

MISP Project Sequencing Descriptions
June 21, 2004

Project ID	Project Name	Project Benefits	MISP Phase 1 - Recommended Changes	Sequencing Description	Successor Description	Construction Completion Band
01	Lake Okeechobee Watershed a. North of Lake Okeechobee Storage Reservoir (A) b. Taylor Creek/Nubbin Slough Storage & Treatment Area (W) c. Lake Okeechobee Watershed Water Quality Treatment Facilities (OPE) d. Lake Okeechobee Tributary Sediment Dredging (OPE) e. Lake Istokpoga Regulation Schedule (OPE)	Reduce P loads to LO, attenuate peak flows from the watershed, provide more natural water level fluctuations in the lake, reduce flows to estuaries, restore wetland habitat	Added Lake Istokpoga Regulation Schedule to PIR	Project contains an initially authorized component and PIR development is currently ongoing.	None	2 2 2 2 2
03	Lake Okeechobee ASR (GG) - Phase 1 Lake Okeechobee ASR (GG) - Phase 2 Lake Okeechobee ASR (GG) - Phase 3	Provide regional storage, reduce demand on Lake Okeechobee, reduce flows to estuaries and provide flood protection		Project will need the results of the Lake Okeechobee ASR Pilot Project and the ASR Regional Study before PIR development can begin.	None	4 5 5
04	C-43 Basin Storage Reservoir (D P1)	Provide environmental water deliveries to the Caloosahatchee Estuary, water quality improvement and flood protection.		Project can be implemented independent of other projects. PIR development is ongoing.	Storage benefits of project are needed before implementation of the C-43 ASR Project.	2
05	C-43 Basin ASR (D P2)	Provide water supply, flood attenuation, water quality improvement, reduce salinity and nutrients impacts of runoff to the estuary as well as provide environmental water supply deliveries to the Caloosahatchee Estuary.		Project will need the results of the Caloosahatchee ASR Pilot Project, the ASR Regional Study and the water storage capacity of the C-43 Basin Reservoir before PIR development can begin.	None	3
06	Caloosahatchee Back Pumping with STA (DDD)	Provide 20,000 acre-feet of storage along with stormwater treatment capacity.		Project is sequenced out due to uncertainties related to availability of excess water in basin.	None	4
07	Indian River Lagoon - South a. C-44 Basin Storage Reservoir (B) b. C-23/C24 North Reservoir (UU P1) c. C-23/24 South Reservoir (UU P1) d. C-23/24 STA (UU P1) e. C-25 Reservoirs and Northfork/Southfork Basin (UU P2) f. Natural Storage Area - Allapattah Complex (UU P2) g. Natural Storage Area - Palmar Complex (UU P2) h. Natural Storage Area - Cypress Creek Complex (UU P2) j. Muck Remediation and Artificial Habitat (UU P2) k. North Fork Floodplain Restoration (UU P2)	Provide restored natural areas, nutrient load reduction, improvement to agricultural habitat, water storage and treatment.	Reflects components recommended in PIR.	Project contains an initially authorized component and PIR development is currently ongoing.	None	1 3 3 3 6 5 5 5 5 3
08	Everglades Agricultural Area Storage Reservoirs - Ph 1 (G P1)	Provide regional storage, flood protection, water quality improvements and environmental water deliveries to the WCAs.	Combined into one PIR. Project functions overlap such that there is a with and without project condition as it relates to the evaluation procedures as defined in the ProRegs. One cannot be held constant to formalteand evaluate the other independently.	Project contains an initially authorized component and PIR development is currently ongoing.	None	1
09	Everglades Agricultural Area Storage Reservoirs - Phase 2 (GP2)					2
10	Big Cypress/L-28 Interceptor (CCC)	Provide water storage capacity, reestablish sheetflow in Big Cypress Preserve, rehydrate areas of Big Cypress Preserve, water quality improvements and flood protection.		Project requires input from the Seminole Tribe Big Cypress Water Conservation Plan as well as the Seminole Big Cypress project. The final footprint from the Flows to NW and Central WCA 3A project is needed before the PIR can begin.	None	4

11	Flow to NW & Central WCA 3A a. G-404 Pump Station (II) b. Flows to NW & Central WCA-3A (RR)	Provide additional flows, including reestablishing sheetflow, to portions of WCA 3A.		Project requires completion of STA 3/4. Project sequence was also adjusted to reflect resource constraints.	The project footprint is needed to refine the scope for the Big Cypress/L-28 Interceptor Project.	3 3
12	WCA 3 Decomp & Sheetflow Enhancement - Part 1 a. WCA 3 Decompartmentalization (Phase 1) (QQ P1) (Eastern Tamiami Trail) b. Canal and Levee Modifications (SS P2, AA) c. North New River Improvements (SS) d. WCA-3 Decompartmentalization (Phase 2) (QQ P2) e. WCA-3A & 3B Flows to CLBSA (ZZ)	Provide ecological and hydrological connection and restore sheetflow between WCA 3A, WCA 3B and ENP.	Combined Decomp Pt 1 (QQ P1, SS, AA) and Pt 2 (QQ P2) into one PIR. Project functions overlap such that there is a with and without project condition as it relates to the evaluation procedures as defined in the ProRegs. One cannot be held constant to formalteand evaluate the other independently. PIR will be 2 phass though spinning out design and construction of Tamiami Trail earlier. Combined component ZZ as primary benefits would not be achieved until completin of Decomp.	Project contains an initially authorized component and PIR development is currently ongoing.	Project footprint and benefits are needed in order to refine scope for various projects including WCA 2B Flows to ENP and WCA 3A/3B Flows to CLB.	1 3 3 3 3
14	Loxahatchee National Wildlife Refuge (LNWR) Internal Canal Structures (KK)	Provide improved timing and quality of water in the LNWR.		Project has no technical predecessor but was sequenced to reflect resource constraints.	None	4
15	Modify Holey Land Wildlife Management Area Operation Plan (DD)	Provide improved the timing and location of water depths within the Holey Land Wildlife Management Area		Project requires STA 3/4 be complete before implementation of new regulation schedule.	None	2
16	Modify Rotenberger Wildlife Management Area Operation Plan (EE)	Provide improved the timing and location of water depths within the Rotenberger Wildlife Management Area		Project requires ongoing monitoring in the Rotenberger Wildlife Management Area be complete before implementation of new regulation schedule.	None	1
17	North Palm Beach County - Part 1 a. Palmar and Corbett Wildlife Area Hydropattern Restoration (OPE) b. L-8 Basin (K P1) c. C-51 & Southern L-8 Reservoir (GGG) d. Lake Worth Lagoon Restoration (OPE) e. C-17 Backpumping & Treatment (X) f. C-51 Backpumping & Treatment (Y)	Provide hydrologic connections between the Corbett WMA and the Moss property, the C-18 Canal, the Indian Trail Improvement District, and the L-8 borrow canal, water quality improvements and increased water supplies to the Grassy Waters Preserve and Loxahatchee Slough.		Project has no technical predecessor and is currently ongoing.	Storage benefits of project are needed before implementation of the North Palm Beach County Part 2 (ASR) project.	2 3 3 2 3 3
18	North Palm Beach County - Part 2 a. C-51 Regional Groundwater ASR (LL) b. L-8 Basin ASR (K P2)	Provide enhanced hydroperiods in the Loxahatchee Slough, increase base flows to the Northwest Fork of the Loxahatchee River, reduce high discharges to the Lake Worth Lagoon, moderate water levels within the West Palm Beach Water Catchment Area and maintain canal stages in C-51 during the dry season.		Project will need the results of the Hillsboro ASR Pilot Project, the ASR Regional Study and the water storage capacity of the North Palm Beach County Part 1 and Palm Beach County Agricultural Reserve Reservoir projects before PIR development can begin.	None	4 3
20	Palm Beach County Agricultural Reserve Reservoir (VV P1)	Provide reduced damaging flows to Lake Worth Lagoon, reduced demands on Lake Okeechobee, reduced demands on the LNWR and water quality improvement.		Project has no technical predecessor but was sequenced to reflect resource constraints.	Storage benefits of project are needed before implementation of the PBC Agricultural Reserve Reservoir project.	3
21	PBC Agriculture Reserve Aquifer Storage and Recovery (VV P2)	Provide reduced demands on Lake Okeechobee and the LNWR and water quality improvements in downstream waters.		Project will need the results of the Hillsboro ASR Pilot Project, the ASR Regional Study and the water storage capacity of the Palm Beach County Agricultural Reserve Reservoir project before PIR development can begin.	None	4

22	Hillsboro Aquifer Storage and Recover (M P2)	Provide reduced demands on Lake Okeechobee and the LNWR and water quality improvements in downstream waters.		Project will need the results of the Hillsboro ASR Pilot Project, the ASR Regional Study and the water storage capacity of the Site 1 Impoundment project before PIR development can begin.	None	4
23	Flows to Eastern Water Conservation Area (EEE)	Provide attenuation of high stages in WCA 2 and 3 and transport excess water to CLB to be used for downstream demands in WCA 3B.		Project has no technical predecessor but was sequenced to reflect resource constraints.	None	3
24	Broward County Secondary Canal System (CC)	Provide reductions in water shortages by recharging local wellfields and stabilizing the saltwater interface.		Project requires information from the Site 1 Impoundment in order to refine scope.	None	3
25	North Lake Belt Storage Area Phase 1 - (XX) North Lake Belt Storage Area Phase 2 - (XX)	Provide environmental water deliveries to Biscayne Bay.		Project has various technical predecessors including Broward County WPA and the Lake Belt Technology Pilot Project. Availability of land for the project is an additional major constraint	None	5 7
26	Central Lake Belt Storage Area Phase 1 - (S) Central Lake Belt Storage Area Phase 2 - (S)	Provide environmental water deliveries to Northeast Shark River Slough, WCA 3B and Biscayne Bay in addition to water quality improvements.		Project has various technical predecessors including WCA 2B Flows to ENP and the Lake Belt Technology Pilot Project. Availability of land for the project is an additional major constraint.	None	5 7
27	Everglades National Park Seepage Management a. L-31N Seepage Management (V) b. S-356 Structure (FF) c. Bird Drive Recharge Area (U)	Provide restored wetland hydroperiods in ENP, improved water quality, reestablishment of sheetflow and improved water deliveries to Northeast Shark River Slough.	Combined with Bird Drive Recharge Area (formerly 43) as a result of next added increment issues.	Project will require input from the completion of the L-31N Seepage Management Pilot.	None	2 2 3
28	Biscayne Bay Coastal Wetlands Phase 1 - (FFF) Biscayne Bay Coastal Wetlands Phase 2 - (FFF)	Provide restored overland storage, reduce groundwater seepage, restoration to wetlands and the reduction of freshwater discharges.	Project divided into 2 phases as a result of potential early implementation and resources.	Project has no technical predecessor and PIR development for a portion of the scope is ongoing.	None	2 4
29	C-111 Spreader Canal (WW)	Provide stormwater treatment and reestablish sheetflow in natural areas.		Project contains an initially authorized component and PIR development is currently ongoing.	None	2
30	Southern Golden Gate Estates Hydrologic Restoration	Reduce over-drainage, improve water quality in coastal estuaries by moderating large salinity fluctuations, and protection of eastern Golden Gate well field by improving groundwater recharge.		PIR development is currently ongoing.		1
31	Florida Keys Tidal Restoration	Restore tidal connection and circulation to surface waters to improve water quality, benthic floral and faunal communities, larval distribution of recreational and commercial species, and improve the overall hydrology of Florida Bay.		Project has no technical predecessor and PIR development is ongoing.		3
32	Lake Okeechobee ASR Pilot (032)	Evaluation of technical and regulatory uncertainties associated with ASR technology near Lake Okeechobee.		PPDR development is currently ongoing.	Pilot project needed for full-scale Lake Okeechobee ASR	1
33	Caloosahatchee (C-43) River ASR Pilot	Assess hydrology and water quality of Hawthorn and Floridian aquifers. Determine suitable sites, optimal design for ASR wells and the quality of the source water available for storage and required water treatment.		PPDR development is currently ongoing.	Pilot project needed for full-scale C-43 Basin ASR - Part 2 ASR	1
34	Hillsboro ASR Pilot	Evaluate the technical and regulatory uncertainties associated with ASR technology in southern Palm Beach County near the Hillsboro Canal.		PPDR development is currently ongoing.	Reliable water supply of adequate quality required for North Palm Beach County - Part 2 (018) Palm Beach County Agriculture Reserve ASR - Part 2 (021) Hillsboro ASR - Part 2 (022)	1
35	Lake Belt In-Ground Reservoir Technology Pilot	Determine if barrier technology can prevent adverse groundwater impacts around an existing smaller rock mined area with similar geology to the full-scale in-ground reservoir site.		PPDR development is currently ongoing.	Technology needed to reduce/eliminate adverse groundwater impacts in North (025) and Central (026) Lake Belt Storage	3

36	L-31 N Seepage Mgt Pilot	To investigate technologies to control seepage from Everglades National Park (ENP) and determine the appropriate amount of wet season groundwater flow to return to ENP while minimizing potential impacts to Miami-Dade County's West Wellfield and freshwater flows to Biscayne Bay.		PPDR development is currently ongoing.	Technologies needed to control flows in Everglades National Park Seepage Management (027)	1
37	Wastewater Reuse Technology Pilot	Determine treatment technologies needed to discharge reclaimed water into Biscayne Bay and its wetlands. Determine parameters of concern relative to discharge of reclaimed, advanced treated waters to estuarine systems.		Project has no technical predecessor and PIR development for a portion of the scope is ongoing.	Allow discharge from West Miami-Dade Reuse (097) & South Miami-Dade Reuse to Biscayne Bay	3
38	Acme Basin B Discharge	To provide additional water to the Arthur R. Marshall Loxahatchee National Wildlife Refuge (Water Conservation Area 1) to reduce the amount of water lost to tide.		STE - 1E needed prior to operation of Acme Basin B		1
39	Strazzulla Wetlands	Provide hydrological and ecological connection to the Loxahatchee National Wildlife Refuge and expand the spatial extent of protected natural areas.		None	None	2
40	Site 1 Impoundment (M P1)	Provide improved hydroperiods, hydropatterns, and water quality conditions in Loxahatchee National Wildlife Refuge and WCA 2A; and, improve salinity and water quality conditions in the estuarine area in the vicinity of the mouth of the Hillsboro Canal.		Project contains an initially authorized component and PIR development is currently ongoing.	Storage benefits of project are needed before implementation of the Hillsboro ASR Project and the Broward County Secondary Canal System Project.	1
44	ASR Regional Study	Provide information and resolve technical issues associated with the CARP ASR Program beyond the scope and budget of the ASR Pilot Projects.		Regional Study development is currently ongoing.	All full scale ASR projects will need information developed as part of the regional study.	2
45	Broward County WPA a. Western C-11 Impoundment (Q) b. C-9 Stormwater Treatment Area and Impoundment (R) c. WCA 3A & 3B Seepage Management (O)	Provide seepage reduction, groundwater recharge, urban water supply and prevention of saltwater intrusion.		Project contains an initially authorized component and PIR development is currently ongoing.	Storage benefits of project are needed before implementation of the North Lake Belt Storage Area Project.	2 2 2
46	C-4 Structure (T)	Provide protection from saltwater intrusion and recharge to downstream wellfields.		Project sequenced to begin after completion of the Miami-Dade Canal study under a separate authorization.	None.	2
48	WCA 2B Flows to Everglades National Park a. WCA 2B Flows to CLB (YY) b. Central Lake Belt Storage Area (S P1) aka "L-30 Upgrade"	Provide attenuation of high stages in WCA 2B and divert excess water to Northeast Shark River Slough and CLB.		Project will require the completion of a portion of WCA 3A Decomp prior to PIR development, but was sequenced to reflect resource constraints.	Conveyance will be utilized by the Central Lake Belt Storage Area Project.	5 4
49	WPA Conveyance a. Dade-Broward Levee and Canal (BB) b. North Lake Belt Storage Area (XX P1) aka "Turnpike Deliveries"	Provide reduced seepage from Pennsoco wetlands, enhance hydroperiods and provide groundwater recharge.		Project will require the completion of a portion of WCA 3A Decomp prior to PIR development, but was sequenced to reflect resource constraints.	None.	3 2
90	Micosukee Water Management Plan (OPE)	Improve timing and location of water depths, as well as water quality, in the Loxahatchee National Wildlife Refuge.		Project has no technical predecessor but was sequenced to reflect resource constraints.	None.	?
91	Winsberg Farm Wetlands Restoration (OPE)	Restore natural areas and reduce deep well injection at water reclamation facility.		Project has no technical predecessor but was sequenced to reflect resource constraints.	None.	2
92	Restoration of Pineland and Hardwood Hammocks in C-111 Basin (OPE)	Restore hammocks in C-111 Basin as part of Taylor Slough restoration.		Project has no technical predecessor but was sequenced to reflect resource constraints.	None.	4
93	Henderson Creek/Belle Meade Restoration (OPE)	Restore sheetflow to Henderson Creek Estuary, improve water quality, and increase habitat value and wetland function.		Project has no technical predecessor but was sequenced to reflect resource constraints.	None.	3

94	Lakes Park Restoration (OPE)	Create marsh/flowway, remove exotic vegetation, improve water quality.		Project has no technical predecessor but was sequenced to reflect resource constraints.	None.	2
95	Melaleuca Eradication and Other Exotic Plants (OPE)	Reduce Melaleuca and other invasive exotic plant species in south Florida.		Project has no technical predecessor but was sequenced to reflect resource constraints.	None.	2
96	Seminole Tribe Big Cypress Reservation Water Conservation Plan (OPE) Seminole Tribe Big Cypress Est Seminole Water Conservation Plan	Restore natural areas on the Reservation, Big Cypress Preserve, and Everglades Protection Area.		Project is dependent on completion of the Seminole Big Cypress Critical Project.	Project must provide input to the Big Cypress/L-28 Interceptor Modifications.	4 4
97	West Miami-Dade County Reuse (HHH)	Provide environmental water deliveries to the Northeast Shark River Slough and to the South Dade Conveyance System.		Project requires completion of monitoring of the Wastewater Reuse Technology Pilot Project.	None.	4
98	South Miami-Dade County Reuse (BBB)	Provide additional water supply to South Biscayne Bay and the coastal wetlands.		Project requires completion of monitoring of the Wastewater Reuse Technology Pilot Project.	None.	4

Note: Projects/components identified in bold font represent the 10 initially authorized projects in WRDA 2000.

Band 1 = 1/1/05-12/31/09

Band 3 = 1/1/15 - 12/31/19

Band 5 = 1/1/25 - 12/31/29

Band 7 = 1/1/35 - 12/31/39

Band 2 = 1/1/10 - 12/31/14

Band 4 = 1/1/20 - 12/31/24

Band 6 = 1/1/30 - 12/31/34