

Upland Invasive Exotic Plant Control Program

Fiscal Year 2013-2014

Over one-and-one-half million acres of Florida's public conservation land 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 have also been affected. Florida's nearly 11 million acres of public conservation land support a nature-based tourism economy valued at \$10 billion annually (total tourism spending in 2013 equaled \$76 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 (a subsection of IPMS) 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 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.

Terrestrial invasive plants infested approximately fifteen percent of public conservation land statewide in 2014. Forty-two percent (635,000 acres) of the affected area is currently under maintenance control. The Uplands Program expended over \$13.5 million controlling 345,000 acres of upland invasive plants on 122 publicly managed areas during fiscal year 2014. The Uplands Program also provided herbicide to assist public land managers with maintenance control treatments on 94,000 acres for a cost of \$630,000.

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 \$135 million to treat invasive plant species on 630 public land management areas by funding 2,165 projects comprising over 2.4 million¹ acres. Cooperating agencies contributed \$45 million in matching funds and in-kind services towards project funding.

¹Annual maintenance figures include areas that were re-treated in previous years, so the cumulative acreage is greater than the estimated total area infested.

IPMS Fiscal Year 2013-14 Uplands Project Acres and Dollars by Managing Agency

Agency	Acres	Cost
Department of Environmental Protection	4,656	\$345,889
Fish & Wildlife Conservation Commission	48,686	\$2,366,622
Florida Forest Service	4,972	\$808,124
Florida Park Service	19,684	\$2,275,438
Universities	82	29,029
Water Management Districts ²	218,791	\$1,595,014
Department of Defense	2,305	\$191,999
National Park Service	5,427	\$609,250
US Fish & Wildlife Service	26,373	\$1,673,709
US Forest Service	957	\$71,418
Local government agencies	14,723	\$2,186,676
TOTAL	346,656	\$12,153,167

²Includes \$1 million Melaleuca Program, as required by §206.606(1)(a), F.S.

IPMS Uplands Program Projects for Fiscal Year 2013-14

Abbreviations used in following table:

MGR	manager (managing agency)
CTY	county government agency
DEP	Department of Environmental Protection (without FPS)
DOD	U.S. Department of Defense
FFS	Florida Forest Service, Department of Agriculture and Consumer Services
FPS	Florida Park Service, DEP
FWC	Florida Fish and Wildlife Conservation Commission
FWS	U.S. Fish and Wildlife Service
NPS	National Park Service
UNV	public university
USFS	U.S. Forest Service
WMD	water management district
TASK#	task assignment number (project identifier)
WG	working group (first two letters in TA#)
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
AC	control acres
Herbicide Bank	only chemical was provided to agency
Task Amount	IPMS expenditures

TASK#	PROJECT NAME	MGR	AC	TASK AMOUNT
EC-105	Lake Lotus Park	City	17	\$20,548.49
EC-106	City of Casselberry Properties	City	77	\$92,777.59
NE-087	Egans Creek Greenway	City	215	\$59,525.00
PH-130	Phipps Park	City	270	\$55,316.50
SE-203	Alice Wainwright Park	City	12	\$22,565.00
SW-163	Sanibel Conservation Lands	City	500	\$43,543.30
TC-167	Fellsmere Trailhead Preserve	City	86	\$22,255.00
WR-144	Loblolly Woods	City	43	\$7,138.00
WR-146	Hogtown Creek Headwaters	City	32	\$10,701.35
WR-148	Bivens Arm Nature Park	City	37	\$8,386.80
		City Total	1,289	\$342,757.03
EC-097	Orange County Apopka Properties	CTY	187	\$44,720.50
EC-098	Orange Co. East/Split Oak WEA	CTY	1,071	\$90,952.68
EC-100	Spring Hammock	CTY	145	\$13,422.00
FK-116	Monroe County Techs	CTY	514	\$75,000.00
FK-119	Monroe County Contractor	CTY	172	\$50,000.00
MC-136	Pine Island Conservation Area	CTY	74	\$20,443.96
MC-140	Lake Beresford Trail	CTY	102	\$48,000.00
MC-141	Enchanted Forest	CTY	38	\$19,610.19
SC-125	McKay Creek Greenway	CTY	29	\$4,527.63
SC-133	Mabry Carlton Reserve	CTY	1,696	\$44,236.10
SC-138	A. L. Anderson Park	CTY	137	\$9,874.66
SC-139	Duette Preserve	CTY	394	\$110,270.00
SC-141	A. L. Anderson Park	CTY	6	\$7,659.56
SE-190	Pine Glades - Triangle Tract	CTY	3,200	\$100,000.00
SE-193	Hungryland Slough Preserve	CTY	1,176	\$100,000.00
SE-194	Matheson Hammock	CTY	75	\$150,000.00
SE-197	Tree Tops Park	CTY	209	\$74,512.50
SE-199	South Dade Wetlands	CTY	212	\$200,000.00
SE-200	Riverbend Park	CTY	649	\$35,900.00
SE-201	Mikania EDRR	CTY	25	\$70,000.00
SW-173	Six Mile Cypress Slough	CTY	68	\$59,152.68
SW-174	Hidden Cypress Preserve	CTY	228	\$71,895.00
SW-179	Buckingham Trail Preserve	CTY	172	\$121,205.55
TC-162	Martin County Conservation Lands	CTY	2,404	\$208,994.80
TC-163	St. Lucie Village/Wilcox	CTY	26	\$23,860.00
TC-168	Delaplane Preserve	CTY	20	\$42,321.26
WC-120	Sun-N-Lakes Preserve	CTY	404	\$47,360.00
		CTY Total	13,434	\$1,843,919.07
MC-142	Indian River Lagoon Aquatic Preserve	DEP	23	\$29,696.00
SW-164	Babcock Ranch Preserve	DEP	3,119	\$165,950.00
SW-169	Rookery Bay NERR-Keewaydin	DEP	1,240	\$26,711.48
SW-175	Rookery Bay NERR	DEP	274	\$123,531.60
		DEP Total	4,656	\$345,889.08
FK-120	Key West Naval Air Station	DOD	169	\$50,898.70
PH-123	Hurlburt Field Air Force Base	DOD	26	\$52,678.35
WC-119	Avon Park Air Force Range	DOD	2,110	\$88,421.74
		DOD Total	2,305	\$191,998.79
EC-104	Little Big Econ State Forest	FFS	538	\$42,772.00
NE-085	Four Creeks State Forest	FFS	122	\$64,480.00
NE-086	Cary State Forest	FFS	372	\$21,480.00
PH-129	Blackwater River State Forest	FFS	108	\$23,856.00
SC-137	Myakka River State Forest	FFS	104	\$7,959.51
SW-171	Picayune Strand State Forest	FFS	440	\$53,120.00
SW-177B	Picayune Strand State Forest	FFS	693	\$460,183.50
WC-117	Okaloacoochee Slough State Forest	FFS	2,595	\$134,273.12

TASK#	PROJECT NAME	MGR	AC	TASK AMOUNT
		FFS Total	4,972	\$808,124.13
EC-103	Rock Springs Run Reserve	FPS	1,566	\$15,105.00
FK-117	Key Largo Hammocks State Park	FPS	331	\$27,550.00
FK-118	Key Largo Hammocks State Park	FPS	282	\$26,485.00
MC-134	DeLeon Springs State Park	FPS	90	\$29,033.00
MC-135	Washington Oaks Gardens	FPS	59	\$9,850.00
MC-137	St. Sebastian River Preserve	FPS	104	\$14,876.00
MC-138	Indian River Lagoon State Park	FPS	140	\$52,519.46
MC-139	North Peninsula State Park	FPS	231	\$27,315.07
NE-082	Favor-Dykes State Park	FPS	130	\$18,591.50
NE-083	Ichetucknee Springs State Park	FPS	28	\$5,260.16
NE-084	Ichetucknee Trace Recreational Area	FPS	4	\$941.50
PH-131	Maclay Gardens State Park	FPS	33	\$6,483.65
SC-132	Myakka River State Park	FPS	27	\$21,212.50
SC-134	Little Manatee River State Park	FPS	790	\$42,656.60
SC-135	Myakka River State Park	FPS	280	\$15,051.33
SC-136	Alafia River State Park	FPS	67	\$18,204.60
SC-140	Lake Manatee State Park	FPS	25	\$5,435.16
SW-165	Don Pedro Island State Park	FPS	95	\$8,875.70
SW-167	Charlotte Harbor/No Name Creek	FPS	139	\$26,928.00
SW-170	Mound Key Archaeological Park	FPS	77	\$26,730.00
SW-176	Charlotte Harbor/Everglades NP	FPS	1,206	\$447,164.97
SW-177C	Fakahatchee Strand State Forest	FPS	800	\$239,352.00
TC-155	Jonathan Dickenson State Park	FPS	1,798	\$99,092.50
TC-160	Jonathan Dickenson State Park	FPS	258	\$144,520.00
TC-161	Savannas Preserve State Park	FPS	320	\$74,914.82
TC-166	Atlantic Ridge State Park	FPS	2,760	\$128,227.50
TC-169	Savannas Preserve State Park	FPS	964	\$44,085.34
WC-121	Highlands Hammock State Park	FPS	171	\$68,167.22
WC-122	Lake Louisa State Park	FPS	527	\$68,075.10
WR-142	Paynes Prairie Preserve State Park	FPS	185	\$33,663.00
WR-143	Crystal River Preserve State Park	FPS	154	\$33,786.99
WR-145	Silver River State Park	FPS	1,770	\$89,210.88
WR-147	Rainbow Springs State Park	FPS	347	\$18,342.03
WR-149	Waccasassa Preserve/Cedar Key	FPS	32	\$4,972.00
WR-150	Cross-Florida Greenway	FPS	3,486	\$244,530.00
WR-151	Silver River State Park	FPS	378	\$35,120.43
WR-152	Ravine Gardens State Park	FPS	31	\$103,108.72
		FPS Total	19,684	\$2,275,437.73
EC-099	Tosohatchee WMA	FWC	827	\$36,007.82
EC-101	Triple N Ranch WMA	FWC	357	\$48,659.25
PH-125	Apalachee WMA	FWC	514	\$26,895.92
PH-126	Apalachicola River WEA-Sauls Creek	FWC	715	\$21,000.44
PH-127	Apalachicola River WEA	FWC	1,589	\$51,605.00
PH-128	Apalachicola River WEA-Cutoff Island	FWC	782	\$95,394.41
SC-142	Moody Branch WEA	FWC	270	\$35,305.00
SE-191	J.W. Corbett WMA-Northwest	FWC	6,707	\$188,486.28
SE-192	Holey Land WMA	FWC	1,250	\$70,000.00
SE-196	J.W. Corbett WMA-Southeast	FWC	8,348	\$369,890.00
SE-204	J.W. Corbett WMA-West Central	FWC	3,620	\$257,088.80
SW-166	Babcock-Webb WMA	FWC	8,950	\$41,739.25
SW-172	Babcock-Webb WMA	FWC	334	\$67,250.00

TASK#	PROJECT NAME	MGR	AC	TASK AMOUNT
SW-178	Babcock-Webb WMA	FWC	1,182	\$256,602.50
TC-157	Hungryland WEA	FWC	3,122	\$94,373.40
WC-115	Fisheating Creek WMA	FWC	5,944	\$411,655.00
WC-116	Lake Wales Ridge WEA	FWC	1,479	\$104,451.50
WC-118	Okaloacoochee Slough WMA	FWC	2,696	\$190,217.66
		FWC Total	48,686	\$2,366,622.23
FK-115	National Key Deer Refuge	FWS	791	\$63,432.48
MC-133	Merritt Island NWR	FWS	274	\$75,496.08
MC-143	Archie Carr Sea Turtle Refuge	FWS	1,640	\$67,680.00
SE-195	Loxahatchee NWR	FWS	17,600	\$900,000.00
SW-168	Florida Panther NWR	FWS	2,828	\$135,160.00
SW-177A	Florida Panther/Fakahatchee Strand	FWS	2,350	\$156,338.00
TC-164	Hobe Sound NWR	FWS	133	\$43,918.32
TC-170	Pelican Island NWR	FWS	145	\$77,692.31
WC-123	Lake Wales Ridge NWR	FWS	450	\$62,976.74
WR-153	Chassahowitzka NWR	FWS	162	\$91,014.83
		FWS Total	26,373	\$1,673,708.76
MC-132	Canaveral National Seashore	NPS	2,019	\$154,328.36
SE-187	Everglades National Park	NPS	924	\$68,340.00
SE-188	Everglades National Park	NPS	678	\$209,840.00
SW-160	Big Cypress National Preserve	NPS	556	\$42,320.00
SW-161	Big Cypress National Preserve	NPS	244	\$34,807.48
SW-162	Big Cypress National Preserve	NPS	1,006	\$99,613.80
		NPS Total	5,427	\$609,249.64
EC-102	UCF Conservation Areas	Univ	52	\$15,834.00
SE-198	FAU Pine Jog ELC	Univ	30	\$13,194.85
		Univ Total	82	\$29,028.85
PH-124	Apalachicola National Forest	USFS	957	\$71,418.00
		USFS Total	957	\$71,418.00
SE-189	SFWMD Melaleuca Program	WMD	197,386	\$995,765.24
TC-156	Dupuis East	WMD	8,000	\$200,000.00
TC-158	Kissimmee River Lygodium	WMD	3,600	\$149,248.43
TC-159	Dupuis North	WMD	3,805	\$100,000.00
TC-165	Dupuis West	WMD	6,000	\$150,000.00
		WMD Total	218,791	\$1,595,013.67
Operational Projects		Total	346,656	\$12,153,166.98
Herbicide Bank				
TASK#	PROJECT NAME	MGR	AC	Chemical Cost
EC-060	Crooked Lake WEA	FWC	0 ³	\$113.25
MC-066	North Peninsula/Gamble Rogers	FPS	10	\$150.20
MC-070	Bunnell Forest District	FFS	34	\$3,617.38
MC-077	Archie Carr Sea Turtle Refuge	CTY	45	\$4,339.32
MC-081	Salt Lake WMA/Split Oak WEA	FWC	40	\$2,929.15
MC-118	Brevard EEL Program	CTY	50	\$1,007.44
MC-BCP	Brevard Parks	CTY	1,960	\$516.43
NE-084	Ichetucknee Springs State Park	FPS	5	\$248.90
PH-049	Blackwater River State Forest	FFS	800	\$4,346.25
PH-118	Apalachee WMA	FWC	1,130	\$2,647.10
PH-128	Apalachicola River WEA	FWC	0 ⁴	\$3,087.28
PH-131	Jackson Mounds State Park	FPS	120	\$4,847.25
PH-131	Maclay Gardens State Park	FPS	277	\$9,985.60
PH-WMA	Tate's Hell Region WMAs	FWC	50	\$2,540.54

TASK#	PROJECT NAME	MGR	AC	Chemical Cost
RP-100	Blackwater Heritage State Trail	FPS	56	\$1,750.25
RP-500	FPS District 5 Parks	FPS	4,000	\$9,694.56
SC-014	Pinellas County Parks	CTY	2,644	\$14,502.90
SC-082	Alafia River State Park	FPS	85	\$1,764.73
SC-MAN	Manatee County Parks	CTY	125	\$2,096.12
SC-SAR	Sarasota County Parks	CTY	1,933	\$1,702.50
SE-001	Cypress Creek Preserve	CTY	255	\$5,141.40
SE-EVER	Everglades National Park	NPS	0 ⁴	\$25,299.25
SE-JWC	J.W. Corbett WMA	FWC	27,000	\$87,934.13
SE-MDC	Miami-Dade County Parks	CTY	1,478	\$38,554.41
SE-PBC	Palm Beach County Parks	CTY	7,250	\$43,822.40
SE-PBC	Riverbend Park	CTY	742	\$3,515.10
SW-018	Cape Coral	City	20	\$869.25
SW-136	Babcock Ranch	DEP	12,000	\$9,737.10
SW-154	Florida Panther Refuge	FWS	7,135	\$33,231.30
SW-161	Big Cypress National Preserve	NPS	82	\$2,173.13
SW-166	Babcock-Webb WMA	FWC	3,500	\$11,065.04
SW-176	Charlotte Harbor Preserve	FPS	0 ⁴	\$144,458.10
SW-LEE	Lee County Parks	CTY	568	\$16,719.96
TC-082	St. Sebastian River Preserve	FPS	180	\$6,842.19
TC-155	Jonathan Dickinson State Park	FPS	450	\$5,781.35
TC-160	Jonathan Dickinson State Park	FPS	258	\$4,455.20
WC-055	Okaloacoochee Slough State Forest	FFS	2,100	\$2,124.70
WC-071	Paynes Creek Historic State Park	FPS	0 ³	\$307.50
WC-115	Fisheating Creek WMA	FWC	5,184	\$47,864.60
WC-FEC	West Central Region WMAs	FWC	4,825	\$51,997.50
WC-LCW	Lake County Water Authority	CTY	6,500	\$6,219.32
WC-SSF	Seminole State Forest	FFS	21	\$165.60
WR-072	Stephen Foster Cultural Center	FPS	0 ³	\$165.60
WR-092	Ocala National Forest	USFS	80	\$3,025.65
WR-117	Weeki Wachee State Park	FPS	100	\$390.90
WR-CRP	Crystal River Preserve	FPS	333	\$2,027.58
WR-WSF	Withlacoochee State Forest	FFS	466	\$4,922.33
Herbicide Bank Assistance		Total	93,891	\$630,697.74
FY14 Total Acres and Costs			440,547	\$12,783,864.72

³ Acres counted elsewhere or otherwise unspecified.

⁴ Chemicals provided for operational projects; additional cost but not additional acres.