

Kissimmee Valley- Sub-Region 1

TITLE: Kissimmee River Restoration Project			
SUBREGION: 1	PROJECT ID: KV01	FINANCIAL REQUIREMENT:	
CATEGORY: Infrastructure	BUDGET CATEGORY: Infrastructure Investment	USACE - \$247,400,000 SFWMD - \$404,500,000	
PROJECT PLAN MANAGER: Brooks-Hall, (904) 232-3155	BASIS: Task Force Priority V, Ecosystem Restoration	TOTAL: \$652,900,000	
LEAD ORGANIZATION(S): USACE, SFWMD		APPROPRIATED TO DATE:	
SUPPORTING ORGANIZATION(S): USFWS		USACE - \$34,188,000 SFWMD - \$101,000,000	
COUNTY(S): Osceola, Polk, Okeechobee, Glades		TOTAL: \$135,188,000	
LINKED PROJECTS: Dependent on: TS39, KV05 Critical to: KV02 Associated: KV04		REMAINING FINANCIAL REQUIREMENT:	
with:		USACE - \$213,212,000 SFWMD - \$303,500,000	
TOTAL: \$516,712,000			
START: 1994	END: 2009	APPROVED: 11/97	LAST REVISION: 7/98

DESCRIPTION: The Kissimmee River Restoration Project will restore the ecological integrity of the historical Kissimmee River/floodplain ecosystem through two major construction components: Headwaters Revitalization and Lower Basin Restoration. The Headwaters Revitalization component will restore more natural water level fluctuations in Lakes Kissimmee, Cypress, and Hatchineha in the upper Kissimmee basin. Two existing canals and the Lake Kissimmee outlet structure (S-65) that discharges to the river will be enlarged. In the lower basin, natural flows will be restored to the river channel and floodplain. This will be accomplished by backfilling 22 miles of the existing Canal 38 (C-38), reconstructing 9 miles of remnant river channel, and removing two water control structures and the adjacent locks (S-65B and S-65C).

RESTORATION BENEFITS: The project will restore the ecological integrity of the historical Kissimmee River/floodplain ecosystem by recreating approximately 40 square miles of the river/floodplain ecosystem, including 43 miles of contiguous river channel and 27,000 acres of floodplain wetlands. Other benefits include: restoration of critical fish and wildlife habitat necessary to recreate biological diversity in the floodplain ecosystem; improved water quality (e.g., increased dissolved oxygen in the river channel and reduced nutrient loads to Lake Okeechobee).

Time Line and Fiscal Year Budget (in thousands of dollars) for Kissimmee River Project																
Task	97	98	99	00	01	02	03	04	05	06	07	08	09	10	Unprog	Total
Upper Basin																
Design		■	■													
Real Estate		■	■													
Construction			■	■	■											
Lower Basin																
Design		■	■	■	■	■	■	■	■	■	■					
Real Estate		■	■	■	■	■	■	■	■	■	■					
Construction		■	■	■	■	■	■	■	■	■	■	■	■			
Project																
USACE		3000	27300	25800	30100	25900	37900	18400	10300	9200	9300	16200	2629	0		216029
SFWMD		72373	46400	12800	3605	7	2230	18400	10300	9200	9300	16200	2085	0	157,087	202900
Subtotal		75373	73700	38600	33705	25907	40130	26800	20600	18400	18600	32400	4714	0	157087	418929

Kissimmee Valley- Sub-Region 1

TITLE: Lake Istokpoga Ecosystem Restoration and Management			
SUBREGION : 1	PROJECT ID: KV02	FINANCIAL REQUIREMENT:	
PROGRAM CATEGORY: Science	BUDGET CATEGORY: Management	Partial	Remove tussock
PROJECT PLAN MANAGER: Clell Ford	BASIS:	Complete	Remove shoreline aquatic weeds
LEAD ORGANIZATION(S): FGFC, Highlands Board of County Commissioners		TOTAL:	\$17,325,000 Through FY02
SUPPORTING ORGANIZATION(S): FDEP, SFWMD, USACE		APPROPRIATED TO DATE:	
COUNTY(S): Highlands		SFWMD	Tussock \$-0-
LINKED PROJECTS: Dependent on:		FGFWFC	Tussock \$1,250,000
Critical to: KV01 Associated		FDEP	Hydrilla \$3,500,000 thru FY98
		USACE	Water Levels \$405,000
with:		TOTAL:	\$5,155,000
START: 1998	END: 2005	REMAINING FINANCIAL REQUIREMENT:	
		Remove Tussocks	\$6,250,000
		Assess Water Quality	\$125,000
		Remove shoreline Aquatic weeds	\$3,450,000
		Restore Natural Water Levels	\$2,345,000
		TOTAL:	\$9,670,000
APPROVED: 11/97	LAST REVISION: 7/98		

DESCRIPTION: Water levels in Lake Istokpoga, the largest lake in Highlands County, and the second largest in the Kissimmee River Basin, were stabilized for flood control and water supply in the 1960s as part of the Central and South Florida Flood Control Project. This stabilization, along with development in the watershed and the invasion of hydrilla and other exotic weeds, has affected the Lake Istokpoga ecosystem. These impacts range from degradation of fish and wildlife habitat, and restrictions on human activities, to severely impaired lake access, devaluation of riparian property, and deterioration of flood control capabilities. Unlike other systems in the Kissimmee River Basin, large-scale drawdowns of Istokpoga to remove tussock and control shoreline vegetation are not feasible due to the limited ability to refill the lake using water stored upstream. Expected endpoints or restoration goals for the Lake Istokpoga ecosystem are being developed for application to this and other restoration projects.

Tussock islands, estimated by the FGFWFC to occupy approximately 10%, or 2500 acres of the 27692 acre lake, have greatly expanded over the last several years as a result of stabilized water levels. These islands displace habitat for desirable game fish as well as waterfowl and other species. Tussocks also are a serious threat to the ability of the lake to store, and flood control structures to move water in the event of a flood. The FGFWFC and Highlands County are working with the FDEP to develop a plan for removal of tussock islands. SFWMD and the FGFWFC have committed funding to remove ½ of the tussock currently found in Lake Istokpoga over the next 5 years. The proposed work request would fund removal of the remaining 1250 acres of tussock as well as provide for water and sediment quality analysis to determine impacts to the lake ecosystem from tussock removal, and provide for reporting on ecosystem-level impacts.

Lake Istokpoga, classified as a eutrophic lake based on nutrient and algae levels, has relatively good water quality. Preventing degradation or improving water quality is critical to ecosystem restoration. Development both within Istokpoga and upstream, has caused large changes in nutrient inputs to the surface water. Both SFWMD and volunteers for Florida Lakewatch have collected water quality information regularly for a number of years, but this information has not been compiled or analyzed in a comprehensive manner. Several aspects of water quality in Lake Istokpoga critical to evaluating ecosystem restoration and management, including net flux of phosphorus and nitrogen from both Arbutle and Josephine Creeks, impact of proposed tussock removal, impact of cyclic large-scale hydrilla control efforts, and impact potential changes in water level regulation on water quality and sedimentation are all unknown. Each of these areas is of concern to ecosystem restoration, both within Istokpoga and downstream. Funding for water and sediment quality

analysis associated with each task is included in that task. The required funding for the task of assessing water quality will be directed toward development of a nutrient budget, comprehensive analysis of the sediments including benthic invertebrate population, sedimentation rate changes and general sediment quality, and a comprehensive overview of water quality in the lake. Currently, no agency includes funding for a Lake Istokpoga water quality evaluation in its budget.

Aquatic macrophytes, most notably cattails, dominate much of Istokpoga's once sandy shoreline, taking over the shore and inhibiting the maintenance of cypress swamps. Cattails occupy habitat that was once available for spawning, nesting and fishing activities currently limited by monoculture stands of cattails. Selected removal of the cattails would also open areas of the shore to bank fishing by anglers, and enhance riparian property values. The required budget for removal of shoreline aquatic weeds includes funding for aquatic plant surveys, assessment of most appropriate areas for removal and mechanisms for removal, actual opening of shoreline and evaluation of the long-range impact of the activity. Currently, no agency includes funding for large-scale removal of aquatic macrophytes from the Istokpoga shore. Highlands County has included funding for control of macrophytes interfering with navigational access in its FY 1998 budget.

Hydrilla control, discussed in detail in the proposed Hydrilla and Floating Plant Management in the Kissimmee Basin project, is critical to the viability of the Lake Istokpoga ecosystem. When hydrilla is uncontrolled in the lake, Istokpoga serves as a continuous source for the hydrilla throughout the lower portion of the Kissimmee River Basin. Much effort has been expended toward maintenance control of hydrilla and floating aquatic plants in Istokpoga. Stable funding for management of hydrilla is critical to restoration and long-term management of the Lake Istokpoga ecosystem. FDEP has committed \$3,500,000 to hydrilla control for FY 1997 and FY1998. Further funding for hydrilla control is not expected from this source. The success of this project is dependent on funding the Hydrilla and Floating Plant Management in the Kissimmee Basin project.

Restoration of natural water level fluctuations is central to the long-term restoration of the Lake Istokpoga ecosystem. Lake Istokpoga is used for water supply, flood control, and recreation; in order to satisfy these project purposes, the existing water management strategy has been to significantly reduce natural water level fluctuations, switching the seasons of highest and lowest water levels for flood control purposes. As noted previously, these stabilized water levels have prevented the seasonal exposure of the shoreline, effected the degradation of the cypress swamp, the growth of tussock islands and the loss of open shoreline to cattails. Additionally, development of tussock islands may significantly impair the flood control capacity of the structures downstream of the lake. During construction of the C&SF Project, not all of the authorized water management features for Lake Istokpoga were built. Therefore, an evaluation of options for completing the authorized project is being considered under the General Reevaluation Report of the USACE. The purpose of the GRR is to evaluate alternatives for operational and / or structural modifications to improve environmental conditions in the lake and to improve flood control while maintaining its authorized project purposes (recreation, water supply and flood control). The water level solution to Istokpoga's woes hinges on restoring more natural water level fluctuations. To date, the USACE has appropriated \$405,000 for the GRR portion of this project, with an estimated \$600,000 additional required to complete the reevaluation and report on its outcome. The remaining financial requirements for this project include administrative costs of modifying the regulation schedule, evaluations of whether existing flood control is adequate for projected storms given natural water level fluctuations, upgrades as necessary to the flood control system, and environmental monitoring to estimate the effects of changes to the water level fluctuation schedule.

RESTORATION BENEFITS: This project will restore the ecological integrity of the Istokpoga ecosystem by removal of tussock, removal of shoreline cattails, and control of hydrilla, tasks that will improve the diversity of habitat available to native, threatened and endangered species. Restoring more natural water level fluctuations, and the accompanying improvements to the flood control system will help prevent the buildup of tussock islands, the recolonization of shoreline by less desirable species and lead toward restoration of the cypress swamp habitat that has declined since water levels were stabilized. Hydrilla control, funded through another proposed project, is critical to the restoration of both Istokpoga, and the lower Kissimmee River. Continuous assessment of sediment and water quality is essential to ultimately determining the success of this project. The net economic impact of this project may be seen in terms of a more stable sport fishery,

development of ecotourism, increased use of Lake Istokpoga by the general public and improved riparian property values.

Time Line and Fiscal Year Budget (in thousands of dollars) for Lake Istokpoga Ecosystem Restoration and Management																
Task	97	98	99	00	01	02	03	04	05	06	07	08	09	10	Unprog	Total
Project																
Hydrilla Remove	3500				1500	2500	2000	1000	500							7500
Tussock Improve				25	25	25	25	25								125
Water quality																
Remove shoreline				250	500	2000	500	200								3450
aquatic weeds																
Remove natural level				50	100	550	2000	50								2750
flucts.																
Subtotal	3500			325	2125	5075	4525	1275	500							\$17,325

TITLE: Lake Wales Ridge National Wildlife Refuge and CARL Acquisition			
SUBREGION : 1	PROJECT ID: KV03	FINANCIAL REQUIREMENT:	
PROGRAM CATEGORY: Land Acquisition	BUDGET CATEGORY:	State: 50% Federal: 50%	
PROJECT PLAN MANAGER: Whitmore (407) 861-0667	BASIS: 2 and 3	TOTAL: \$44,783,000	
LEAD ORGANIZATION(S): USFWS/FDEP		APPROPRIATED TO DATE:	
SUPPORTING ORGANIZATION(S): The Nature Conservancy		TOTAL: \$26,486,950	
COUNTY(S): Polk, Highlands, Osceola, Okeechobee		REMAINING FINANCIAL REQUIREMENT:	
LINKED PROJECTS: Dependent on: Critical to: TS19 Associated		TOTAL: \$18,296,050	
with:			
START: 1997	END: Until Acquired	APPROVED: 11/97	LAST REVISION: 10/98

DESCRIPTION: The proposed refuge was authorized in November 1993 and would comprise 21,750 acres in Polk and Highlands Counties. The area forms the headwaters boundary between the Kissimmee River basin and the Peace River basin. It is the oldest terrestrial ecosystem in the southeast region of the US, and is probably the most threatened ecosystem in South Florida due to citrus conversion, residential housing construction, and commercial development. It supports 24 species of endangered, threatened, and candidate plant species as well as four threatened or endangered animal species. 12,861 acres have been acquired to date.

RESTORATION BENEFITS: Acquisition would effect recovery of most of these listed species. The proposed refuge represents the last opportunity to protect these remaining upland habitats in the Kissimmee River drainage. Without these acquisitions, conversion of these lands will probably continue until these habitats completely disappear. Land acquisition began in FY 95. Some parcels will be managed as conservation easements.

Time Line and Fiscal Year Budget (in thousands of dollars) for Multi-Species Recovery Strategy																
Task	97	98	99	00	01	02	03	04	05	06	07	08	09	10	Unprog	Total
Preparation																
Implementation																18,296
Project																
Subtotal																\$18,296

TITLE: Paradise Run		
SUBREGION : 1	PROJECT ID: KV04	FINANCIAL REQUIREMENT: approx. \$12,281,656
PROGRAM CATEGORY:	BUDGET CATEGORY:	
restoration, acquisition	Land acquisition	TOTAL: approx. \$12,281,656
PROJECT PLAN MANAGER: Rinaldi (561) 682-6537	BASIS: 2, 3	APPROPRIATED TO DATE: SFWMD \$2,281,656
LEAD ORGANIZATION(S): SFWMD		Total \$2,281,656
SUPPORTING ORGANIZATION(S): FGFWFC		
COUNTY(S): Glades, Okeechobee		REMAINING FINANCIAL REQUIREMENT: approx. \$10,000,000
LINKED PROJECTS: Dependent on: Critical to: Associated with:		
START: FY98	END: 2001	TOTAL: approx. \$10,000,000
		APPROVED: 11/97
		LAST REVISION: 7/98

DESCRIPTION: This 4,265 acre project lies west of canal C-38, between Water Control Structure S-65E and Lake Okeechobee in Glades and Okeechobee Counties. Current land use is predominantly improved pasture and cattle grazing but agricultural activities in the area are intensifying as exemplified by new, nearby row crops (potatoes), sod extraction, and citrus. The remnant river run and adjacent wetlands remain largely intact but have no continuous water flow; hence water quality (especially dissolved oxygen) has become poor and organics have accumulated deeply in the remnant river run. This area consistently has greater wading bird and waterfowl use than most any area of the Kissimmee River. Its close proximity to Lake Okeechobee puts it in foraging flight distance of the large wading bird rookeries. Restoration would be fairly simple because the remnant river run and wetlands are largely intact, and water could gravity flow from Pool E (elevation 21 feet msl) one-half mile to Paradise Run (elevation 16 feet msl). The C-38 canal would be bypassed. At least 2 landowners (John Pearce and John Austin Collier) have expressed an interest in selling their land along Paradise Run.

RESTORATION BENEFITS: Conduct engineering studies to determine feasibility and estimate costs more accurately.

Time Line and Fiscal Year Budget (in thousands of dollars) for Paradise Run																
Task	97	98	99	00	01	02	03	04	05	06	07	08	09	10	Unprog	Total
Studies		■	■													
Land Acquisition				■	■	■	■									
Construction				■	■	■										
Project																
Subtotal	2,282														10,000	\$12,282

TITLE: Upper Lakes Basin Watershed			
SUBREGION : 1	PROJECT ID: KV06	FINANCIAL REQUIREMENT:	
PROGRAM CATEGORY: Land Acquisition	BUDGET CATEGORY: Land Acquisition	SFWMD: \$30,811,694	Polk County: \$ 7,323,625
PROJECT PLAN MANAGER: Rinaldi (561) 682-8537	BASIS: 3	TOTAL: \$38,135,319	
LEAD ORGANIZATION(S): SFWMD		APPROPRIATED TO DATE:	
SUPPORTING ORGANIZATION(S): Polk		SFWMD: \$10,904,800	Polk County: \$ 2,325,625
COUNTY(S): Polk, Osceola		Total: \$13,230,519	
LINKED PROJECTS: Dependent on: Critical to: Associated with: KV01		REMAINING FINANCIAL REQUIREMENT:	
		SFWMD: \$19,904,800	Polk County: \$ 5,000,000
		TOTAL: \$24,904,800	
START: 1995	END: 2002	APPROVED: 11/97	LAST REVISION: 7/98

DESCRIPTION: This 43,500-acre project is located at the headwaters of the Kissimmee-Okeechobee-Everglades ecosystem in Polk and Osceola Counties. The project area includes a substantial portion of Reedy Creek and Lake Marion Creek drainage basins, of which the SFWMD already owns substantial acreage. The land contains large expanses of endangered scrub, mesic and wet flatwoods, hydric hammock, and floodplain forest, including habitat for several threatened and endangered plants and animals. Land management will be carried out by the SFWMD and local Government.

RESTORATION BENEFITS: The primary purpose of this project is to preserve this watershed which is a critical link in the restoration of the Kissimmee-Lake Okeechobee-Everglades-ecosystem. Reedy Creek is the headwater drainage for Lake Russel and Cypress Lake. Peak Discharges from major storm events are modified and stored within the swamp and provide year-round base flow to these downstream lakes. The Lake Marion Creek portion of the project is of critical importance to the recharge of the Floridian Aquifer. Lake Marion serves as the headwaters to Lake Marion Creek, which combines with Snell and Horse Creeks to provide a constant supply of high-quality water to Lake Hatchineha, which in turn discharges to Lake Kissimmee, and eventually the Kissimmee River and Lake Okeechobee. All three of these water bodies are primary components of the SFWMD's water management system.

Time Line and Fiscal Year Budget (in thousands of dollars) for Upper Lakes Basin Watershed																
Task	97	98	99	00	01	02	03	04	05	06	07	08	09	10	Unprog	Total
Program																
Project																
Land Acquisition				3000	6000	6000	2100								7800	24900
Subtotal																\$24,900

TITLE: Kissimmee Prairie Ecosystem			
SUBREGION : 1	PROJECT ID: KV07	FINANCIAL REQUIREMENT:	
PROGRAM CATEGORY: Land Acquisition/restoration/ Enhancement	BUDGET CATEGORY:	SFWMD:	\$7,943,517
		FDEP:	\$16,970,340
		TOTAL:	\$24,913,857
PROJECT PLAN MANAGER: G. Ritter (941) 462-5260	BASIS: 3	APPROPRIATED TO DATE	
LEAD ORGANIZATION(S): SFWMD and FDEP		SFWMD	\$5,293,850
		FDEP:	\$16,970,340
		TOTAL:	\$22,264,190
SUPPORTING ORGANIZATION(S): USFWS, NAS, FDOC, FD, FGFWFC		REMAINING FINANCIAL REQUIREMENT:	
COUNTY(S): Okeechobee		SFWMD	\$2,649,667
LINKED PROJECTS: Dependent on:		FDEP	\$0
Critical to:		TOTAL:	\$2,649,667
Associated with:			
START: 1996	END: 1997	APPROVED: 8/96	LAST REVISION: 11/98

DESCRIPTION: This project involves acquisition and restoration of wetland and dry prairie habitat in Okeechobee County. The SFWMD and FDEP purchased 38,282 acres of land in 1997 for conservation as the Kissimmee Prairie State Preserve. Restoration has been initiated on the Preserve as well as the adjacent 7,315 acre Ordway-Whittell Kissimmee Prairie Sanctuary owned and managed by the National Audubon Society. The project will restore 13,100 acres of wetlands that were over drained or over impounded by agricultural activities. In addition, the project will enhance another 2,625 acres of wetlands and 9,500 acres of associated dry prairie habitat. Restoration will be accomplished by removing 39.3 miles of ditches and dikes to return sheet flow across the land. Enhancement will include removal of unwanted or invasive vegetation from wetland and dry prairie habitats.

RESTORATION BENEFITS: The purpose of the land acquisition project is to preserve the unique wetland and dry prairie habitats that were in agriculture and cattle land use and, using a five-year federal grant, restore and enhance these lands. Approximately 5,000 acres of the project hydraulically linked with the Kissimmee River will be reconnected, thereby restoring wetland habitat to regain historical biological diversity. The remaining 40,000 acres of the project in the project area contain extensive wetland habitats and excellent examples of the dry-prairie community type, which is recognized by the Florida Natural Areas Inventory as endangered at state and global levels. Because of the conversion of similar lands to citrus and improved pasture throughout central Florida, the Kissimmee Prairie Ecosystem, in combination with the adjacent Air Force's Avon Park Bombing Range and Audubon's Kissimmee Prairie Sanctuary, will form the largest region of dry prairie in public ownership in the State. Its preservation is the most important step in the recovery of the federally endangered Florida grasshopper sparrow. The endangered whooping crane, Everglades snail kite, and the woodstork utilize the habitats of the project area. Protection of these lands will also provide habitat for the following threatened species: southern bald eagle, Audubon's caracara, Florida scrub jay, and the eastern indigo snake. In addition, the project area contains habitat that supports over 800 species of plants and animals.

Time Line and Fiscal Year Budget (in thousands of dollars) for Kissimmee Prairie Ecosystem																
Task	97	98	99	00	01	02	03	04	05	06	07	08	09	10	Unprog	Total
Restoration	15		1022		785		325									2,147
Land Acquisition	22,264															22,264
Project																24,411
Subtotal																\$24,411

TITLE: Kissimmee Chain of Lakes Drawdown/ Restoration Project			
SUBREGION : 1	PROJECT ID: KV09	FINANCIAL REQUIREMENT:	
PROGRAM CATEGORY:	BUDGET CATEGORY:	Funding contributors include FGFWFC, SFWMD, Osceola and Polk Counties, FDEP, USFWS and USACOE	
Science	Nat Rest, Hab Enh, Water Qual	TOTAL:	\$23,000,000
PROJECT PLAN MANAGER:	BASIS: 2	APPROPRIATED TO DATE:	
Hulon (407)846-5300		TOTAL:	0
LEAD ORGANIZATION(S): FGFWFC, SFWMD		REMAINING FINANCIAL REQUIREMENT:	
SUPPORTING ORGANIZATION(S): FDEP, USACE, USFWS		TOTAL:	
COUNTY(S): Osceola and Polk			
LINKED PROJECTS: Dependent on:			
Critical to:			
Associated			
with:			
START: 1999	END: 2010	APPROVED: 11/97	LAST REVISION: 7/98

DESCRIPTION: The Upper Kissimmee Chain of Lakes Restoration Project planned for FY1999-2010 by the Florida Game and Fresh Water Fish Commission (GFC) is anticipated to be a joint cost share project by GFC, South Florida Water Management District (SFWMD) and Osceola and Polk Counties. The project is a continuation of the successful Extreme Drawdown/Habitat Enhancement projects initiated in 1971 by GFC.

The Central and South Florida (CS&F) flood control project resulted in lowered and stabilized water fluctuation schedules for the Kissimmee Chain of Lakes, eliminating the lakes' ability to purge themselves of organics and tussocks by depositing the material on the upland during extreme high water periods. Rigidly stabilized fluctuations result in deterioration of aquatic habitat in the littoral zone and negatively impact both water quality and fish and wildlife habitat. Initial restoration efforts were successful utilizing a simple drawdown, however, ongoing impacts make additional efforts necessary. The shoreline of Lakes Tohopekaliga, Cypress, Hatchineha, Kissimmee, Jackson, Marian and East Lake Tohopekaliga will be restored by mechanical removal of tussocks and organic build-up that can not be remedied with a drawdown alone. The material will be transported to the uplands for disposal where sites are available restoration efforts are required on a 7 to 10 year basis to offset the continuing degradation.

RESTORATION BENEFITS: Positive fisheries responses have been documented for forage and sportfish species following drawdowns and habitat enhancement work. Endangered species such as the Snail Kite, Bald Eagle and the Wood Stork all use restored areas extensively for foraging and nesting in adjacent areas.

Time Line and Fiscal Year Budget (in thousands of dollars) for Lake Tohopekaliga Wetland Restoration Project																
Task	97	98	99	00	01	02	03	04	05	06	07	08	09	10	Unprog	Total
Tohopekaliga				█												\$5 mil.
Cypress & Hatchineha				█		█										\$3 mil.
Jackson & Marian								█								\$1 mil.
EastTohopekaliga								█		█						\$4 mil.
Kissimmee												█				\$10 mil.
Project																
Subtotal				\$ 5 mil.		\$3 mil.		\$1 mil.		\$4 mil.		\$10 mil.				\$23 mil.

TITLE: Lake Tohopekaliga Wetland Acquisition			
SUBREGION : 1	PROJECT ID: KV10	FINANCIAL REQUIREMENT:	
PROGRAM CATEGORY: Science	BUDGET CATEGORY: Land Acq. Purchase, Nat Rest Habitat Enhan, Water Qual.		
PROJECT PLAN MANAGER: Hulon (407) 846-5300	BASIS: 2	TOTAL: \$10,000,000	
LEAD ORGANIZATION(S): FGFWFC, SFWMD		APPROPRIATED TO DATE:	
SUPPORTING ORGANIZATION(S): FDEP, USACE, USFWS			
COUNTY(S): Osceola		TOTAL: \$0	
LINKED PROJECTS: Dependent on: Critical to: Associated		REMAINING FINANCIAL REQUIREMENT:	
with:			
START: 1999	END: 2000	TOTAL: \$10,000,000	
		APPROVED: 12/97	LAST REVISION: 7/98

DESCRIPTION: Five parcels of land (883 acres) that are marked on the attached map should be purchased as soon as possible. Purchase of these sensitive wetland areas around Lake Tohopekaliga would improve water quality, fish and wildlife habitat, and provide for greater water storage within the lake. These designated areas are crucial to halting future wetland development. Two major water quality problems are associated with the east and west drainage ditches in the City of Kissimmee. Both ditches could be diverted through the purchase of two properties (Yates & Judges), on site retention could provide improved water quality into Lake Tohopekaliga. The remaining three parcels of land (Partin, Bennie Platt & Whaley) are significant privately owned wetlands that no longer function as they were intended, to improve water quality and providing beneficial fisheries habitat. If these lands were purchased improvements could be made that would significantly provide for better water quality and fish and wildlife habitat.

RESTORATION BENEFITS: Improved water quality, provide for more beneficial fish and wildlife habitat and increased water storage could improve the Lake Tohopekaliga drainage basin, thus provide cleaner water to the Everglades. Endangered species such as Snail Kite, Bald Eagle and Wood Storks have been seen using these areas. The endangered whooping crane uses wetlands similar to these, near Lake Kissimmee.

Time Line and Fiscal Year Budget (in thousands of dollars) for Lake Tohopekaliga Wetland Acquisition																
Task	97	98	99	00	01	02	03	04	05	06	07	08	09	10	Unprog	Total
Project																
Subtotal			5000	5000												\$10,000

TITLE: Hydrilla and Floating Plant Management in the Kissimmee Subregion		
SUBREGION : Kissimmee	PROJECT ID: KV11	FINANCIAL REQUIREMENT: 50% USACE \$18,372,000 50% DEP \$18,372,000 TOTAL: \$36,744,000
PROGRAM CATEGORY: Management	BUDGET CATEGORY:	
PROJECT PLAN MANAGER: Zattau (904) 232-2215	BASIS:	APPROPRIATED TO DATE: TOTAL: \$-0- REMAINING FINANCIAL REQUIREMENT: TOTAL: \$36,744,000
LEAD ORGANIZATION(S): USACE, DEP, SFWMD, FGFWFC		
SUPPORTING ORGANIZATION(S): Polk CO., Highlands Co., City of Kissimmee		
COUNTY(S): Orange, Polk, Highlands, Osceola, Okeechobee		
LINKED PROJECTS: Dependent on: Critical to: Kissimmee Restoration Associated with:		
START: FY 98	END: FY03	APPROVED: 11/97
		LAST REVISION: 7/98

DESCRIPTION: Implementation of a coordinated program of invasive aquatic plant management throughout the Kissimmee subregion targeting the invasive exotic species hydrilla (*Hydrilla verticillata*), waterlettuce (*Pistia stratiotes*), water hyacinth (*Eichhornia crassipes*). An integrated pest management strategy will be utilized relying on currently proven chemical, mechanical and biological controls in addition to environmental manipulation techniques. New and/or emerging techniques will also be developed and/or refined to provide the array of management methods necessary to meet program goals. Additional program components are the following: delineation of the extent of the invasive populations (DEP), pre- and post- treatment site documentation (DEP, USACE, SFWMD); post- treatment monitoring and control of invasive species regrowth (all); replanting of native species (FGFWFC). The project will begin in FY 98 and continue through FY02. Mission critical projects have navigation, flood control, fish and wildlife habitat, and water delivery impacts while mission essential projects have fish and wildlife habitat, water quality, and regional economic impacts. Floating plants are being maintained at the lowest possible levels in the Butler chain, Upper Basin Lakes, Highlands and Polk Co., C-38 (Kissimmee Canal) and the old oxbows (Old Kissimmee River). Historical funding sources have been US Army Corps of Engineers, Removal of Aquatic Growth (RAG), and the Aquatic Plant Control (APC) Program, and the DEP, Bureau of Aquatic Plant Management. Since FY 96, the APC program was reduced and not funded in FY 97. DEP, Bureau of Aquatic Plant Management has put forth additional funding in FY 96, FY97, and FY 98 to continue maintenance control but expects to have a shortfall in funds in FY 99 if additional funds cannot be secured.

RESTORATION BENEFITS: Hydrilla, introduced into the area during the 1980s, is a submersed exotic that is threatening the basin's water resources. All five of the major lakes in the Upper Basin have experienced typical exponential growth rates of hydrilla that is expected to continue if these areas are not treated. Hydrilla is present in 34 lakes in the subregion. At current population levels, hydrilla poses a serious threat to the ability of water managers to deliver water at desired levels for the purpose of downstream restoration activities and flood control. Large hydrilla populations impact the system in five ways: 1) restricts the flow of water downstream, 2) has the potential to decrease the storage capacity of the system, 3) decreases quality of littoral zones in habitat value and species diversity, 4) negatively impacts the regional economy by decreasing property values and loss of ecotourism revenues, and 5) during high volumes releases hydrilla can be uprooted in large quantities and moved downstream, causing formidable blockages at bridges, locks and flood control structures. The proposed project would manage hydrilla in the Kissimmee subregion to minimize these detrimental effects and allow headwater revitalization and downstream restoration activities and flood control to proceed as planned. Management of hydrilla at low levels would also provide beneficial results to the overall ecology of the area by allowing the return of more diverse native communities. Floating plants are being kept at the lowest possible levels throughout the system, but in the past had posed serious problems for navigation, flood control, and fish and wildlife habitat. If left uncontrolled, these plants would rapidly multiply and also threaten to block existing bridges, locks, and flood control structures. By using current management techniques, beneficial vegetative communities have been established and caused an increase in native plant and animal diversity.

Kissimmee Valley- Sub-Region 1

Time Line and Fiscal Year Budget (in thousands of dollars) for Hydrilla and Floating Plant Management in the Kissimmee Subregion																
Task	97	98	99	00	01	02	03	04	05	06	07	08	09	10	Unprog	Total
Mission Essent																
Mission Critical																
Project																
Mission Essential																
E. Lake Toho			250	260	270	280	290									
L. Cypress			100	90	490	90	100									
L. Hatchineha			100	100	800	100	100									
L. Toho			1500	1800	1900	1640	1800									
Kiss. R.			177	179	181	182	180									
Old Kiss Riv			230	232	234	236	240									
Lk. Kissimmee			1500	2000	1800	2000	2000									
Subtotal			3857	4661	5675	4528	4710									
Mission Critical																
Alligator Lake			50	55	75	75	75									
L. Arbuckle			22	22	172	62	70									
Butler Chain			130	130	130	130	145									
L. Gentry			54	54	79	79	85									
L. Istokpoga			2019	208	2210	208	2000									
L. Jackson			50	50	215	90	100									
L. Marian			230	80	270	294	325									
L. Marion			13	328	53	328	350									
L. Pierce			28	343	68	368	400									
L. Rosalie			53	53	48	78	100									
L. Walkin Wat.			56	16	56	256	275									
Subtotal			2705	1339	3376	1968	3925									
TOTAL			6562	6000	9051	6496	8635									\$36,744