from the latest estimate (\$48,300,000) presented to Congress (FY 2014). This change includes the following item:

Item	Amount
Price De-escalation on Construction Features	(\$209,000)
Total	(\$209,000)

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final environmental impact statement was filed with the Environmental Protection Agency in February 1985. A finding of no significant impact for the design changes was signed on 30 June 1989.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1986 and funds to initiate construction were appropriated in FY 1990. There were two authorized project cost increases. The first was the Energy and Water Development Appropriations Act of 1990-Public Law 101-101, 29 September 1989, Section 110. The second was the Energy and Water Development Appropriations Act of 2004-Public Law 108-137, 1 December 2003, Section 148 which increased the total estimated project cost to \$61,700,000 at October 2004 price levels (\$83,451,000 at October 2012 price levels).



Division: South Atlantic

District: Wilmington

Roanoke River Upper Basin, VA

28 March 2014

SAD - 88

South Pacific Division

28 March 2014

Construction

California

APPROPRIATION TITLE: Construction – Local Protection, Flood Risk Management

PROJECT: American River Watershed (Folsom Dam Modifications), California (Continuing)

LOCATION: The project is located in Placer, El Dorado and Sacramento Counties, California and includes the North, Middle and South Forks of the American River that flow westward into Folsom Lake. The outflow of the lake through Folsom Dam then flows through the city of Sacramento and into the Sacramento River. The system includes the Folsom Dam and Reservoir, located on the American River, about 29 miles upstream of the city of Sacramento, California. The American River watershed drains about 2,100 square miles northeast of Sacramento.

DESCRIPTION: Engineering evaluations indicated that the level of flood protection along much of the American River provides a level less than a 1% chance of exceedence annually. Several flood control projects have been authorized for construction for the American River to reduce the risk of flooding to Sacramento. Currently, Folsom Dam is designed to release up to 115,000 cubic feet per second (cfs) during flood operations, however the existing outlets limit releases to 36,000 cfs until approximately one half of the reservoir's flood control space is filled. Additional work is scheduled for Folsom Dam and related facilities to mitigate flood risk. Authorized work for Folsom Dam Modifications (aka Joint Federal Project - JFP), which will allow releases much earlier, consists of construction of a new auxiliary spillway and modifying the flood control storage space in Folsom Reservoir to a variable space ranging from 400,000 to 600,000 acre-feet. The Joint Federal Project is a joint effort between the US Bureau of Reclamation (USBR) and the US Army Corps of Engineers (USACE). The USBR completed their 20% of the work under their Dam Safety program in January 2011. USACE will complete the remaining 80%. Details of the plan are described in the Post Authorization Change (PAC) Report – American River Watershed Project, Folsom Dam Modifications and Folsom Dam Raise Projects.

AUTHORIZATION: Water Resources Development Act, Pub. L. 106-53, § 101(a)(6), 113 Stat. 269 (1999); Water Resources Development Act, Pub. L. 110-114, § 3029(b), 121 Stat. 1041 (2007).

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

TOTAL BENEFIT-COST RATIO: 2.2 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 4.4 to 1 at 7-5/8 percent.

BASIS OF BENEFIT-COST RATIO: Folsom Dam Modifications – Benefits and costs were updated in the Post Authorization Change Report (PAC) dated March 2007 and finalized in the Economic Reevaluation Report (ERR) dated February 2009. Benefits and costs were updated in the American River Watershed Economic Update dated June 2011.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
<u>Folsom Dam Modifications</u>					
Estimated Federal Cost		\$537,652,000	Entire Project	40	Oct 17
Estimated Non-Federal Cost		264,438,000			
Cash Contribution	\$280,557,000				
Other Costs	(16,119,000) <u>7/</u>				
Total		\$802,090,000			
Allocations to 30 September 2011		\$177,104,940			
Allocation for FY 2012		31,000,000			
Allocation for FY 2013		98,802,000			
Allocation for FY 2014		66,400,000			
Allocations through FY 2014		373,504,940	<u>1/</u> <u>2/</u> <u>3/</u> <u>5/</u>	69	
Estimated Unobligated Carry-In Funds		0	<u>4/</u>		
President's Budget for FY 2015		92,600,000		87	
Programmed Balance to Complete after FY 2015		71,765,060	<u>6/</u>		
Un-programmed Balance to Complete after FY 2015		\$ 0			

1/ \$6,285,000 reprogrammed to the project.

2/ \$320,528 rescinded from the project.

3/ \$0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY2013 into FY2014 for this project is \$0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$0. 5/ PED costs of \$6,657,878 are included in this amount.

6/ For programmed work only; remaining work is un-programmed pending a decision to construct these features.

7/ Sponsor credit approved on February 22, 2010 by Assistant Secretary of the Army (Civil Works) (ASA(CW)).

PHYSICAL DATA: Authorized – Complete excavation of the spillway control structure and approach channel, and construction of the chute, stilling basin, and control structure. Also includes site restoration upon completion of construction.

JUSTIFICATION: This flood risk management project addresses significant risk to human safety in accordance with the USACE performance-based guidelines for the construction account. Folsom Dam and Reservoir are key features for flood risk management for Sacramento. Folsom Dam and Reservoir has a capacity of 975,000 acre-feet, which includes a minimum of 400,000 acre-feet of space seasonally dedicated to the mitigation of flood risk. Significant rainfall in recent years has filled Folsom Lake and necessitated record releases in excess of design flow downstream. The levees along the American River are designed to accommodate releases from Folsom Dam of up to 115,000 cfs. Downstream levees would likely fail with sustained flows above this level. Levee failure along the lower American River and Sacramento River could result in flooding of more than 100,000 acres, affecting approximately 900,000 residents, 110,000 structures, with damages of up to \$58 billion, depending on the magnitude of the event. The authorized Folsom Dam Modifications project would construct an auxiliary spillway. This would further reduce the risk of flood damage to about a 1 in 156 chance in any given year.

The auxiliary spillway also addresses dam safety issues. The JFP construction satisfies the USBR's significant dam safety issues at Folsom Dam. This is the USBR's top dam safety issue in the nation. Without the JFP, the USBR has determined a probable maximum flood would cause catastrophic failure of the Folsom Dam and many lives would be lost. Emergency response and regional/national economic disruption costs associated with flooding in Sacramento are enormous. There is limited egress and ingress across Sacramento and American Rivers and there would be a disruption of statewide drinking water supplies. This funding will be needed to meet our schedule of completing the construction efforts and have the control structure and spillway operational by Oct 2017, thus greatly reducing the flood risk to the Sacramento Metropolitan area.

Average annual benefits (October 2010 price levels) are as follows:

Annual Benefits	Amount
Flood risk management	\$120,829,000
Other (de-watering, debris removal, levee repair costs)	12,310,000
Total	\$133,139,000

FISCAL YEAR 2014: The total fiscal year 2014 appropriation is being applied as follows:

Continue construction of approach channel and chute & stilling basin	\$51,400,000
Design adjustments/schedule acceleration on control structure to meet the requirements of phase overlap	8,400,000
Construction management to support ongoing control structure and chute and stilling basin continuing contracts	3,600,000
Continue Water Control Manual	3,000,000
Total	\$66,400,000

FISCAL YEAR 2015: The budget amount will be applied as follows:

Continue construction of approach channel and chute & stilling basin	\$86,100,000
Construction management to support control structure and approach channel and chute & still basin continuing construction	2,800,000
Planning, engineering and design of commissioning and restoration	2,700,000
Continue Water Control Manual	1,000,000
Total	\$92,600,000

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, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
<u>Folsom Dam Modifications</u>		
Pay 35 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	\$280,557,000 <u>8/</u>	\$800,000 <u>9/</u>
Total Non-Federal Costs	\$280,557,000	\$800,000 <u>9/</u>

8/ Includes \$16,119,000 sponsor credit approved February 22, 2010 by ASA (CW). This credit is the remaining nonreimbursed Federal share of costs incurred by Sacramento Area Flood Control Agency (SAFCA) in connection with the Natomas Levee features as authorized by Section 3029(a) of the Water Resources Development Act of 2007 (P.L. 110-114).

9/ The operation and maintenance (O&M) would continue to be performed by the USBR. An initial cost-sharing agreement has been negotiated between SAFCA and USBR to pay the portion of O&M costs related to the new flood control features. Subsequent agreements are to be negotiated as project information is further defined.

STATUS OF LOCAL COOPERATION: The Central Valley Flood Protection Board (CVFPB) and SAFCA are the non-Federal sponsors for the Folsom Dam Modifications. The PCA for the Folsom Dam Modifications was executed March 30, 2004 and amended August 24, 2009 to incorporate Section 3029 of WRDA 2007. A second amendment to the Folsom Dam Modifications PCA addressing the allocation of sponsor credits was approved February 22, 2010. A third amendment to the PCA, was signed March 4, 2012 and allows non-Federal sponsor to accelerate funds. The current non-Federal cost estimate of \$280,557,000, which includes a cash contribution of \$280,557,000, is a decrease of \$12,323,000 from the non-Federal cost estimate of \$292,900,000 noted in the Project Cooperation Agreement, which includes a cash contribution of \$292,900,000. The sponsor agrees with current costs and continues to be financially able to support the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$537,652,000 is an increase of \$24,283,000 from the latest estimate (\$513,369,000) presented to Congress (FY 2014). This change includes the following items.

Item	Amount
Post Contract Award and other Estimating Adjustments (including contingency adjustments)	\$24,283,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: Folsom Dam Modifications/Folsom Dam Raise (Joint Federal Project) – The USBR, with cooperation from the USACE, prepared an Environmental Impact Statement/Environmental Impact Report (EIS/EIR), which was finalized in March 2007. USBR and the USACE signed a joint Record of Decision (ROD) on May 3, 2007. A second EIS/EIR document that is supplemental to the original EIS/EIR, addressing the proposed construction actions associated with the cutoff wall, approach channel and spur dike stages of Phase 4 of the project was completed and a ROD for this Phase was signed 8 March 2013.

OTHER INFORMATION: Funds used to initiate preconstruction engineering and design on the Folsom Dam Modifications were allocated in FY2000. Funds to initiate construction were appropriated in FY2001. Fish and wildlife mitigation costs are currently not expected to be significant.

The American River Watershed Feasibility Report was completed in December 1991 and the Supplemental Information Report (SIR) was completed in March 1996. The SIR identified three candidate plans which would help reduce the flood risk facing Sacramento: modifying Folsom Dam and increasing the dedicated flood space; modifying Folsom Dam and the downstream system to allow increased objective releases; and constructing a detention dam upstream of Folsom Dam. In June 1996, the Chief of Engineers deferred a decision on a comprehensive flood control plan, but recommended that features common to all three plans be authorized as the first component of a comprehensive plan.

SAFCA prepared the Folsom Dam Modification Report New Outlets Plan dated March 1998 (SAFCA Outlet Report), which identified some proposed changes to the Folsom Dam Modification Plan described in the 1996 SIR. The 1996 SIR as modified by SAFCA Outlet Report was the basis for the project authorized under WRDA 1999. The Limited Reevaluation Report, dated November 2003, documents the 1996 SIR plan as modified by the SAFCA Outlet Report. Information in FY 2007 budget submittal indicated that the project, as originally designed, would exceed the maximum authorized cost per Section 902 of WRDA 1986. Action was taken to conduct engineering evaluations and to develop a Post Authorization Change and Engineering Documentation Report (PAC/EDR) document recommending a functionally equivalent performance project that involves a new gated auxiliary spillway on the left embankment of Folsom Dam. USACE PAC Report and U.S. Bureau of Reclamation Mod Report recommended a Joint Federal Project, which addresses both the Dam Safety and the Flood Risk Management issues. During PAC and Mod approval process, both ASA(CW) and Assistant Secretary Interior (Water and Science) (ASI(WS)) made strong

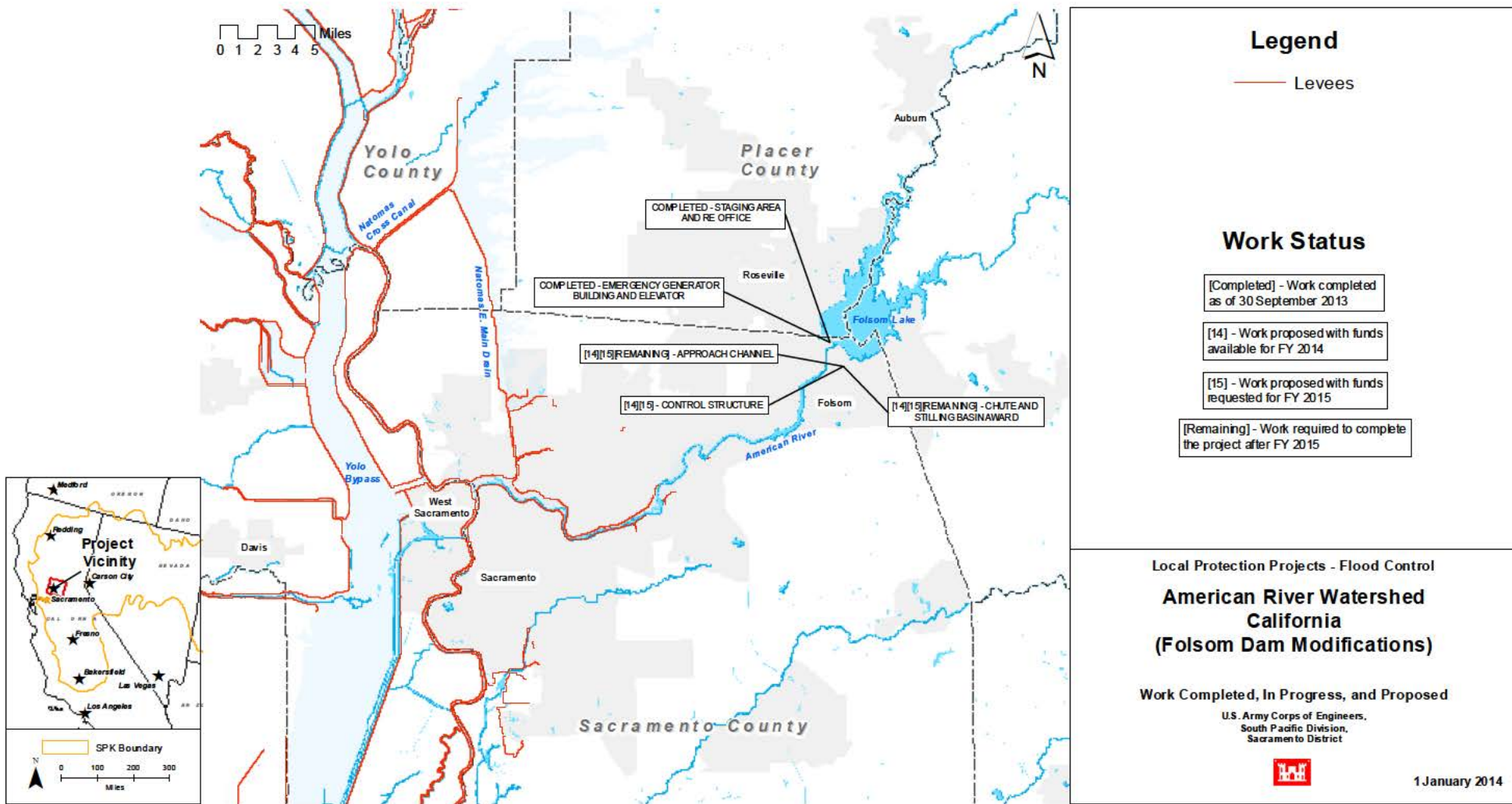
Division: South Pacific

District: Sacramento

American River Watershed (Folsom Dam Modifications), CA

commitments to each other to make the JFP a top priority and expeditiously design and construct the project, because of the significant property and loss of life
OTHER INFORMATION (Continued): risks and the efficiencies of both agencies working together. Further, both agencies recognized that neither agency could or should move forward without a strong commitment to build the project together. Both the PAC and Mod Reports were approved by OMB September 2007. WRDA 2007 authorized construction in accordance with the PAC at a total cost of \$683,000,000 (USACE portion) and Congress encouraged USACE and USBR to move forward expeditiously.

Engineering and design effort on the Folsom Dam Modifications portion of the JFP continued through FY2014. USBR started construction of the JFP on January 11, 2008 and completed their portion of the project in January 2011.



7 February 2014

APPROPRIATION TITLE: Construction – Local Protection - Flood Risk Management

PROJECT: American River Watershed, Folsom Dam Raise – Bridge, California (Continuing)

LOCATION: The project is located in Placer, El Dorado and Sacramento Counties and comprises the North, Middle and South Forks of the American River that flow westward into Folsom Lake. The outflow of the lake through Folsom Dam then flows through the city of Sacramento and into the Sacramento River. The system includes the Folsom Dam and Reservoir, located on the American River, about 29 miles upstream of the city of Sacramento, California. The American River watershed drains about 2,100 square miles northeast of Sacramento.

DESCRIPTION: Engineering evaluations indicated that the level of flood protection along much of the American River provides a level less than a 1% chance of exceedence annually. Several flood control projects have been authorized for construction for the American River to reduce the risk of flooding to Sacramento. Currently, Folsom Dam is designed to release up to 115,000 cubic feet per second (cfs) during flood operations, however the existing outlets limit releases to 36,000 cfs until approximately one half of the reservoir's flood control space is filled. Additional work is scheduled for Folsom Dam and related facilities to mitigate flood risk. This project is justified on the basis of its life-saving benefits and the justification and financial data is limited to the flood damage reduction elements of this project. The authorized American River Watershed, CA project also includes three aquatic ecosystem projects that could be considered for funding in future years.

AUTHORIZATION: Energy and Water Development Appropriations Act (EWDAA), Pub. L. 108-137, §§ 128, 134, 117 Stat. 1827 (2004); Energy and Water Development Appropriations Act, Pub. L. 109-103, 119 Stat. 2247 (2006); Energy and Water Development Appropriations Act, Pub. L. 110-161, § 130, 121 Stat. 1937, 1947 (2008); Omnibus Appropriations Act 2009, Pub. L. 111-8, § 109, 123 Stat. 524 (2009)

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

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

INITIAL BENEFIT-COST RATIO: 3.4 to 1 at 6-7/8 percent (2001)

BASIS OF BENEFIT-COST RATIO (BCR): Folsom Dam Raise – Benefits and costs were updated in the American River Watershed Common Features Project (WRDA 1996/1999) Economic Update dated June 2011. The Folsom Dam Modifications must be completed to realize full benefits. The Dam Raise is the basis for future benefits and the basis of the BCR. The bridge was needed to mitigate traffic impacts from construction.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
<u>Folsom Dam Raise</u>						
Estimated Federal Costs		\$78,619,000		Folsom Dam Raise	34 <u>7</u> /	TBD
Estimated Non-Federal Costs		42,334,000				
Cash Contribution	\$40,779,000					
Other Costs	1,555,000					
Total Folsom Dam Raise		\$142,235,000				
<u>Folsom Bridge</u>						
Estimated Federal Costs		\$ 90,879,000	<u>8</u> /	Folsom Dam Bridge	100	Jun 2009
Estimated Non-Federal Costs		33,007,000		Mitigation	95	TBD
Cash Contribution	\$31,641,000					
Other Costs	1,366,000					
Total Folsom Bridge		\$123,886,000				
Project Summary						
Estimated Federal Costs		\$169,498,000				
Estimated Non-Federal Costs		75,341,000				
Cash Contribution	\$72,420,000					
Other Costs	2,921,000					
Total Estimated Project Costs		\$244,839,000				
Allocations to 30 September 2011						
Allocation for FY 2012		\$117,886,250				
Allocation for FY 2013		1,700,000				
Allocation for FY 2014		2,095,800				
Allocation for FY 2015		3,150,000				
Allocations through FY 2014		124,832,050	<u>1/2/3/5/9/</u>	59		
Estimated Unobligated Carry-In Funds		0	<u>4</u> /			
President's Budget for FY 2015		1,200,000		60		
Programmed Balance to Complete after FY 2015		43,465,950	<u>6</u> /			
Un-programmed Balance to Complete after FY 2015		\$ 0				

Division: South Pacific

District: Sacramento

American River Watershed, Folsom Dam Raise–Bridge, CA

SUMMARIZED FINANCIAL DATA (Continued)

1/ \$2,317,097 reprogrammed from project.

2/ \$229,037 rescinded from project.

3/ \$0 transfered to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-In Funding: The actual unobligated balance from FY2013 into FY2014 (3011A report) for this project is \$0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$0. 5/ PED costs of \$16,095,636 are included in this amount

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

7/ Reflects physical completion for Folsom Dam Raise portion only.

8/ Temporary bridge is now reflected under Folsom Bridge cost only. Funds of \$48,300,000 are authorized to be appropriated for the permanent bridge and not subject to cost sharing requirements with non-Federal interests (see OTHER INFORMATION).

9/ Includes American Recovery and Reinvestment Act funds of \$2,577,650.

PHYSICAL DATA: Authorized FOLSOM DAM RAISE – Raise Folsom Dam 3.5 feet, replace three emergency spillway tainter gates, construct temporary bridge, Bushy Lake and Woodlake Resoration sites; automated temperature shutters. FOLSOM Bridge – construct permanent bridge in lieu of temporary bridge.

JUSTIFICATION: This flood risk management project addresses significant risk to human safety in accordance with the USACE performance-based guidelines for the construction account. Folsom Dam and Reservoir are key features for flood risk management for Sacramento. Folsom Dam and Reservoir has a capacity of 975,000 acre-feet, which includes a minimum of 400,000 acre-feet of space seasonally dedicated to the mitigation of flood risk. Significant rainfall in recent years has filled Folsom Lake and necessitated record releases in excess of design flow downstream. The levees along the American River are designed to accommodate releases from Folsom Dam of up to 115,000 cfs. Downstream levees would likely fail with sustained flows above this level. Levee failure along the lower American River and Sacramento River could result in flooding of more than 100,000 acres, affecting approximately 900,000 residents, with damages of up to \$58 billion, depending on the magnitude of the event.

The Folsom Dam Raise Project would further reduce the risk of flood damage to about a 1 in 185 chance in any given year. The population at risk is 900,000, the depth of flooding is 10 feet and the risk warning time is 12 hours. Emergency response and regional/national economic disruption costs associated with flooding in Sacramento are enormous. Major flooding would result in disruption of statewide drinking water supplies. There is limited egress and ingress across the Sacramento and American rivers. The Life Safety Hazard Index is 370. Average annual benefits (October 2010 price levels) are as follows:

Annual Benefits	Amount
Flood risk management	\$28,800,000
Other (de-watering, debris removal levee repair costs)	2,158,000
Total	\$30,958,000

Division: South Pacific

District: Sacramento

American River Watershed, Folsom Dam Raise–Bridge, CA

FISCAL YEAR 2014: The TOTAL unobligated dollars are being applied as follows:

Folsom Dam Raise - Continue design on project features (Dam Raise)	\$3,000,000
Folsom Dam Bridge - Mitigation and monitoring	150,000
Total	\$3,150,000

FISCAL YEAR 2015: The budget amount plus carry-in funds will be applied as follows:

Folsom Dam Raise - Complete design on project features (Dam Raise)	\$1,000,000
Folsom Dam Bridge Mitigation and monitoring	200,000
Total	\$1,200,000

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.

NON-FEDERAL COSTS: (Continued)

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
<u>Folsom Dam Raise – Raise Component</u>		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 1,555,000	
Pay 35 percent of the costs allocated to flood control to bring non-Federal share to 35 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	40,779,000	<u>10/</u>
Pay 32 percent of the costs allocated to ecosystem restoration to bring non-Federal share to 35 percent.	0	
Total Folsom Dam Raise Component	\$42,334,000	
<u>Raise – Bridge Component</u>		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas (City of Folsom).	\$ 1,366,000	
City of Folsom's share of costs associated with bridge construction.	21,319,000	
Pay 35 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities (refers to temporary portion of the bridge).	10,322,000	
Total Folsom Bridge Component	\$ 33,007,000	
Total Folsom Dam Raise (including Bridge) Non-Federal Costs	\$75,341,000	
<p><u>10/</u> The operation and maintenance (O&M) would continue to be performed by US Bureau of Reclamation (USBR). An initial cost-sharing agreement would be negotiated between the Sacramento Area Flood Control Agency (SAFCA) and USBR to pay the portion of O&M costs related to the new flood control features. Amount is for both Folsom Dam Modifications (Joint Federal Project - JFP) and Folsom Dam Raise.</p>		

Division: South Pacific

District: Sacramento

American River Watershed, Folsom Dam Raise–Bridge, CA

STATUS OF LOCAL COOPERATION: The Central Valley Flood Protection Board (CVFPB) and SAFCA are the non-Federal sponsors for the Folsom Dam Raise. The Project Partnership Agreement (PPA) for the Dam Raise is scheduled for execution in June 2015; the delay in the projected date for executing the PPA from what was last reported from Congress is a result of change in project management and conflict resolution between the Corps and non-Federal sponsors regarding inclusion of California specific language in the model PPA. The non-Federal sponsors are financially capable and willing to contribute the non-Federal share. The non-Federal sponsors have also agreed to make all required payments concurrently with project construction.

The city of Folsom is the non-Federal sponsor for the Folsom Bridge Project. The PCA was executed November 22, 2006.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$169,498,000 is an decrease of \$38,701,000 from the latest estimate (\$208,199,000) presented to Congress (FY 2014). This change includes the following items.

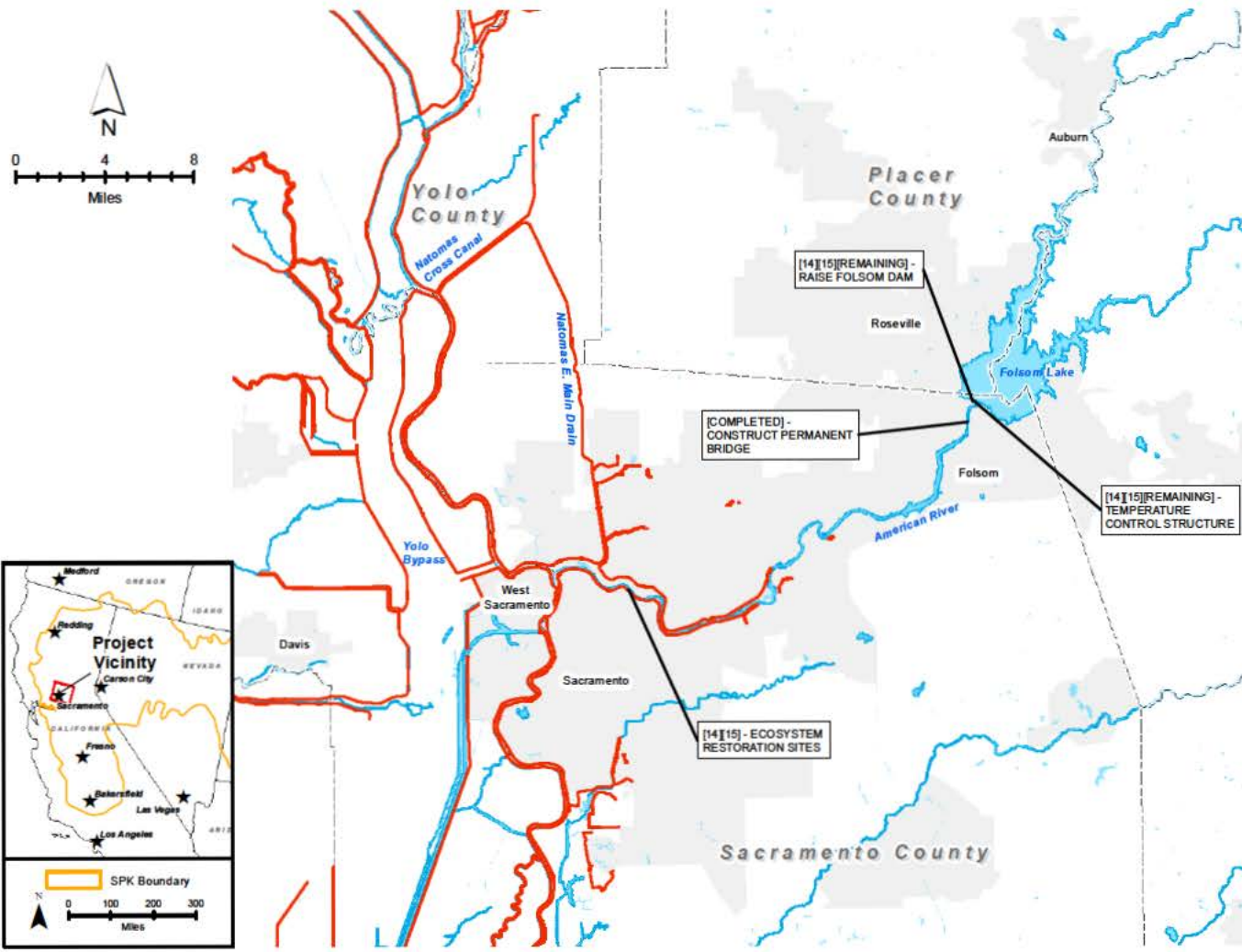
Item	Amount
Removal of Aquatic Ecosystem Feature Costs	\$ (37,877,000)
Price Escalation on Construction Features	\$824,000
 Total	 \$(38,701,000)

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: Folsom Dam Modifications/Folsom Dam Raise (Joint Federal Project) – The USBR, with cooperation from the Corps, prepared an Environmental Impact Statement/Environmental Impact Report (EIS/EIR), which was finalized in March 2007. USBR and the Corps signed a joint Record of Decision (ROD) on May 3, 2007.

OTHER INFORMATION: Funds used to initiate preconstruction engineering and design for the American River Watershed project were allocated in FY 1992. The Long Term Study (Feasibility Report) for the entire American River Watershed was completed in February 2002. The Chief’s Report, dated November 5, 2002, was followed by the Division Engineer’s Public Notice issued on March 22, 2003. Funds to initiate construction were appropriated in FY 2004. The Post Authorization Change (PAC) Report recommended the Raise design be refined from 7-foot raise to a 3.5-foot raise and was approved by Congress in Section 3029 of the Water Resources and Development Act of 2007, 110 H.R. 1495. Fish and wildlife mitigation costs are currently not expected to be significant.

The American River Watershed Feasibility Report was completed in December 1991 and the Supplemental Information Report (SIR) was completed in March 1996. The SIR identified three candidate plans which would help reduce the flood risk facing Sacramento: modifying Folsom Dam and increasing the dedicated flood space; modifying Folsom Dam and the downstream system to allow increased objective releases; and constructing a detention dam upstream of Folsom Dam. In June 1996, the Chief of Engineers deferred a decision on a comprehensive flood control plan, but recommended that features common to all three plans be authorized as the first component of a comprehensive plan.

Folsom Bridge – Total project cost (including only the temporary bridge component) was authorized at \$257,300,000 in EWDA, 2004, P.L. 108-137, Section 128, for both Folsom Dam Raise and Folsom Bridge. Section 128 also modified the cost sharing of the permanent bridge feature and required status reports to Congress.



Legend

— Levees

Work Status

- [Completed] - Work completed as of 30 September 2013
- [14] - Work proposed with funds available for FY 2014
- [15] - Work proposed with funds requested for FY 2015
- [Remaining] - Work required to complete the project after FY 2015

**Local Protection Projects - Flood Control
American River Watershed
California
(Folsom Dam Raise and Bridge)**

Work Completed, In Progress, and Proposed
U.S. Army Corps of Engineers,
South Pacific Division,
Sacramento District



1 January 2014

7 February 2014

APPROPRIATION TITLE: Construction – Environmental Restoration - Environmental

PROJECT: Hamilton Airfield Wetlands Restoration, California (Completion)

LOCATION: Hamilton Airfield Wetland Restoration Project is located 4 miles east of the city of Novato, on San Pablo Bay, Marin County, California.

DESCRIPTION: The Hamilton Wetlands Restoration project (HWRP) was first authorized for construction in the Water Resources Development Act of 1999. It included a 988-acre parcel with 570 acres of coastal salt marsh and seasonal wetlands and 120 acres of tidal channels and intertidal habitats. The rest encompassed a former military runway and adjacent California State Lands Commission area North Antenna Field (NAF). The larger site, still protected by levees, has subsided below the elevation of surrounding properties, which include the tidal wetlands that border on San Pablo Bay. This subsidence has resulted in the loss of valuable habitat for varied waterfowl, fish and other wetland dependent vegetation and wildlife which include the federally listed California clapper rail and the salt marsh harvest mouse.

The Water Resources Development Act of 2007 modified the Hamilton Wetlands Restoration Project (HWRP) and added the adjacent 1,612-acre parcel of Bel Marin Keys Unit V (BMKV), to increase the authorized project from 988 to approximately 2,600 acres. The modified HWRP, also an integral part of the Long Term Management Strategy (LTMS) for placement of dredged material in the San Francisco Bay region, provides for restoration of both sites through the beneficial reuse of approximately 24.4 million cubic yards of dredged material. This includes 5 million cubic yards from the Oakland Harbor, CA (50-ft) deepening project being used as part of the effort to restore the Hamilton Airfield portion of the project. The project also includes interpretive recreational features including restrooms, display boards/kiosks, a parking lot and a segment of the San Francisco Bay Trail. The modified HWRP includes approximately 13 years of monitoring (\$3,743,000) and adaptive management (\$7,482,000) with invasive species management, necessary to ensure the project success.

The project includes the design and construction of both the restoration and recreation features at the Hamilton Army Airfield and the costs associated with the General Reevaluation Report (GRR) to include the Bel Marin Keys Unit V (BMKV). The adaptive management and monitoring costs for this programmed work is \$3,816,000. The non-Federal Sponsor has asserted that they will not add the BMKV project to the Hamilton project.

AUTHORIZATION: 1999 Water Resources Development Act, § 101(b)(3), Pub. L. No. 106-53, 113 Stat 269, *modified by* the 2007 Water Resources Development Act, § 3018, Pub. L. No. 110-114, 121 Stat. 1041.

BASIS OF BENEFIT - COST RATIO: Not applicable; Aquatic Ecosystem Restoration Project

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT Cmpl	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$193,127,000	Element A Hamilton Airfield	90	2014
Programmed Construction	\$ 86,994,000		Adaptive Management		
Unprogrammed Construction	106,133,000		and Monitoring	0	TBD
Estimated Non-Federal Cost		\$ 29,724,000	Element B BMKV and NAF	0	Unsched
Programmed Construction	\$ 29,724,000		Adaptive Management		
Unprogrammed Construction			and Monitoring	0	Unsched
Division: South Pacific		District: San Francisco			Hamilton Airfield Wetlands Restoration, CA

Cash Contributions	22,553,000	
Other Costs	7,171,000	
Estimated Non-Federal Cost		
Unprogrammed Construction		\$ 57,429,000
Cash Contributions	\$ 57,429,000	
Other Costs	0	
Total Estimated Programmed Construction Cost		\$116,718,000
Total Estimated Unprogrammed Construction Cost		163,562,000
Total Estimated Project Cost		\$280,280,000

Element C Recreation Features 95 2013

Individual project details:

Element A – Restoration Hamilton Army Airfield (HAA) portion (75/25 Cost Share)

Estimated Federal Cost		\$ 85,904,000
Estimated Non-Federal Cost		28,635,000
Cash Contribution	\$ 21,464,000	
Other Costs	7,171,000	
Total Estimated HAA Cost		\$114,539,000

SUMMARIZED FINANCIAL DATA (Continued)

Element B – Restoration BMK V (65/35 Cost Share)

Estimated Federal Cost		\$105,529,000
Estimated Non-Federal Cost		56,824,000
Cash Contribution	\$ 56,824,000	
Other Costs	0	
Total Estimated BMK V Restoration Cost		\$162,353,000

Element C – Recreation Costs (50/50):

Estimated Federal Cost		\$ 1,694,000
Estimated Non-Federal Cost		1,694,000

Division: South Pacific

District: San Francisco

Hamilton Airfield Wetlands Restoration, CA

ACCUM				
PCT OF EST	STATUS	PCT	PHYSICAL	
FED COST	(1 Jan 2014)	CMPL	COMPLETION	
			SCHEDULE	

Cash Contribution	\$ 1,694,000	
Other Costs	0	
Total Estimated Recreation Cost		\$ 3,388,000 1/

1/ The total recreation costs for HAA are \$2,180,000 and for BMKV are \$1,208,000.

Project Summary

Total Estimated Federal Cost		\$193,127,000
Total Estimated Non-Federal Cost		87,153,000
Cash Contribution	\$ 79,982,000	
Other Costs	7,171,000	
Total Estimated Project Cost		\$280,280,000

Allocation to 30 September 2011	\$ 73,149,000			
Allocation for FY 2012	8,085,000			
Allocation for FY 2013	3,992,000			
Allocation for FY 2014	500,000			
Allocation through FY 2014	85,726,000	1/ 2/ 3/ 5/		44
Estimated Unobligated Carry-In Funds	100,000	4/		
President's Budget for FY 2015	1,300,000			45
Programmed Balance to Complete after FY 2015	0	6/		
Unprogrammed Balance to Complete after FY 2015	106,133,000			

SUMMARIZED FINANCIAL DATA (Continued)

1/ \$272,000 reprogrammed from the project.

2/ \$222,073 rescinded from the project.

3/ \$ 0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY2013 into FY2014 (3011A report) for this project is \$1,100,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY2015 from prior appropriations for use on this project effort is \$100,000. This amount will be used to perform work on the project as follows: Unobligated carry-in funds will be used for labor for monitoring activities continuing from FY 2014.

5/ PED costs of \$661,000 are included in this amount.

6/ For programmed work only; remaining work is un-programmed pending a decision to construct these features.

PHYSICAL DATA: Placement of 24.4 million cubic yards of Dredged material; Breach tidal levee; construction of 65,000 linear feet of levees and wetland restoration of 2,600 acres. Recreation - 14,000 feet of the San Francisco Bay trail located along the western boundary of the ecosystem restoration features

Division: South Pacific

District: San Francisco

Hamilton Airfield Wetlands Restoration, CA

between Pacheco Pond and a point approx. 700 feet from existing outboard marsh.

JUSTIFICATION: The Hamilton Airfield Wetland Restoration project area, now protected by levees, has subsided below the elevation of surrounding properties, including the tidal wetlands on San Pablo Bay. This condition has resulted in loss of valuable habitat for various waterfowl, fish and other wetland dependent species including at least two threatened and endangered species. The principal project purpose is restoration of wetland habitat via beneficial reuse of dredged material from San Francisco Bay dredging projects in line with the goals of San Francisco Long Term Management Strategy (LTMS). The project restores tidal marsh habitat for federally listed endangered species, including salt marsh harvest mouse and California clapper rail, and state-listed black rail, all of which depend on this habitat type for all their life requisites. Seasonal and upland habitat restoration benefits California state special status species, such as western burrowing owl and northern harrier. The project also provides connectivity between isolated patches of tidal marsh habitat for clapper rail, salt marsh harvest mouse, black rails and other special status species creating contiguous viable habitat for breeding, feeding and cover. The project restores an important stopover along the Pacific Flyway for migratory waterfowl. The breach contract was awarded in April 2013 with site breach to tidal flow expected in March 2014; shortly after breach significant environmental benefits will be observable. Migratory birds already use the site showing that some benefits were realized as soon the dredged material was placed in 2011. We expect incremental benefits of completed areas within ten years of establishment. In July 2012, we initiated seasonal wetland plantings and associated environmental benefits are expected by late 2013 or early 2014. Full benefits will be realized in the tidal areas between ten and fifteen years after all environmental components are complete based on yearly monitoring and maintenance. This will ensure that invasive species are managed from the onset, when newly disturbed soils are most susceptible to such intrusions.

FISCAL YEAR 2014: The total fiscal year 2014 appropriations, plus unobligated carry-in is,being applied as follows:

Construction Management	\$ 500,000
Nursery management and planting	550,000
Site monitoring and adaptive management	550,000
Total	\$ 1,600,000

FISCAL YEAR 2015: The budgeted amount of \$1,300,000 and the projected carry-in funding will be applied as follows to fiscally complete this project:

Completion of nursery management and planting	\$ 700,000
Completion of site monitoring and adaptive management	700,000
Total	\$ 1,400,000

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

Requirements of Local Cooperation	Payments during Construction and Reimbursements	Annual Operation, Maintenance Repairs, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.	\$ 2,634,000	N/A
Pay 20 percent of the construction costs allocated to fish and wildlife	22,553,000	\$ 0
Division: South Pacific	District: San Francisco	Hamilton Airfield Wetlands Restoration, CA

restoration/beneficial reuse of dredged material in cash to bring the non-Federal share of the project to 25 percent in accordance with Section 101(b) of the 1999 Water Resources Development Act.

Participate in Project Coordination Team and conduct audits of non-Federal costs.	3,447,000	0
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation features.	1,090,000	0
Total Non-Federal Costs	\$ 29,724,000	\$ 0

The non-Federal sponsor has agreed to make all required payments concurrently with project construction on the programmed Hamilton Army Airfield of the project only. Therefore, the values above only reflect the current Project Cooperation Agreement (PCA).

STATUS OF LOCAL COOPERATION: The initial Hamilton Project Design Agreement was executed in September 1999. The PCA for the Hamilton Army Airfield portion of the project was signed in April 2002 between the Department of the Army and the California State Coastal Conservancy (SCC) and was amended in January 2005 to allow acceptance of advanced funds from the local sponsor. Another PCA amendment to implement a portion of the recreation plan authorized by Water Resources Development Act 2007, Section 3018 was executed in July 2013 for the construction of the San Francisco Bay Trail which is required prior to breaching the bayward levee along the eastern perimeter of the Hamilton Army Airfield parcel and increases the cost by \$2,180,000.

STATUS OF LOCAL COOPERATION (Continued): The current non-Federal cost estimate of \$29,724,000 to complete the Hamilton Army Airfield portion of the project is approximately \$16,000,000 over the PCA, Amendment No.1 estimate of \$14,000,000. In a letter dated 28 March 28, 2013, the non-Federal sponsor indicated that it is financially capable and willing to contribute the increased non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

The WRDA 2007 authorization modified the Hamilton Wetland Restoration Project (HWRP) by adding the Bel Marin Keys Unit V parcel thereby increasing the total estimated project cost to \$280,280,000. The current estimated non-Federal cost is \$87,153,000. An amendment to the 2002 PCA is required to update the project scope and cost share requirements to include the Bel Marin Keys Unit V. However, a major concern of the local sponsor was that the WRDA 2007 increased their project cost share from 25% Non-Federal to 35% Non-Federal as per Sec 103(c)(7) of WRDA 1986.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$193,127,500 is an increase of \$12,597,500 from the last estimate (\$180,530,000) presented to Congress (FY 2013). The previously reported cost was based on the cost estimating effort used to support the pending Bel Marin Keys Unit V PCA amendment. However, this Amendment was delayed by the local sponsor due to changes in the Cost Sharing formula for the BMK V component from 75/25 to 65/35. Subsequent to that effort, actual costs incurred during the dredge placement on the Hamilton Parcel provided for a more current assessment of total project costs. The current cost estimate (February 2013) incorporated this new information.

Item	Amount
Price Escalation on construction features	\$ 3,660,500
Additional Costs for dredge placement and construction	\$ 6,010,000
Schedule Changes and Increased Labor Costs	\$ 2,927,000
Total	\$12,597,500

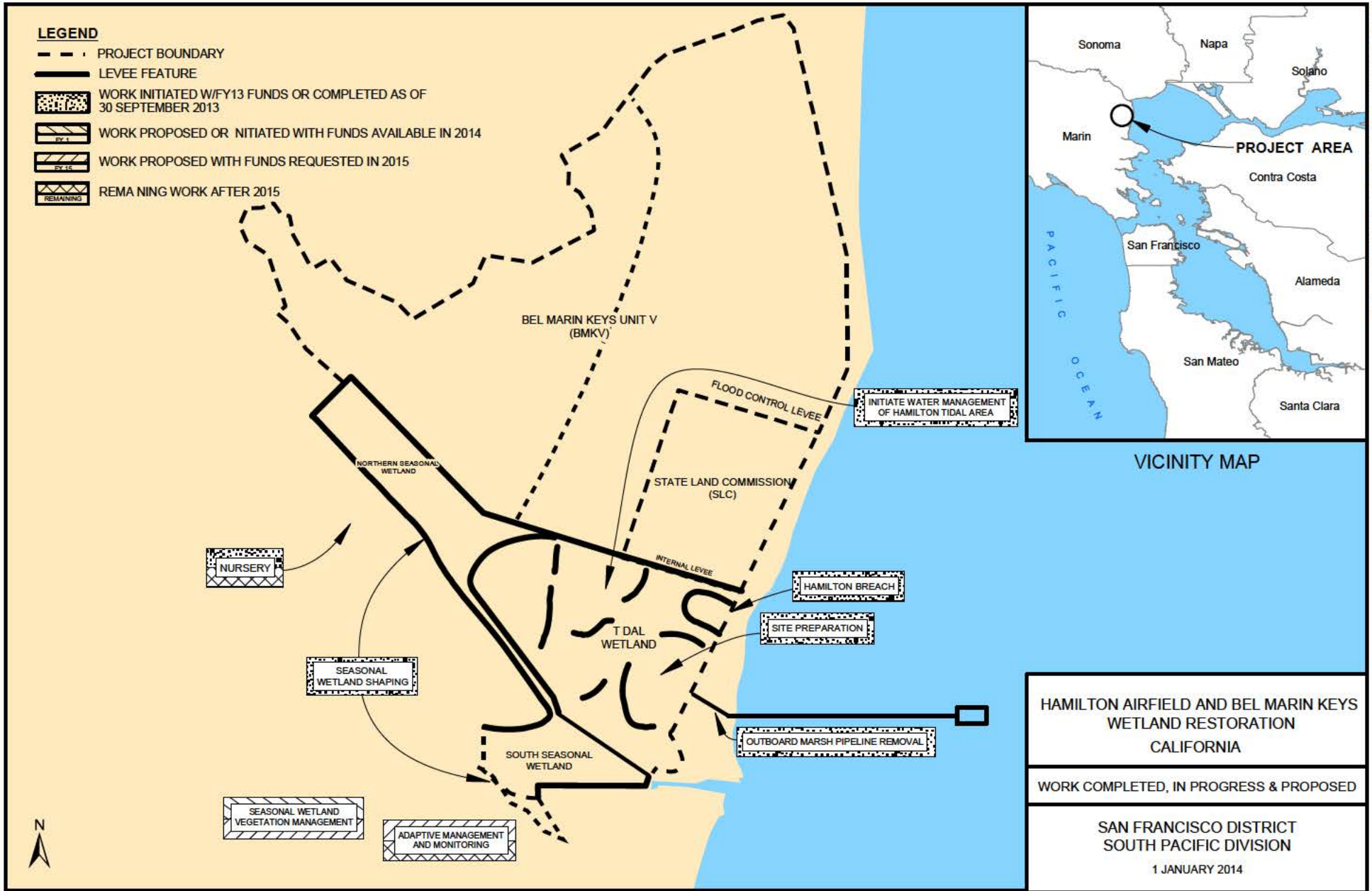
STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: The Final Environmental Impact Statement was filed with Environmental Protection Agency in February 1999. A General Reevaluation Report (GRR) and Supplemental Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) for Bel Marin Keys Unit V Expansion of the Hamilton Wetland Restoration Project was completed in April 2003. The GRR and Supplemental EIS/EIR recommended the inclusion of the Bel Marin Keys Unit V parcel into Hamilton Wetland Restoration Project. The Bel Marin Keys Chief's Report was signed July 19, 2004.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design (PED) were reprogrammed to the project with Congressional approval in Fiscal Year 1999. Funds to initiate construction were appropriated in Fiscal Year 2001. Army Base Realignment and Closure (BRAC) transfer of the Hamilton Airfield parcel to the State of California occurred in September 2003. Formerly Used Defense Sites (FUDS) used American Recovery and Reinvestment Act funding to remove about 38,000 cubic yards of soil off site from the North Antenna Field parcel completing the work in September 2013. Approximately \$408,000 in PED costs were incurred by the Bel Marin Keys Unit V element prior to the sponsor indicating they would not support this element. These PED Bel Marin Keys Unit V costs were accounted for in the Programmed Construction Cost. The Bel Marin Keys Unit V element of the Hamilton project will be at a 35% non federal share.

OTHER INFORMATION: (Continued)

Inclusion of the Bel Marin Keys Unit V increment into the authorized project requires an amendment to the current PCA.

An Engineering Documentation Report approved by the South Pacific Division Commander on July 18, 2012, documents a change in the scope of the authorized recreation plan's Bay Trail features necessitated by changed physical conditions. It also supports a PCA amendment to implement the Bay Trail features located on the Hamilton Army Airfield parcel in order to comply with the Coastal Zone Management Act. The amendment to the PCA for constructing the San Francisco Bay Trail was executed in July 2013. Construction of the trail segment prior to breaching the bayward levee along the eastern perimeter of the Hamilton Army Airfield parcel (thus restoring tidal influence to the site) is necessary to maintain compliance with conditions in the modified Hamilton Wetland Restoration Project Coastal Zone Management Act Consistency concurrence. Construction of the trail segment is taking place in November 2013. Breaching of the bayward levee is scheduled for March 2014. Nursery management and planting, monitoring and adaptive management continues for 13 years after the breach; the cost of these activities will be funded XXXX



APPROPRIATION TITLE: Construction – Ecosystem Restoration – Environmental

PROJECT: Hamilton City, California (Continuing)

LOCATION: Hamilton City is located along the west bank of the Sacramento River in Glenn County, California about 85 miles north of the City of Sacramento. The project area and city are bounded on the east by the Sacramento River, and to the west by the Glenn Colusa Canal; the area lies north of existing Sacramento River levees and is not protected by them. The project boundaries extend about two miles north and six miles south of Hamilton City.

DESCRIPTION: The Hamilton City feasibility study was accomplished as part of the Central Valley Integrated Flood Management Study (formerly Sacramento and San Joaquin River Basins Comprehensive Study) with the State of California as the non-Federal sponsor. The project will construct a setback levee about 6.8 miles long and degrade an existing “J” levee, actively restoring 1,145 acres of riparian woodland, 261 acres of riparian shrub, and 70 acres of floodplain meadow now cut off by that levee. To accomplish ecosystem restoration, most of an existing “J” levee will be removed to reconnect the river to the floodplain and allow for overbank flooding. In areas where the “J” levee reduces velocities of the Sacramento River, the “J” levee will remain in place. The new setback levee will begin two miles north of Hamilton City. It will tie into high ground near the end of the “J” levee to prevent flows greater than 250 year event from wrapping around the setback levee and over County Road 203 and into populated areas. County Road 203 will be ramped approximately 2.5 feet from its current height over the setback levee. Glenn County constructed a short setback levee near the northern end of the “J” levee in 2003, that is serving as a “training dike” for the new setback levee. Entrenched rock will be placed on either of the waterside or landside of this training dike to direct flows and potential river migration away from the new setback levee. The setback levee will run SE along County Road 203 then turn easterly and run parallel to the Sacramento River for about 1,300 feet. A seepage berm will be constructed on the landside of the setback levee from the northern end of the levee to Dunning Slough. The levee will have a 90 percent reliability of passing the 75 year event. At Highway 32, the levee will turn east and run parallel to the highway until tying into the approach at Gianella Bridge. The highway will not need to be raised, but rock riprap will be placed to protect the levee embankment and bridge from floodwaters. South of Highway 32, the alignment follows the existing “J” levee adjacent to Irvine Finch River Access. South of this access, the levee will be aligned away from the river to open up the floodplain. The alignment will cut across a portion of Dunning Slough and provide protection to the Hamilton City wastewater treatment plant. An existing ditch within Dunning Slough will be used to drain runoff from the agricultural fields and Hamilton City. This drain will connect to the floodplain via a culvert in the setback levee south of Dunning Slough. The alignment will follow the western edge of the habitat restoration area before turning east and merging with the southern end of the “J” levee at Road 23. As the levee turns east, the levee height will gradually decrease from 9 feet to approximately 2 feet. At this point the new setback levee will transition into a “training dike”. This height reduction will avoid negative hydraulic effects to downstream property owners. The training dike continues a mile south of Road 23, running west of the United States Fish and Wildlife Service (USFWS) boundary. This project will manage flood risk for the town of Hamilton City and adjacent agricultural lands while providing significant habitat acreage in the floodplain.

AUTHORIZATION: Water Resources Development Act of 2007, Pub. L. 110-114, § 100(8), 121 Stat. 1049, 1050 (2007)

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: Project is multiple-purpose ecosystem restoration and flood risk management. The project was formulated to maximize use of integrated “joint” features (features that produce both ecosystem restoration benefits and flood risk management). A separable cost-remaining benefit analysis was performed to separate out costs associated with features that produce joint benefits. Incremental cost analysis of project identified restoration benefits of 888 average annual habitat units (AAHUs) and average annual flood risk management benefits of \$577,000. This project reasonably maximizes total ecosystem restoration and flood risk management benefits compared to costs.

BASIS OF BENEFIT-COST RATIO: Project justification was based on ecosystem restoration and flood risk management, as described in the Final Feasibility Report for Hamilton City Flood Damage Reduction and Ecosystem Restoration, California, Project dated July 2004 at October 2003 price levels, and Chief's Report dated December 22, 2004.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$38,300,000		Entire Project	0	TBD
Estimated Non-Federal Cost	22,100,000				
Cash Contributions	\$ 2,623,000				
Other Costs	19,477,000				
Total Estimated Project Cost	\$60,400,000				
Allocations to 30 September 2011	\$ 2,822,000				
Allocation for FY 2012	0				
Allocation for FY 2013	0				
Allocation for FY 2014	8,500,000				
Allocations through FY 2014	11,322,000	<u>1/</u> <u>2/</u> <u>3/</u> <u>5/</u>	31		
Estimated Unobligated Carry-in Funds	0	<u>4/</u>			
President's Budget for FY 2015	3,800,000		41		
Programmed Balance to Complete after FY 2015	23,178,000	<u>6/</u>			
Un-programmed Balance to Complete after FY 2015	\$ 0				

1/ \$190,000 reprogrammed to the project.

2/ \$2,000 rescinded from the project.

3/ \$0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2013 into FY 2014 (3011A report) for this project is \$0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$0. This amount will be used to perform work on the project as follows: N/A

5/ PED costs of \$3,172,000 are included in this amount.

6/ For programmed work only; remaining work is un-programmed pending a decision to construct these features.

PHYSICAL DATA: From north to south, 4.4 miles of levee will provide a 90% confidence of passing a 75 year event (to include Hamilton City proper); 1,000 feet of levee will provide a 90% confidence level of passing a 35 year event; 1.6 miles of levee will provide a 90% confidence level of passing an 11 year event.

JUSTIFICATION: Project justification was based on both ecosystem restoration and flood risk management. The project was formulated to maximize use of integrated “joint” features (features that produce both ecosystem restoration and flood risk management benefits). A separable cost-remaining benefit analysis was performed to separate out costs associated with features that produce joint benefits. Ecosystem (\$54.4million) - Over 95% of the Sacramento River’s floodplains (riparian and wetland habitats) have been lost due to development and agriculture. This project will restore approximately 1,480 acres of floodplain habitat with all the land between an existing levee and the new setback levee restored to a natural floodplain. A variety of habitat types will be restored to include riparian scrub, oak savannah, and grassland communities. Restoration of this flood plain will benefit the recovery of eight federally-listed or proposed species in the area, including: winter-run Chinook salmon, steelhead trout, Valley Elderberry Longhorn Beetle, and Swainson’s Hawk. The restoration will provide vital habitat (nesting, foraging, and shelter) to these species and increase biodiversity to more natural levels. This restoration has planned collaboration with other federal, state, local, and non-profit agencies, as part of a system-wide initiative to establish a continuous riparian corridor along the Sacramento River. The Hamilton City project is a key component of this effort because it will connect four more restored areas to provide a continuous habitat corridor far larger than the project’s restoration footprint. Benefits will be incremental starting immediately after planting and full benefits realized by approximately year ten. The value of connecting multiple restoration areas and establishing a larger corridor has synergistic benefits that are not accounted for in the project analysis. The cost for this restoration, including the land costs, are estimated at approximately \$31,000 per acre. Flood Risk Management (\$6.0 million) - Record flood flow occurred in 1974 when a privately constructed “J” levee failed. Extensive flood fighting and evacuation took place in 1983, 1986, 1995, 1997, and 1998. The project consists of constructing a setback levee about 6.8 miles long that will have varying heights and varying levels of performance for flood risk management, removal of an existing private levee, and restoration of 1,480 acres of native floodplain habitat. The flood risk management average annual benefits are estimated at \$521,000 at October 2012 price levels. (See OTHER INFORMATION)

FISCAL YEAR 2014: The total fiscal year 2014 appropriation is being applied as follows:

Award Phase 1 levee construction contract	7,500,000
Award Phase 1 environmental restoration contracts	1,000,000
Total	\$8,500,000

FISCAL YEAR 2015: The budget amount plus carry-in funds will be applied as follows:

Initiate Phase 2 levee construction	\$ 100,000
Continue Phase 1 environmental restoration contracts	3,700,000
Total	\$3,800,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 the non-Federal 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, which are partially offset by a credit allowed.	\$19,477,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	119,000	
Pay 2 percent of the costs allocated to ecosystem restoration to bring the total non-Federal share of ecosystem restoration costs to 35 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control and ecosystem restoration facilities.	2,504,000	
Total Non-Federal Costs	\$22,100,000	

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

STATUS OF LOCAL COOPERATION: The PED cost-sharing agreement was executed with the local sponsor, the State of California Reclamation Board, now the Central Valley Flood Protection Board, on December 13, 2005. The Project Partnership Agreement (PPA) is scheduled to be signed in September 2014. The project is authorized for construction by the Water Resources Development Act (WRDA) of 2007 at a total first cost of \$52,400,000. The cost sharing for construction of the project will be 65 percent Federal and 35 percent non-Federal in accordance with WRDA 1996.

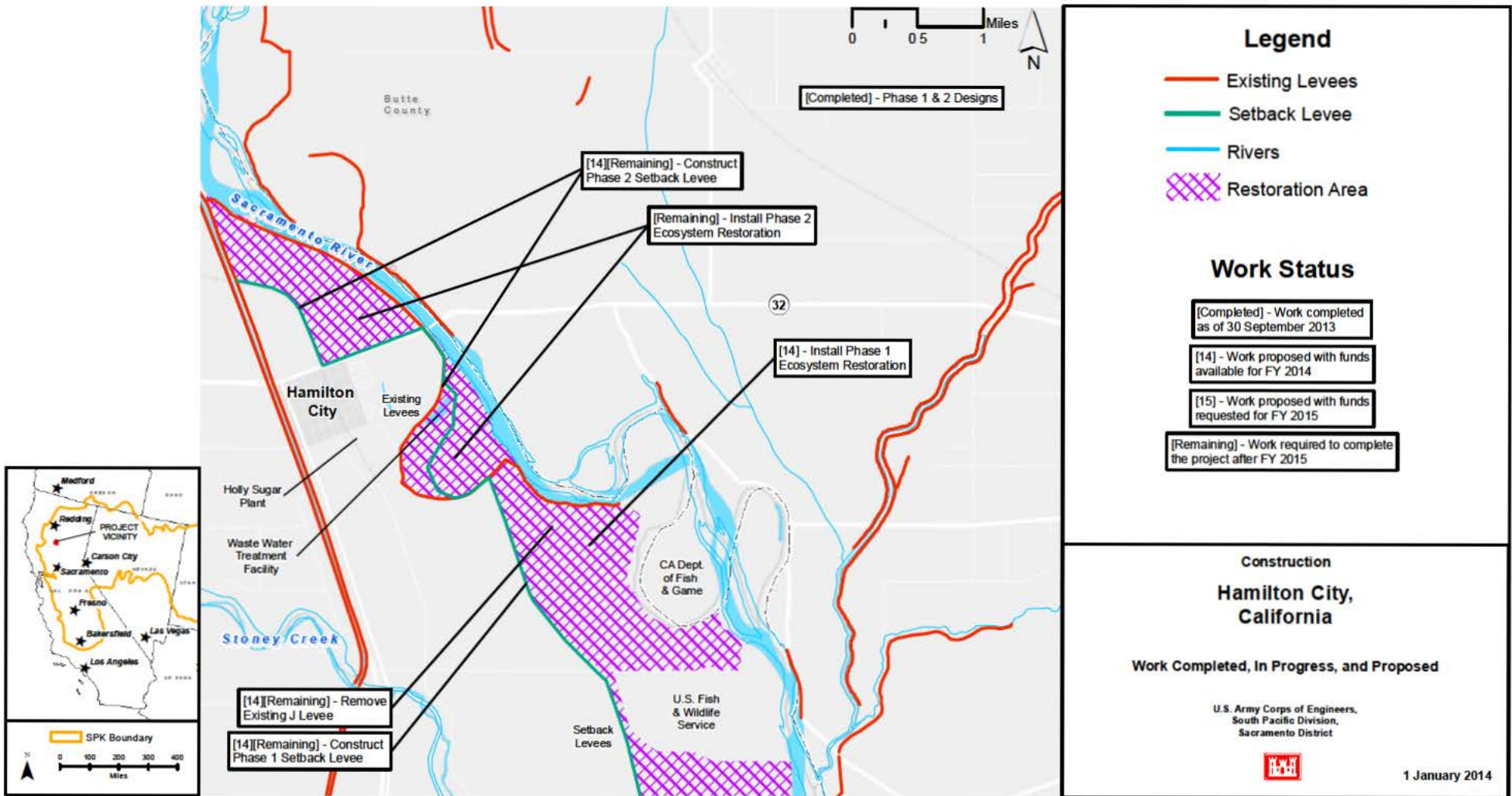
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal first cost estimate of \$38,300,000 is an increase of \$4,200,000 from the latest estimate (\$34,100,000) presented to congress (FY 2014). This change includes the following items:

Item	Amount
Price escalation on construction features	\$4,200,000
Total	\$4,200,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: A combined Environmental Impact Statement/Environmental Impact Report (EIS/EIR), along with the Final Feasibility Report, was completed in July 2004.

OTHER INFORMATION: Preconstruction, engineering and design (PED) funds were received in 2005. Design was completed in 2010. Single purpose elements of the authorized plan are: 1) the training dike and its ancillary features (LERRD, Road 23 crossing, fencing, interior drainage, etc.); 2) the waste water treatment plant levee between Hwy 32 and the north end of the setback levee at Dunning Slough, and its ancillary facilities; 3) the last 1.5-foot increment of levee height for the setback levees (added to the bottom of the levee, not the top). The remaining setback levee features (except Ecosystem Restoration (ER) lands and plantings) are all joint Ecosystem Restoration(ER)/Flood Risk Management (FRM). The Hamilton City Project is a multi-purpose project which encompasses ER and FRM. The project costs are allocated according to the function(s) of each feature. In 2006, the Office of ASA(CW) reviewed the feasibility report and sent the report to Congress for authorization. ASA(CW) required USACE to reassess cost allocations made in the feasibility report, specifically those of the levee near the Hamilton City Waste Water Treatment Plant (WWTP), during PED. A 2009 hydraulic analysis resulted in the WWTP levee being allocated entirely to FRM, instead of a split cost allocation between ER and FRM. Since that time, work has continued on the project design and updating costs. In 2012, as a result of the cost allocation change to the levee near the WWTP, the benefit-cost ratio for the FRM portion of the project reduced significantly. The project was put on hold from March 2012 to March 2013 due to lack of non-Federal sponsor funding and lack of new start appropriations in FY 2012 and FY 2013. Funding was received from non-federal sponsor in March 2013. In June 2013, work resumed on the Limited Reevaluation Report (LRR) to address FRM cost allocation changes which are scheduled to be reported to ASA(CW) and investigates which, if any costs can be reduced

The \$15 million request for FY 2014 was made with the expectation that the LRR would be complete by 30 September 2013; , this schedule was subsequently updated and revised. Due to the effort required to update benefits and costs being developed to evaluate alternatives to the FRM portion of the project, it was not possible to complete the LRR by 30 September 2013. The LRR is currently scheduled to complete in June 2014.



APPROPRIATION TITLE: Construction – Dam Safety

PROJECT: Isabella Dam, California - Dam Safety Seismic Remediation (Dam Safety Assurance) (Continuing)

LOCATION: The Isabella Dam is located approximately 40 miles northeast of Bakersfield, near the confluence of the north and south forks of the Kern River, in Kern County, California.

DESCRIPTION: There are three primary deficiencies (hydrologic, seismic, and seepage/piping) at the project which could lead to significant life loss in the event of a dam failure. Work to be performed includes continuing preconstruction engineering and design (PED) of the Isabella Main and Auxiliary Dams, embankment, Labyrinth spillway, the Borel outlet works, and the continuation of Highway 178 relocation construction (Fiscal Year 2014 start). The recommended risk management plan consists of the following: 1) A new Emergency Spillway which will be a 900-foot wide Labyrinth Spillway with a 16-foot dam raise to pass the probable maximum flood (PMF); 2) buttress and foundation treatments at the Auxiliary dam to increase seismic stability and remediate seepage concerns; 3) a filter and drain system in the downstream slope of the Main dam to increase stability; 4) modification of the existing spillway to raise the spillway walls, anchor the walls and ogee crest for the additional head during operation, and line the chute with concrete to mitigate for plucking and erosion; and 5) relocation or realignment of the Borel canal to reduce seepage and piping risks. Caltrans Highways 155 and 178 must be relocated to accommodate the 16-foot dam raise. Construction efforts will include Highways 155 and 178 and all the real estate actions except efforts associated with the United States (US) Forest Service facilities. The relocation related items include demolition and relocation of existing Corps' facilities and the relocation of private residences. Several interim risk reduction measures (IRRM) are in use to reduce the risk until long term risk reduction measures are implemented. An emergency reservoir pool restriction is presently in place to reduce the seepage-piping and seismic risk.

AUTHORIZATION: Flood Control Act of 1944, P.L. 78-534, Chapter 665, Sec. 10

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable

INITIAL BENEFIT-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 2014)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Total Appropriation Requirement	\$ 537,800,000		Highway 178 Relocation	15	Apr 2017
Future Non-Federal Reimbursement	17,505,000		Highway 155 Closure Structure	10	Jul 2018
Estimate Federal Cost (Ultimate)	\$ 520,295,000		Main Dam Raise	10	Jun 2018
			Auxiliary Dam Raise	5	Aug 2021
Estimated Non-Federal Cost	\$ 17,505,000		Labyrinth Spillway	10	Nov 2018
Cash Contributions	\$ 0				
Other Costs	0				
Reimbursements	17,505,000				
 Total Estimated Project Cost	 \$537,800,000				
Allocations to 30 September 2011	\$ 0				
Allocation for FY 2012	0				
Allocation for FY 2013	8,800,000				
Allocation for FY 2014	28,200,000				
Allocations through FY 2014	37,000,000	<u>1/ 2/ 3/ 5/</u>		7	
Estimated Unobligated Carry-In Funds	0	<u>4/</u>			
President's Budget for FY 2015	8,000,000			8	
Programmed Balance to Complete after FY 2015	475,295,000	<u>6/</u>			
Un-programmed Balance to Complete after FY 2015	\$ 0				

1/ \$ 0 reprogrammed to (from) the project.

2/ \$ 0 rescinded from the project.

3/ \$ 0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY2013 into FY2014 for this project is \$0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$0. This amount will be used to perform work on the project as follows: N/A.

5/ PED costs of \$37,000,000 are included in this amount.

6/ For programmed work only; remaining work is un-programmed pending a decision to construct these features.

Division: South Pacific

District: Sacramento

Isabella Dam, (Dam Safety), CA

28 March 2014

SPD - 31

PHYSICAL DATA: The existing project is comprised of a 185 foot high earthfill main dam, an ungated ogee concrete spillway, and a 100 foot high earthfill Auxiliary Dam located approximately ½ mile east of the Main Dam. The reservoir has a gross storage capacity of 568,075 acre feet.

JUSTIFICATION: Isabella Dam is a Dam Safety Action Classification (DSAC) 1, which is defined by ER 1110-2-1156 as "Very High Urgency" where combination of life and economic consequences with probability of failure is very high. The spillway capacity is inadequate, and there are known seismic and seepage hazards that could cause deformation of the structures. An external peer review panel found that urgent and compelling classification by USACE was appropriate. Reservoir restriction will be extended until construction of the modifications is completed. The interim reservoir restriction results in economic loss to the water users. Remediation of the dam safety deficiencies is necessary.

The population at risk (PAR) is approximately 359,000 people in the city of Bakersfield and the town of Lake Isabella. In the event of a dam failure there could be loss to Interstate 5, Highways 99 and 58; major railroads lines; and the California state water project (supplies water to the Los Angeles metropolitan area). The average annual benefits are \$15,520,000.

FISCAL YEAR 2014: The TOTAL unobligated dollars are being applied as follows:

Real estate acquisition	\$ 9,600,000
Relocation contracts – highways and utilities	7,500,000
Fish and wildlife mitigation	224,000
Preconstruction engineering and design (Main and auxiliary dams, spillway, and Borel outlet works)	10,876,000
Total	\$28,200,000

FISCAL YEAR 2015: The budget amount plus carry-in amount will be applied as follows:

Real estate acquisition	\$ 600,000
Continue engineering and design (95%) for dams and spillways	7,400,000
Total	\$8,000,000

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.

	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Reimburse 15 percent of the original costs share percentage of 21.7 of modification allocated to irrigation water supply (15% x 21.7%) or 3.255% of total project cost) within a period of 30 years following completion of construction.	\$17,505,390	
Total Non-Federal Costs	\$17,505,390	

STATUS OF LOCAL COOPERATION: There is an existing contract for local reimbursement of project costs (dated 23 October 1964) between the United States (Department of the Interior) and North Kern Water Storage District, Buena Vista Water Storage District, Tulare Lake Basin Water Storage District, and Hacienda Water District (hereinafter collectively known as the "Districts"). The total obligation payable by the Districts to the United States was \$4,573,000 for the total cost of the project allocated to irrigation, which amounted to 21.7% of the construction cost of the dam, at the time was \$22,000,000. North Kern Water Storage District was responsible for \$3,109,640 and Buena Vista Water Storage District for \$1,463,360.

In accordance with ER 1110-2-1156 dated 28 Oct 2011 and given the original agreement, the proposed non-Federal cost share for the Isabella Dam Safety Modification Project will be cost-shared at 15% of the original cost share percentage (15% x 21.7%) at 3.255%. It is anticipated that there will be a repayment contract for the remediation cost between the United States (Department of Interior) and the Districts. Distribution of the 21% may remain the same as the original contract between the following two contractors, North Kern Water Storage District and Buena Vista Water Storage. The tentative date to have this draft repayment plan is prior to construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$537,800,000, outlined in the December 2012 Dam Safety Modification Report, is the same as the latest estimate presented to Congress (Fiscal Year 2014).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: An Environmental Impact Statement (EIS) was included in the decision document; the EIS and ROD were signed in December 2012 following public review. The final DSM Report was signed in December 2012. Additional National Environmental Policy Act documents will be provided during the design efforts to address real estate actions, recreation and fisheries.

Division: South Pacific

District: Sacramento

Isabella Dam, (Dam Safety), CA

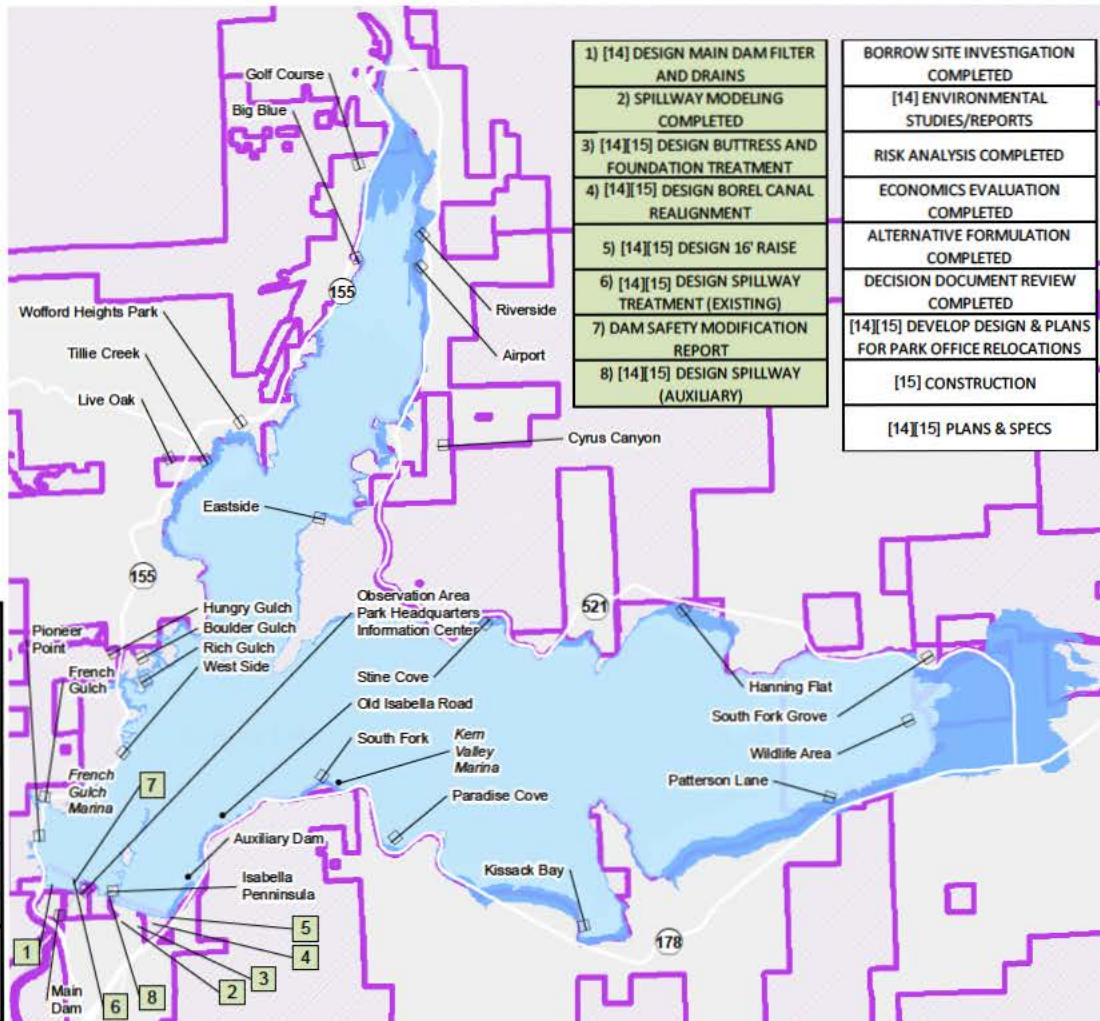
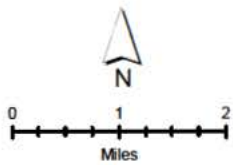
OTHER INFORMATION: This project was funded under the O&M appropriation prior to FY2007. Isabella Dam was placed in operation and became fully operational in 1953. The Dam Safety Modification Report was signed in December 2012 and Phase 2 of the Dam Safety Program or the PED phase was initiated in FY2013.

Construction will be initiated in FY2014 with the relocation/reconstruction of Highway 178. A portions of the FY2014 funds were originally planned to be used for relocation of private residences and the Corps project facilities. However, design details became evident that the relocation and reconstruction of Highway 178 has to be done prior to the relocation of the residences and Corps facilities.

Due to high cost and degree of construction difficulty, the Corps has determined that a preferred strategy will be to construct a flood protection closure gate along Highway 155 instead of relocating and reconstructing the highway. This must be approved by the California Department of Transportation (Caltrans) and a legal agreement must be executed.

The Corps is working with the United States Forest Service (USFS) in developing a recreation plan to address impacts and mitigation of recreational facilities due to dam safety modifications that will take place. An Environmental Assessment (EA) will also be developed to address the relocation of affected facilities. These documents are planned to be completed in late 2014.

For dam raise construction to begin in 2017, USFS facilities will need to be relocated. The Corps and USFS are working together to determine how to proceed with these relocations.



- 1) [14] DESIGN MAIN DAM FILTER AND DRAINS
- 2) SPILLWAY MODELING COMPLETED
- 3) [14][15] DESIGN BUTTRESS AND FOUNDATION TREATMENT
- 4) [14][15] DESIGN BOREL CANAL REALIGNMENT
- 5) [14][15] DESIGN 16' RAISE
- 6) [14][15] DESIGN SPILLWAY TREATMENT (EXISTING)
- 7) DAM SAFETY MODIFICATION REPORT
- 8) [14][15] DESIGN SPILLWAY (AUXILIARY)

BORROW SITE INVESTIGATION COMPLETED
[14] ENVIRONMENTAL STUDIES/REPORTS
RISK ANALYSIS COMPLETED
ECONOMICS EVALUATION COMPLETED
ALTERNATIVE FORMULATION COMPLETED
DECISION DOCUMENT REVIEW COMPLETED
[14][15] DEVELOP DESIGN & PLANS FOR PARK OFFICE RELOCATIONS
[15] CONSTRUCTION
[14][15] PLANS & SPECS

Legend

- Current Spillway Design Capacity
- Gross Pool
- Parks and Open Space

Work Status

[Completed] - Work completed as of 30 September 2013

[14] - Work proposed with funds available for FY 2014

[15] - Work proposed with funds requested for FY 2015

[Remaining] - Work required to complete the project after FY 2015



**Construction
Isabella Lake DSAP
California**

Work Completed, In Progress, and Proposed

U.S. Army Corps of Engineers,
South Pacific Division,
Sacramento District



1 January 2014

7 February 2014

APPROPRIATION TITLE: Construction – Ecosystem Restoration - Environmental

PROJECT: Napa River Salt Marsh Restoration, CA (Continuing)

LOCATION: Project is located along the north side of San Francisco Bay, approximately 45 miles north of San Francisco, California, adjacent to the lower reach of the Napa River in the counties of Napa, Solano, and Sonoma.

DESCRIPTION: The Napa River Salt Marsh Wetlands once encompassed 25,000 acres. Agricultural use and salt production reduced them to approximately 30% of their former extent. In 1994, the Cargill Salt Company ceased salt production and sold over 9,800 acres of lands in the study area to the State of California. The land is now managed by the California Department of Fish and Wildlife.

The Chiefs Report, dated December 22, 2004, recommended restoration of seven salt production ponds as salt marsh wetlands in the Napa-Sonoma Marshes Wildlife Area. The recommended plan began with salinity reduction via discharges to the Napa River and Slough in Ponds numbered 4, 5, 6, 6A, 7, 7A and 8. Dilution would be accomplished using water control structures and a breach of the Pond 4 levee. A mix of tidal and pond habitats would be created by restoring ponds 4 and 5 to tidal action, and adaptive management of ponds 6 through 8 for future opening by the California Department of Fish and Wildlife (DFG). Design and construction of Ponds 1, 1A, 2, 2A, 3, 4, and 5 have been completed separately by the sponsor, along with 90% designs for Ponds 6, 6A, 7, 7A and 8.

The Project will restore 4,534 acres of high quality pond and tidal marsh habitat. It is anticipated that Ponds 4 and 5 will be restored to tidal action within two to five years, depending on the rate of habitat evolution in Pond 3, already opened by California Department of Fish and Wildlife. The recommended plan will rely on natural sedimentation for the majority of the restoration area and natural colonization by marsh vegetation. Pond 4 is expected to become tidal marsh within approximately 40 years. Habitat evolution in Pond 5 will take longer because it is farther removed from the sediment supply. After initial construction is complete, monitoring will be required to identify specific requirements for and timing of adaptive management actions. It is planned, specifically, for five years after construction of the managed ponds (Ponds 1, 1A, 2, 6, 6A, 7A and 8), ten years for ponds opened to tidal action (Ponds 3, 4, 5) and ten years for Pond 7. The estimated cost for adaptive management is \$1,297,000 and for monitoring activities is \$1,417,000.

Recreation opportunities would be significant with restoration of the ponds and tidal areas. Recreational features in the recommended plan include facility upgrades to enhance educational activities, including interpretive signage, a comfort station, footpaths, and fishing platforms.

AUTHORIZATION: Water Resources Development Act 2007 (WRDA 2007), Section 1001

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: Ecosystem Restoration - Both Cost Effectiveness and an Incremental Cost Analysis (CE/ICA) were performed to evaluate the efficiency of restoration alternatives, and to identify of the National Ecosystem Restoration Plan (NER). Once habitat goals were identified for each pond, based on cost-effectiveness analysis, recycled water benefits, and other considerations, the respective habitat benefits (based on managed pond or tidal marsh status) were calculated for each pond and entered into the final incremental cost analysis.

Recreation – 10.6 to 1.

Division: South Pacific

District: San Francisco

Napa River Salt Marsh Restoration, CA

INITIAL BENEFIT - COST RATIO: The initial benefit-cost ratio for the entire project is not applicable because environmental benefits were not quantified in monetary terms. The benefits were determined using a modified Habitat Evaluation Procedure (HEP) analysis and are presented in non-monetary terms (Habitat Units, or HUs).

BASIS OF BENEFIT - COST RATIO: Project justification is based on nonmonetary benefits of wetland habitat restoration in the Final Napa Salt Marsh Restoration Project Feasibility Study report, dated August 2004.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
			Authorized	Environmental	60	TBD
<u>Ecosystem Restoration</u>						
Estimated Federal Cost		\$ 26,175,000				
Estimated Non-Federal Cost		14,094,000				
Cash Contribution	\$ 1,329,000					
Other Costs	12,765,000					
Total Ecosystem Restoration		\$ 40,269,000				
<u>Recreation</u>						
Estimated Federal Cost		\$ 575,000				
Estimated Non-Federal Cost		575,000				
Cash Contribution	\$ 531,000					
Other Costs	44,000					
Total Recreation		\$ 1,150,000				
<u>Project Summary</u>						
Estimated Federal Cost		\$ 26,750,000				
Estimated Non-Federal Cost		14,669,000				
Cash Contribution	\$ 1,861,000					
Other Costs	12,808,000					
Total Estimated Project Cost		\$ 41,419,000				

Division: South Pacific

District: San Francisco

Napa River Salt Marsh Restoration, CA

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Allocation to 30 September 2011	\$ 10,895,000				
Allocation for FY 2012	7,000,000				
Allocation for FY 2013	4,092,000				
Allocation for FY 2014	3,200,000				
Allocations through FY 2014	25,187,000	<u>1/</u> <u>2/</u> <u>3/</u> <u>5/</u>	94		
Estimated Unobligated Carry-In Funds	1,669,000	<u>4/</u>			
President's Budget for FY 2015	1,000,000		98		
Programmed Balance to Complete after FY 2015	\$ 563,000	<u>6/</u>			
Un-programmed Balance to Complete after FY 2015	0				

1/ \$185,000 reprogrammed to the project.

2/ \$39,754 rescinded from the project.

3/ \$6,604,522 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY2013 into FY2014 (3011A report) for this project is \$2,600,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$1,669,000. This amount will be used to perform work on the project as follows: Funds will be used to perform Supervision and Administration on Pond 8, Monitoring and Engineering and Design.

5/ PED costs of \$0 are included in this amount.

6/ For programmed work only.

PHYSICAL DATA: Restoration of seven salt marsh wetlands, breach existing berms and construct water control features.

JUSTIFICATION: The San Francisco Estuary (San Francisco, San Pablo, and Suisun Bays) is a nationally significant estuary and the largest estuary on the Pacific Coast of the contiguous 48 states. This restoration project represents a unique opportunity for large-scale ecosystem restoration, because the Estuary once had the largest area of contiguous tidal marsh habitat on the Pacific Coast, prior to reclamation. It is a critical stop for migratory waterfowl and has one of the largest concentration of shorebirds on the Pacific Flyway wintering there than in any other location in California; and provides habitat for a large number of Threatened and Endangered Species, including the California clapper rail, California black rail, San Pablo song sparrow, Western burrowing owl, salt marsh harvest mouse, Chinook salmon, steelhead trout, Delta smelt, Long-fin smelt, and splittail. According to the U.S. Environmental Protection Agency (EPA), more ducks winter in the Estuary than in the much larger Chesapeake Bay.

Division: South Pacific

District: San Francisco

Napa River Salt Marsh Restoration, CA

JUSTIFICATION: (Continued)

Due to human impacts, approximately 90% of historic wetlands in San Francisco Bay area have been lost since the early 1900's. The degradation of fish and wildlife resources associated with these losses has resulted in federal listing of several species as being threatened or endangered (delta smelt, spittail, steelhead trout, and chinook salmon) under the Endangered Species Act. Wetland restoration in the near term will help to prevent permanent loss of those listed species in the San Francisco Bay. In addition, salinity in the ponds fringing the Bay is increasing, resulting in significant decline of ecological values. Several ponds are considered a potential threat to the ecology of the North Bay region because of the presence of larger quantities and high concentration of residual salts. The project involves restoration and enhancement of 4,534 acres of tidal marsh, sloughs, and open-water ponds to include substantial water quality and habitat improvements in former commercial salt ponds. Among federally listed species benefiting from the project are steelhead trout, Chinook salmon, delta smelt, green sturgeon, salt marsh harvest mouse, and clapper rail, among other species. Benefits expected within two years after construction for Ponds 6, 6A and 7 is 1,437 acres. Benefits to be realized in eight to ten years after Pond 7 improvements include 302 acres. Pond 7A (291 acres) benefits will not be realized until eight years from implementation and no benefits are included from Pond 8.

FY2015 funding will be used for the construction management of FY2014 contracts (Pond 8 and Recreation features). Average annual benefits for recreation of about \$1,100,000 result in a benefit-to-cost ratio of 10.6 for the recreational features of the project.

FISCAL YEAR 2014: The TOTAL unobligated dollars are being applied as follows:

Award construction contract for Pond 8	\$2,200,000
Award Recreation trail contract	531,000
S&A	1,400,000
Carry-over for E&D	1,669,000
Total	\$5,800,000

FISCAL YEAR 2015: The budget amount plus carry-in funds will be applied as follows:

Monitoring and Adaptive Management	\$ 400,000
S&A	600,000
Carry in for S&A and E&D	1,669,000
Total	\$2,669,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in WRDA 1986, as amended, and WRDA 2007, the non-Federal Division: South Pacific District: San Francisco Napa River Salt Marsh Restoration, CA

sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repairs, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.	\$ 7,426,000	N/A
Pay 46.2 percent of the separable costs allocated to recreation to bring the total non-Federal share of recreation costs to 50 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation features.	532,000	
Creditable in-kind contributions (Section 221 of the Flood Control Act of 1970, as amended)	5,382,000	N/A
Pay 3.2 percent of the costs allocated to ecosystem restoration to bring the total non-Federal share of ecosystem restoration costs to 35 percent as reduced for credit allowed for work in kind and bear all costs of operation, maintenance, repair, rehabilitation and replacement of ecosystem restoration features.	1,329,000	
Total Non-Federal Costs	\$14,669,000	N/A

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

STATUS OF LOCAL COOPERATION: The California Department of Fish and Wildlife, the local sponsor for the construction phase, has agreed to comply with all project requirements. The California State Coastal Conservancy (SCC) was the non-federal sponsor during the development of the Feasibility Report. The

Division: South Pacific

District: San Francisco

Napa River Salt Marsh Restoration, CA

California State Coastal Conservancy requested a Preconstruction Engineering and Design (PED) cost-share agreement deviation that would limit the total cost of PED. The Assistant Secretary of the Army for Civil Works (ASA (CW)) denied the request and the PED Agreement was never signed. The Project Partnership Agreement (PPA) would apply to design and was executed on June 15, 2012.

The current non-Federal cost estimate is \$14,669,000. In a letter dated May 11, 2010, the non-Federal sponsor has indicated it is financially capable and willing to contribute the non-Federal share. Our analysis of the non-federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$26,750,000 is the same as the latest estimate of \$26,750,000 presented to Congress (FY2014).

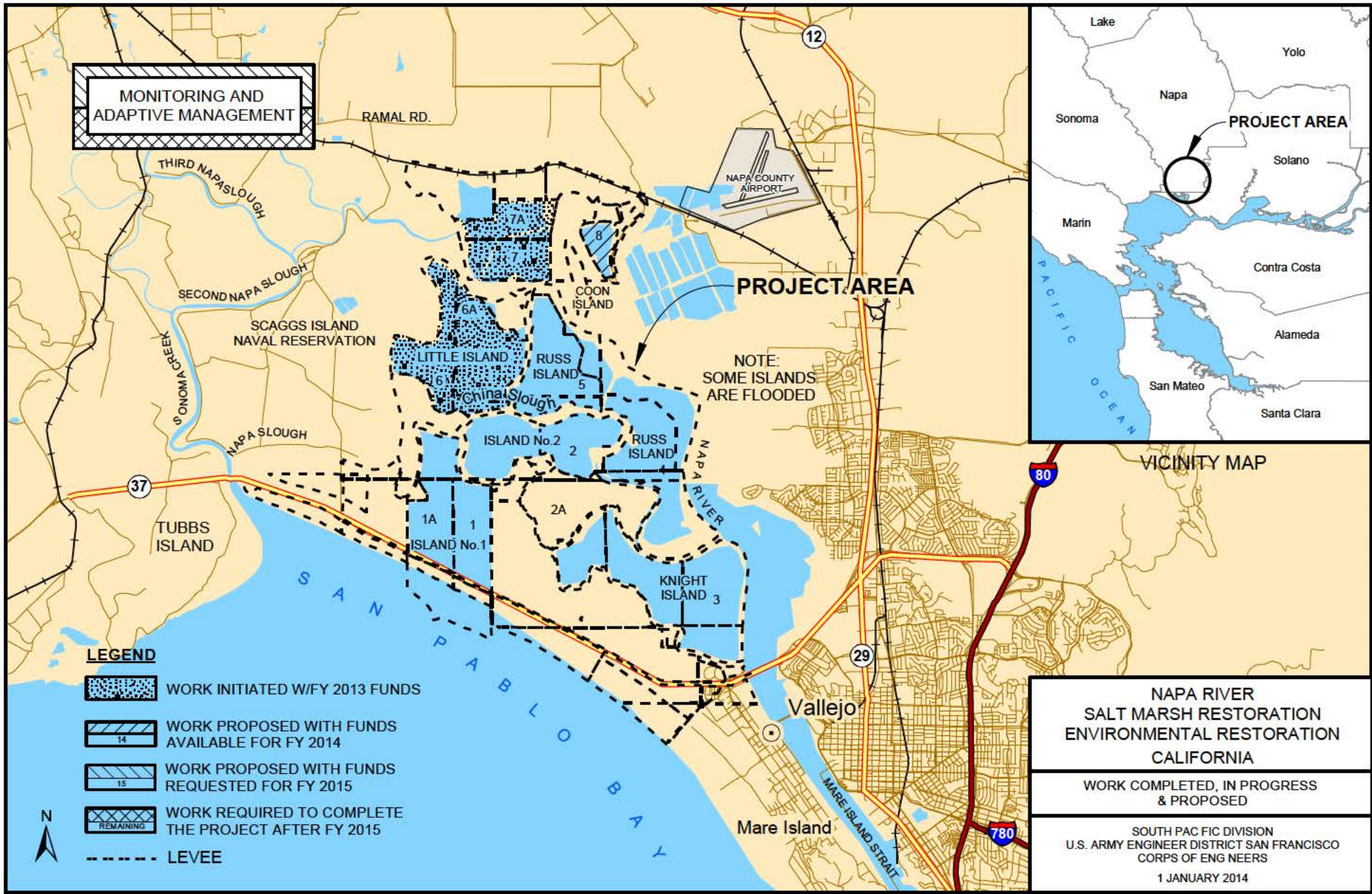
STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: Environmental Impact Statement/Environmental Impact Report completed in 2004 and the Record of Decision signed November 17, 2005.

OTHER INFORMATION: Funds to initiate PED were never appropriated and no PED agreement was executed. Funds to initiate construction were appropriated in 2010. The final Feasibility Report, completed in June 2004, recommended seven of the twelve salt ponds be restored to salt marsh wetlands, Ponds 4, 5, 6, 6A, 7, 7A and 8. The Chief's report was signed in December 2004. The Office of Management and Budget (OMB) clearance was provided in November 2005. Design and construction of Ponds 1, 1A, 2, 2A, 3, 4, and 5 is complete. The non-Federal sponsor constructed Ponds 4 and 5 and completed 90% design drawings, specification, and estimate for Ponds 6-8. WRDA 2007 authorized crediting the non-Federal sponsor for work completed on the approved project before PPA was signed.

The total project authorization in WRDA 2007 is for \$134,500,000 with an estimated Federal cost of \$87,500,000 and an estimate non-Federal cost of \$47,000,000. Although included in the authorization, non-policy compliant components to restore or enhance Salt Ponds 1, 1A, 2 and 3, and construction of a recycled water pipeline extending from the pumping station managed by Sonoma Valley County Sanitation District to the project are limited to preliminary survey and design costs in this justification document. The Corps will construct these features when specifically appropriated construction funding is provided by Congress.

In accordance with In-Kind contribution provisions of Section 221 of Flood Control Act of 1970, as amended by Section 2003 of the WRDA 2007 and as documented by the July 28, 2010 ASA(CW) approval of the Integral Determination Report: The San Francisco District has provided supporting documentation for the in-kind work performed by the non-Federal sponsor. The cost for the performed in-kind design and construction work totals \$5,382,000 which is lower than the estimated cost for the work items as contained in the Feasibility Report and is within the estimated \$14,669,000 total non-Federal costs for the project. The final credit afforded for the in-kind work is subject to audit by the government. The actual value of the in-kind contributions will be determined in accordance with the limitations and conditions of the PPA.

The PPA provides updated total project costs per the Project Cost Engineering Memorandum, dated November 9, 2011.



APPROPRIATION TITLE: Construction - Channels and Harbors - Navigation

PROJECT: Oakland Harbor (50 foot project), California (Continuing)

LOCATION: Oakland Harbor is located in the city of Oakland, California, on the eastern shore of central San Francisco Bay immediately south of the San Francisco-Oakland Bay Bridge.

DESCRIPTION: Previously authorized deepening of the 4 mile Inner Harbor and 3.4 mile Outer Harbor to 42 feet deep was completed in July 1998. The project was deepened to 50 feet deep in 2010 and included the deepening of the 4 mile Inner Harbor and 3.4 mile Outer Harbor channels, including the respective turning basins, to 50 feet; widening of channels at various locations; and widening of the Inner and Outer Harbor turning basins. Approximately 12.8 million cubic yards of excavated dredged material was disposed.

The Middle Harbor Enhancement Area (MHEA) used about 7 million cubic yards to create 190 acres of shallow water and sub-tidal habitat in an area no longer needed for navigation purposes; approximately 2.6 million cubic yards would be placed at the former Hamilton Army Airfield in Novato, California, as part of a separately authorized tidal wetlands restoration project; approximately 2.9 million cubic yards would be disposed at the existing Montezuma Wetlands Restoration Project (MWRP) in the northeast portion of Suisun Bay, and approximately 0.3 million cubic yards would be transported to the Vision 2000 upland site in the Inner Harbor. Remaining work includes grading/shaping and planting of eelgrass at the MHEA. Once completed, the site will be monitored and adaptively managed for an additional five years.

AUTHORIZATION: Water Resources Development Act (WRDA) of 1999, § 101(a)(7), Pub. L. No. 106-53, 113 Stat 269, 275.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable since all project economic benefits are being realized. The project navigation features are completed and only mitigation components remain.

TOTAL BENEFIT - COST RATIO: 4.0 to 1.0 @ 7 percent.

INITIAL BENEFIT - COST RATIO: 8.1 to 1.0 @ 7 percent.

BASIS OF BENEFIT - COST RATIO: The initial BCR is from the Chief of Engineer's report approved in April 1999. A 2005 economic reevaluation updated the benefit projections based on updated fleet forecast and construction schedule. The update found that the average annual benefits had remained essentially the same as forecasted in the Chief's report. Using these benefits, the increased cost of the project and the longer duration of project construction has decreased the total BCR to 4.0. Equivalent annual benefits at 7% are estimated to be \$160,000,000, while the annualized total project cost (\$540,000,000 when including interest during construction) is calculated to be \$39,000,000.

Division: South Pacific

District: San Francisco

Oakland Harbor (-50 foot), CA

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (COE)	\$252,321,000		Entire Project	95	TBD
Estimated Federal Cost (USCG)	300,000				
Estimated Total Federal Cost	\$252,621,000				
Estimated Non-Federal Cost	\$168,414,000				
Cash Contribution	\$ 79,206,000				
Other Costs	89,208,000				
Total Estimated Project Cost	\$421,035,000				
Allocations to 30 September 2011	\$242,099,000				
Allocation for FY 2012	1,211,000				
Allocation for FY 2013	499,000				
Allocation for FY 2014	100,000				
Allocations through FY 2014	243,909,000	<u>1/</u> <u>2/</u> <u>3/</u> <u>5/</u>	97		
Estimated Unobligated Carry-In Funds	0	<u>4/</u>			
President's Budget for FY 2015	6,000,000		99		
Programmed Balance to Complete after FY 2015	2,412,000				
Un-programmed Balance to Complete after FY 2015	0				

1/ \$5,207,058 reprogrammed to the project.

2/ \$863,975 rescinded from the project.

3/ \$896 PED funds transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY2013 into FY2014 (3011A report) for this project is \$0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY2015 from prior appropriations for use on this project effort is \$0.

5/ PED costs of \$3,185,000 are included in this amount.

6/ The local sponsor contributed \$13,926,000 that is creditable pursuant to the WRDA 1986, Section 203 in order to maintain the project schedule.

PHYSICAL DATA: Channels: Deepen the 4 mile Inner Harbor and 3.4 mile Outer Harbor channels to 50 feet; Widen various locations. Turning Basins: Widen Inner and Outer Harbor Turning Basins and deepen to 50 feet. Habitat: Create 190 acres of shallow water and sub-tidal habitat.

Division: South Pacific

District: San Francisco

Oakland Harbor (-50 foot), CA

JUSTIFICATION: The Port of Oakland services about 85 percent of all general cargo moving through the Golden Gate, 95 percent of which is containerized. Major imports include any cargo which can be shipped via container, including electronics, mercantile, raw cotton, animal feed, meat, coffee, tea and spices, iron and steel, wood, lumber, sundries, etc. Basically all cargo, excluding bulk elements such as grain, oil, and other bulk materials, can be shipped in container boxes and will be shipped from Asia to the Midwest and beyond, through the Port of Oakland. Major exports include agricultural produce and beverages from California, meat, electronics, automobile parts, pulp and waste paper, specialized industrial machinery, and synthetic resins and plastic chemicals, and are shipped to Asia through the Port of Oakland.

The existing Federal navigation channel serving Oakland Harbor is now adequate for efficient shipping operations and vessel safety as a result of increased vessel traffic and deployment of the next generation of containerships. Annual tonnage handled by the Port is 30 million tons per year. Average annual benefits, all commercial navigation, are estimated at \$165,000,000. Savings per ton of cargo (Average Annual Benefits/Average Annual tonnage) is \$5.5/ton.

The Port terminals are considered to be state-of-the-art. The plan of improvement will provide for further development of the harbors to accommodate the new generation of containerships, improve safety of vessel traffic and provide maximum efficiency of Port operations. The majority of ships presently using the Port have design drafts greater than 35 feet. Sixth generation vessels are now coming on line with drafts of 46 feet or greater (up to 48 feet at the present time). The deep draft fifth and sixth generation container ships experience tidal delays, with the result being that many of the shipping lines either bring those ships into Oakland only partially loaded or choose to bypass Oakland altogether. Limited deepening of the Inner Harbor portion of the project to -38 feet was completed in December 1992 and deepening of the Inner and Outer Harbors to -42 feet was completed in July 1998 and deepening to -50 feet was completed in January 2010. Recent economic events have resulted in a downturn in worldwide shipping which has caused a reevaluation of shipping routes and new port developments for the near future. Current information indicates that the current 5200 and 6000 twenty-foot equivalent unit (TEU) ships will be operating as the standard vessel for at least six to seven more years. Average annual benefits, all navigation, are \$160,000,000. Full economic benefits are now being realized. The remaining work, creation of habitat at the MHEA, is required to satisfy permitting requirements.

If FY 2015 funding is not provided, remaining construction work at the MHEA will not be completed as required as a condition of the permit received from the San Francisco Bay Regional Water Quality Control Board, the San Francisco Bay Conservation and Development Commission, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service.

FISCAL YEAR 2014: The total fiscal year 2014 appropriation is being applied as follows:

Construction oversight of FY 2014 and prior year contracts & project management	\$100,000
Total	\$100,000

FISCAL YEAR 2015: The budget amount will be applied as follows:

Construction contract for final grading of the MHEA	\$5,000,000
Construction contract for eelgrass planting in the MHEA	1,000,000
Total	\$6,000,000

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:

Division: South Pacific

District: San Francisco

Oakland Harbor (-50 foot), CA

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.	\$ 9,120,000	N/A
Modify or relocate utilities, roads, bridges (except railroad bridges) and other facilities, where necessary for the construction of the project.	10,000,000	N/A
In-Kind Credit for 50% of Section 203 expenditures for Project Coordination Team (PCT) to be reimbursed during construction as detailed in Water Resources Development Act of 1986.	9,491,000	N/A
Pay 25 percent of the costs allocated to general navigation features for deepening to 45 feet, and 50 percent of the costs allocated to general navigation features for deepening greater than 45 feet during construction, and pay 50 percent of the costs of incremental maintenance below 45 feet mean low water.	46,618,000	\$694,000
Pay 25 percent of the costs for beneficial use of dredged material in accordance with Section 204 of the Water Resources Development Act of 1992.	32,588,000	N/A
Pay 100% of the costs for local service facilities.	53,897,000	N/A
Pay 100% of the costs for berthing facilities.	6,700,000	N/A
Total Non-Federal Costs	\$168,414,000	\$694,000

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

STATUS OF LOCAL COOPERATION: The design agreement was executed on March 24, 1999. The Project Cooperation Agreement (PCA) was executed between the Department of the Army and the Port of Oakland on July 24, 2001.

The current non-Federal cost estimate of \$168,414,000 which includes a cash contribution of \$79,206,000 is approximately \$13,458,000 more than the amount of \$154,956,000 reflected in Amendment 1 of the PCA. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment

Division: South Pacific

District: San Francisco

Oakland Harbor (-50 foot), CA

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$252,321,000 is an increase of \$4,115,000 from the latest estimate \$248,206,000 presented to Congress (FY2014). This change includes the following items.

Item	Amount
Price Escalation or De-escalation on Construction Features	\$2,150,000
Design Changes	540,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	625,000
Price Escalation or De-Escalation on Real Estate	800,000
Total	\$4,115,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: The Final Environmental Impact Statement was filed with Environmental Protection Agency (EPA) in May 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design (PED) were appropriated in Fiscal Year 1999. Funds to initiate construction were appropriated in Fiscal Year 2001. The initial construction contract was awarded on September 27, 2001. The Oakland Harbor PCA amendment package for acceptance of additional local funds was executed February 2005. The local sponsor has contributed additional funds to the project in FY 2006 to maintain the schedule.

The Chief's Report was signed on April 21, 1999, which initiated the PED phase. The first phase of the Inner Harbor Turning Basin construction was completed in September 2003. The dredging of both the Inner and Outer Harbors to a depth of 46 feet was completed in October 2005. The Outer Harbor deepening to 50 feet was completed in November 2008. The Inner Harbor deepening to 50 feet was completed in January 2010. Dredged material was placed at the Hamilton Wetlands Restoration Project site, the Montezuma Wetlands Restoration Project Site, the MHEA and the San Francisco Deep Ocean Disposal Site (SF-DODS). Remaining work includes grading/shaping and planting of eelgrass at the MHEA. Once completed, the site will be monitored and adaptively managed for an additional five years.

OTHER INFORMATION: (Continued)

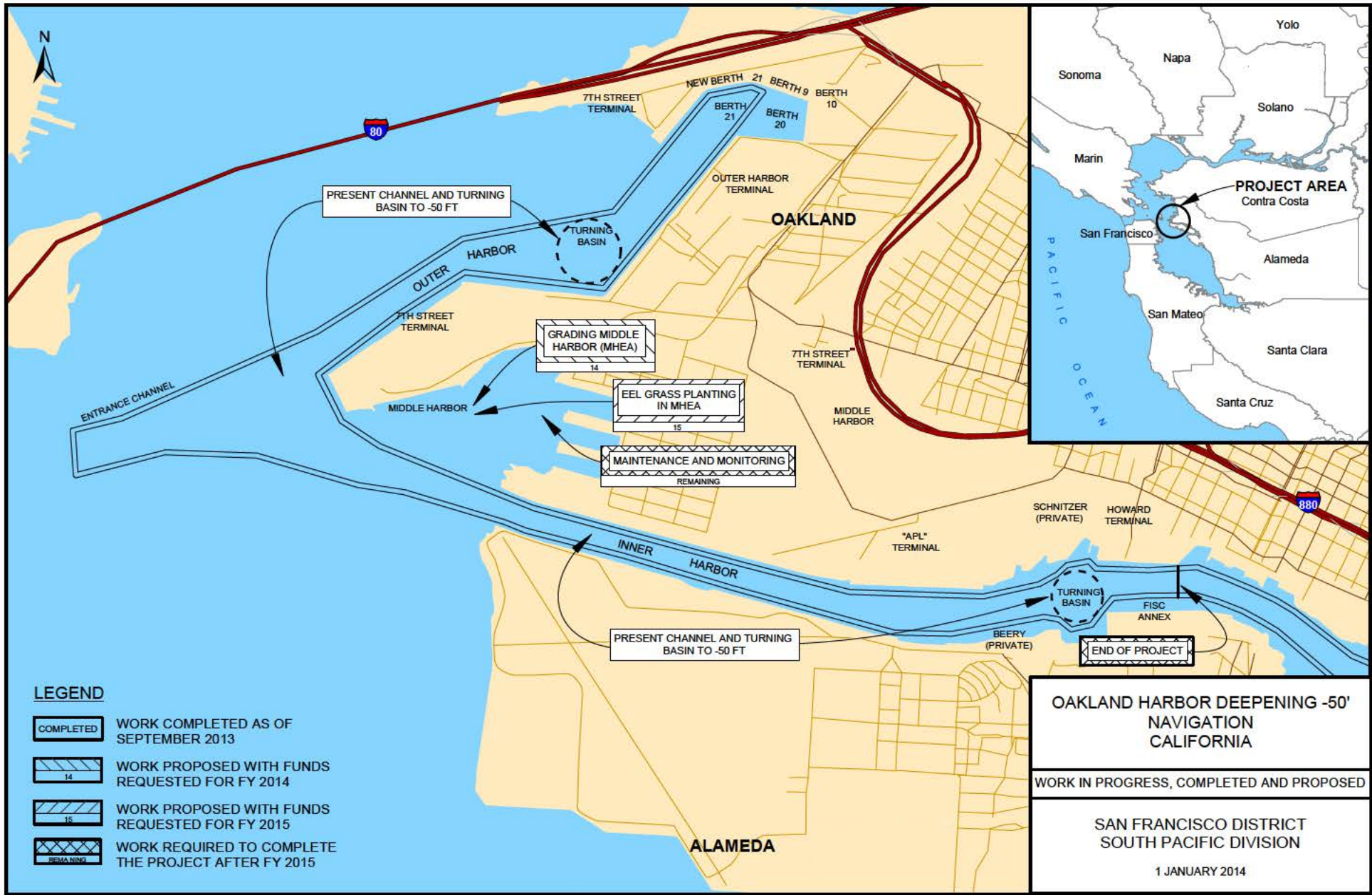
The FY 2013 amount of \$499,000 and FY 2014 amount of \$100,000 were originally planned to be used for adaptive management and environmental monitoring contracts. Because the cost estimate for the grading and eelgrass planting scheduled for completion in FY 2011 has increased to approximately \$14,300,000, FY 2011 through the FY 2014 budgeted amounts are insufficient to accomplish this work.

The current project cost including inflation through construction is \$421,035,000. A 902 limit calculation was performed in May 2013 and the resulting 902 limit was calculated to be \$428,068,000. Completion of the MHEA, monitoring, adaptive management, and fiscal closeout of the project are all anticipated to be completed within the 902 limit.

Division: South Pacific

District: San Francisco

Oakland Harbor (-50 foot), CA



LEGEND

- COMPLETED WORK COMPLETED AS OF SEPTEMBER 2013
- 14 WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2014
- 15 WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2015
- REMAINING WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2015

**OAKLAND HARBOR DEEPENING -50'
NAVIGATION
CALIFORNIA**

WORK IN PROGRESS, COMPLETED AND PROPOSED

SAN FRANCISCO DISTRICT
SOUTH PACIFIC DIVISION

1 JANUARY 2014

APPROPRIATION TITLE: Construction – Local Protection, Flood Risk Management

PROJECT: Sacramento River Bank Protection Project, California (Continuing)

LOCATION: The project is located in north-central California, along the Sacramento River and its principal tributaries approximately from Sacramento River, River Mile (RM) 0 near Collinsville to RM 194 near Chico Landing including Deer Creek and Elder Creek. It is within the limits of the existing Sacramento River Flood Control Project levees and includes Butte Basin, Cache Slough, and a portion of the Sacramento-San Joaquin Delta slough. The project meanders through eight counties including Tehama, Glenn, Butte, Colusa, Sutter, Yolo, Solano, and Sacramento.

DESCRIPTION: The project provides a long-range program of bank protection to preserve the integrity of the Sacramento River Flood Control Project from erosion. It prevents undermining of levee sections and includes fish and wildlife mitigation features. Some recreational facilities have been provided along the river. The Sacramento River Flood Control Project consists of 1125 miles of levees plus overflow weirs, pumping plants, and bypass channels along the Sacramento River approximately from RM 0 near Collinsville to RM 194 near Chico, including several sloughs and the lower reaches of major tributaries. The Sacramento River levee system was initiated as a purely local project; however it was quickly discovered that a system-wide approach was needed. For most of the system the levees were constructed close to the riverbanks without a protective berm to help move the sediment from the hydraulic mining through the system. The levee system, which was adopted as the Sacramento River Flood Control Project in 1917, has been modified and expanded several times since that date but no major change in the basic levee alignment has been made since the original conception of the project.

Of forty-five system elements, to date, improvements in 7 basins have been found to be feasible. The 7 basins are known as Butte Basin, Natomas, Sacramento, Southport, Sutter Island, West Sacramento, and Yolo. Butte Basin is located in the northern part of the Central Valley. The basin is bordered on the west side by the Sacramento River, from RM 142 to 200; on the north side by Mud and Chico Creeks; on the east side by the Butte Sink and Sutter Buttes; and on the south side by the Butte Slough levee. The basin is primarily agriculture (rice, orchards, and field crops) with a few small towns and the city of Chico (population 86,000). The Natomas Basin is located in the middle of the northern Central Valley, just north of downtown Sacramento. The basin is bordered on the west side by the Sacramento River, from RM 61 to 81; on the north side by the Natomas Cross Canal; on the east side by the Natomas East Main Drainage Canal and the Pleasant Grove Canal; and on the south by the American River, RM 0 to 2. The basin is a mix of urban and agriculture; it contains a portion of the population of Sacramento (including the Sacramento International Airport). The Sacramento Basin is located in the middle of the northern Central Valley. The basin is bordered on the west side by the Sacramento River, from RM 46 to 60; on the north side by the American River, RM 0 to 11; on the east side by high ground; and on the south side by the Morrison Creek levees. The basin is primarily urban with the city of Sacramento (population 470,000) and the rural urban areas of Sacramento County (total urban area population of 1.4 million). The Southport Basin is located in the middle of the northern Central Valley. The basin is bordered on the north and west side by the Sacramento Deep Water Ship Channel; on the east by the Sacramento River, RM 51 to 57; and on the south side by the South Cross levee. The basin is a mix of urban and agriculture; the urban area consists of a large portion of the city of West Sacramento (population 48,700). The Sutter Island Basin is located in the middle of the Central Valley at the north end of the Delta. The basin is an island bordered entirely by levees; it is bordered on the north and west by Sutter Slough, RM 22 to 28; on the east by the Sacramento River, RM 32 to 34; and on the south by Steamboat Slough, RM 22 to 26. The basin is entirely agricultural, with the majority of the land occupied by vineyards and orchards (cherry and pear Trees). The West Sacramento Basin is located in the middle of the northern Central Valley. The basin is bordered on the north and east sides by the Sacramento River, RM 57 to 63; on the north by the Sacramento Bypass; on the south by the Sacramento Deep Water Ship Channel; and on the east by the Yolo Bypass. The basin is primarily urban with a large portion of the city of West Sacramento occupying almost the entire basin. The Yolo Basin is located in the middle of the northern Central Valley. The basin is bordered on the north and west sides by high ground, on the north and east sides by the Knights Landing Ridge Cut, on the southwest side by the Yolo Bypass, and on the south side by Cache Creek. The basin is primarily agriculture (field crops, grain, nursery, and berry crops) and includes the small town of Yolo (population 450).

Division: South Pacific

District: Sacramento

Sacramento River Bank Protection, CA

28 March 2014

SPD - 49

AUTHORIZATION: Flood Control Act of 1960, Pub. L. 86-645, § 203, 74 Stat. 488, 498 (1960); River Basin Monetary Authorization Act, Pub. L. 93-252, §202, 88 Stat. 49 (1974); Further Continuing Appropriations Act, Pub. L. 97-377, §140, 96 Stat. 1916 (1983); Water Resources Development Act (WRDA) of 1986, Sec. 601 (a); Water Resources Development Act of 2007, Pub. L. 110-114, § 3031, 121 Stat. 1041, 1113 (2007)

REMAINING BENEFIT-REMAINING COST RATIO: 44.6 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 44.6 to 1 at 7 percent (7 Basins)

INITIAL BENEFIT-COST RATIO: N/A (see OTHER INFORMATION)

BASIS OF BENEFIT-COST RATIO: Benefits are from the 2011 Economic Update and addendum, dated 31 October 2011 at October 2010 price levels. Only 21 out of the 45 basins were looked at; only seven of the 21 impact areas are economically justified at an interest rate of 7% (Butte, Sutter Island, Natomas, West Sacramento, Southport, Yolo and Sacramento). Justification for the additional impact areas will be updated in future economic analyses.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Phase I(1963-1978)				Bank Protection	100	1975
Estimated Federal Cost		\$ 35,607,000		Recreation	100	1975
Estimated Non-Federal Cost		17,776,000				
Cash Contribution	\$13,975,000					
Other Costs	3,801,000					
Total Phase 1		\$ 53,383,000				
Phase I Mitigation				Bank Protection	100	2001
Estimated Federal Cost		\$ 1,336,000		First Ph, 430,000 linear feet	100	1975
Estimated Non-Federal Cost		784,000		Pine Creek Unit	100	2001
Cash Contribution	\$ 84,000			Shaw Unit	100	1999
Other Costs	700,000			River Unit	100	1994
				Sam Slough	100	1999
				Lohman	100	1997
Total Phase I Mitigation		\$ 2,120,000		Princeton Ferry	100	1996
Phase II (1978-1987)						
Estimated Federal Cost		\$ 25,928,000				
Estimated Non-Federal Cost		12,944,000				
Cash Contribution	\$12,944,000					
Other Costs	0					
Total Phase II (1978-1987)		\$ 38,872,000				

Division: South Pacific

District: Sacramento

Sacramento River Bank Protection, CA

SUMMARIZED FINANCIAL DATA (Continued)			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Phase II (1988-2006)						
Estimated Federal Cost		\$ 89,577,000		Bank Protection	90	TBD
Estimated Non-Federal Cost		29,859,000		Sep. Element 38B	100	1987
Cash Contribution	\$28,902,000			Sep Element 40	100	2002
Other Costs	957,000			Sep Element 42	100	2006
				PADD for 80K LF	60	2014
Total Phase II (1988- 2006)		\$119,436,000				
Phase II Continuing						
Estimated Federal Cost		\$125,082,000		Bank Protection	91	TBD
Estimated Non-Federal Cost		62,447,000		Entire Project	91	unsched.
Cash Contribution	\$45,757,000					
Other Costs	16,690,000					
Total Phase II Continuing		\$187,529,000				
Project Summary						
Estimated Federal Cost		\$277,530,000				
Estimated Non-Federal Cost		123,810,000				
Cash Contribution	\$101,662,000					
Other Costs	22,148,000					
Total Estimated Project Cost		\$401,340,000				

Division: South Pacific

District: Sacramento

Sacramento River Bank Protection, CA

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Allocations to 30 September 2011	\$236,845,000				
Allocation for FY 2012	9,800,000				
Allocation for FY 2013	2,994,000				
Allocation for FY 2014	3,000,000				
Allocations through FY 2014	252,639,000	<u>1/2/3/5/</u>	91		
Estimated Unobligated Carry-In Funds	1,500,000	<u>4/</u>			
President's Budget for FY 2015	1,000,000		95		
Programmed Balance to Complete after FY 2015	23,891,000	<u>6/</u>			
Un-programmed Balance to Complete after FY 2015	0				

1/ \$5,518,999 reprogrammed from the project.

2/ \$131,727 rescinded from the project.

3/ \$0 tranferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding. The actual unobligated balance from FY 2013 into FY2014 for this project is \$0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$1,500,000. This amount will be used to perform work on the project as follows: Phase II authorization; PDT support, design, contract awards, MIPRS, construction and documentation of repair sites for all environmental commitments required by NEPA/CEQA, and satisfy requirements for BOs issued by USFWS & NOAA Fisheries to mitigate for adverse effects to listed species.

5/ PED cost of \$0 are included in the amount.

6/ For programmed work only; remaining work is un-programmed pending a decision to construct these features.

PHYSICAL DATA: The project consists of erosion repairs to the banks of the Sacramento River and tributaries that threaten the levees comprising the Sacramento River Flood Control Project. Typically repair and bank stabilization consists of placing appropriately sized rock to stop erosion in problem areas. These problem areas are identified through annual inspections of the riverbanks. To date, 915,000 lineal feet have been authorized for repair. Approximately 85,000 lineal feet of bank protection, including 80,000 authorized by WRDA 2007, remains to be placed on the second phase of this project.

JUSTIFICATION: The Sacramento River Flood Control Project consists of 1125 miles of levees plus overflow weirs, pumping plants, and bypass channels along the Sacramento River approximately from RM 0 near Collinsville to RM 194 near Chico, including several sloughs and the lower reaches of major tributaries. The Sacramento River levee system was initiated as a purely local project; however it was quickly discovered that a system-wide approach was needed. For most of the system the levees were constructed close to the riverbanks without a protective berm to help move the sediment from the hydraulic mining through the system. The levee system, which was adopted as the Sacramento River Flood Control Project in 1917, has been modified and expanded several times since that date but no major change in the basic levee alignment has been made since the original conception of the project. Bank protection is necessary to preserve the

Division: South Pacific

District: Sacramento

Sacramento River Bank Protection, CA

28 March 2014

SPD - 53

JUSTIFICATION (Continued): Sacramento River Flood Control Project and ensure that it will continue to furnish the desired levels of flood risk reduction. Since the remains of hydraulic mining have moved through, the system is now sediment starved and the levees are continuously threatened by erosion. Unless corrective measures are taken, levee breaches may occur with resultant catastrophic damage and possible loss of many lives. Flood events throughout recent history have greatly emphasized these problems. Several levees located along the Sacramento River were subjected to an extensive amount of erosion due to the extremely high river flows. In 1986, there was a catastrophic failure of the Yuba River levee, flooding the towns of Linda and Olivehurst resulting in two deaths and 4,000 homes and businesses damaged or destroyed. The cost was more than \$95 million in damages. High flows in January and March 1995 caused flooding and erosion in the Butte Basin area along the Sacramento River, RM 188 at Glenn County Road 29. If levee repairs had not been made, additional flooding would have caused extensive loss of agricultural land and endangered residents in nearby communities of Butte City, Princeton and Colusa. In addition, during moderately high flows in February 1996, a 500 foot portion of berm on the American River failed, threatening the levee protecting the city of Sacramento. A contract was awarded in August 1996 to repair this section and provide bank protection for a total of 1,200 lineal feet. In 1997 another catastrophic failure occurred on the Feather River and resulted in three deaths and 800 homes and businesses damaged or destroyed. The sustained high water in January/February 2006 caused great concern and instigated an emergency declaration from the Governor of California relative to levee repair. The area protected by the levees comprises over one million acres in which about 50 communities are located; value of improvements (October 2003 prices) to be protected is about \$38 billion and about 2.3 million people live within the flood plain. The levee system enables the use of the flood plain for the benefit of the state and nation. The extremely fertile flood plain lands produce about 6.6 percent of the total agricultural production of the state. The Sacramento River Bank Protection Project (SRBPP) provides a long-range program of bank protection to protect the levees where serious erosion is occurring and to prevent erosion from undermining additional levee sections in the future. Approximately 85,000 lineal feet (LF) of bank protection, including 80,000 authorized by WRDA 2007, remains to be placed on the second phase of this project. The local sponsor supports the addition of a third phase, which will require Congressional authorization. A General Reevaluation Report (GRR) will be initiated in FY 2014 in the Investigations account to address potential future implementation of the bank protection project past the current authorizations. The average annual benefits are all related to flood risk management and are \$90,042,000.

FISCAL YEAR 2014: The total fiscal year 2014 appropriation is being applied as follows:

Phase II authorization; Project Delivery Team (PDT) support, design, contract awards, Military Interdepartmental Purchase Requests (MIPRS), construction and documentation of repair sites for all environmental commitments required by National Environmental Policy Act (NEPA)/California Environmental Quality Act (CEQA) and satisfy requirements for Biological Opinion (BO) issued by Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) Fisheries to mitigate for adverse effects to listed species.	\$1,500,000
Total	\$1,500,000

FISCAL YEAR 2015: The budget amount plus projected carry-in funds will be applied as follows:

Phase II authorization; PDT support, design, contract awards, MIPRS, construction and documentation of repair sites for all environmental commitments required by NEPA/CEQA, and satisfy requirements for BOs issued by USFWS & NOAA Fisheries to mitigate for adverse effects to listed species.	\$2,500,000
Total	\$2,500,000

Division: South Pacific

District: Sacramento

Sacramento River Bank Protection, CA

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, and borrow and excavated or dredged material disposal areas.	\$ 16,109,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	6,039,000	
Pay 25 percent of the total cost of Phase I (1963-1978) to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation and maintenance repair, rehabilitation and replacement of flood control facilities.	13,975,000	
Pay 4 percent of the total cost of Phase I Mitigation to bring the total non-Federal share of costs of Phase I Mitigation to 37 percent for work performed, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of this functional portion of the project.	84,000	
Pay 33.3 percent of total cost of Phase II (1978-1987) to bring the total non-Federal share of flood control cost to 33.3 percent.	12,944,000	
Pay 25 percent of the total cost of Phase II (1988-2006) to bring the total non-Federal share of Flood control costs to 25 percent and bear all costs of operation and maintenance repair, Rehabilitation and replacement of this functional portion of the project.	28,902,000	\$ 205,000
Pay 30 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to one-third for Phase II Continuing work and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	45,757,000	1,174,000
Total non-Federal Costs	\$123,810,000	\$1,379,000
Division: South Pacific	District: Sacramento	Sacramento River Bank Protection, CA

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

STATUS OF LOCAL COOPERATION: Chapter 2188, Statutes of the State of California, approved by the Governor on July 21, 1961, established the State Reclamation Board as the agency to meet the requirements of local cooperation for the project. Assurances of local cooperation were accepted from the Board February 5, 1963. The Reclamation Board signed a Local Cooperation Agreement (LCA) satisfying the requirements of Section 221, Flood Control Act of 1970 (Public Law 91-611) for the remaining Second Phase work in May 1984. In accordance with provisions of the Water Resources Development Act of 1986 for separable project elements initiated after April 30, 1986, new LCAs were executed for separable element 41 on August 15, 1988 and for separable elements 38B, 40, and 42 on December 7, 1988. The LCA for the First Phase Mitigation was signed on June 5, 1990. The Project Partnership Agreement (PPA) date for the additional authorized 80,000 linear feet is scheduled for April 2014.

The current non-Federal cost estimate of \$123,810,000 is an increase of \$4,260,000 from the latest estimate presented to Congress (FY2014).

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$277,530,000 is a decrease of \$6,440,000 from the latest estimate (\$283,970,000) presented to Congress (FY 2014). This change includes the following:

Item	Amount
Post contract Award and Other Estimating Adjustments	\$(6,440,000)
Total	\$(6,440,000)

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: A final Environmental Impact Statement (EIS) was filed on June 15, 1973. A Supplemental Environmental Impact Statement (SEIS) for the Second Phase was filed in February 1989. A final EIS for additional work in Butte Basin, and an update submitted as Supplement 4, were signed in June 1988. An Environmental Assessment/Site Specific Report (EA/SSR) was prepared for Contract 42A and a Finding of No Significant Impacts (FONSI) was signed on February 15, 1994. An EA/SSR was prepared for contracts Lower American River site 3 and 40D and FONSI were signed July 2, 1996 and September 3, 1997, respectively. A Supplemental Design Memorandum No. 8 was prepared for sites along the lower American River and the SEIS was completed in April 1998. Currently, an EA/SSR to meet both Federal and State of California requirements is approved prior to construction of each bank protection contract. The EA for sites to be constructed in 2011 was approved June 2009. An EIS/EIR (Environmental Impact Report) is being prepared in support of the PACR for the WRDA 2007 80,000 linear foot additional authorization.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY1962, and for construction in FY1963. Construction of the first phase was completed in November 1974. Authority to proceed with additional bank protection work, second phase, was provided by Section 202, River Basin Monetary Authorization Act of 1974, Public Law 93-251. The Further Continuing Appropriations Act of 1983, Public Law 97-377, extended the limits of the project to include bank protection along the Sacramento River to the upstream ends of the project levees to Chico Landing (Butte Basin area). The Water Resources Development Act of 1986 modified the first phase of the project to include acquisition of lands for establishment and maintenance of wildlife habitat at a total cost of \$1,410,000 (\$2,120,000 inflated through construction). The last parcel was acquired in FY1997. Monitoring of fish and wildlife habitat and engineering features continues at each site.

OTHER INFORMATION (Continued):

The USFWS, by letter dated November 7, 1985, issued a BO stating that the bank protection work along the Sacramento River from Chico Landing to Red Bluff and in the Butte Basin area would endanger the threatened valley elderberry longhorn beetle. The Service issued a revised Opinion on May 19, 1987 that permitted limited rock revetment bank protection to be constructed in the Butte Basin. The potential impact to winter-run salmon has also been a significant concern as the winter-run salmon have experienced an alarming decline since 1969. The NMFS listed winter-run salmon as a threatened species in November 1990. The winter-run salmon biological data report was completed January 1991. NMFS BO dated October 28, 1991 for the winter-run salmon was non-jeopardy but lists recommended conservation measures. Winter-run salmon, along with bank swallows and Swainson's Hawk, are also State listed species. A BO was received from California Department of Fish and Game on November 18, 1991 which also recommends conservation measures.

On August 23, 2001, the USFWS issued its final BO on the SRBPP. The NMFS released their opinion on September 27, 2001. Both opinions were virtually identical in terms of identifying the SRBPP's effects as jeopardizing the existence of five fish species (Delta smelt, Sacramento splittail, winter-run Chinook salmon, spring-run Chinook salmon, and Central Valley steelhead) listed under the Endangered Species Act in the Sacramento River. With recent collaborative efforts, most repair sites have been self-mitigating.

After the February 1986 flood, the Sacramento River System experienced below normal precipitation and flood flows. This led to a lower rate of erosion and a lowered need for expedited bank protection work. However, the storms of 1995 and 1997, plus the sustained high water in 2006, have caused substantial erosion damage and the urgency for bank protection still exists.

The 2005 and 2006 Erosion Inventory Reconnaissance Report identified 57 Critical Erosion Sites which resulted in an emergency declaration by Governor Schwarzenegger. The Department of Water Resources (DWR) and the Corps repaired 33 sites beginning in fiscal year 2006 and completing in fiscal year 2007. During the first quarter of FY2008, 24 sites (10 DWR led and 14 Corps led) were repaired. Eight sites were constructed in 2008. The state of California has provided accelerated funds with the aid of a LCA amendment, executed May 5, 2006, allowing the project to accept funds ahead of the cost share balance, so that work on the sites may proceed unimpeded. Ten new sites were constructed in 2009 totaling 8,200 LF. Construction contract was awarded in FY2010 for a setback levee on RM 57.2 in West Sacramento. Additional designs were done in FY2010 for a construction award on four new sites in FY2011. Construction of four new erosion sites was completed in FY2012. These sites are currently under plant establishment. A new contract was awarded in August 2012 for years two and three. Annual erosion inventory was completed in FY2010 and FY2011. Designs for several new sites were started in FY2011 and completed in FY2012. Operation and Maintenance manuals for seven sites were completed and turned over to the non-federal sponsor in FY2012. A Value Engineering study was completed in FY2012 for seven new sites. Final plans and specs for three sites are completed and the four remaining sites are to be completed in 2014. RM 57.2 will be completed in FY2014. RM 26.0 and RM 16.8 will be constructed in FY2014. RM 41.9 and RM 55.2 will be constructed in FY2015. Future sites will be determined based upon real estate availability, critical nature of erosion site, and economic justification.

The Flood Control Act of 1960 included no quantitative language concerning the benefits or costs but authorized the rehabilitation of 430,000 lineal feet of levee. In 1974 language was added to increase the lineal feet by an additional 405,000 feet. WRDA 2007 authorized an additional 80,000 lineal feet for a total of 915,000 lineal feet.

A new cost estimate was approved in October 2011 as part of the Post Authorization Decision Document (PADD) to address the latest WRDA 2007 authorization of an additional 80,000 linear feet of river bank protection work. The PADD (including an EIR/EIS) is expected to be completed December 2014. The cost of the additional 80,000 lineal feet is not included in the summarized financial data. The Project Management Plan (PMP) for phase III and a Feasibility Cost Share

Agreement (FCSA) will be complete in FY2014. The GRR will be initiated in FY2014 using investigations funds for 500,000 LF of bank protection in and it will be completed in three years, per the 3X3X3 smart planning guidance. Benefits are from the 2011 Economic Update and addendum, dated 31 October 2011 at

OTHER INFORMATION (Continued):

October 2010 price levels. Only 21 out of the 45 basins were looked at; only seven of the 21 impact areas are economically justified at an interest rate of 7% (Butte, Sutter Island, Natomas, West Sacramento, Southport, Yolo and Sacramento). Justification for the additional impact areas will be updated in future economic analyses. The fish and wildlife mitigation cost is estimated at \$31,000,000.


COMPLETED WORK	COMPLETED WORK (CONT.)	COMPLETED WORK (CONT)
FIRST PHASE, BANK PROTECTION CONTRACTS 1 THRU 26 (430,000LF)	SECOND PHASE PART 2, BANK PROTECTION (CONT.)	WORK PROPOSED WITH FY13 FUNDS
SECOND PHASE, PART 1 BANK CONTRACTS 27 THRU 36 (182,000 LF)	SEPARABLE ELEMENT 42 (17,362 LF)	SAC. RIVER MILE: 57.2 R
SECOND PHASE PART 2, BANK PROTECTION: PRE-SEPARABLE ELEMENT (46,744 LF)	42A (RM 60-145)	WORK PROPOSED WITH FY14 FUNDS
37 (RM0-62)	42A-M (RM 60-145)	130.0 L
38A (RM 60-145)	42A-M1 (RM 60-145)	41.9 R
39 (RM 177-194)	42C (RM 90.4 & 90.9) FISH CURT.	26.0 L
SEPARABLE ELEMENT 38B (14,436)	42C-M (RD 108-COLUSA BASIN)	55.2 L
38B (RM 60-120)	42D (RD 108-COLUSA BASIN)	16.8 L
SEPARABLE ELEMENT 40 (40,794 LF)	42D-M (RD 108-COLUSA BASIN)	
EMERGENCY COUNTY ROAD 29	LAR 1A2 (RM 4.4, SITE 3 RIVER PARK)	
(RM 186-188)	LAR 1A2-M (RM 4.4, SITE 3 RIVER PARK)	
40A (RM 132-1800)	LAR 1A3-M (RM 4.4, SITE 3 RIVER PARK)	
40B-1 (RM 187-192)	LAR 1B (RM 2-9, SITE 1,2 & 4)	
40B-M (RM 145-194)	LAR 1B (RM 2-9, SITE 1,2 & 4)	
40C (RM 15-25)	LAR 2 (SITE 5, PHASE 1)	
STEAMBOAT, MINER & SUTTER 40C-M	LAR 2 (SITE 5, PHASE 2)	
(RM 15-25)	LAR 2-M (SITE 5, PHASE 3)	
40D (RM 16, 1R) STEAMBOAT SL.	LAR 10.0L	
40D-M (RM SL16.1)	LAR 10.6L	
40E (RM 149)		
SEPARABLE ELEMENT 41 (29,475 LF)	SACRAMENTO RIVER MILE -- CACHE SLOUGH	
41A (RM 20-60)	49.6L 53.5R 21.8R	
41A-M1 (RM 20-60)	49.7L 56.7L STEAMBOAT SLOUGH	
41A-M2 (RM 20-60)	49.9L 26.9L 16.6R	
41A-M3 (RM 20-60)	50.2L 34.5R	
41A-M4 (RM 20-60)	50.4L 72.2R FEATHER RIVER RM 3.6L	
41A-M5 (RM 20-60)	50.8L 99.3R 7.0L	
41B (FEATHER RIVER)	51.5L 123.5L SUTTER BYPASS 0.4	
41B-M (FEATHER RIVER)	52.3L 177.8R	
	53.1L 87.0R	
	93.7L 42.7R AMERICAN RIVER	
	136.7L 73.5R 0.3L	
	136.9L 114.5R 2.8L	
	42.7R 42.7R	
	77.2L	

Local Protection Projects - Flood Control

**Sacramento River Bank
Protection Project
California**

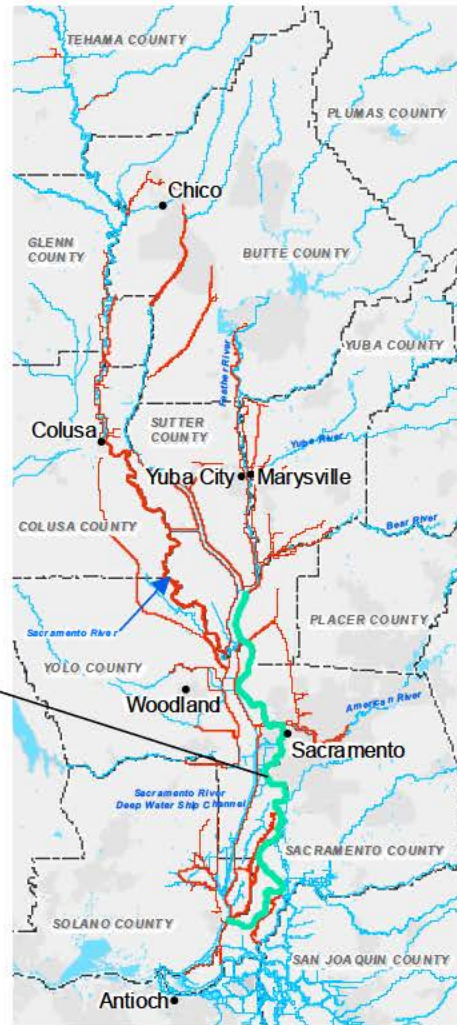
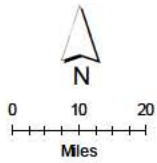
Work Completed, In Progress, and Proposed

U.S. Army Corps of Engineers,
South Pacific Division,
Sacramento District



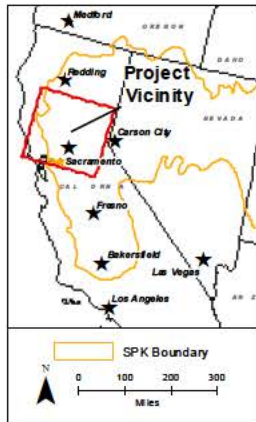
1 January 2014

7 February 2014



BANK PROTECTION SITES ACCOMPLISHED UNDER THE FIRST PHASE OF THE SACRAMENTO RIVER BANK PROTECTION PROJECT

FY13 3500 LINEAL FEET
FY14 3505 LINEAL FEET



7 February 2014

Legend

- Levees
- Bank Protection Sites

Work Status

[Completed] - Work completed as of 30 September 2013

[14] - Work proposed with funds available for FY 2014

[15] - Work proposed with funds requested for FY 2015

[Remaining] - Work required to complete the project after FY 2015

Local Protection Projects - Flood Control

Sacramento River Bank Protection Project California

Work Completed, In Progress, and Proposed

U.S. Army Corps of Engineers,
South Pacific Division,
Sacramento District



1 January 2014

APPROPRIATION TITLE: Construction - Local Protection (Flood Risk Management)

PROJECT: Santa Ana River Mainstem, California (Continuing)

LOCATION: The project is located along a 75-mile reach of the Santa Ana River in Orange, Riverside, and San Bernardino Counties, southeast and adjacent to metropolitan Los Angeles, California.

DESCRIPTION: The project includes construction of the Seven Oaks Dam about 35 miles upstream of the existing Prado Dam, with a gross reservoir storage of 145,600 acre feet; flood plain management of the flood overflow area on the Santa Ana River between Seven Oaks Dam and the existing Prado Reservoir; enlargement of Prado Dam to increase the reservoir storage capacity from 217,000 acre-feet to 362,000 acre-feet; construction of 3.3 miles of channel modifications along Oak Street Drain in Corona; enlargement of the existing 2.4 miles of Mill Creek levee; construction of a detention basin and 2.0 miles of channel modifications along the Santiago Creek; and various means of flood control, including flood plain management, levees, and vertical walled concrete channels along the 30.5 miles of the Santa Ana River from Prado Dam to the Pacific Ocean. In addition, the project includes flood protection improvements along San Timoteo Creek, which was added to the project by the Energy and Water Development Appropriation Act of 1988.

AUTHORIZATION: Water Resources Development Act of 1986, Energy and Water Development Appropriation Act, 1988, Water Resources Development Act of 1990, Water Resources Development Act of 1996, and Water Resources Development Act of 2007.

REMAINING BENEFIT-REMAINING COST RATIO: 4.4 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.2 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 8 5/8 percent (FY 1988)

BASIS OF BENEFIT-COST RATIO: The benefit-cost ratio is based on the Level III Economic Re-evaluation Report pending approval.

SUMMARIZED FINANCIAL DATA	ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Division: South Pacific		District: Los Angeles		Santa Ana River Mainstem, CA

Estimated Federal Cost		\$1,407,000,000	Seven Oaks Dam	100	Nov 1999
Programmed Construction	1,266,000,000		Prado Dam	60	TBD
Unprogrammed Reimbursement	141,000,000		Santiago Creek	10	TBD
LERRD	105,000,000 <u>7/</u>		Mill Creek	100	Apr 1992
Judgment Fund	36,000,000 <u>8/</u>		Oak Street Drain	100	Jan 1996
			Lwr SAR Rch 9 & SARI Line	80	TBD
Estimated Non-Federal Cost		\$882,000,000	Lower Santa Ana Rch 1-8,10	100	Jul 2011
Programmed Construction	\$882,000,000		Marsh	100	Nov 2013
Cash Contributions	\$114,000,000		San Timoteo	100	Nov 2007
Other Costs	\$873,000,000				
LERRD Reimbursement	(\$105,000,000)		Total Project	85	TBD
Total Estimated Programmed Construction Costs		\$2,148,000,000			
Total Estimated Project Cost		\$2,289,000,000			

Allocations to 30 September 2011	\$1,014,825,000	
Allocation for FY 2012	\$23,093,000	
Allocation for FY 2013	\$12,674,600	
Allocation for FY 2014	\$43,500,000	
Allocations through FY 2014	\$1,094,092,600 <u>1/2/3/5/</u>	86
Estimated Unobligated Carry-In Funds	\$8,000,000 <u>4/</u>	
President's Budget for FY 2015	\$30,826,100	88
Programmed Balance to Complete after FY 2015	\$141,081,300 <u>6/</u>	
Un-programmed Balance to Complete after FY 2015	\$141,000,000 <u>7/8/</u>	

1/ \$1,500,000 reprogrammed to project.

2/ \$0 rescinded from the project.

3/ \$0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2013 into FY 2014 for this project is \$0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$8,000,000.

5/ PED Costs of \$26,890,000 are included in this amount.

6/ For programmed work only, remaining items are un-programmed.

7/ Estimated reimbursement to sponsor for LERRD over 45% on the Prado Dam separable element.

8/ Federal portion of reimbursement for a total of \$36,000,000 owed to Treasury Judgment fund for a contract claim on the Seven Oaks Dam feature.

PHYSICAL DATA:

SEVEN OAKS DAM:

Dam: Type - Impervious core

Height - 550 feet

Length - Crest Length 2,980 feet

Outlet Works: Gated conduit, 8,000 cfs maximum discharge

Basin Capacity: 145,600 acre-feet

Spillway: Type - Detached overflow, 500 ft wide, unlined

Embankment: Earth and Rock fill

Lands & Damages: Acres - 2,736 existing streambed and

Division: South Pacific

District: Los Angeles

Santa Ana River Mainstem, CA

undeveloped (mountainous)

Water Quality Study

MILL CREEK:

Levee repair: Type - Grouted riprap

Height - 10 feet maximum

Length - 12,500 feet (2.4 miles) of existing
13,600 feet (2.6 miles)

Lands & Damages: Acres – 1661 grazing, wildlife

Floodwall (Top of levee): Type – Concrete

Height - 7.5 feet maximum

Length - 12,600 feet (2.4 miles)

OAK STREET DRAIN:

Channel: Rectangular concrete 3.0 mile

Trapezoidal riprap 0.3 miles

Lands & Damages: 34 acres for rights-of-way

SAN TIMOTEO CREEK:

Channel: 5.4 miles trapezoidal concrete

Basins: 18 in-channel and transition chute

Lands & Damages: 60.3 acres for rights-of-way

SANTIAGO CREEK:

JUSTIFICATION: The project will provide protection for surrounding areas stretching over three major metropolitan areas Orange, San Bernardino and Riverside counties, however, protection benefits are primarily to lands and improvements within Orange County, downstream of Prado Reservoir. A severe flood threat exists in this area, which could threaten the population of approximately 1.1 million residents and cause damage to nearly 300,000 structures with an estimated value of \$100 Billion. Damages upstream of Prado Reservoir could exceed \$450,000,000. The overflow area comprises 160 square miles of primarily urban development in 15 cities including San Bernardino, Riverside, Anaheim, Orange, Santa Ana, Fountain Valley, Costa Mesa, Huntington and Newport Beach. The flood of 1938 is the largest that has been recorded since accurate stream gages were placed in the Prado basin. With a peak flow at Riverside Narrows of approximately 100,000 cubic feet per second, the flood covered thousands of acres of then predominantly rural Orange County. Although the area was largely agricultural at the time, the flood caused \$4,000,000 in damages (\$144,000,000 at 2013 prices). Following this storm, Prado Dam was constructed at the head of

Channel: Rectangular concrete 500 feet Trapezoidal riprap 2.0 miles

Reservoir: Buttressed Basin

Capacity: Flood control 4,620 acre-feet (el. 274 to 298)

Lands and Damages: 281.5 acres, reservoir and channel

PRADO DAM:

Dam: Type - Impervious core

Height - 134 feet

Length - 3,050 crest length

Outlet Works: Gated conduits

30,000 cfs maximum discharge

Embankment: Rolled earth fill

Spillway: Type - Detached, overflow concrete, 1,000 feet wide,

578,000 cfs maximum design discharge.

Basin Capacity: 362,000 acre-feet

Interior Basin Dikes: 8

LOWER SANTA ANA RIVER:

Channel: - 200-450 feet wide,

34 bridges replaced or modified

Relocate sewage and brine line (SARI) Santa Ana River Interceptor Line

- 5.0 miles trapezoidal concrete

- 2.4 miles rectangular concrete

- 15.5 miles trapezoidal grouted riprap

- 0.8 miles rectangular concrete/soft bottom

Lands & Damages: Acres - 2,429.5 for channel (7.4 miles floodway)

Mitigation Lands: Acres – 8 marshland

Enhancement Lands: Acres - 84 marshland enhancement

the Santa Ana Canyon, providing effective control of floods for much of the downstream basin. In 1969, when communities upstream of Prado Dam suffered \$85,000,000 in damages, Prado Dam prevented an estimated \$525,000,000 in damages to downstream communities. Without the project, the level of protection downstream of Prado, primarily in Orange County, is approximately 70 years. With the project, the level of protection downstream of Prado would be increased to 190 years.

While many parts of the lower river have been completed, the remaining Reach 9 feature is essential toward protecting the highly urbanized lower Santa Ana River basin. Additional areas of the Reach 9 channel known as the Burlington Northern Santa Fe (BNSF) Railway bridge, Phase 4 (Reinforce embankment Coal Canyon) and Phase 5 (Reinforce embankment Yorba Linda) were recently been identified as requiring scour protection from the designed Prado dam releases of 30,000 cubic feet per second (cfs). Operation of Prado dam at the design level is contingent upon completing the Reach 9 channel improvements, including additional scour areas and the Santa Ana River Interceptor (SARI) line relocation. A scour study was completed in 2011 as an engineering investigation in relocating the SARI Line in the Orange County portion of the Santa Ana River. This study was more detailed than previous studies due to the need to determine more accurate scour elevations for the SARI Line beneath the Santa Ana River. The new analysis indicates a more aggressive scour and river channel degradation rate than previous studies calculated when the General Design Memorandum for the Reach 9 features was completed (1988). A review of Reach 9 flood and scour protection measures was undertaken to ensure infrastructure adjacent to Reach 9 would not be damaged by flood waters when the design flood event (30,000 cfs) is released from Prado Dam. The recent analysis indicated that the existing embankment protection and toe depth elevations at the locations identified as Phases 4 and 5 would not be sufficient and would need additional embankment reinforcement. Once completed, the designed releases will reduce flow over the spillway, preventing a probable maximum flood from eroding the side walls and causing major damage to the surrounding communities. The lower Santa Ana River 500 year floodplain is centered over the most densely populated and urbanized portion of Orange County that has the 10th largest industrial office and warehouse market in the United States with over 271 million square feet of space and a less than 4 percent vacancy rate. The gross county product was estimated at \$184 Billion in 2011.

Scour damage of the Burlington Northern Santa Fe (BNSF) Railway Bridge, situated in the river would result in shutting down the movement of goods through a high traffic rail corridor, impacting segments of the economy along this route from California to Florida. This rail line handles 2/3 of freight shipped from Port of Long Beach & railed out to the continental United States, widely known as the Alameda Corridor. Potential damages to the bridge from a project flood event would cripple operations at the Port with an estimated 4,700,000 containers & tonnage of 75,000,000 handled yearly, causing a major economic impact to the entire Southern California area.

Reach 9 Phase 5 spans an area nearly 2 miles long through sensitive habitat. These habitats are occupied by up to three federally listed threatened or endangered species. Estimated mitigation costs reflect estimated impacts, both permanent and temporary, to riparian, upland, perennial stream communities and expected compensation ratios or multipliers. Preliminary investigations have shown that the majority of expected impact zones in the project area are characterized as riparian, which has the highest mitigation ratio, and perennial stream, which has a 1:1 mitigation ratio but an extremely high per unit cost.

JUSTIFICATION: (Continued)

Over 1,500 private & public sector jobs are associated with ongoing construction activities in Reach 9. A halt in work would have a considerable impact on Riverside County and the inland area that has an unemployment rate 50% higher than the National average.

Local and State agencies have created a joint powers authority, the Santa Ana Watershed Project Authority that have developed a prioritized list of State and locally funded projects for the watershed. In developing the watershed pilot budget, many of the stakeholders have indicated that completion of Reach 9 is required prior to the initiation of a majority of the non-Federally funded projects in the watershed.

The full project level protection for all structures around the lower river cannot be obtained until the Prado Dam Spillway is raised and it will not be raised until all interior dikes in the Prado Basin have been constructed. The Women's Prison Facility has confined quarters of a large number of inmates and limited access for evacuation. The level of risk to the lives of prisoners and security personnel is heightened if threatened with flood waters at the facility. Executing the evacuation and saving lives, while keeping up security measures is extremely complex. Construction of the dike will help provide protection & vital time for the difficult nature of prison evacuations if threatened with flood waters.

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$375,000,000
Total	\$375,000,000

FISCAL YEAR 2014: The total fiscal year 2014 appropriation is being applied as follows:

Construction Management, Supervision & Administration, Engineering & Design and mitigation efforts for the ongoing contracts	\$ 4,500,000
Award Women's Prison Dike construction contract	15,000,000
Award Reach 9 mitigation contracts	6,000,000
Award REAs & modifications for ongoing contracts	4,700,000
Award National Housing Dike construction contract & conduct RMC review	3,500,000
Continue Seven Oaks Dam mitigation efforts	500,000
Total	\$35,500,000

FISCAL YEAR 2015: The budget amount plus projected carry-in funds will be applied as follows:

Construction Management, Supervision & Administration, Engineering & Design and mitigation efforts for the ongoing contracts	\$ 8,826,100
Award BNSF Railroad Bridge Protection construction contract for Reach 9 Phase 2A	22,000,000
Award Reach 9 Phase 4 construction contract	8,000,000
Total	\$38,826,100

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

	Payments During Construction And	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement
Division: South Pacific	District: Los Angeles	Santa Ana River Mainstem, CA
	28 March 2014	SPD - 65

Requirements of Local Cooperation and Project Cooperation	Reimbursements	Costs
Santa Ana River Mainstem:		
Provide lands, easements, rights-of-way, and borrow, excavated or dredged material disposal areas.	\$ 185,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	160,000,000	
Pay 5 percent cash of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 31 percent, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	68,000,000	\$ 2,300,000
Reimburse 100 percent of the Federal funds, loaned to the sponsor for work on San Timoteo Creek, within a period of 30 years following the completion of the project, in accordance with section 103 (k) of the Water Resources Development Act of 1986.	6,000,000	
Prado Dam (Separable Element):		
Provide lands, easements, rights-of-way, and borrow, excavated or dredged material disposal areas.	481,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	41,000,000	
Pay 5 percent cash of the costs allocated to flood control to bring the total non-Federal Share of flood control costs to 50 percent, and bear all costs of operation, maintenance, Repair, rehabilitation and replacement of flood control facilities.	46,000,000	200,000
Estimated reimbursement to local sponsor for LERRDS in excess of 45 percent of total project costs for flood control, subject to availability of funds.	(105,000,000)	
Total Non-Federal Costs	\$ 882,000,000	\$ 2,500,000

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

STATUS OF LOCAL COOPERATION: Orange, San Bernardino, and Riverside Counties are the local sponsors. On 14 December 1989, the Local Cooperation Agreement was executed in compliance with the requirements of the Water Resources Development Act of 1986. A supplemental Local Cooperation Agreement was executed on 1 July 1994 for San Timoteo Creek. On 30 June 1997, the Assistant Secretary of the Army (Civil Works) approved Prado Dam as a separable element and direction was given by the Assistant Secretary of the Army (Civil Works) to proceed in accordance with Section 309 (Water Resources Development Act of 1996) to modify the existing Local Cost Sharing Agreement to reflect this determination and the non-Federal cost-sharing be modified in accordance with section 103(a) (3) of Water Resources Development Act of 1996. A Project Cooperation Agreement for Prado Dam was executed in February 2003.

The current non-Federal cost estimate of \$882,000,000, which includes a cash contribution of \$114,000,000, is an increase of \$354,000,000 from the non-Federal cost estimate of \$528,000,000 noted in the current amended Local Cooperation Agreement dated February 2003, which included a cash contribution of \$59,306,000. Analysis of the non-Federal sponsors' financial capability to participate in the project affirms that Riverside and San Bernardino Counties still have a reasonable plan for meeting their financial commitments. Orange County has recently identified a possible funding shortfall that may impact the schedule for acquiring lands in Prado basin.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$1,407,000,000 is an increase of \$90,000,000 from the latest estimate of \$1,317,000,000 presented to Congress (FY 2013). This change includes the following items.

Item	Amount
Price escalation on Real Estate	\$71,000,000
Price leveling, inflation and other adjustments (including contingency adjustments) (Rch 9/Prado Real Estate/Santiago Creek)	8,000,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments) (Reach 9/Prado Dikes)	9,000,000
Schedule Changes (Prado Spillway/Santiago Creek/Riverroad)	2,000,000
Total	\$90,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency in June 1989. The Records of Decision (ROD) for Prado Dam and San Timoteo Creek Reach 3B were executed in January 2002. Additional supplement environmental documents have been prepared prior to construction of each feature.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1979. Funds to initiate construction were appropriated in 1990, and the project has consistently been in the President's Budget every year since.

An agreement with Fish and Wildlife Service on Section 7 consultations for endangered species (including Santa Ana woolly star and spineflower below Seven Oaks and Least Bell's vireo at Prado Dam) was reached on the number of acres for types of mitigation. The final biological opinion (BO) necessary for formal conclusion of the consultation was received from Fish and Wildlife Service 22 June 1989. Subsequently, San Bernardino Kangaroo Rat was emergency listed and Seven Oaks Dam construction was stopped in January 1998. Through formal consultation, the Fish and Wildlife Service issued two Biological Opinions in February 1998 and December 2002 which allowed dam construction to continue and included future dam operation. Newly listed species, Santa Ana Sucker and designated critical habitat for the Least Bell vireo at Prado dam required additional consultation, which was completed in December 2001.

OTHER INFORMATION: (Continued)

Coordination with the U.S. Fish and Wildlife Service and the California Department of Fish and Game was initiated early in the planning of alternatives and completed 30 March 1989, which produced a Fish and Wildlife Service Coordination Act Report that was included in the Environmental Impact Statement. These agencies had a role in the determination of project associated impacts as well as mitigation needs and opportunities. The estimated fish and wildlife mitigation cost for Seven Oaks Dam is \$10,000,000, for San Timoteo is \$4,100,000, for Lower Santa Ana is \$26,000,000 and for Prado Dam is \$18,000,000.

The project was modified by Section 104 of the Energy and Water Development Appropriation Act of 1988, which authorized the construction of San Timoteo Creek in the vicinity of Loma Linda as part of the Santa Ana River Mainstem Project and the total costs for the Santa Ana Mainstem, including Santiago Creek, was raised by \$25,000,000. Construction was initiated in August 1994 and completed in November 2007 with funds specifically identified in Act Language for a total of \$76,650,000.

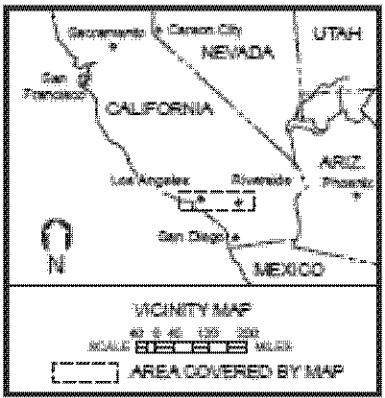
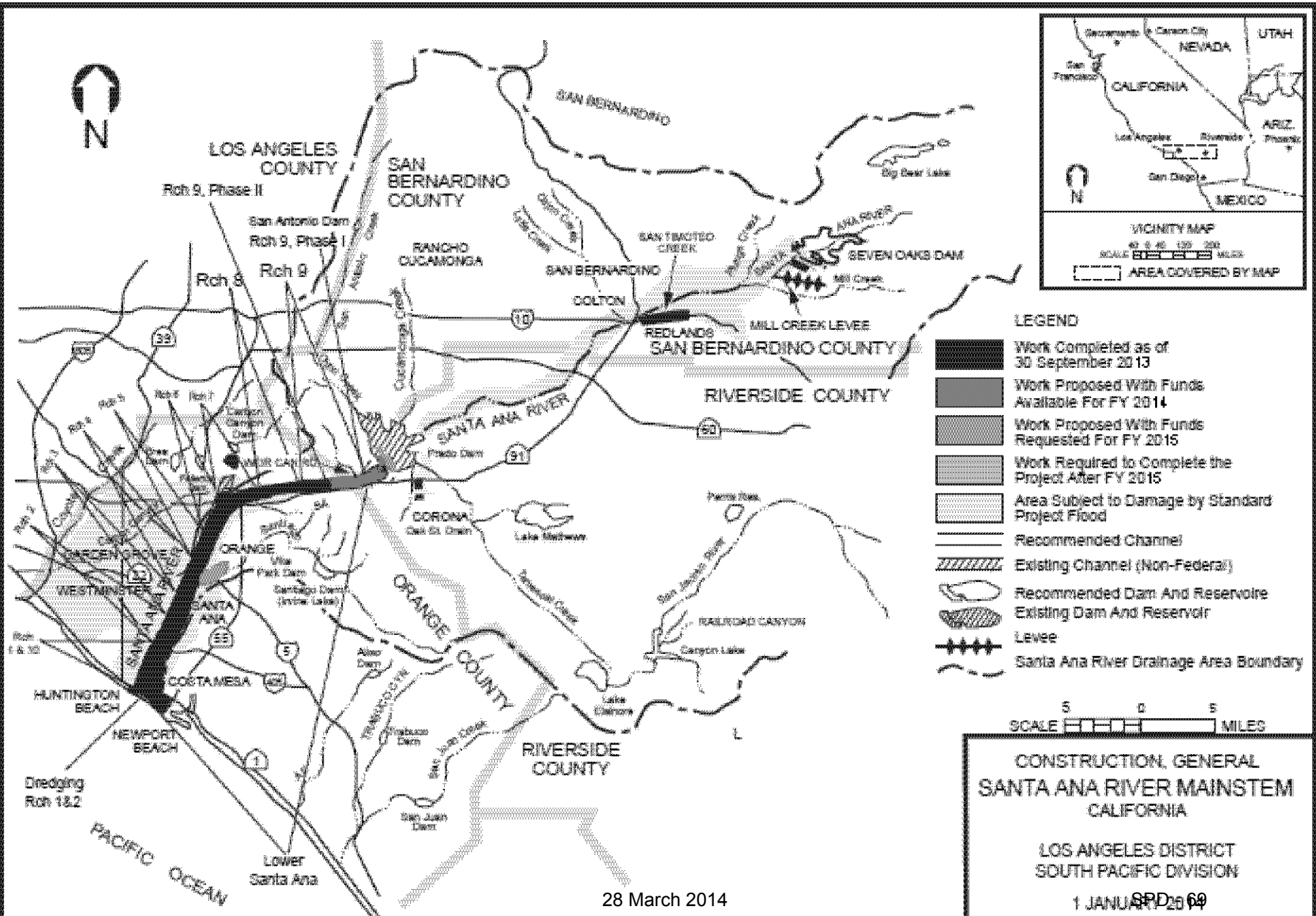
The project was modified by the Water Resources Development Act of 1990, which authorized the Secretary to develop recreational trails and facilities on lands between Seven Oaks Dam and Prado Dam, including flood plain management areas. These features are not included in the current estimate pending development of plans, determination of costs and support from local sponsors.

The project was modified by the Water Resources Development Act of 1996, which authorized the Secretary in coordination with the State of California, to provide technical assistance to Orange County, California, in developing appropriate public safety and access improvements associated with a portion of California State Route 71, which has been relocated for the Prado Dam project.

Congressional language in the Water Resources Development Act of 2007 increased the project cost to \$1,800,000,000 and included the Santa Ana River Interceptor line (SARI) as an authorized element of the project. This authority sufficiently increased the 902 maximum authorized total project cost to cover the added SARI line relocation, which is a 100% non-federal cost.

Total Lands, Easements, Rights of Ways, Relocations and Disposals (LERRD) for the Prado Dam project is being estimated above 45 percent of the total project cost for flood control. Upon completion of the project and final accounting, the government, subject to availability of funds, shall reimburse the Non-Federal sponsor for any such value in excess of 45 percent of total project costs to bring the ultimate cost sharing to 50 percent Federal and 50 percent Non-Federal for the Prado Dam Project.

If requested funding for fiscal year 2015 is not received, there will be major delays in the Reach 9 construction schedule, impacting the operation of the Prado Dam. If a major storm event were to occur requiring large releases from the dam, this could cause major damages along the unprotected areas of Reach 9 and ultimately require additional study and design for future protection efforts, further delaying the completion of the Reach 9 feature and the ability of Prado Dam to operate at the design level of 30,000 (cfs).



- LEGEND**
- Work Completed as of 30 September 2013
 - Work Proposed With Funds Available For FY 2014
 - Work Proposed With Funds Requested For FY 2015
 - Work Required to Complete the Project After FY 2015
 - Area Subject to Damage by Standard Project Flood
 - Recommended Channel
 - Existing Channel (Non-Federal)
 - Recommended Dam And Reservoir
 - Existing Dam And Reservoir
 - Levee
 - Santa Ana River Drainage Area Boundary



CONSTRUCTION, GENERAL
SANTA ANA RIVER MAINSTEM
CALIFORNIA

LOS ANGELES DISTRICT
 SOUTH PACIFIC DIVISION

1 JANUARY 2014

28 March 2014

SPD 69

APPROPRIATION TITLE: Construction - Local Protection - Flood Risk Management

PROJECT: Yuba River Basin, California (Continuing)

LOCATION: The project is located on the left bank of the Feather River in northern California in Yuba County approximately 50 miles north of Sacramento.

DESCRIPTION: The project, as authorized, includes constructing or deepening of slurry walls, deepening toe drains, constructing or modifying berms to strengthen existing levees on the Yuba and Feather Rivers and Jack Slough to provide increased flood risk management benefits to three reaches: Reach 1 (Linda/Olivehurst), Reach 2 (Lower Reclamation District (RD) 784), and Reach 3 (Marysville Ring Levee(MRL)). Project sponsors have completed improvements to all of the existing levees in Reach 1 and Reach 2 and have requested credit to be applied towards the non-Federal cost share of the of the Reach 3 (MRL) element, the only element of the authorized Yuba River Basin being constructed by the Government. The Reach 3 (MRL) element is under construction. To facilitate construction, the project has been separated into geotechnical sections based on factors of safety due to seepage and other items in order to streamline the design and contracting approach. These geotechnical sections are conveyed herein as phases 2A, 2B, 2C, 3 and 4. PHASE 2A - The project is situated on the levee in the southwestern part of the city of Marysville with Riverfront Park. The project consists of a 2,600 foot long seepage control cutoff wall constructed parallel with the levee using a slurry trench method to produce an impermeable barrier of a mixture of native soil and bentonite clay, commonly referred to as soil-bentonite (SB). The cutoff varies from 30 to 60 feet in depth and the width is 3 feet. PHASE 2B - The project is situated on the levee in the southeastern part of the city of Marysville near the historic downtown area. The project consists of a 4,000 foot long seepage control cutoff wall constructed parallel with the levee using a slurry trench method to produce an impermeable barrier of a mixture of native soil and bentonite clay (SB). The cutoff varies from 30 to 60 feet in depth and the width is 3 feet. PHASE 2C - The project is situated on the levee in the southern part of the city of Marysville. The project consists of three seepage control cutoff walls constructed parallel with the levee using a slurry trench method to produce an impermeable barrier comprised of a mixture of native soil and bentonite clay (SB). Deep soil mixing (DSM) methods may be utilized from station (STA) 208+00 to STA 210+00 to construct the cutoff wall in the vicinity of the bridge abutments. The cutoff varies from 30 to 60 feet deep and the width is 3 feet. PHASE 3 - The project phase may be subdivided depending on funding and design refinements. The project is situated on the levee in the southern part of the city along Highway 20. The project consists of seepage control cutoff wall and levee reshaping. The cutoff varies from 30 to 60 feet in depth and the width is 3 feet. PHASE 4 - The project is situated on the levee in the northwestern part of the city of Marysville near State Highway 70 and crossing of two UPRR railroad tracks. The project consists of a 600 foot long, 15 foot wide by 7 foot tall stability berm constructed parallel with the levee abutting the landside of the levee. The project would use unsuitable levee material recycled from other MRL phases to construct the berm. This phase also includes a small portion of levee crest reconstruction.

The programmed portion of this project includes Reach 3, MRL. An Integral Determination Report (IDR) was completed to document the advance work completed by the non-Federal sponsors as potentially eligible credit that would be applied to future phases of the construction on the MRL.

AUTHORIZATION: Water Resources Development Act, Pub. L. 110-114, § 3041, 121 Stat. 1041, 1116 (2007); Water Resources Development Act, Pub. L. 106-53, § 101(a)(10), 112 Stat. 269,275 (1999)

Separable Element 1 – Reach 3 (Marysville Ring Levee)

REMAINING BENEFIT-REMAINING COST RATIO: 2.2 to 1 at 7 percent.

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

INITIAL BENEFIT-COST RATIO: 2.3 to 1 at 4 1/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the evaluation contained in the Yuba River Basin Investigation, California, Economic Reevaluation Report (ERR) dated August 2011 at October 2011 price level. The ERR for the MRL was approved by South Pacific Division (SPD) on October 31, 2011.

Separable Element 2 – Reaches 1 and 2

REMAINING BENEFIT-REMAINING COST RATIO: TBD (see OTHER INFORMATION).

TOTAL BENEFIT-COST RATIO: TBD (See OTHER INFORMATION).

INITIAL BENEFIT-COST RATIO: 3.4 to 1 at 6-1/8 percent (see OTHER INFORMATION).

BASIS OF BENEFIT-COST RATIO: RD 784 has two separable elements from the Yuba River Basin Investigation, California, Final Feasibility Report and Appendixes, April 1998. An economic analysis (October 2012 price level) was performed in support of the Reach1 (Linda/Olivehurst) Post Authorization Documentation Report dated June 2012. The upper Reach 1 was economically feasible in this report with net benefits of \$2.1 million and a total benefit-cost ratio of 1.44 to 1. The evaluation of Reach 2 (Lower RD 784) has not been completed, but preliminary studies indicate that the completed local improvements are economically feasible. However, no Federal decision is considered necessary for Reach 2 at this time since there is no additional Federal action to be supported.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$107,386,000				
Programmed Construction	70,000,000					
Unprogrammed Construction	37,386,000					
Estimated Non-Federal Cost		\$ 37,700,000				
Programmed Construction	37,700,000					
Cash Contributions	33,966,000					
Other Costs	3,734,000					
Estimated Non-Federal Cost		\$ 19,771,000				
Unprogrammed Construction	19,771,000					
Cash Contributions	15,608,000					
Other Costs	4,163,000					
Total Estimated Programmed Construction cost		\$107,700,000				
Total Estimated Unprogrammed Construction Cost		57,157,000				
Total Estimated Project Cost		\$164,857,000				

Separable Element 1 – Reach 3 (Marysville Ring Levee, MRL)

Estimated Federal Cost		\$ 59,042,000	Reach 3	8	TBD
Estimated Non-Federal Cost		31,438,000	Reach 1	100	Sep 2012
Cash Contribution	\$27,704,000		Reach 2	100	Nov 2009
Other Costs	3,734,000				
Total Separable Element 1 Cost		\$ 90,480,000			

Separable Element 2 – Reaches 1 and 2

Estimated Federal Cost		\$ 48,344,000			
Estimated Non-Federal Cost		26,033,000			
Cash Contribution	\$21,870,000				
Other Costs	4,163,000				
Total Separable Element 2 Cost		\$ 74,377,000			

Division: South Pacific

District: Sacramento

Yuba River Basin, CA

28 March 2014

SPD - 72

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Total Project Estimated Federal Cost	\$107,386,000				
Estimated Non-Federal Cost	57,471,000				
Cash Contribution	\$49,574,000				
Other Costs	7,897,000				
Total Project Cost	\$ 164,857,000	<u>7/</u>			
Allocations to 30 September 2011	\$ 26,097,471				
Allocation for FY 2012	3,459,973				
Allocation for FY 2013	2,794,400				
Allocation for FY 2014	1,800,000				
Allocations through FY 2014	34,151,844	<u>1/2/3/5/</u>	49		
Estimated Unobligated Carry-In Funds	0	<u>4/</u>			
President's Budget for FY 2015	4,000,000		55		
Programmed Balance to Complete after FY 2015	\$ 31,848,156	<u>6/</u>			
Un-Programmed Balance to Complete after FY 2015	37,386,000				

1/ \$5,103,771 reprogrammed to the project.

2/ \$30,804 rescinded from the project.

3/ \$0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2013 into FY 2014 (3011A report) for this project is \$0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$0.

5/ PED costs of \$3,179,862 are included in this amount.

6/ For programmed work only; remaining work is un-programmed pending a decision to construct these features.

7/ This total project cost (TPC) is subject to change upon Assistant Secretary of the Army for Civil Works(ASA(CW)) decision on the Yuba River IDR. Decision expected in December 2013. See OTHER INFORMATION.

PHYSICAL DATA: Levee improvements: slurry walls (Reaches 1 and 2) - 6.7 miles; toe drains (reaches 1 and 2) - 9.0 miles; berms (Reaches 1 and 2) - 9.5 miles; slurry walls and berms along ring levee (Reach 3) - 5 miles.

JUSTIFICATION: The principal urban centers within the project area include Marysville and Yuba City with current populations (2010 Census) of 12,800 and

63,600, respectively. The Marysville and Yuba City areas have experienced at least six major floods which include the floods of November 1950, December 1955, December 1964, January 1965, February 1986 and January 1997, which were very widespread and destructive. Record floodflows occurred with the 1955 flood and resulted in the loss of 37 lives when a levee on the Feather River south of Yuba City failed. Modifications to flood protection facilities in the intervening 10 years, including partial completion of the State's Oroville Dam project, helped prevent damage during the 1964-65 flood that may have exceeded floodflows of the 1955 event. Approximately 100,000 acres of land were inundated during the 1955 event. Despite existing flood protection to the area, it is still vulnerable to catastrophic flooding as demonstrated by the February 1986 event. During the 1986 flood, the south levee on the Yuba River failed, inundating the towns of Linda and Olivehurst to depths of approximately 10 feet. More than 24,000 people were evacuated and damages to property were estimated at \$95 million. The floods of January 1997 caused a levee break on the Feather River that was stabilized using emergency construction authority. However, over twenty square miles of land were inundated which included the Yuba City airport, roughly 800 homes, and two major highways (65 and 70). Approximately 15,000 people were evacuated and three lives were lost. Total damage of the 1997 event was estimated at \$82.4 million. Flood risk management (FRM) is being mitigated for Marysville Reach 3 by construction of a separable element that consists of about 5 miles of slurry walls and berms along the ring levee surrounding the city of Marysville. Following the flood in 1997, the project sponsor, using funding from the State of California Early Implementation Program, has constructed improvements to strengthen all of the levees providing FRM benefits to the Reclamation District 784 area, and has requested credit to be applied toward the non-Federal cost share for construction of the Marysville separable element; therefore, there will be no Federal construction of improvements other than the on-going Marysville separable element. The only remaining Federal action under consideration is the evaluation and affording of potential credit towards the Marysville project. The average annual benefits for the Reach 3 MRL are all for FRM and are \$11,856,000.

FISCAL YEAR 2014: The total fiscal year 2014 appropriations are being applied as follows:

Award design contracts for phase 2C and 3	\$1,800,000
Total	\$1,800,000

FISCAL YEAR 2015: The budget amount will be applied as follows:

Award Construction Contract for Phase 2C (One Site)	4,000,000
Total	\$4,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended by

Section 202 (a) of the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 7,897,000	
Pay 30 percent of the costs allocated to FRM to bring the total Non-Federal share of flood control costs to 35 percent, as determined under Section 103(m) of the Water Resources Development Act of 1986 as amended by Section 202(a) of the Water Resources Development Act of 1996 to reflect the non-federal sponsor's ability to pay and bear all costs of operation, maintenance, repair, rehabilitation and replacement of FRM facilities.	49,574,000	\$8,000
Total non-Federal Costs	\$57,471,000	\$8,000

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

STATUS OF LOCAL COOPERATION: The state of California Central Valley Flood Protection Board (CVFPB) is the non-Federal sponsor for the project. The current non-Federal cost estimate of \$57,471,000 includes a cash contribution of \$49,574,000. A firm commitment for a cash contribution has been made by the sponsor. In a letter dated April 3, 2009, the ASA (CW) approved the sponsor's request to exercise Section 103 (L) of the WRDA 1986, deferring the sponsor's cash contribution of the Reach 3 MRL separable element for up to one year. This deferral expired August 3, 2011 and was not renewed. The CVFPB provided their required cash contribution for the deferred amount. The current non-Federal cost estimate reflects credits of \$2,700,000 for deepening the slurry wall of Reaches 1 and 2 for prior work pursuant to Section 104 of the Water Resources Development Act of 1986. The Project Partnership Agreement (PPA) was signed for the Marysville Ring Levee (Separable Element 1) on July 21, 2010.

The current non-Federal cost estimate for Separable Element 1, Reach 3, of \$31,438,000, which includes a cash contribution of \$27,704,000, is a decrease of \$837,000 from the non-Federal cost estimate of \$32,275,000 noted in the PPA, which included a cash contribution of \$28,942,000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$107,386,000 is an increase of \$2,155,000 from the latest estimate

(\$105,231,000) presented to congress (FY 2014). This change includes the following items:

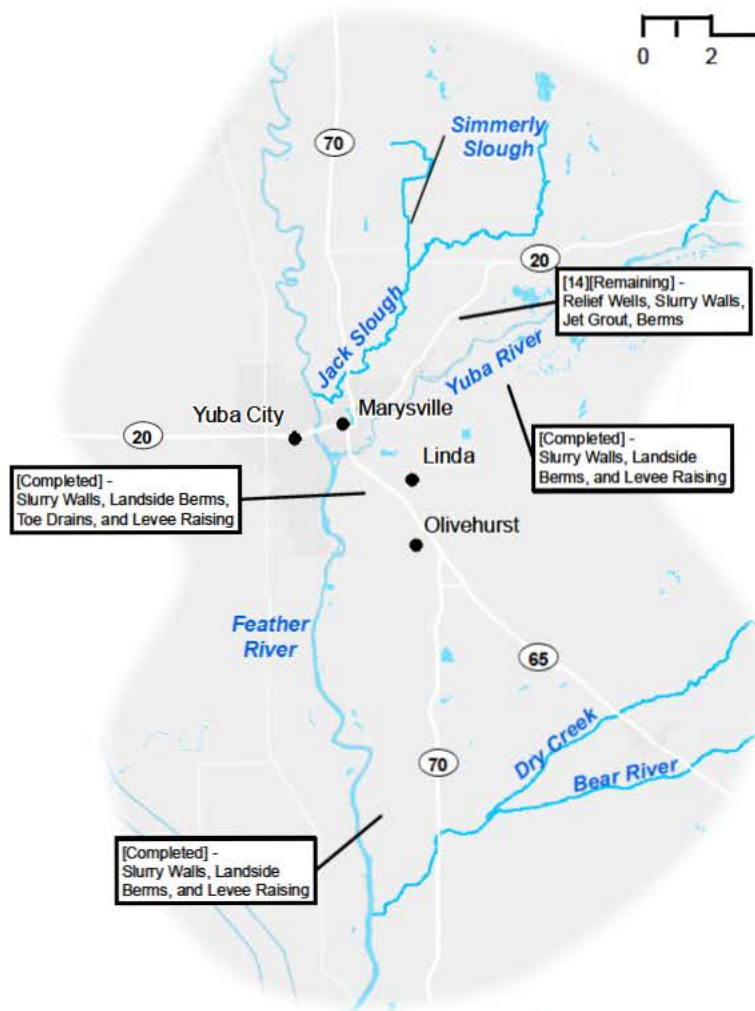
Item	Amount
Price Escalation of Construction Features	\$ 151,000
Post-Contract Award and Other Estimating Adjustments	2,004,000
Total	\$2,155,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: The Final Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) was filed with the Environmental Protection Agency in April 1998. Record of Decision (ROD) was signed June 28, 2000. An Environmental Assessment (EA)/Finding of No Significant Impact (FONSI) was completed and executed for the MRL in April 2010. The local sponsor prepared a supplement to the 1998 EIS/ROD as part of the Section 408 process.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design (PED) were appropriated in FY 1998 and funds to initiate construction were appropriated in FY 2003. Mitigation requirements for impacts to the environment from construction include 2.98 acres of woodland habitat. In accordance with the Yuba River Basin Investigation, California Feasibility Report dated April 1998, the mitigation requirement could be met by using credit from the existing mitigation site for Phase II of the System Evaluation, Marysville/Yuba City Levee Reconstruction Project. This credit resulted from excess mitigation acreage developed for Phase II of the System Evaluation. Mitigation costs are yet to be determined until a footprint is established for the un-designed area.

Reach 3. Approval to proceed with construction of the MRL Separable Element was given by the SPD Commander on February 12, 2008. All MRL design and cost changes have been reported and economic benefits updated in the Engineering Documentation Report (EDR) dated April 12, 2010 and the Economic Reevaluation Report (ERR). The ERR for the MRL was approved by SPD on October 31, 2011. The benefit cost ratio at 7% is 1.7 to 1. An EA was completed and resulted in a FONSI signed in April 2010. The flood rate and depth based on a levee failure during a 60-year event could reach 10 feet in 4 hours. The risk to life stems from extreme cold water. In 49 degree water, a person reaches unconsciousness in 30 to 60 minutes with an expected time of survival of 1 to 3 hours. American Recovery and Reinvestment Act funding of \$13,491,494 was used for the first phase construction of the MRL separable element of the Yuba River Basin Project.

Reaches 1 and 2. The project sponsors have constructed improvements to strengthen the existing levees in Reach 1 and Reach 2 and have requested credit to be applied towards the non-Federal cost of construction of the Marysville element of the authorized Yuba River Basin project. A Post Authorization Documentation Report (PADR) dated June 2012 was submitted to CESP and was approved by the Division Commander on December 18, 2012. The PADR determined continued Federal interest in Reach 1 (Linda-Olivehurst element) of the 1999 authorized project. An Integral Determination Report (IDR) has been prepared to determine if the local construction of improvements to the Reach 1 levees meets the requirements for credit under either Section 104 of WRDA 1986 or Section 3041 of WRDA 2007 and is under review. All required modifications to levees in Reach 2 to address under seepage and fragility issues identified at initiation of PED have been rectified by the locals; therefore completion of a General Reevaluation Report recommending a Chief's report for additional authorization is unnecessary, since no Federal construction would be recommended.



7 February 2014

Legend

- Cities
- Rivers

Work Status

[Completed] - Work completed as of 30 September 2013

[14] - Work proposed with funds available for FY 2014

[15] - Work proposed with funds requested for FY 2015


[Remaining] - Work required to complete the project after FY 2015

Local Protection Projects - Flood Control

Yuba River Basin California

Work Completed, In Progress, and Proposed

U.S. Army Corps of Engineers,
South Pacific Division,
Sacramento District



1 January 2014

28 March 2014

SPD - 77

Southwestern Division

Construction

Oklahoma

APPROPRIATION TITLE: Construction, General - Dam Safety Assurance.

PROJECT: Canton Lake, Oklahoma, (Dam Safety) (Continuing)

LOCATION: The project is located on the North Canadian River about 2 miles north of the town of Canton in Blaine County, Oklahoma.

DESCRIPTION: The Dam Safety Assurance Report, approved in 2002, indicated two serious and interrelated hydrologic deficiencies occurred at the existing Canton Lake. The deficiencies included inadequate factors of safety against spillway sliding and uncontrolled embankment overtopping by the Probable Maximum Flood. The recommended plan for resolution of the dam safety deficiencies consists of anchoring the existing spillway to improve sliding stability, relocating Highway 58A, constructing an auxiliary spillway with fuse gates to increase the discharge capacity required during a probable maximum flood event, and placing the excavated material from the spillway excavation at the toe of the earthen dam to resolve the seismic and seepage deficiencies as an additional benefit.

AUTHORIZATION: Flood Control Act of 1938.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

INITIAL BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

BASIS OF BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2014)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
				Entire Project	70%	TBD
Original Project						
Actual Federal Cost		\$ 11,210,000				
Actual Non-Federal Cost		0				
Cash Contributions	\$	0				
Other Costs		0				
Total Original Project Cost		\$ 11,210,000				
Remedial Work or Project Modification						
Estimated Total Appropriation Requirement		\$ 193,100,000				
Future Non-Federal Reimbursement		\$7,386,000				
Estimated Federal Cost (Ultimate)		\$185,714,000				
Estimated Non-Federal Cost		\$7,386,000				
Cash Contributions	\$7,386,000					
Other Costs		0				
Reimbursements		0				
Water Supply Contract	\$7,386,000					
Total Estimated Project Cost		\$193,100,000				

PHYSICAL DATA

Dams

- Anchor Stabilization of Existing Spillway Structure
- New Auxiliary Spillway and Channel
- New Auxiliary Spillway Bridge
- Rehabilitate Existing Spillway Bridge

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2015)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Allocations to 30 September 2011	\$112,085,000				
Allocation for FY 2012	\$11,100,000				
Allocation for FY 2013	\$7,200,000				
Allocation for FY 2014	\$31,883,000	87%			
Allocations through FY2014	\$162,268,000	<u>1/</u> <u>2/</u> <u>3/</u>			
Estimated Unobligated Carry-In Funds	0	<u>4/</u>			
President's Budget for FY 2015	\$18,000,000	97%			
Programmed Balance to Complete after FY 2015	\$12,832,000				
Unprogrammed Balance to Complete after FY 2015	0				

1/ \$0 reprogrammed from the project.

2/ \$0 rescinded from the project.

3/ \$0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2013 into FY 2014 (3011A report) for this project is \$740,538. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$0. This amount will be used to perform work on the project as follows: N/A.

PHYSICAL DATA: Canton Lake is located on the North Canadian River at river mile 394.3, about 2 miles north of the town of Canton in Blaine County, Oklahoma. This is a multi-purpose project with flood control, water supply, and irrigation outputs. The project consists of a 15,140 foot long rolled earth-filled embankment with a 640 foot gated concrete spillway that rises to a maximum height of 68 feet. Spillway discharges are controlled by sixteen 40x25 foot tainter gates. At conservation pool the lake covers 7,910 acres.

JUSTIFICATION: Canton Lake Dam is a Dam Safety Action Classification (DSAC) 2, which is defined by ER 1110-2-1156 as "High Urgency" where failure could begin during normal operations or be initiated by an event. The Dam Safety Assurance Report, approved in 2002, indicated two serious and interrelated hydrologic deficiencies that included inadequate factors of safety against spillway sliding, and uncontrolled embankment overtopping by the Probable Maximum Flood. In 2005 Canton was included in Screening Portfolio Risk Assessment, as a Dam Safety Action Classification (DSAC) 2, which indicated that Canton Lake Dam was within the top ten percent highest at risk dams with regard to failure by uncontrolled seepage. In 2005 a Seismic Safety Review was conducted which indicated that the embankment could move during a seismic event. The population at risk is 60,000 people with potential economic losses estimated between \$1.75 and \$2.64 Billion.

FISCAL YEAR 2014: The current amount of \$31,883,000 will be applied as follows:

Award a continuing contract for the phase 2 channel excavation	\$26,783,000
Construction Management/laboratory for weir contract (S&A)	\$5,100,000
Total	\$31,883,000

FISCAL YEAR 2015: The budget amount of \$18,000,000 will be applied as follows:

Contractor earnings on phase 2 channel excavation continuing contract	\$12,975,000
Award bulkhead construction contract	\$2,250,000
Construction management/lab	\$2,125,000
Engineering during construction	\$650,000
Total	\$18,000,000

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.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Pay 15 percent of cost assigned to project purposes in accordance with the cost allocation in effect for the project at the time of initial project construction.		
Water supply storage is 25.5 percent of the joint-use costs.	\$ 7,386,000	TBD
Total Non-Federal Costs	\$ 7,386,000	TBD

The non-Federal sponsor will reimburse its share of construction costs over a period not to exceed 30 years following completion of construction.

STATUS OF LOCAL COOPERATION: The city of Oklahoma City has 100 percent of the water supply storage under contract. Water supply storage is 25.5 percent of the joint-use costs. Reimbursement payments will be initiated at the completion of construction.

Division: Southwestern

District: Tulsa

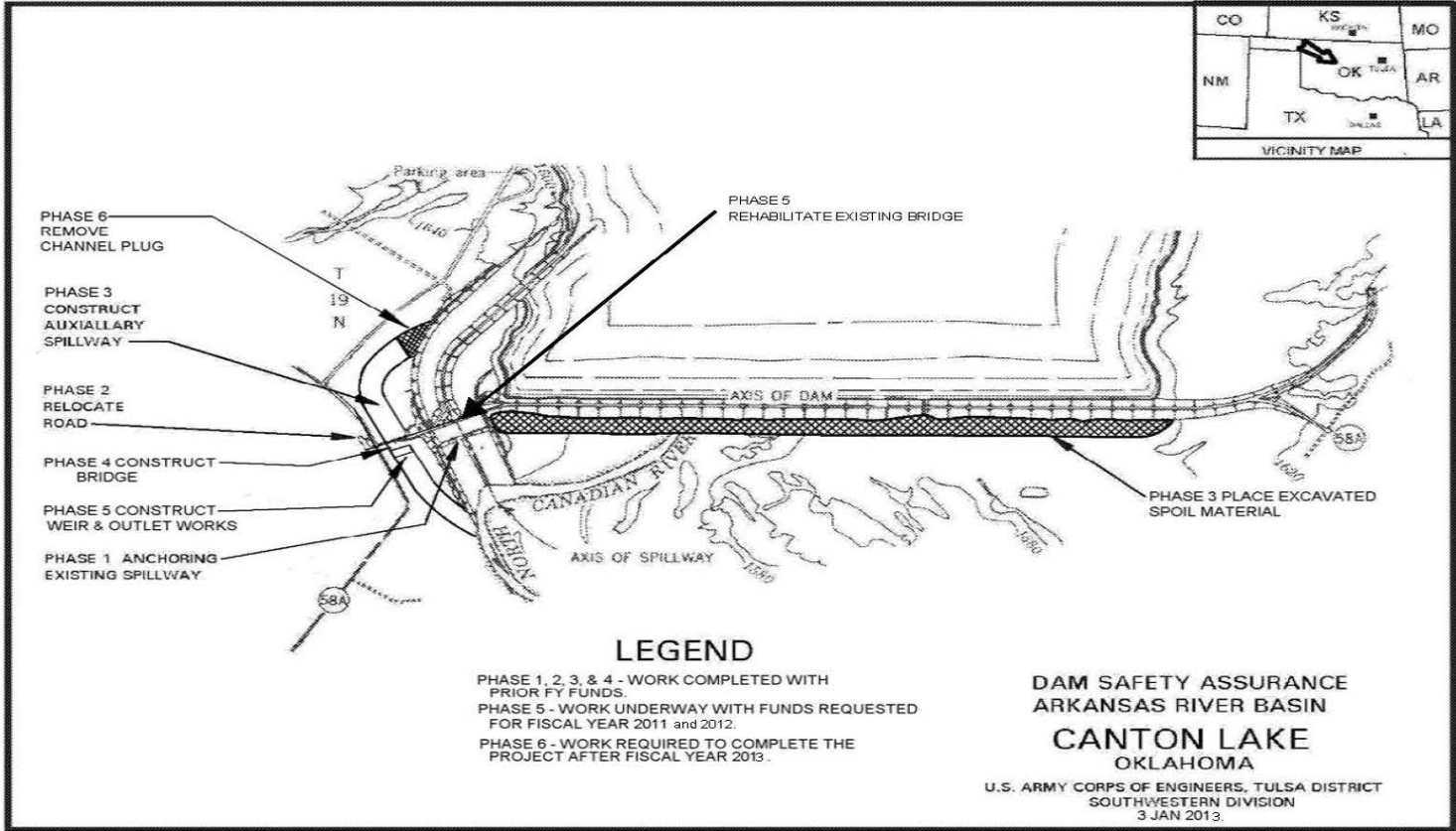
Project Name: Canton Lake, Oklahoma
(Dam Safety)
SWD - 7

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$193,100,000 is \$16,770,000 less than the project cost estimate presented to Congress (FY 2014). This reduction in the Federal cost estimate is a result of an updated government cost estimate for the Phase II channel excavation contract and associated contract contingencies. This change includes the following items.

Item	Amount
Design Changes	- \$16,770,000
Total	- \$16,770,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Not required. The provisions of Section 404 of the Clean Water Act do not apply because the project improvements do not involve the placement of fill material or the discharge of dredge material in the waters of the United States.

OTHER INFORMATION: A Dam Safety Assurance Program Evaluation Report was approved in March 2002. Construction funds were first appropriated for this project in Fiscal Year 2003. During FY06 a seismic and seepage study was performed in addition to the Design Document Report (DDR), which required the relocation of the auxiliary spillway from the Left Abutment to the Right Abutment areas of Canton Dam due to foundation issues.



APPROPRIATION TITLE: Construction, General - Dam Safety Assurance.

PROJECT: Pine Creek Lake, Oklahoma, (Dam Safety) (New)

LOCATION: The project is located on the Little River at river mile 145.3, about 5 miles northwest of Wright City in McCurtain County, Oklahoma.

DESCRIPTION: The recommended plan consists of construction of a new chimney filter, modification to the cutoff wall, modification to the downstream filter and a permanent joint repair using a steel pipe sleeve along the existing outlet works conduit.

AUTHORIZATION: Flood Control Act of 1958.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

INITIAL BENEFIT-COST RATIO: Initial benefit-cost ratio for the Pine Creek dam safety project is 0.308 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

Division: Southwestern

District: Tulsa

Project Name: Pine Creek Lake, OK
(Dam Safety)

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Original Project			Entire Project	9%	TBD
Actual Federal Cost		\$20,628,049			
Actual Non-Federal Cost		\$0			
Cash Contributions	\$0				
Other Costs	\$0				
Total Original Project Cost		\$20,628,049			
Remedial Works or Project Modification					
Estimated Total Appropriation Requirement		\$20,147,000			
Future Non-Federal Reimbursement		\$ 1,612,000			
Estimated Federal Cost (Ultimate)		\$18,535,000			
Estimated Non-Federal Cost		\$ 1,612,000			
Cash Contributions	\$ 1,612,000				
Other Costs	\$0				
Total Estimated Project Cost		\$20,147,000			

Division: Southwestern

District: Tulsa

Project Name: Pine Creek Lake, OK
(Dam Safety)

SUMMARIZED FINANCIAL DATA (Continued)	ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Allocations to 30 September 2011	\$ 0			
Allocation for FY 2012	\$ 0			
Allocation for FY 2013	\$ 320,000			
Allocation for FY 2014	\$ 1,631,000			
Allocations through FY 2014	\$ 1,895,000	<u>1/</u> <u>2/</u> <u>3/</u> <u>5/</u>	9%	
Estimated Unobligated Carry-In Funds	\$ 0	<u>4/</u>		
President's Budget for FY 2015	\$16,333,000			
Programmed Balance to Complete after FY 2015	\$ 1,919,000			
Un-programmed Balance to Complete after FY 2015	\$ 0			

1/ \$220,000 reprogrammed to the project.

2/ \$0 rescinded from the project.

3/ \$0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY2013 into FY2014 (3011A report) for this project is \$56,263. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$0. This amount will be used to perform work on the project as follows: N/A.

5/ PED costs of \$1,895,000 are included in this amount.

PHYSICAL DATA: The Pine Creek Lake project became operational in June 1969. The structure is a rolled earth-fill dam 22,470 feet long, 32 feet wide and rises 124 feet above the stream bed. The outlet works located on the right abutment of the river section includes an intake structure, a 13 foot diameter conduit, a 48-inch low flow pipe, and a 36 inch water supply static head line. The conduit is controlled by two 5'8" x 13' hydraulically operated slide gates. At top of conservation pool the lake covers 3750 acres.

JUSTIFICATION: Pine Creek Lake Dam is a Dam Safety Action Classification (DSAC) 1, which is defined by ER 1110-2-1156 as "Very High Urgency" where progression toward failure is confirmed to be taking place under normal operations and the dam is almost certain to fail under normal operations within a few years without intervention. The Dam Safety Assurance Report, approved in 2013, indicated a serious deficiency of piping (seepage) along the outlet works conduit, which could lead to failure of the structure. In 2010 Pine Creek Lake Dam was included in Screening Portfolio Risk Assessment, as a Dam Safety Action Classification (DSAC) 1, which indicated that Pine Creek Lake Dam was within the top ten percent highest at risk dams with regard to failure by uncontrolled seepage. The population at risk is 1,694 people with potential economic losses estimated at \$134.5 million. Since construction in 1969, Pine Creek Lake has more than \$109,000,000 in cumulative flood damages prevented.

Division: Southwestern

District: Tulsa

Project Name: Pine Creek Lake, OK
(Dam Safety)

FISCAL YEAR 2014: The requested amount of \$1,575,000 will be applied as follows:

Planning, Engineering, and Design	\$1,564,000
Construction Management (Contracting)	11,000
Total	\$1,575,000

FISCAL YEAR 2015: The requested amount of \$16,333,000 will be applied as follows:

Award fully funded Contract for approved Dam Safety Modification	\$14,083,000
Engineering & Design	767,000
Construction Management (Supervision & Administration)	1,483,000
Total	\$16,333,000

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

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 8 percent of cost assigned to project purposes in accordance with the cost allocation in effect for the project at the time of initial project construction.	\$ 1,612,000	\$ 125,000 <u>1/</u>
Total Non-Federal Costs	\$ 1,612,000	\$ 125,000 <u>1/</u>

1/ FY 2013 water supply costs billed to non-Federal sponsor. Annual costs may vary based on actual project joint cost expenditures in future fiscal years.

The non-Federal sponsor will reimburse its share of construction costs over a period not to exceed 30 years following completion of construction.

Division: Southwestern

District: Tulsa

Project Name: Pine Creek Lake, OK
(Dam Safety)

STATUS OF LOCAL COOPERATION: International Paper (Weyerhaeuser) has 100 percent of the Pine Creek Lake water supply storage under contract. Water supply storage is 8 percent of the joint-use costs. Reimbursement payments will be initiated at the completion of construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of the recommended remediation activities is \$23,576,000, which has not been presented to Congress before.

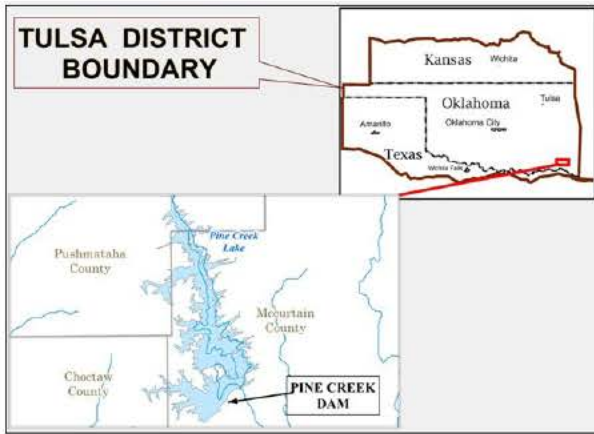
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Environmental Assessment was completed and FONSI signed 26 June 2013.

OTHER INFORMATION: The Dam Safety Modification Report inclusive of the recommended alternative for repair was approved by HQUSACE on 26 June 2013 and approved by the ASA(CW) in September 2013. Funds for initiation of preconstruction engineering and design were requested and received in the 4th quarter FY2013.

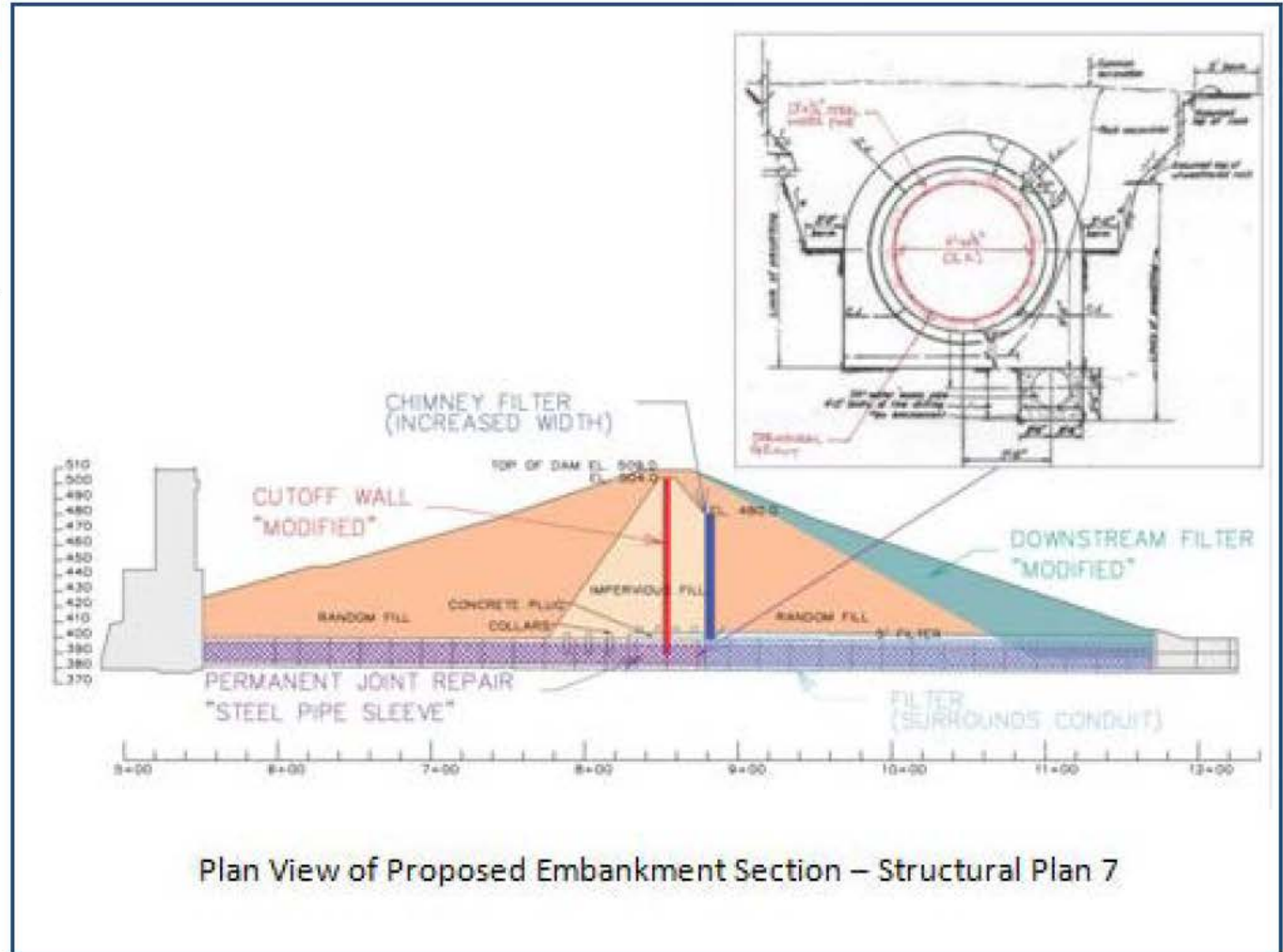
Division: Southwestern

District: Tulsa

Project Name: Pine Creek Lake, OK
(Dam Safety)



Project Location Pine Creek Lake



Plan View of Proposed Embankment Section – Structural Plan 7

Division: Southwestern

District: Tulsa

Project Name: Pine Creek Lake, OK
(Dam Safety)

Texas

APPROPRIATION TITLE: Construction - Local Protection (Flood & Coastal Storm Damage Reduction)

PROJECT: Brays Bayou, Houston, TX (Continuing)

LOCATION: The project is located in the metropolitan area of Houston, in Harris County, Texas. The Brays Bayou watershed encompasses approximately 128 miles in Harris County. The Brays Bayou channel is approximately 31 miles long and flows into Buffalo Bayou in the Houston Ship Channel below the Turning Basin.

DESCRIPTION: The project consists of 4 detention basins (Sam Houston, Old Westheimer Road, Eldridge Road, and Willow Waterhole); enlargement or modification of 21.1 miles of earthen channel, replacement and / or lengthening of 27 bridges, and recreation features including hike and bike trails, picnic facilities, sports fields, comfort stations, and parking areas.

AUTHORIZATION: Section 101(21) of the Water Resources Development Act (WRDA) of 1990 and Section 211(f) of WRDA 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 2.6 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 2.2 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 2.97 to 1 at 7.625 (FY 1998)

BASIS OF BENEFIT-COST RATIO: Benefits for the total project are from the approved updated economic analysis included in the Brays Bayou Economic Update dated December 2010 at October 2010 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 328,358,000		Entire Project	33%	TBD
Estimated Non-Federal Cost	269,138,000				
Cash Contribution	31,957,000				
Other Costs	237,181,000				
Total Estimated Project Cost	\$ 597,496,000				
Allocations to 30 September 2011	\$ 118,091,000				
Allocation for FY 2012	5,004,000				
Allocation for FY 2013	37,247,000				
Allocation for FY 2014	8,975,000				
Allocations through FY 2014	169,317,000	<u>1/</u> <u>2/</u> <u>3/</u> <u>5/</u>	52%		
Estimated Unobligated Carry-In Funds	2,362,000	<u>4/</u>			
President's Budget for FY 2015	1,800,000		52%		
Programmed Balance to Complete after FY 2015	157,241,000	<u>6/</u>			
Un-programmed Balance to Complete after FY 2015	0				

1/ Includes \$9,500,000 reprogrammed to the project.

2/ \$ 0 rescinded from the project.

3/ \$ 0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2013 into FY 2014 (3011A report) for this project is \$ 2,362 (x1000). As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$ 0 (x1000). This amount will be used to perform work on the project as follows: N/A

5/ PED costs of \$ 4,004,000 are included in this amount

6/ For programmed work only.

PHYSICAL DATA: The project consists of construction of 21.1 miles of channel improvements, 4 Detention Basins (Sam Houston, Old Westheimer Road, Eldridge Road, and Willow Waterhole), 27 bridge replacements or modifications, and hike and bike trails.

Division: Southwestern

District: Galveston

Project: Brays Bayou, Houston, TX

JUSTIFICATION: Brays Bayou drains approximately 137 square miles in the south-central portion of the Buffalo Bayou watershed. About 53,400 homes and businesses are currently subject to flooding by the Standard Project Flood (SPF), and 25,000 of these properties would be subject to flooding by a 100-year frequency flood. On an average annual basis, stream flooding could cause nearly \$46,000,000 in damages per year to existing properties. The plan would reduce the existing 100-year frequency floodplain area by about 97 percent and average annual flood damages would be reduced by about 95 percent. The recreational development will partially satisfy existing demand in the area. In June 2001, 6,200 residences were flooded during Tropical Storm Allison, known as the most costly tropical storm in U.S. History. Based on the Life Safety Hazard Indicator for 2012 the population at risk is 722,000 with a risk depth of 3 feet. Benefits are based on Brays Bayou Economic Update approved December 2010 at October 2010 price levels at a discounted rate of 7 percent. The average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$ 124,944,000
Recreation	1,623,700
Total	\$ 126,567,700

FISCAL YEAR 2014: The current amount is being applied as follows:

Partial Reimbursement for Discrete Segment 95	\$ 169,700
Reimbursement for Discrete Segment 103a OST to Lidstone	1,064,000
Reimbursement for Discrete Segment 106 Holcombe to Braeswood	641,300
Reimbursement for Discrete Segment 107 Braeswood to Bertner	475,000
Partial Reimbursement of balance owed for DS 01 Consultant Work By Harris County Flood Control District Staff FY 2013-FY 2014	6,475,000
Federal Project Oversight	150,000
Total	\$ 8,975,000

FISCAL YEAR 2015: The budget amount plus carry-in funds will be applied as follows:

Partial Reimbursement for Discrete Segment 207 Willow Waterhole Basin – Channel control structure and diversion boxes	\$ 1,650,000
Federal Oversight	150,000
Total	\$ 1,800,000

NON-FEDERAL COST & REQUIREMENTS: Brays Bayou has been identified as a demonstration project by Section 211(f) of the Water Resources Development Act of 1996 (P.L. 104-303). This Act authorized the non-Federal sponsor to accomplish the work and be subsequently reimbursed for the Federal share of completed discrete segments, in accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and dredged or excavated material disposal areas.	\$ 82,483,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	154,699,000	
Pay one-half of the separable costs allocated to recreation and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	3,865,000	\$ 357,000
Pay 5 percent of the costs allocated to flood risk management to bring the total non-Federal share of flood risk management costs to 25 percent as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, to reflect the non-Federal sponsor's ability to pay, but no less than 5 percent of the costs allocated to flood risk management and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood risk management features.	28,092,000	683,000
Total Non-Federal Costs	\$ 269,139,000	\$ 1,040,000

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

STATUS OF LOCAL COOPERATION: The sponsor for the flood damage reduction project is the Harris County Flood Control District. The Project Cooperation Agreement (PCA) for the flood control portion of the Upstream (Detention) Component was executed on March 3, 2000, and included the provision of Section 211, WRDA 96. A General Reevaluation Report, dated December 2008, was submitted to the Assistant Secretary of the Army, Civil Works (ASA(CW)), and was approved April 3, 2009 to recombine both the Upstream and Downstream elements of the project into one element. An amendment to the existing PCA was executed on 31 March 2010 to implement the remaining features of the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$328,358,000 is an increase of \$6,008,000 from the latest estimate (\$322,350,000) presented to Congress (FY 2014). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	\$ 6,008,000
Total	\$ 6,008,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Final Environmental Impact Statement was filed with the Environmental Protection Agency in September 1988. An Environmental Assessment (EA) for the Detention Component was completed in 1998, with a Finding of No Significant Impact (FONSI) signed on 3 April 1998. An EA for the Alternative to the Diversion Separable Element was completed in 2008 with a FONSI signed on 5 March 2008.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1990, and funds to initiate construction were appropriated in Fiscal Year 1998. The project will reduce the risk of flooding to the Texas Medical Center, which is the largest medical patient care, teaching, and research center in the world. It covers 1,000 acres, 40 buildings located in 100-year floodplain (daily economic loss during flood estimated at \$30 million), 6,800 patient beds, 93,500 employees (includes 20,000 physicians, scientists, and researchers), 6 million annual patient visits (18,000 international patient visits), and 160,000 daily visitors. The project will reduce life safety concerns related to Texas Medical Center that include patients life and health in the 14 Texas Medical Center hospitals during major flood events due to staff and physicians not being able to travel through high water (many live in nearby cities and subdivisions in the Brays Bayou watershed), and the inability to transport patients to the hospitals during major flood event due to high water. The project will also reduce the risk of flooding along major traffic commuter routes such as State Highway 288, a major commuter route which is depressed below ground level for much of its length crossing the Brays Bayou watershed. It has filled 3 times with stormwater since it was built. In addition to State Highway 288, the project will reduce the risk of high water causing life safety problems on feeder roads and adjacent roadways along Interstate 45, a hurricane evacuation route through Houston and Harris County. Other areas along Brays Bayou that benefit from the project include the City of Houston; Cities of Bellaire, West University Place, and Southside Place; Rice University; University of Houston; Herman Park and Zoo; Astrodome and Reliant Stadium; and West Loop, Sharpstown, and Westchase commercial areas.

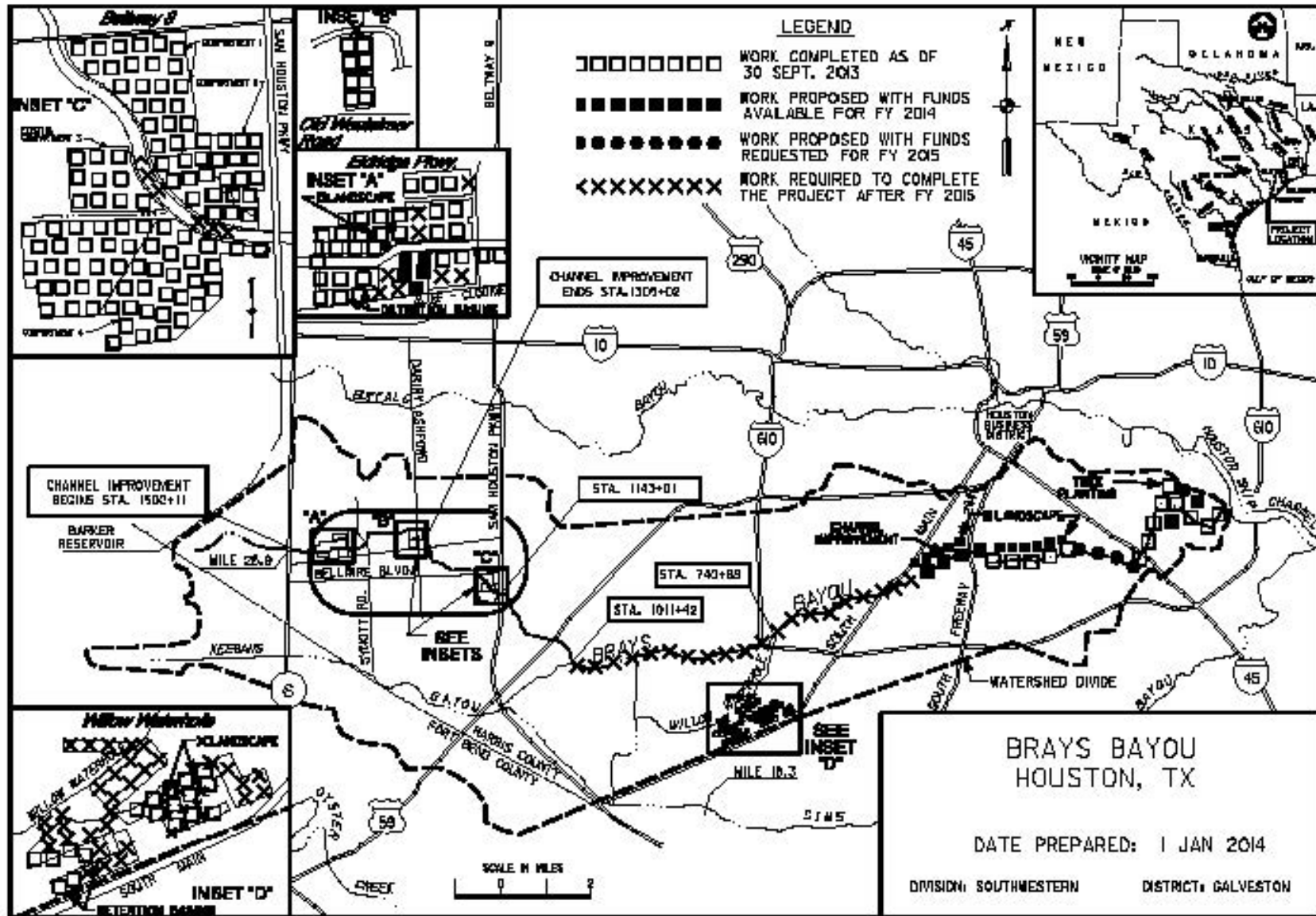
The project was included in the Water Resources Development Act of 1996 (Section 211(f)(6)) as a demonstration project to show advantages and effectiveness of non-Federal interests to undertake planning, design, and construction of Federal Flood Control projects. The Harris County Flood Control District will receive reimbursement upon completion and approval of discrete segments of the authorized project contingent subject to the availability of funds. Each discrete segment's work will be audited prior to reimbursement. Funds being appropriated will be used to reimburse the sponsor and to pay Corps oversight costs.

Harris County experienced a major flooding event on October 15 and 16, 2006. The Harris County Flood Control District reported that completed discrete segments of the Brays Bayou project located upstream of the Sam Houston Tollway stored more than 3,500 acre-feet of water (equivalent to 1.1 billion gallons of water or 2.2 Astrodomes), which reduced residential and commercial flooding within the upper reaches of the watershed. At the time this flood event occurred only 60 percent of the 3 upstream detention basins had been completed. Upon completion of the entire project the detention basins will be constructed to hold 9,975 acre-feet of storm water. As submitted in the annual Flood Damage Report to Congress 2011, flood damages prevented amount to \$290,323,000.

Division: Southwestern

District: Galveston

Project: Brays Bayou, Houston, TX



Division: Southwestern

District: Galveston

Project: Brays Bayou, Houston, TX

APPROPRIATION TITLE: Construction, General - Local Protection (Flood and Coastal Storm Damage Reduction)

PROJECT: Buffalo Bayou and Tributaries, Addicks and Barker Reservoirs, Houston, TX (Dam Safety) (Continuing)

LOCATION: The Addicks and Barker Reservoirs are located in southeast Texas in the San Jacinto River basin approximately 17 miles west of downtown Houston. The reservoirs are strategically located above the confluence of Buffalo Bayou and South Mayde Creek. Beyond this confluence, Buffalo Bayou continues east through downtown Houston, where it joins with White Oak Bayou, and eventually becomes the Houston Ship Channel, which flows into San Jacinto Bay. The majority of both Addicks and Barker Reservoirs fall within Harris County; however, a small portion of Barker Reservoir crosses into Fort Bend County.

DESCRIPTION: The project consists of the Addicks and Barker Reservoirs. The Addicks and Barker Reservoir project features include an earthen dam embankment, gated concrete conduits and outlet works, and uncontrolled spillways at the ends of the earthen dam embankment. The recommended plan consists of the construction of a new outlet structure, parabolic spillway, stilling basin and outlet channel and grouting and abandoning the existing outlet structure in place. The new outlet structure would be located within the existing dam embankment approximately 400 feet from the existing outlet structure. The new outlet structure for Addicks includes three 10-ft diameter steel lined conduits with 10X10-ft rectangular steel gates at the intakes. The new outlet structure for Barker includes three 12-ft diameter steel lined conduits with 12X12-ft rectangular steel gates at the intakes. A 1,400-ft long cement bentonite slurry cut-off wall will also be constructed along the upstream embankment of Barker Dam at Noble Road to address seepage issues at this location.

AUTHORIZATION: House Document 456, 75th Congress, 2nd Session in 1938, and modified by the 1939 Flood Control Act and again modified in the 1954 Flood Control Act.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

INITIAL BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

BASIS OF BENEFIT-COST RATIO: Not applicable since the project is a dam safety assurance project.

Division: Southwestern

District: Galveston

Project: Buffalo Bayou and Tributaries,
Addicks and Barker Dam, TX

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 95,167,000		Entire Project	0%	TBD
Estimated Non-Federal Cost	0				
Cash Contribution	0		PHYSICAL DATA		
Other Costs	0				
Total Estimated Project Cost	\$ 95,167,000		Reservoirs:		
Allocations to 30 September 2011	\$ 0		Addicks 11.6 miles earthen embankment, 53.5 feet high, five 8 feet by 6 feet gated concrete conduits		
Allocation for FY 2012	0		Barker 13.6 miles earthen embankment, 42.9 feet high, five 9 feet by 7 feet gated concrete conduits		
Allocation for FY 2013	2,125,000				
Allocation for FY 2014	3,500,000	5/			
Allocations through FY 2014	5,625,000	1/ 2/ 3/ 5/		6%	
Estimated Unobligated Carry-In Funds	784,000	4/			
President's Budget for FY 2015	18,993,000			26%	
Programmed Balance to Complete after FY 2015	70,549,000	6/			
Un-programmed Balance to Complete after FY 2015	\$ 0				

1/ \$ 0 reprogrammed to (from) the project.

2/ \$ 0 rescinded from the project.

3/ \$ 0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2013 into FY 2014 (3011A report) for this project is \$ 784,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$0. This amount will be used to perform work on the project as follows: N/A.

5/ PED costs of \$5,625,000 are included in this amount.

6/ For programmed work only.

Division: Southwestern

District: Galveston

Project: Buffalo Bayou and Tributaries,
Addicks and Barker Dam, TX

JUSTIFICATION: The Addicks and Barker Dams are a Dam Safety Action Classification (DSAC) 1, which is defined by ER 1110-2-1156 as "Very High Urgency" where progression toward failure is confirmed to be taking place under normal operations, and the dam is almost certain to fail under normal operations within a few years without intervention. The Dam Safety Assurance Report, approved in 2013, indicated high risk associated with the seepage and piping beneath, around, and near the outlet works structure conduits at both Addicks and Barker Dams. Because of the location of Addicks and Barker Dams, on the western edge of Houston, TX, the consequences are significant. The population at risk is 1.2 million people with potential economic losses estimated at \$60 billion.

FISCAL YEAR 2014: Funds in the amount of \$3,500,000 will be applied as follows:

Complete Preconstruction, Engineering, and Design for Addicks and Barker Dams	\$ 3,500,000
Total	\$ 3,500,000

FISCAL YEAR 2015: The requested amount of \$18,993,000 will be applied as follows:

Initiate continuing construction contract of new outlet works structures at Addicks and Barker Dams	\$ 15,844,000
Engineering and Design during Construction	1,735,000
Construction Management	1,414,000
Total	\$18,993,000

NON-FEDERAL COST: Project is owned by the Federal government, therefore there are no cost-sharing requirements.

STATUS OF LOCAL COOPERATION: Not applicable

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$95,167,000 has not been previously presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The reservoirs were constructed in the 1940s before the passage of the National Environmental Policy Act (NEPA). An Environmental Assessment (EA) for the new Master Plan for the reservoirs was completed in 2009. The Final EA and FONSI were signed for the DSM study in July 2013.

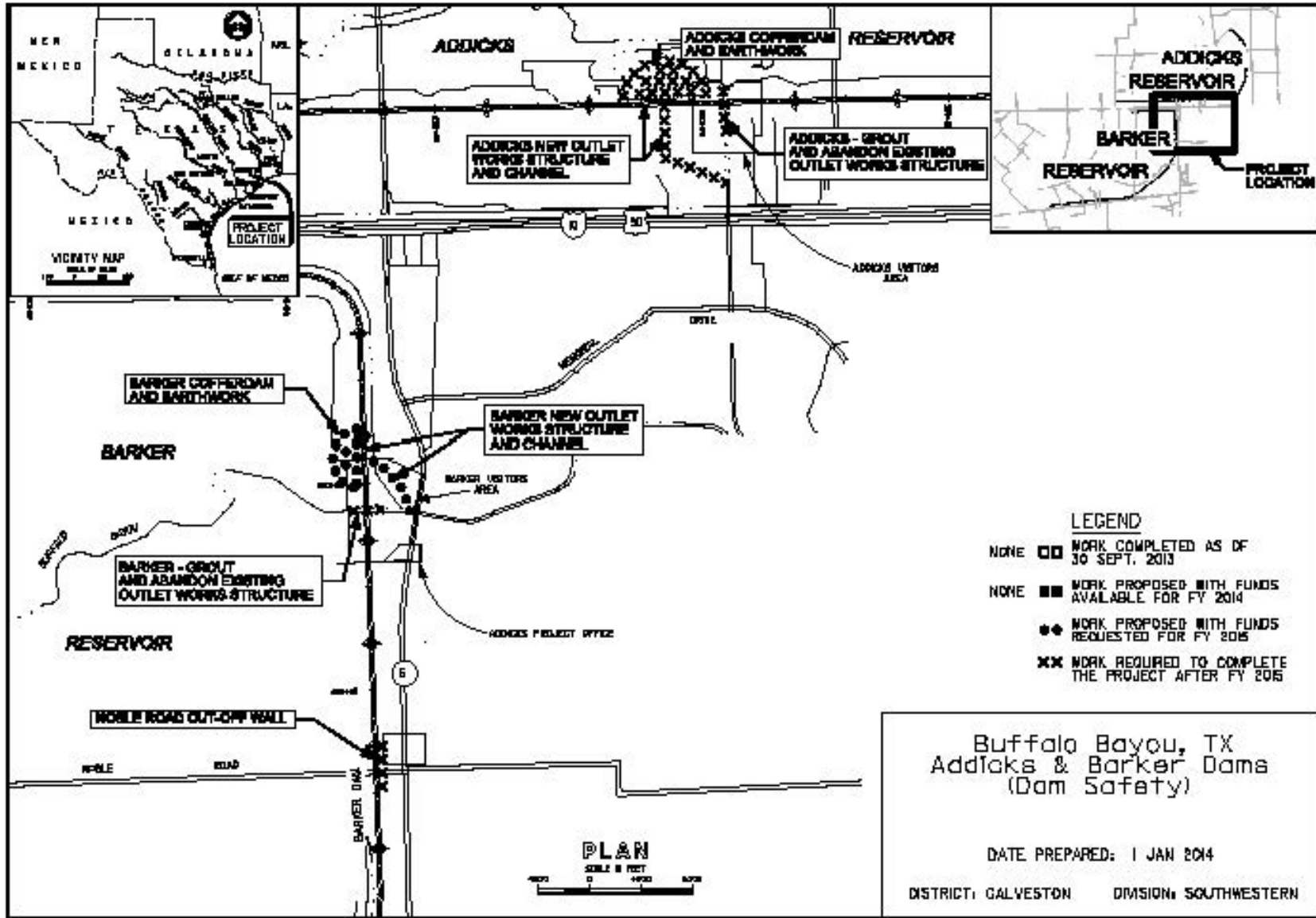
OTHER INFORMATION: Funds to initiate preconstruction planning are being funded out of the HQ's FY 2013 Wedge funds program. The Addicks and Barker Dam Safety Modification Report for Buffalo Bayou and Tributaries, Houston, Texas was approved June 10, 2013.

As submitted in the annual Flood Damage Report to Congress 2011, flood damages prevented amount to \$6,369,104,000.

Division: Southwestern

District: Galveston

Project: Buffalo Bayou and Tributaries,
Addicks and Barker Dam, TX



Division: Southwestern

District: Galveston

Project: Buffalo Bayou and Tributaries,
Addicks and Barker Dam, TX

APPROPRIATION TITLE: Construction, General – Dredged Material Disposal Facility Program

PROJECT: Chocolate Bayou Channel, Dredged Material Disposal Facility (DMDF), TX, (Continuing)

LOCATION: The project is located in Chocolate Bay in Brazoria County about 40 miles southwest of Houston, Texas, along the upper Texas coast. The channel traverses Chocolate Bay, an arm of West (Galveston) Bay, to intersect the Gulf Intracoastal Waterway (GIWW) between GIWW mile markers 374.7 and 376.7.

DESCRIPTION: This project will provide 20 years of capacity for placement of maintenance dredged material for the Chocolate Bayou Navigation Project. This recommended management plan includes the creation and enhancement of approximately 560 acres of marsh and bird-nesting habitat within the Chocolate Bay area. The recommended plan also includes expanding the existing upland Placement Area 4 by an additional 201 acres, and creating Placement Area 1A through construction of 175 acres. Creation of Placement Area 1A is also known as the Beneficial Use site.

AUTHORIZATION: Section 301 of Rivers and Harbors Act of 1965.

REMAINING BENEFIT-REMAINING COST RATIO: Not required for DMDF.

TOTAL BENEFIT-COST RATIO: Not required for DMDF

BASIS OF BENEFIT-COST RATIO: N/A

Division: Southwestern

District: Galveston

Project: Chocolate Bayou Channel,
Dredged Material Disposal Facility, TX

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT Cmpl	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 19,422,000		Entire Project	0%	TBD
Estimated Non-Federal Cost	4,088,000				
Cash Contribution	2,158,000		PHYSICAL DATA		
Lands	1,930,000		Placement Areas:		
Total Estimated Project Cost	\$ 23,510,000		PA 4E- 201 acres PA 1A - 175 acres		
Allocations to 30 September 2011	\$5,510,000				
Allocation for FY 2012	0				
Allocation for FY 2013	0				
Allocation for 2014	300,000	<u>5/</u>			
Allocations through FY 2014	5,810,000	1/ 2/ 3/ 5/	28%		
Estimated Unobligated Carry-In Funds	58,000	<u>4/</u>			
President's Budget for FY 2015	4,672,000		52%		
Programmed Balance to Complete after FY 2015	8,940,000	<u>6/</u>			
Unprogrammed Balance to Complete after FY 2015	\$ 0				

1/ \$ 0 reprogrammed to (from) the project.

2/ \$ 0 rescinded from the project.

3/ \$ 0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2013 into FY 2014 (3011A report) for this project is \$ 58,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$ 0. This amount will be used to perform work on the project as follows: N/A

5/ PED costs of \$5,510,000 are included in this amount.

6/ For programmed work only.

JUSTIFICATION: The management plan recommends placing material dredged from the Chocolate Bayou Channel, over a 20-year period, into expanded, existing upland confined placement areas and existing beneficial use sites within the Chocolate Bay area. Benefits are based on Draft Chocolate Bayou, Dredged Material Management Plan and Environmental Assessments, dated July 2012 at a discounted rate of 7 percent. The average annual benefits are as follows:

Annual Benefits	Amount
Navigation	\$ 7,201,621
Total	\$ 7,201,621

FISCAL YEAR 2014: Funds in the amount of \$300,000 will be applied as follows:

Complete Plans and Specifications	\$ 300,000
Total	\$ 300,000

FISCAL YEAR 2015: Funds in the amount of \$ 4,672,000 will be applied as follows:

Initiate and Complete Construction of Placement Area 4	\$ 4,019,000
Initiate Construction of Placement Area 1A Beneficial Use Area	653,000
Construction Management Engineering and Design	
Total	\$ 4,672,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in Section 201 of the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and relocations necessary for the disposal facilities.	\$ 1,930,000	
During construction, pay 10 percent of the cost of constructing a disposal facility for that portion of the project with depths not greater than 20 feet.	2,158,000	\$ 881,300
Total Non-Federal Costs	\$ 4,088,000	\$ 881,300

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

STATUS OF LOCAL COOPERATION: The non-Federal sponsor for the Chocolate Bayou Channel project is the Brazoria County Conservation and Reclamation District No. 3. The Project Partnership Agreement is scheduled to be executed in March 2015.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of \$19,422,000 has not previously been presented to Congress.

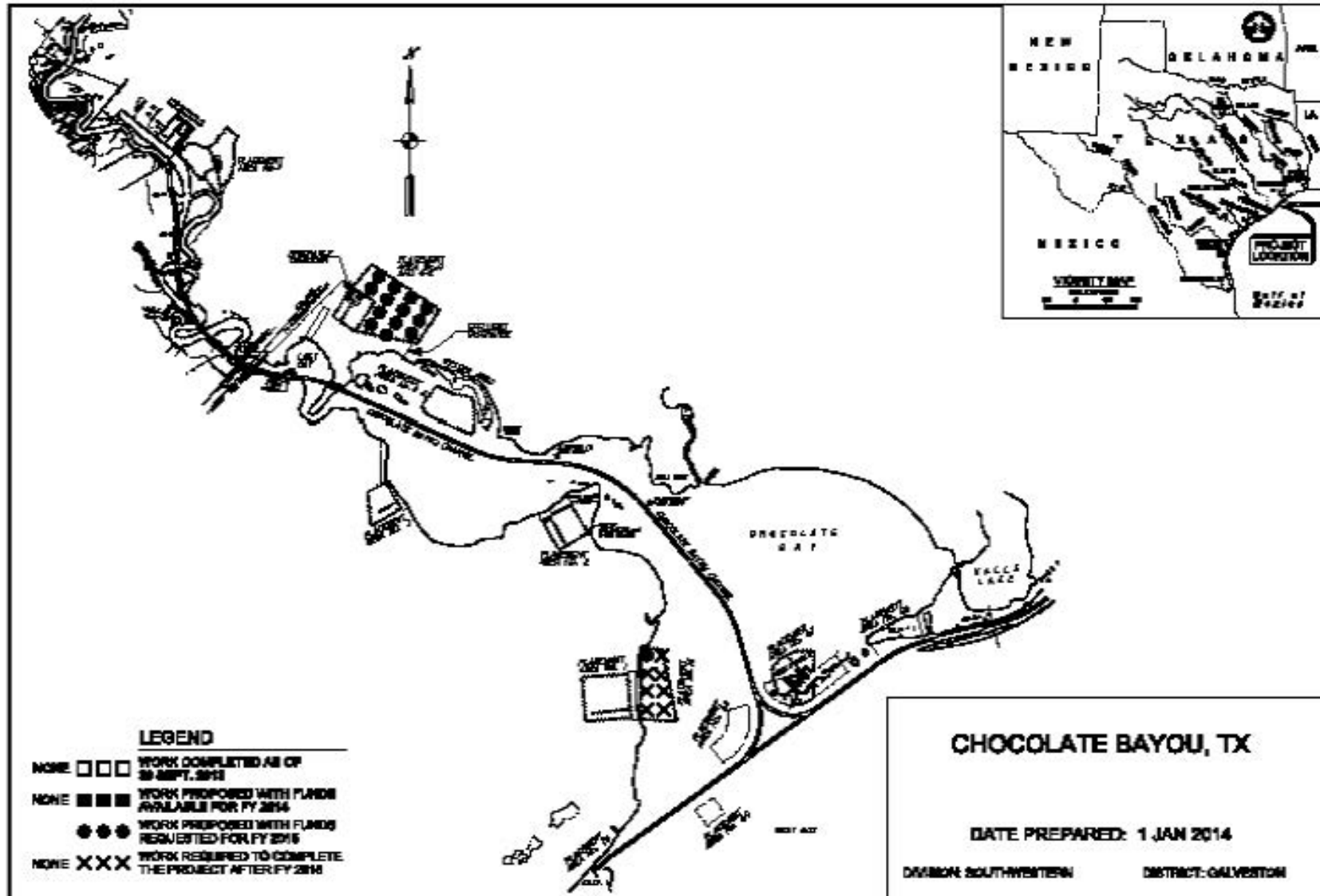
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) was prepared for beneficial use of dredged material with a Finding of No Significant Impact (FONSI) signed March 17, 2003. An EA for expansion of upland Placement Area No. 4 was prepared in 2009, with the FONSI signed August 11, 2009.

OTHER INFORMATION: The non-Federal sponsor for the Chocolate Bayou Channel project is the Brazoria County Conservation and Reclamation District No. 3. The Chocolate Bayou Channel is a federally authorized 8.2 mile long channel which traverses Chocolate Bay connecting industries at the northwest end of the bay within Chocolate Bayou with the Gulf Intracoastal Waterway. The channel, currently maintained at 12-foot deep (MLT) by 125-foot wide, is primarily used for transportation of crude petroleum and petrochemical products. The maintenance dredging frequency for the channel is every four years. Chocolate Bayou is surrounded by high quality, inter-tidal, estuarine wetlands. Operation and Maintenance funds in the amount of \$2,800,000 are to perform maintenance dredging to project depth which complements the construction work to be performed. The updated Dredged Material Management Plan is scheduled to be finalized in fall 2014.

Division: Southwestern

District: Galveston

Project: Chocolate Bayou Channel,
Dredged Material Disposal Facility, TX



Division: Southwestern

District: Galveston

Project: Chocolate Bayou Channel,
Dredged Material Disposal Facility, TX

APPROPRIATION TITLE: Construction – Flood Risk Management

PROJECT: Lower Colorado River Basin (Onion Creek), TX (Continuing)

LOCATION: The Onion Creek separable element of the project is located in southeast Austin, Texas, and in southern Travis County in central Texas.

DESCRIPTION: The Onion Creek separable element consists of implementing non-structural flood risk management measures at Timber Creek in Travis County and Onion Creek Forest/Yarrabee Bend in Austin. The Timber Creek component includes the acquisition and removal of approximately 81 residential structures. The vacated land will be used for recreation and ecosystem restoration, with approximately 40 acres of the vacated land converted to a park and 16 acres restored to riparian woodlands. Recreation features include picnic shelters, group shelters, trails, basketball courts, parking, and the infrastructure associated with these facilities. The Onion Creek Forest/Yarrabee Bend component includes the acquisition and removal of approximately 410 residential structures. The vacated land will be used for recreation and ecosystem restoration, with approximately 100 acres of the vacated land converted to a park and 190 acres restored to riparian woodlands. Recreation features include picnic shelters, group shelters, trails, equestrian trails, basketball courts, tennis courts, volleyball courts, parking, and the infrastructure associated these facilities.

AUTHORIZATION: Water Resources Development Act of 2007, Section 1001 (43) and Section 5144.

REMAINING BENEFIT-REMAINING COST RATIO: 1.3 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.2 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.0 to 1 at 3.75 percent.

BASIS OF BENEFIT-COST RATIO: Lower Colorado River Basin Phase I, Texas, Onion Creek Watershed Economic Update of an Authorized Project report dated April 2013.

SUMMARIZED FINANCIAL DATA	ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
		Onion Creek	0%	TBD
Estimated Federal Cost	55,438,000			
Estimated Non-Federal Cost	32,453,000			
Cash Contributions	4,564,000			
Other Costs	27,889,000			
Total Estimated Project Cost	87,891,000			

Division: Southwestern

District: Fort Worth

Project: Lower Colorado River Basin
(Onion Creek), TX
SWD - 32

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Allocations to 30 September 2011	284,000				
Allocation for FY 2012	1,000				
Allocation for FY 2013	19,000				
Allocation for FY 2014	11,850,000				
Allocations through FY 2014	12,154,000	1/ 2/ 3/ 5/	22%		
Estimated Unobligated Carry-In Funds	0	4/			
President's Budget for FY 2015	3,625,000		28%		
Programmed Balance to Complete After FY 2015	39,659,000				
Un-programmed Balance to Complete After FY 2015	0				

1/ \$20,000 reprogrammed to the project.

2/ \$0 rescinded from the project.

3/ \$0 transferred to the Flood Control and Coastal Emergencies Account.

4/ Unobligated Carry-In Funding: As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$0. N/A

5/ PED costs of \$284,000 are included in this amount.

PHYSICAL DATA: The Onion Creek separable element consists of the Timber Creek and Onion Creek Forest/Yarrabee Bend components. The Timber Creek component: Buyout of approximately 81 residential structures; construction of a 40-acre park; and ecosystem restoration of 16 acres. The Onion Creek Forest/Yarrabee Bend component: Buyout of approximately 410 structures; construction of a 100-acre park; and ecosystem restoration of 190 acres.

JUSTIFICATION: Three major flood events estimated as approximately 40-year events occurred in the Onion Creek watershed in 1998 and 2001 and a 100-year plus event on October 31, 2013, with several hundred homes being inundated and many totally destroyed. These events highlighted the fact that annualized flood damages within the watershed are estimated at over \$5 million, based on August 2006 estimates. The Onion Creek project consists of buying out approximately 491 structures, which will reduce annual damages by over \$2.5 million and reduce risk to life and property. In addition, the Onion Creek area will benefit from ecosystem restoration adding 63 average habitat units by improving 206 acres of riparian woodlands and from recreation features placed on land vacated as a result of the removal of structures from the highly flood-prone areas. Average annual benefits for the Onion Creek separable element are as follows:

Annual Monetary Benefits	Amount
Flood Risk Management	\$ 2,755,000
Recreation	3,645,000
Total	\$ 6,400,000

Ecosystem Restoration: Net increase of approximately 63 average annual habitat units.

Division: Southwestern

District: Fort Worth

Project: Lower Colorado River Basin
(Onion Creek), TX
SWD - 33

FISCAL YEAR 2014: The budget amount for the Onion Creek separable element will be applied as follows:

Negotiate and execute the Project Partnership Agreement	\$ 50,000
Initiate buyout of residential structures located in Onion Creek Forest/Yarrabee Bend	11,300,000
Engineering and Design	300,000
Supervision and Administration	200,000
Total	\$ 11,850,000

FISCAL YEAR 2015: The budget amount for the Onion Creek separable element will be applied as follows:

Continue buyout of residential structures located in Onion Creek Forest/Yarrabee Bend	\$ 3,325,000
Engineering and Design	200,000
Supervision and Administration	100,000
Total	\$ 3,625,000

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

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance Repair, Rehabilitation, and Replacement Costs
Provide lands; easements; rights-of-way; relocation payments and assistance to displaced persons; disposal areas for borrow and excavated or dredged material; and modify or relocate utilities, roads, bridges, and other facilities, where necessary for the construction of the project.	\$ 27,889,000	\$ 269,000
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities. Includes betterments for recreation.	4,564,000	
Pay 35 percent of the costs allocated to fish and wildlife management, and pay 100 percent of the costs of operations, maintenance, repair, rehabilitation, and replacement of fish and wildlife features.	999,000	
Total Non-Federal Costs	\$ 33,457,000	\$ 269,000

The non-Federal sponsor will make all required payments concurrently with project construction.

Division: Southwestern

District: Fort Worth

Project: Lower Colorado River Basin
(Onion Creek), TX
SWD - 34

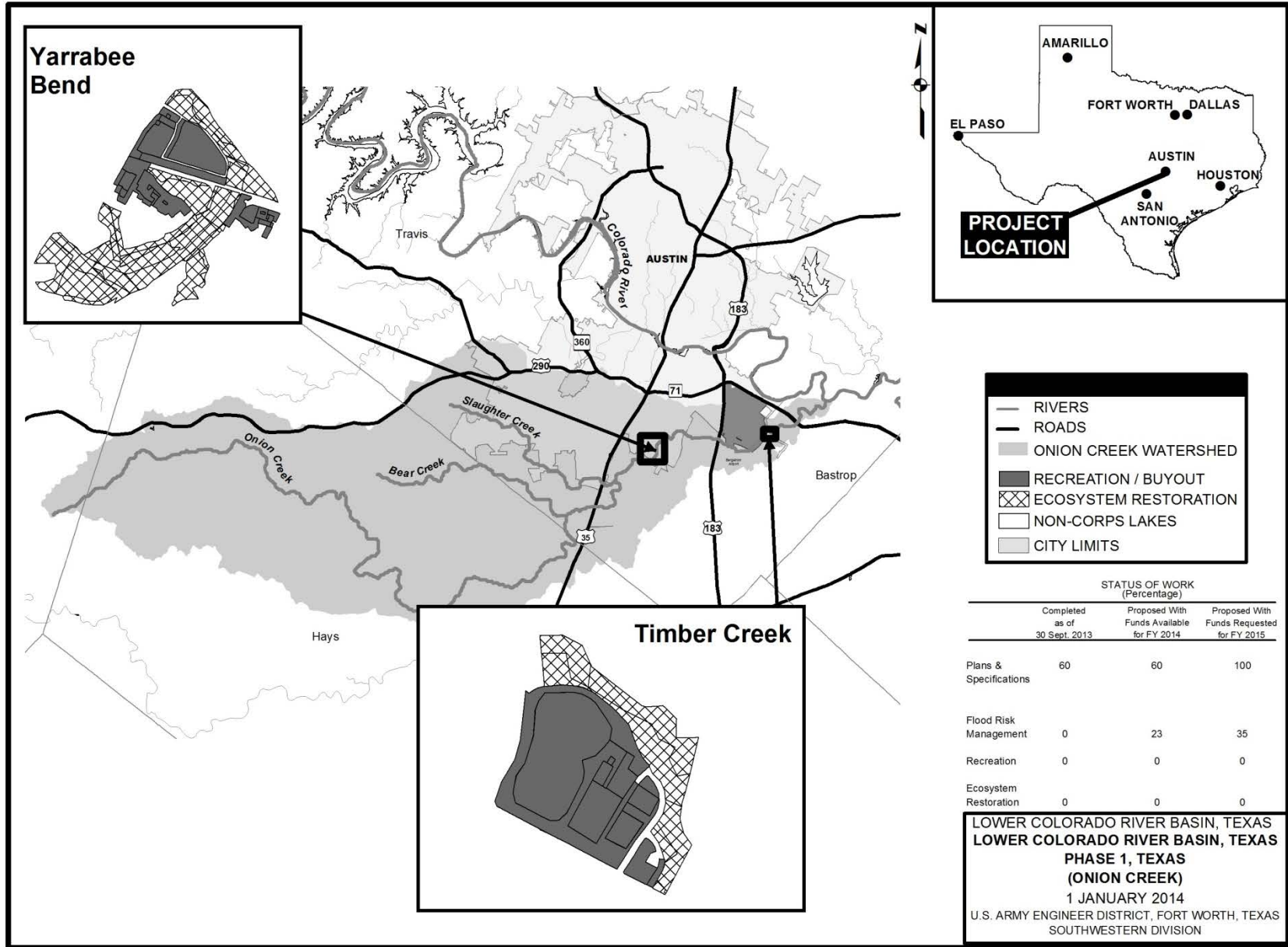
STATUS OF LOCAL COOPERATION: The non-Federal sponsors for the Onion Creek separable element are the city of Austin and Travis County, who have each indicated its intention to act as the local sponsor for the project component within its jurisdictional area and will fund the non-Federal portion of the project. The city of Austin and Travis County will collectively contribute approximately 37 percent of the total project costs, primarily through land, easements, rights-of-way, relocation and disposal areas (LERRD) and cash contributions for construction of the recreation and ecosystem portions of the project. The Project Partnership Agreement (PPA) for the Timber Creek component is scheduled to be executed in FY 2014. The PPA for the Onion Creek Forest/Yarrabee Bend component is scheduled to be executed in FY 2014.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of \$55,438,000 is a decrease of \$24,567,000 from the latest estimate presented to Congress (FY 2014). This change includes the following items.

Item	Amount
Removal of properties paid with FEMA funds and a decrease in property value in some areas, Onion Creek separable element	\$ (3,705,000)
Removal of Wharton, TX separable element	(25,459,000)
Price escalation	4,597,000
Total	\$ (24,567,000)

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: An Environmental Assessment was conducted and a Finding of No Significant Impact (FONSI) was prepared as part of the required documentation for compliance with the National Environmental Policy Act. The FONSI was executed on 10 October 2006.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 2007. For the Onion Creek separable element, Section 5144 of the Water Resources Development Act of 2007 authorized the Secretary to include the costs and benefits associated with the relocation of flood-prone residences in the study area in the period beginning two years before the date of initiation of the feasibility study (the Feasibility Cost Sharing Agreement was executed on 25 May 2000) and ending on the date of execution of the partnership agreement for construction of the project, to the extent the Secretary determines that such relocations are compatible with the authorized project. This section also authorizes the Secretary to afford credit toward the non-Federal share of the project for the cost of relocation of residences that were incurred by the non-Federal interest. A Limited Reevaluation Report (LRR) has been developed to identify the changes to the project, including the removal of the properties acquired by the sponsor with FEMA funds and the addition of the property acquired before the feasibility study began. The LRR is being reviewed and is scheduled to be completed in Fiscal Year 2014. Onion Creek, TX is a separable element of the larger authorized Lower Colorado Basin project; the other separable element is for Wharton, TX, which is not being pursued at this time. The justification and financial information presented is only for the Onion Creek separable element.



	STATUS OF WORK (Percentage)		
	Completed as of 30 Sept. 2013	Proposed With Funds Available for FY 2014	Proposed With Funds Requested for FY 2015
Plans & Specifications	60	60	100
Flood Risk Management	0	23	35
Recreation	0	0	0
Ecosystem Restoration	0	0	0

LOWER COLORADO RIVER BASIN, TEXAS
LOWER COLORADO RIVER BASIN, TEXAS
PHASE 1, TEXAS
(ONION CREEK)
 1 JANUARY 2014
 U.S. ARMY ENGINEER DISTRICT, FORT WORTH, TEXAS
 SOUTHWESTERN DIVISION

APPROPRIATION TITLE: Construction - Channels and Harbors (Navigation)

PROJECT: Texas City Channel, TX (Completion)

LOCATION: The project is located on the mainland of Texas on the west side of Galveston Bay, about 10 miles northwest of the city of Galveston.

DESCRIPTION: The project provides for deepening of 6.75 miles of Texas City channel from Houston Ship Channel to the Texas City Turning Basin. The channel and Turning Basin were deepened to 45 feet, maintaining the present 400 foot channel and turning basin width. Five semi-confined open water dredged material placements areas were constructed and converted into emergent marsh. Construction was completed on the channel and the dredged material placement areas in April 2012. Work continues on the conservation of USS Westfield artifacts. The Navy requires that artifacts not curated be re-buried. All activities associated with the USS Westfield are scheduled to be complete by December 2014. Severe erosion has occurred on the inside of the northwestern and southern portions of the perimeter levee (Shoal Point Placement Areas 3, 4 & 5). Recently, erosion on portions of the interior levee of PA 3, 4, and 5 have developed and also require repair. The erosion problems are severe enough to threaten the integrity of the levee in multiple areas. The FY 2015 completion funds will be used to armor the areas that have the erosion problems, repair and physically and fiscally close out the project.

AUTHORIZATION: Water Resource Development Act of 1986

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

TOTAL BENEFIT-COST RATIO: 5.94 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 8.5 to 1 at 4-7/8 percent (2008).

BASIS OF BENEFIT-COST RATIO: Benefits and costs are from the economic analysis included in the approved General Reevaluation Report and Environmental Assessment, dated October 2007.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2014)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 61,460,000		Entire Project	75%	December 2016
Estimated Non-Federal Cost	20,390,000		PHYSICAL DATA		
Cash Contribution	\$ 20,390,000		Channels:		
Other Costs:			Main Ship Channel – 6.75 miles		
Lands	0		Turning Basin – 1,000 feet to 1,200 feet wide and 4,253		
Relocations	0		feet long		
Berthing Areas	0				
Total Estimated Project Cost	\$ 81,850,000				
Allocations to 30 September 2011	\$ 53,910,000		Dredged Material Placement Areas converted to emergent marsh:		
Allocation for FY 2012	(59,000)		Aquatic Plant and Marine Habitat – 5 sites		
Allocation for FY 2013	50,000				
Allocation for FY 2014	0				
Allocations through FY 2014	53,901,000	1/ 2/ 3/ 5/	75		
Estimated Unobligated Carry-In Funds	176,000	4/			
President's Budget for FY 2015	4,825,000		100%		
Programmed Balance to Complete after FY 2015	0				
Un-programmed Balance to Complete after FY 2015	\$ 0				

1/ \$ 714,000 in ARRA funds reprogrammed from the project. \$50,000 reprogrammed to the project.

2/ \$ 396,000 rescinded from the project.

3/ \$ 0 transferred to the Flood Control and Coastal Emergencies account.

4/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2013 into FY 2014 (3011A report) for this project is \$176,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2015 from prior appropriations for use on this effort is \$0. This amount will be used to perform work on the project as follows: N/A.

5/ PED costs of \$5,597,980 (sunk cost of \$1,806,500 included) are included in this amount for a net of \$3,791,480.

Division: Southwestern

District: Galveston

Project: Texas City Channel, TX

JUSTIFICATION: The project benefits are based on reductions in transportation costs stemming from more efficient vessel loading and a higher utilization of larger vessels. Benefits are based on the General Reevaluation Report and Environmental Assessment, dated October 2007 at October 2005 price levels. The average annual benefits are as follows:

Annual Benefits	Amount
Navigation	\$ 28,058,000
Total	\$ 28,058,000

FISCAL YEAR 2014: Not in the President's Budget.

FISCAL YEAR 2015: The requested amount of \$4825,000 will be applied as follows:

Initiate and complete contract for repairs to PA 3, 4 & 5 levees	\$ 4,425,000
Planning, Engineering, and Design	200,000
Construction Management	200,000
Total	\$ 4,825,000

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:

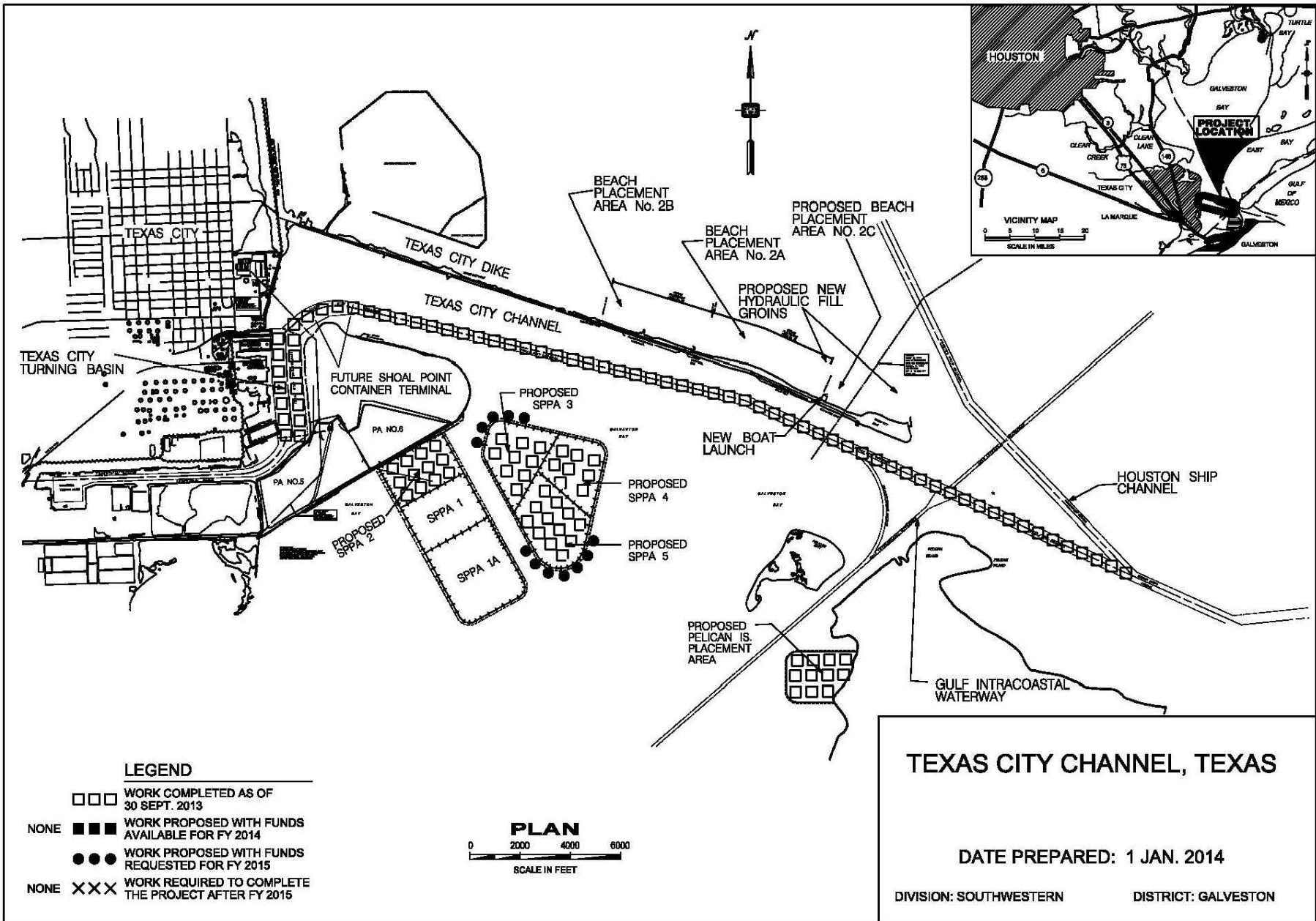
Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	\$ 0	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay a percentage of the costs allocated to navigation improvements, and to mitigate the project's adverse environmental impacts.	20,390,000 <u>1/</u>	\$139,000
Total Non-Federal Costs	\$ 20,390,000	\$139,000

STATUS OF LOCAL COOPERATION: The Non-Federal sponsor for the project is the City of Texas City. The Project Partnership Agreement (PPA) with the city of Texas City was executed July 28, 2008.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of \$61,460,000 has not previously been presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Environmental Assessment statement of findings and Finding of No Significant Impact was signed October 4, 2007.

OTHER INFORMATION: The Non-Federal sponsor for the existing project, the City of Texas City, has actively participated throughout the planning process. Their primary concern has been to initiate and complete construction as soon as possible. Funds to initiate preconstruction engineering and design were appropriated in FY 2002 and funds to initiate construction were appropriated in FY 2008.



Division: Southwestern

District: Galveston

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