

Appendix 7A-1: Description of Projects and Separable Elements

The CERP projects and separable elements for which the South Florida Water Management District (SFWMD or District) will be the local sponsor are listed and described in **Tables 1 and 2**. The projects for which the SFWMD will not be local sponsor are listed in **Table 3**. The names are consistent with those published in CERP Guidance Memorandum 2.00 on April 11, 2002 (SFWMD and USACE, 2002). The letters in parentheses following many of the project names are the comprehensive plan component designation used in the Central and Southern Florida Project Comprehensive Review Study, Final Integrated Feasibility Report and Programmatic Environmental Impact Statement (USACE and SFWMD, 1999).

Several operational components will be implemented as integral features of these projects and separable elements. These operational components and the projects/separable elements they support are listed in **Table 4**.

Table 1. SFWMD-sponsored CERP projects and separable elements

Project	Description	Hydrologic Benefit Project Provides	
Pilot Projects			
32	Lake Okeechobee ASR Pilot	Demonstrate ASR technology	
33	Caloosahatchee (C-43) River ASR Pilot	Demonstrate ASR technology	
34	Hillsboro ASR Pilot	Demonstrate ASR technology	
44	ASR Regional Study	Address regional technical ASR issues associated beyond the scope of the ASR pilot projects	
35	Lake Belt In-Ground Reservoir Technology Pilot	Demonstrate seepage management technology in rock mined areas	
36	L-31N Seepage Management Pilot	Demonstrate seepage management technology	
37	Wastewater Reuse Technology Pilot	Demonstrate wastewater reuse technology	
Kissimmee River and Lake Okeechobee Region			
1	Lake Okeechobee Watershed		
	North of Lake Okeechobee Storage Reservoir (A)	17,500-acre reservoir at 11.5 feet (200,000 acre-feet) and 2,500-acre stormwater treatment area (STA) at 4 feet (10,000 acre-feet) for water storage to shorten the duration and frequency of damaging high water levels	Quantity, Quality, Timing
	Taylor Creek/Nubbin Slough Storage and Treatment Areas (W)	5,000-acre reservoir at 10 feet (50,000 acre-feet) and 5,000-acre STA at 4 feet (20,000 acre-feet) to provide estuary protection, water supply, water quality treatment, and flood protection benefits	Quantity, Quality, Timing
	Lake Okeechobee Watershed Water Quality Treatment Facilities (LOWQTF)	3,500-acre headwater restoration/regional reservoir assisted STA	Quantity, Quality, Timing, Spatial Extent
	Lake Okeechobee Tributary Sediment Dredging (LOTSD)	Sediment dredging of 10 miles of primary canals	Quality

	Project	Description	Hydrologic Benefit Project Provides
2	Lake Istokpoga Regulation Schedule (OPE)	Plan to balance fish and wildlife benefits with implementation of the CERP	Quantity, Quality, Timing
3	Lake Okeechobee Aquifer Storage and Recovery (GG)	200 ASR wells at 5 million gallons per day (mgd) (1,000 mgd total), phased over time and location to alternate high and low lake levels	Quantity, Timing
Caloosahatchee River Region			
4	C-43 Basin Storage Reservoir – Part 1 (D-Part 1)	20,000-acre reservoir at 8 feet (160,000 acre-feet) for environmental and water supply benefits to Caloosahatchee Basin	Quantity, Quality, Timing
5	C-43 Basin Aquifer Storage and Recovery – Part 2 (D-Part 2)	44 ASR wells at 5 mgd (220 mgd total) for environmental and water supply benefits to Caloosahatchee Basin	Quantity, Quality, Timing
6	Caloosahatchee Backpumping with Stormwater Treatment (DDD)	5,000-acre STA at 4 feet (20,000 acre-feet) to supplement water from Caloosahatchee River into Lake Okeechobee	Quantity, Quality, Timing
Upper East Coast Region			
7	Indian River Lagoon - South		
	C-44 Basin Storage Reservoir IRL (B)	10,000-acre reservoir at 4 feet (40,000 acre-feet) for environmental and water supply benefits to St. Lucie basin and estuary and Indian River lagoon	Quantity, Quality, Timing
	C-23, C-24 Storage Reservoirs IRL (UU-Part 1)	14,400 acres of reservoirs (115,200 acre-feet) to provide environmental and water supply benefits to St. Lucie estuary and Indian River lagoon	Quantity, Quality, Timing
	C-25, North and South Fork Storage Reservoirs IRL (UU-Part 2)	33,950 acres of reservoirs (234,400 acre-feet) to provide environmental and water supply benefits to Indian River lagoon	Quantity, Quality, Timing
Everglades Agricultural Area			
8	Everglades Agricultural Area Storage Reservoirs - Phase 1 (G-Part 1)	Approximately 50,000-acre reservoir at 6 feet (300,000 acre-feet) to store Everglades Agricultural Area (EAA) runoff and Lake Okeechobee releases for environmental and water supply benefits	Quantity, Quality, Timing
9	Everglades Agricultural Area Storage Reservoirs - Phase 2 (G-Part 2)	10,000-acre reservoir at 6 feet (60,000 acre-feet) to store Lake Okeechobee releases for environmental and water supply benefits	Quantity, Quality, Timing
Big Cypress Region			
10	Big Cypress/L-28 Interceptor Modifications (CCC)	Levee degrade, canal fill, and 1,900 acres of STAs to alleviate overdrainage in Big Cypress National Preserve and improve sheetflow	Quantity, Quality, Timing, Distribution
Water Conservation Areas and Everglades Region			
11	Flow to NW and Central WCA 3A	This project includes two separable elements	Distribution
	G-404 Pump Station Modifications (II)	Increase capacity of G-404	Distribution
	Flows to Northwest and Central WCA 3A (RR)	Add spreader canal system to improve hydropatterns in northwest WCA 3A and increase the amount of water available in west central WCA 3A to reduce periods of dessication	Distribution
12	WCA 3 Decomp and Sheetflow Enhancement - Part 1		
	WCA 3 Decompartmentalization - Phase1 (QQ-Part 1)	Raise and bridge eastern portion of Tamiami Trail; remove eastern portion of L-29 and modify L-67 A and C to achieve unconstrained or passive flow between WCA 3B and northeastern Shark River Slough	Distribution

Project		Description	Hydrologic Benefit Project Provides
	North New River Improvements - Phase 2 (EAA to S-34) (SS-Part 2)	Fill in Miami Canal and improve North New River Canal from EAA to S-34	Distribution
13	WCA 3 Decomp and Sheetflow Enhancement - Part 2		
	Additional S-345 Structures (AA)	Locate the S-345 structures just downstream of the new termination of the L-67A Canal	Distribution
	WCA 3 Decompartmentalization - Phase 2 (QQ-Part 2)	Remove remainder of L-29, raise western portion of Tamiami Trail below WCA 3A, remove southern portion of L-28 and L-28 tieback, and replace L-67 A and C with passive weirs to achieve unconstrained flow between WCA 3, Everglades National Park, and Big Cypress National Preserve	Distribution
14	Loxahatchee National Wildlife Refuge Internal Canal Structures (KK)	Water control structures to improve timing and location of water depths in the refuge	Distribution
15	Modify Holey Land Wildlife Management Area Operation Plan (DD)	Change rules to improve timing and location of water depths in Holey Land Wildlife Management Area	Timing
16	Modify Rotenberger Wildlife Management Area Operation Plan (EE)	Change in rules to improve timing and location of water depths in Rotenberger Wildlife Management Area	Timing
Lower East Coast Region			
17	North Palm Beach County - Part 1		
	Pal Mar and J.W. Corbett Wildlife Management Area Hydropattern Restoration (Pal Mar)	3,000-acre land acquisition for area connection between Pal Mar and J.W. Corbett Wildlife Management Area and hydropattern restoration for southeastern J.W. Corbett Wildlife Management Area	Distribution, Spatial Extent
	L-8 Basin (K-Part 1)	L-8 basin canal improvements and STA (to be determined) for environmental restoration and water supply to meet goals in Lake Worth lagoon and West Palm Beach water catchment area	Quality and Timing
	C-51 and Southern L-8 Reservoir (GGG)	Construct a 1,200-acre reservoir at 40-foot depth (48,000 acre-feet) for environmental restoration and water supply to meet goals in Lake Worth lagoon and West Palm Beach water catchment area	Quantity, Timing
	Lake Worth Lagoon Restoration (LWL)	Sediment removal on the C-51 canal for environmental benefits to Lake Worth lagoon	Quality
	C-17 Backpumping and Treatment (X)	550-acre STA at 4 feet (2,200 acre-feet) to supplement water to the West Palm Beach water catchment area and Loxahatchee Slough for environmental and water supply benefits	Quantity, Quality, Timing
	C-51 Backpumping and Treatment (Y)	600-acre STA at 4 feet (2,400 acre-feet) to supplement water to West Palm Beach water catchment area and Loxahatchee Slough for environmental and water supply benefits	Quantity, Quality, Timing
18	North Palm Beach County - Part 2		
	C-51 Regional Ground Water ASR (LL)	34 ASR wells at 5 mgd (170 mgd total) for environmental and water supply benefits to the C-51 basin and Lake Worth lagoon	Quantity, Timing
	L-8 Basin ASR (K-Part 2)	10 ASR wells for environmental restoration and water supply to meet goals in Lake Worth lagoon and the West Palm Beach water catchment area	Quantity, Quality, Timing
38	ACME Basin B Discharge (OPE)	620-acre reservoir at 8 feet (4,960 acre-feet) and 310-acre STA at 4 feet (1,240 acre-feet)	Quantity, Quality,

Project		Description	Hydrologic Benefit Project Provides
		for treatment of water sent to the Loxahatchee National Wildlife Refuge	Timing
39	Strazzula Wetlands (OPE)	3,335 acres of wetland acquisition and enhancement along the Loxahatchee National Wildlife Refuge	Spatial Extent
40	Site 1 Impoundment (M-Part 1)	2,460-acre reservoir at 6 feet (14,760 acre-feet) to supplement water deliveries to the Hillsboro Canal during the dry season	Quantity, Quality, Timing, Distribution
41	Broward County WPA		
	WCA 3A and 3B Levee Seepage Management (O)	3,350-acre buffer, levee improvements, and diversion canal for water supply deliveries to Miami-Dade County to reduce seepage and improve hydropatterns within WCA-3	Timing, Distribution
	C-11 Impoundment (Q)	1,600-acre impoundment at 4 feet (6,400 acre-feet) to treat water from western C-11 basin	Quantity, Quality, Timing
	North New River Improvements Phase 1 (S-34 to C-6) (SS-Part 1)	Double the capacity of the North New River Canal to convey additional water supply deliveries to Miami-Dade County and improve conveyance in the borrow canal on the west side of U.S. 27 to pass additional flows	Quantity, Distribution
	C-9 Impoundment (R)	2,500-acre impoundment at 4 feet (10,000 acre-feet) for treatment of water in the C-11 and C-9 basins and the North Lake Belt storage area	Quantity, Quality, Timing
42	Dade-Broward Levee and Canal		
	Dade-Broward Levee and Canal (BB)	Levee and canal improvements to reduce seepage from the Pennsuco Wetlands for environmental benefits	Quantity, Distribution
	C-4 Eastern Structures (T)	Water control structure to control seepage and enhance recharge	Quantity, Distribution
43	Bird Drive Recharge Area (U)	2,900-acre shallow impoundment at 4 feet (11,600 acre-feet) to recharge ground water and reduce seepage from Everglades National Park	Quantity, Quality, Timing
20	PBC Agriculture Reserve Reservoir – Part 1 (VV-Part 1)	1,660-acre reservoir at 12 feet (19,920 acre-feet) to supplement water deliveries to central and southern Palm Beach County and provide environmental benefits to Lake Worth lagoon	Quantity, Quality, Timing
21	PBC Agriculture Reserve Aquifer Storage and Recovery – Part 2 (VV-Part 2)	15 ASR wells at 5 mgd (75 mgd total) to supplement water deliveries to central and southern Palm Beach County and provide environmental benefits to Lake Worth lagoon	Quantity, Quality, Timing
22	Hillsboro Aquifer Storage and Recovery - Part 2 (M-Part 2)	30 ASR wells at 5 mgd (150 mgd total) to supplement water deliveries to the Hillsboro Canal during the dry season and reduce discharges to tide	Quantity, Quality, Timing
23	Diverting WCA Flows to CLB to Downstream Natural Areas		
	Divert WCA 2B Flows to Central Lake Belt Storage Area (YY)	Water control structure to remove excess flows from WCA 2B and divert flows to the central lake belt storage area	Distribution
	Divert WCA 3A and 3B flows to Central Lake Belt Storage Area (ZZ)	Water control structure to remove excess flows from WCAs 3A and 3B and divert flows to central lake belt storage area	Distribution
	Divert Flows from Central Lake Belt Area to WCA 3B (EEE)	Water control structure to divert flows from central lake belt storage area to WCA 3B	Distribution

	Project	Description	Hydrologic Benefit Project Provides
24	Broward Co. Secondary Canal System (CC)	Canal improvements to enhance water supply and ground water recharge	Distribution
25	North Lake Belt Storage (XX)	4,500-acre in-ground reservoir at 20-foot depth (90,000 acre-feet) to reduce discharges to tide and reduce Lake Okeechobee deliveries	Quantity, Quality, Timing
26	Central Lake Belt Storage Area (S)	5,200-acre in-ground reservoir at a depth of 36 feet (187,200 acre-feet) to improve volume and timing of flows to Everglades National Park	Quantity, Quality, Timing
27	Everglades National Park Seepage Management		
	L-31 N Seepage Management (V)	Relocate and enhance the L-31N canal, ground water wells, and the sheetflow delivery system adjacent to Everglades National Park	Quantity, Distribution
	S-356 Structure (FF)	Add S-356A and S-365B structures (900 cfs each) at locations along the modified L-31N borrow canal	Quantity, Distribution
28	Biscayne Bay Coastal Wetlands (FFF and OPE)	Sheetflow distribution to provide environmental benefits to Biscayne Bay	Distribution
29	C-111 Spreader Canal (WW)	Canal under U.S. 1 and Card Sound Road to improve hydroperiod in Model Lands	Distribution
Southwestern Florida Region			
30	Southern Golden Gate Estates Hydrologic Restoration (OPE)	Spreader channel, canal plugs, pump station, and road removal to provide environmental benefits	Quantity, Quality, Distribution
Florida Bay and Florida Keys Region			
31	Florida Keys Tidal Restoration (OPE)	Culvert installation under U.S. 1 to improve circulation in Florida Bay	Distribution

Table 2. Other CERP-related projects for which the SFWMD is the local sponsor

Project	Description	Hydrologic Benefit Project Provides
Critical Restoration Projects		
Ten Mile Creek	Construct an aboveground reservoir with a pump station and a gated water level control structure just south of Ten Mile Creek located southwest of Ft. Pierce, in St. Lucie County	Quantity
Western Tamiami Trail Culverts	Construct 77 culverts under Tamiami Trail (U.S. 41) at 30 locations	Distribution, Timing
C-4 Water Control Structure	Construct gated water control structure in the C-4 basin 20 miles due west of Miami	Quantity, Distribution, Timing
Lake Trafford Restoration	Dredge 8.5 million cubic yards of organic sediment from Lake Trafford, located west of Immokalee, Florida, in north Collier County, and dispose of it on agricultural lands	Quality
Lake Okeechobee Water Retention/Phosphorus Removal	Construct two large stormwater treatment areas, acquire conservation easements on lands and remove landowner improvements on parcels of landed located in the lower Kissimmee River basins (S-65D, S-65E and S-154) and the Taylor Creek-Nubbin Slough basin (S-191)	Quality
Western C-11 Water Quality Improvement	Construct a gated spillway structure in the C-11 canal to separate clean seepage flows from stormwater flows and construct a pump station to pump clean flows into WCA 3A	Quality
Reconnaissance, Feasibility, and Planning Studies		
Southwest Florida Feasibility Study	Identify water resource related problems and opportunities and provide a framework to address the health of aquatic ecosystems, water flows, water quality, water supply, flood protection, wildlife diversity and natural habitat in southwest Florida	Quality, Quantity, Distribution, Timing
Florida Bay and Florida Keys Feasibility Study	Determine the modifications that are needed to successfully restore and protect the water quality and ecological conditions of Florida Bay and the Florida Keys' reef tract	Quality
Indian River Lagoon South Feasibility Study	Improve surface water management in the C-23, C-24, C-25 and C-44 basins for habitat improvement in the St. Lucie estuary and the Indian River lagoon	
Water Preserve Areas Feasibility Study	Provide regional storage to assist in meeting the future water supply needs for agricultural, urban, and environmental uses	Quantity

Table 3. CERP projects for which the SFWMD is not the local sponsor

Project	Local Sponsor	Description	Hydrologic Benefit Project Provides
Comprehensive Integrated Water Quality Feasibility Study	Florida Department of Environmental Protection (FDEP)	Develop a recommended comprehensive plan to anticipate, achieve and sustain improved water quality for ecosystem restoration in South Florida	Quality
Biscayne Bay Feasibility Study	Miami-Dade Department of Environmental Resources Management (DERM)	Development and operation of a hydrodynamic simulation model, in addition to other ecosystem models of Biscayne Bay	Quality
Seminole Tribe Big Cypress Reservation Water Conservation Plan (OPE)	Seminole Tribe	Construction and implementation of a comprehensive watershed management system to restore the environment, reduce flood damage, and promote water conservation on the Seminole Tribe Big Cypress Reservation in Hendry County.	Quantity, Quality, Timing
Henderson Creek/Belle Meade Restoration (OPE)	FDEP	Acquisition and restoration of the undeveloped lands surrounding Henderson Creek in southwest Florida	Quantity and Timing
Lakes Park Restoration (OPE)	Lee County	Creation of a meandering flowway with shallow littoral zones and removal of aquatic and upland exotic species in the undeveloped portions of Lakes Park, located east of Cape Coral in Lee County.	Quality
Melaleuca Eradication and Other Exotic Plants (OPE)	United States Department of Agriculture	Upgrading and retrofitting the current quarantine facility in Gainesville and large-scale rearing of approved biological control technologies to manage Melaleuca and other invasive exotic species	
Winsburg Farms Wetlands Restoration (OPE)	Palm Beach County	Construction of an additional 175 acres of wetlands on the Winsburg Farms property located in Palm Beach County.	Quality, Quantity
Miccosukee Water Management Plan (OPE)	Miccosukee Tribe	Construction of a 900-acre managed wetland on the Miccosukee Tribe's Alligator Alley Reservation located in western Broward County	Quantity, Quality
Restoration of Pineland and Hardwood Hammocks in C-111 Basin (OPE)	Miami-Dade County	Restoring South Florida slash pine and tropical hardwood hammock species on a 200-foot wide strip on each side of the two miles of State Road 9336 from the C-111 canal to the L-31W canal (approximately 50 acres within the area known as the Frog Pond in south Miami-Dade County, just east of Everglades National Park	
West Miami-Dade Reuse (HHH)	Miami-Dade County	Expansion of the future west Miami-Dade wastewater treatment plant that will be located in the Bird Drive basin in Miami-Dade County to provide superior, advanced treatment of wastewater	Quantity
South Miami-Dade Reuse (BBB)	Miami-Dade County	Construction of an add-on pretreatment and membrane treatment system to the existing South District Wastewater Treatment Plant located north of the C-1 canal in Miami-Dade County	Quantity

Table 4. Operational components integral to the SFWMD-sponsored CERP projects

Project	Explanation	Projects
Lake Okeechobee Regulation Schedule (F)	Operational change only; implement with appropriate projects	Lake Okeechobee Watershed Lake Okeechobee ASR C-43 Basin Storage Reservoir and ASR Caloosahatchee Backpumping with STA Indian River Lagoon EAA Storage Reservoirs North Palm Beach County Water Preserve Areas Palm Beach County Agriculture Reserve Reservoir Hillsboro ASR – Part 2 Diverting WCA Flows to Central Lake Belt Storage Area to Downstream Natural Areas Broward County Secondary Canal System North Lake Belt Storage Area Central Lake Belt Storage Area
Environmental Water Supply Deliveries to the Caloosahatchee Estuary (E)	Operational change only; implement with appropriate projects	Lake Okeechobee Watershed Lake Okeechobee ASR C-43 Basin Storage Reservoir and ASR Caloosahatchee Backpumping with STA EAA Storage Reservoirs
Environmental Water Supply Deliveries to the St. Lucie Estuary (C)	Operational change only; implement with appropriate projects	Lake Okeechobee Watershed Lake Okeechobee ASR Indian River Lagoon EAA Storage Reservoirs
Everglades Rain-Driven Operations (H)	Operational change only; implement with appropriate projects	Lake Okeechobee Watershed Lake Okeechobee ASR Caloosahatchee Backpumping with STA EAA Storage Reservoir Big Cypress/L-28 Interceptor Modifications Flow to Northwest and Central WCA 3A WCA 3 Decompartmentalization and Sheet Flow Enhancement Loxahatchee National Wildlife Refuge Internal Canal Structures Water Preserve Areas Divert WCA Flows to Central Lake Belt Storage Area to Downstream Natural Areas North Lake Belt Storage Area Central Lake Belt Storage Area Everglades National Park Seepage Management
Change Coastal Wellfield Operations (L)	Implement under existing state process	RECOVER will monitor progress
Lower East Coast Utility Water Conservation (AAA)	Implement under existing state process	RECOVER will monitor progress
Operational Modifications to Southern Portion of L-31N and C-111 (OO)	Operational change only; implement with appropriate projects	C-111 (ongoing) C-111 North Spreader Canal Everglades National Park Seepage Management

LITERATURE CITED

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