

Upland Invasive Exotic Plant Control Projects

Fiscal Year 2008-2009

Over one-and-one-half million acres of Florida's public conservation lands have been invaded by alien (exotic, nonnative, nonindigenous) plants such as melaleuca, Brazilian pepper, cogon grass, and climbing ferns. However, invasive alien plants respect no boundaries and millions of acres of agricultural and private land are also affected. Florida's nearly 11 million acres of public conservation land support a nature-based tourism economy valued at \$8 billion annually (total tourism spending in 2009 was around \$61 billion).

The Fish and Wildlife Conservation Commission's Invasive Plant Management Section (IPMS) is the designated lead entity in Florida responsible for coordinating and funding the statewide control of invasive aquatic and upland plants in public waterways and on public conservation land. The Upland Invasive Exotic Plant Management Program was established in 1997 to address the need for a statewide coordinated approach to the terrestrial (vs. aquatic) invasive exotic plant problem. The "Uplands Program" incorporates place-based management concepts, bringing together regionally diverse interests to develop flexible, innovative strategies to address weed management issues at the local level. The Uplands Program (a subsection of IPMS) funds individual exotic plant removal projects statewide on public conservation land. Projects are considered for funding based upon recommendations from eleven Regional Invasive Plant Working Groups.

The mission of the Uplands Program is to achieve maintenance control of invasive exotic plants like cogon grass (*Imperata cylindrica*), melaleuca (*Melaleuca quinquenervia*), Brazilian pepper (*Schinus terebinthifolius*), Old World climbing fern (*Lygodium microphyllum*), and Japanese climbing fern (*L. japonicum*) on public conservation land. Once invasive plants become established in native habitats, eradication is difficult, if not impossible to achieve; therefore, continuous maintenance of invasive nonnative plants is needed to sustain wildlife habitat and recreational opportunities while preserving native plant communities on public conservation land.

Upland invasive plants infested approximately fifteen percent of public conservation land statewide in 2009. Thirty-eight percent (574,850 acres) of the affected area is currently under maintenance control. The Uplands Program expended \$12.3 million controlling approximately 265,300 acres of upland weeds on over 100 publicly managed areas during fiscal year 2009. The Uplands Program also provided herbicide to assist public land managers with maintenance control treatments on 68,000 acres for a cost of \$954,000.

Funding for the Uplands Program is provided through the Invasive Plant Control Trust Fund as set forth in Section 369.252(4), Florida Statutes, which reads: "use funds in the Invasive Plant Control Trust Fund as authorized by the Legislature for carrying out activities under this section on public lands. A minimum of 20 percent of the amount credited to the Invasive Plant Control Trust Fund pursuant to Section 201.15(6), F.S., shall be used for the purpose of controlling nonnative, upland, invasive plant species on public lands."

Since 1997, the Uplands Program has expended nearly \$94 million to treat invasive plants on over 1,275,000 acres. Cooperating agencies contributed nearly \$36 million in matching funds and in-kind services towards projects funded by the program.

NOTE: On July 1st of 2008, the then Bureau of Invasive Plant Management and its associated programs were transferred into the Florida Fish and Wildlife Conservation Commission.

IPMS FY2008-09 Uplands Project Acres and Dollars by Managing Agency

Agency	Acres	Funds
Coastal and Aquatic Managed Areas	130	\$21,920
Division of Forestry	6,280	\$903,984
Division of Recreation & Parks	7,303	\$1,657,929
Fish & Wildlife Conservation Commission	76,259	\$1,816,080
Office of Greenways & Trails	352	\$384,444
Public Universities	89	\$538,971
Water Management Districts ¹	145,104	\$2,459,183
Department of Defense	57	\$65,106
National Park Service	381	\$150,000
US Fish & Wildlife Service	12,150	\$1,069,709
US Forest Service	74	\$51,544
Local government agencies	19,017	\$4,504,325
TOTAL	267,496	\$13,623,196

¹Includes \$1 million Melaleuca Program, as required by §206.606(1)(a), Florida Statutes.

In fiscal year 2008-09, the Uplands Program expended over \$13 million for control operations on over 260,000 acres. This table shows the distribution of funds to federal, state, and local agency projects.

IPMS Uplands Program Projects for Fiscal Year 2008-09

Abbreviations used in following table.

CNTY	county where project located (4-letter code)
MGR	manager (managing agency)
CTY	county government agency
CAMA	Office of Coastal and Aquatic Managed Areas, Department of Environmental Protection (DEP)
DOD	U.S. Department of Defense
DOF	Division of Forestry, Florida Department of Agriculture and Consumer Services
DRP	Division of Recreation and Parks, DEP
FWC	Florida Fish and Wildlife Conservation Commission
FWS	U.S. Fish and Wildlife Service
NPS	National Park Service
OGT	Office of Greenways and Trails, DEP
UNV	public university
USFS	U.S. Forest Service
WMD	water management district
WG	working group
EC	East Coast
FK	Florida Keys
MC	Mosquito Coast
NE	Northeast
PH	Panhandle
SC	Sun Coast
SE	Southeast
SW	Southwest
TC	Treasure Coast
WC	West Central
WR	Withlacoochee River
TA#	task assignment number (project identifier)
I-AC	initial control acres; first time control of established plant populations
M-AC	maintenance control acres; retreatment of areas where initial control was previously conducted
HB	Herbicide Bank, only chemical was provided to agency
PRJ COST	IPMS funds expended
COOP COST	funds or in-kind time and materials expended for project by managing agency

PROJECT NAME	CNTY	MGR	WG	TA#	I-AC	M-AC	PRJ COST	COOP COST
Marathon/Islamorada	MONR	City	FK	FK-083	48		\$74,997	
City of Jacksonville Parks	DUVA	City	NE	NE-055	66		\$23,011	
Jax Rails-to-Trails	DUVA	City	NE	LY-005		4	\$1,984	
Tillie Fowler Park - JAX	DUVA	City	NE	LY-005	4		\$1,984	
Chattahoochee Nature Park	GADS	City	PH	PH-079		100	\$22,900	
Orange County Lands	ORAN	CTY	EC	EC-064	600		\$109,207	\$27,620
Christmas Creek Preserve	ORAN	CTY	EC	LY-005	10		\$4,961	
Black Hammock Wilderness Area	SEMI	CTY	EC	EC-069	89		\$36,984	\$6,270
Monroe County Lands	MONR	CTY	FK	FK-082	2,500		\$176,000	
Brevard South Region	BREV	CTY	MC	MC-092		348	\$179,185	
Sykes Creek	BREV	CTY	MC	MC-094		190	\$223,308	
1,000 Islands	BREV	CTY	MC	MC-096	25		\$180,000	
Alpine Groves Park	STJO	CTY	NE	NE-056	7		\$15,507	
Pam Callahan/Rocky Creek Preserves	HILL	CTY	SC	SC-104		500	\$91,943	\$18,394
Duette Preserve	MANA	CTY	SC	SC-103		200	\$96,004	\$221,776
Carlton Reserve	SARA	CTY	SC	SC-098		2,615	\$57,603	\$30,000
Miami-Dade Deering Estate	DADE	CTY	SE	SE-123		342	\$200,000	\$210,384
Lox Slough - Lucky Tract	PALM	CTY	SE	SE-124		1,994	\$200,000	\$223,456
Cypress Creek	PALM	CTY	SE	SE-125		1,600	\$200,000	\$134,220
Riverbend Park - Eastern Slough	PALM	CTY	SE	SE-126		300	\$45,555	\$26,913
Hungryland Slough	PALM	CTY	SE	SE-128		1,176	\$200,000	\$57,200
Lox Slough PBC Melaleuca	PALM	CTY	SE	SE-139	257		\$350,000	
Lox Slough Central PBC Melaleuca	PALM	CTY	SE	SE-140	2,150		\$900,000	
Conservation Collier	COLL	CTY	SW	SW-127	143		\$59,345	
Caloosahatchee Creeks	LEE	CTY	SW	SW-116		151	\$109,386	
Wild Turkey Strand	LEE	CTY	SW	SW-118	318		\$156,150	
Yucca Pens Preserve	LEE	CTY	SW	SW-119	66		\$21,790	
Deep Lagoon Preserve	LEE	CTY	SW	SW-121	7.5		\$21,900	
Pine Island Flatwoods	LEE	CTY	SW	SW-122		270	\$71,815	
Prairie Pines Preserve	LEE	CTY	SW	SW-123		551	\$207,578	
Imperial Marsh - Wildflower Tract	LEE	CTY	SW	SW-124	60		\$65,372	
Alva Cypress Preserve	LEE	CTY	SW	SW-125	40		\$92,566	
Martin County Regional Parks	MART	CTY	TC	TC-118		1,500	\$105,000	\$105,000
Paynes Prairie North Rim	ALAC	CTY	WR	WR-100	221		\$170,089	\$40,177
Lake County Parks - HB	LAKE	CTY	WR	WR-110	529	36	\$32,200	
TOTAL LOCAL GOVERNMENT					7,140	11,877	\$4,504,325	\$1,101,409
Rookery Bay - Faka-Union Canal	COLL	CAMA	SW	SW-114		130	\$21,920	\$32,000
TOTAL CAMA						130	\$21,920	\$32,000
Lake George SF - HB	VOLU	DOF	MC	MC-101	23		\$1,629	
Four Creeks SF	DUVA	DOF	NE	NE-057		102	\$25,000	
Twin Rivers SF - Blue Springs	HAMI	DOF	NE	NE-049	1,784		\$113,275	
Twin Rivers SF - Withlacoochee	HAMI	DOF	NE	NE-053	382		\$191,200	
Lake Talquin SF	GADS	DOF	PH	LY-005	10		\$3,859	
Blackwater River SF	OKAL	DOF	PH	PH-076	2,800		\$125,000	
Myakka SF	SARA	DOF	SC	SC-106		505	\$175,932	\$31,692
Picayune Strand SF - SGGE/Belle Meade	COLL	DOF	SW	SW-112		518	\$163,952	
Withlacoochee SF - Tucker Hill	HERN	DOF	WR	WR-105	54		\$18,922	\$86,800
Withlacoochee SF - Two Mile Prairie	HERN	DOF	WR	LY-005	50		\$24,806	
Goethe SF	LEVY	DOF	WR	LY-005		12	\$5,953	
Indian Lake SF	MARI	DOF	WR	WR-108	40		\$54,457	\$3,000
TOTAL DOF					5,143	1,137	\$903,984	\$121,492

IPMS Uplands Program Projects for Fiscal Year 2008-09

PROJECT NAME	CNTY	MGR	WG	TA#	I-AC	M-AC	PRJ COST	COOP COST
Keys State Parks	MONR	DRP	FK	FK-084	475		\$202,502	
Key Largo Hammocks	MONR	DRP	FK	FK-086	6		\$118,527	
Blue Springs SP	VOLU	DRP	MC	MC-098	49		\$33,374	
Pumpkin Hill PSP	DUVA	DRP	NE	NE-054		7	\$3,800	
Anastasia SP - Conch Island	STJO	DRP	NE	NE-048	380		\$72,052	
Florida Caverns SP	JACK	DRP	PH	PH-077		1,300	\$38,368	
Maclay Gardens SP	LEON	DRP	PH	PH-087	71		\$20,119	
Maclay Gardens SP	LEON	DRP	PH	PH-089	80		\$28,883	
Alafia River SP	HILL	DRP	SC	SC-105	287		\$50,290	\$344,951
Terra Ceia PSP - Frog Creek	MANA	DRP	SC	SC-097		16	\$43,777	\$48,000
Charlotte Harbor NW Cape Coral	CHAR	DRP	SW	SW-126	777		\$183,977	
Fakahatchee Strand PSP - Prairie Canal	COLL	DRP	SW	SW-113	100		\$181,010	
Collier-Seminole SP	COLL	DRP	SW	LY-005	6		\$2,977	
Estero Bay PSP	LEE	DRP	SW	LY-005	10		\$4,961	
JDSP Unit D-5	MART	DRP	TC	TC-119	80		\$200,000	
JDSP Unit G-4	MART	DRP	TC	TC-121	689		\$199,312	\$200,000
Kissimmee Prairie PSP	OKEE	DRP	TC	TC-122	415		\$117,234	
Highlands Hammock SP	HIGH	DRP	WC	WC-081	630		\$28,474	\$5,205
Highlands Hammock	HIGH	DRP	WC	LY-005	9		\$4,465	
Catfish Creek PSP	POLK	DRP	WC	WC-084		1,800	\$34,933	\$1,500
Crystal River PSP	CITR	DRP	WR	WR-101		114	\$87,895	\$13,291
Rainbow Springs SP	MARI	DRP	WR	LY-005	2		\$1,000	
TOTAL DRP					4,066	3,237	\$1,657,929	\$612,947
Tosohatchee WMA	ORAN	FWC	EC	EC-063	72		\$82,134	\$605
Three Lakes WMA	OSCE	FWC	EC	EC-065		30	\$20,900	\$2,134
Triple N Ranch WMA	OSCE	FWC	EC	EC-066	77		\$58,887	\$3,160
Three Lakes WMA	OSCE	FWC	EC	LY-005	7		\$3,473	
Florida Keys WEA	MONR	FWC	FK	FK-087		700	\$70,511	
New Smyrna Fish Hatchery	VOLU	FWC	MC	MC-099	7		\$28,461	
Lake George WMA - HB	VOLU	FWC	MC	MC-100	60		\$3,137	
Big Bend WMA	DIXI	FWC	NE	NE-059		50	\$5,742	
Caravelle Ranch WMA - HB	PUTN	FWC	NE	NE-058		1,349	\$9,871	
Apalachee WMA	JACK	FWC	PH	PH-078	256		\$54,874	
JW Corbett - West Area Lygo	PALM	FWC	SE	SE-127		14,259	\$227,702	\$239,064
Holey Land WMA	PALM	FWC	SE	SE-138	500		\$90,750	
JW Corbett - Leon Moss	PALM	FWC	SE	SE-141		4,412	\$164,242	\$145,524
JW Corbett - Central Trail 7	PALM	FWC	SE	SE-142		2,682	\$250,068	\$73,524
JW Corbett - Trail 8	PALM	FWC	SE	SE-143		3,410	\$19,333	\$45,457
Dinner Island Ranch WMA - HB	HEND	FWC	TC	TC-093	700		\$37,675	
Hungryland WEA 13,14,15	MART	FWC	TC	TC-120		3,765	\$76,500	
Hungryland WEA 17,18	MART	FWC	TC	TC-123		1,115	\$106,501	
Fisheating Creek WMA	GLAD	FWC	WC	WC-079	1,500		\$173,988	\$350,000
Okaloacoochee Slough	HEND	FWC	WC	WC-078		35,000	\$198,500	\$54,967
Lake Wales Ridge WEA	HIGH/ POLK	FWC	WC	WC-080		6,300	\$128,864	\$84,100
Hilochee WMA	POLK	FWC	WC	LY-005	8		\$3,969	
TOTAL FWC					3,187	73,072	\$1,816,080	\$998,535
Cross-FL Greenway, Sec. 1-9	CITR	OGT	WR	WR-106		159	\$152,979	\$64,090
Cross-FL Greenway, Sec. 11-19	CITR	OGT	WR	WR-107	193		\$231,465	\$100,000
TOTAL OGT					193	159	\$384,444	\$164,090

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PROJECT NAME	CNTY	MGR	WG	TA#	I-AC	M-AC	PRJ COST	COOP COST
UCF CFCISMA - HB	ORAN	UNV	EC	EC-071	27		\$1,590	
St. Petersburg College Natural Park	PINE	UNV	SC	SC-096	62		\$167,836	\$102,158
FNAI Survey + Lygo Tech	XFL	UNV	XX	FN-006			\$369,545	
TOTAL UNIVERSITIES					89		\$538,971	\$102,158
SFWMD KCOL	POLK	WMD	EC	EC-067		1,004	\$75,000	\$75,000
Mud Swamp SRWMD	BRAD	WMD	NE	LY-005	3		\$1,488	
Osteen Tyree Jerry Branch	HAMI	WMD	NE	LY-005	11		\$4,245	
Falmouth Springs SRWMD	SUWA	WMD	NE	LY-005	9		\$4,465	
SFWMD Melaleuca Program	XWMD	WMD	SE	SE-136/7	30	138,954	\$1,998,926	\$1,000,000
Kissimmee River Lygodium	HIGH	WMD	TC	TC-117		4,089	\$305,708	
SFWMD KCOL	POLK	WMD	WC	WC-085		1,004	\$69,351	\$75,000
TOTAL WATER MGT DISTRICTS					53	145,051	\$2,459,183	\$1,150,000
TOTAL STATE AGENCIES					12,731	222,786	\$7,782,512	\$3,181,222
Key West NAS	MONR	DOD	FK	FK-085	57		\$65,106	
USFWS/FWCC Techs	MONR	FWS	FK	FK-081		700	\$200,000	\$100,000
MINWR Mel Retreat	BREV	FWS	MC	MC-090		130	\$326,354	\$195,000
MINWR Mel Initial	BREV	FWS	MC	MC-093	9,700		\$100,000	
MINWR Vines	BREV	FWS	MC	MC-095	335		\$92,380	
10,000 Islands Mid-Marsh Phase IV	COLL	FWS	SW	SW-115	90		\$87,500	\$270,000
Florida Panther NWR - Unit 26	COLL	FWS	SW	SW-117	375		\$67,550	
Ding Darling NWR	LEE	FWS	SW	SW-111		920	\$110,000	
Hobe Sound NWR	MART	FWS	TC	TC-124		200	\$85,925	
CNS Retreat	VOLU	NPS	MC	MC-097		381	\$150,000	\$148,000
Osceola NF	BAKE	USFS	NE	LY-005	4		\$1,544	
Apalachicola National Forest	LIBE	USFS	PH	PH-086	70		\$50,000	
TOTAL FEDERAL AGENCIES					10,631	2,331	\$1,336,359	\$713,000
TOTAL ALL AGENCIES					30,502	236,994	\$13,623,196	\$4,995,632