

# Upland Invasive Exotic Plant Control Program

## Fiscal Year 2015-2016

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 are 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 2015 equaled \$89 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. Thus, continuous maintenance of invasive plants must occur to preserve native plant communities, sustain wildlife habitat, and provide outdoor recreational opportunities.

Invasive plants infested fifteen percent of public conservation land statewide in 2016. Forty percent (680,000 acres) of the affected area is currently under maintenance control. Over \$15 million was spent in fiscal year 2016 to control 93,529 acres of invasive plants on 150 publicly managed areas. The Uplands Program also provided herbicide at a cost of \$1 million to assist public land managers with maintenance control treatments on 18,000 acres.

Funding for the program derives from 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 appropriated by the Legislature for invasive plant control from the Land Acquisition Trust Fund shall be used for the purpose of controlling nonnative, upland, invasive plant species on public lands."

During its nineteen years of operation, the Uplands Program has spent \$153 million on 2,600 invasive plant control operations targeting 2.8 million<sup>1</sup> acres of conservation land. The program has assisted land managers on more than 700 federal, state, county and city natural areas that comprise over 9 million acres. Cooperating agencies contributed \$50 million in matching funds toward these projects. Another \$9.8 million was spent on invasive plant surveys, research, outreach, and other related activities.

<sup>1</sup>Annual 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 2015-16 Uplands Project Acres and Dollars by Managing Agency

MANAGER	COST	ACRES
<b>Cities</b>	\$501,169	1,201
<b>Counties</b>	\$3,095,611	14,603
<b>Local Total</b>	\$3,596,780	15,804
<b>CAMA<sup>1</sup></b>	\$11,161	4
<b>DEP<sup>2</sup></b>	\$214,579	2,165
<b>FFS</b>	\$172,723	1,013
<b>FPS</b>	\$2,125,179	11,371
<b>FWC<sup>3,4</sup></b>	\$773,543	11,404
<b>UNV</b>	\$16,775	179
<b>WMD<sup>5</sup></b>	\$2,559,724	23,225
<b>State Total</b>	\$5,873,683	49,361
<b>DOD</b>	\$211,666	494
<b>NPS</b>	\$1,636,248	12,217
<b>USFS</b>	\$257,113	1,991
<b>USFWS</b>	\$3,611,575	13,655
<b>Fed Total</b>	\$5,716,602	28,357
<b>Grand Total</b>	<b>\$15,240,763</b>	<b>93,529</b>

<sup>1</sup>CAMA is now part of the DEP Florida Coastal Office. IPMS works on uplands within NERR boundaries.

<sup>2</sup>DEP Division of State Lands; essentially the Bureau of Mine Reclamation's Homeland Tract.

<sup>3</sup>Wildlife Management Areas, Wildlife Environmental Areas, and Public Small Game Hunting Areas.

<sup>4</sup>IPMS transferred an allocation of \$2,299,000 to WHMS for invasive plant management. Acres treated are not included.

<sup>5</sup>Includes \$1 million Melaleuca Program, as required by §206.606(1)(a), F.S.

### IPMS Uplands Program Projects for Fiscal Year 2015-16

#### Abbreviations used in preceding and following tables:

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, Department of the Interior (DOI)
NPS	National Park Service, DOI
UNV	public university
USFS	U.S. Forest Service, U.S. Department of Agriculture (USDA)
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; I initial, M maintenance
Task Amount	IPMS expenditures only

TASK#	PROJECT NAME	MGR	I AC	M AC	TASKED
EC-126	City of Casselberry	City		67	\$44,000.00
EC-127	Oakland Nature Preserve	City	38		\$15,022.92
FK-137	City of Marathon	City	25		\$34,800.00
NE-103	Egans Creek Greenway	City		189	\$42,013.50
PH-144	Lafayette Heritage Trail Park	City	177		\$52,215.00
PH-145	Elinor Klapp-Phipps Park	City		159	\$33,867.00
PH-147	Timberlane Ravine	City	47		\$17,860.00
PH-148	Governors Park	City	32		\$13,984.00
PH-149	Barnette W. Allen Nature Preserve	City	9		\$12,150.00
PH-150	Tom Brown Park - Kudzu	City		48	\$16,800.00
PH-150	Tom Brown Park	City		35	\$31,850.00
PH-151	Indian Head Acres Park	City	28		\$7,716.00
PH-152	A. J. Henry Park	City	5	37	\$15,960.00
PH-153	Tanyard Creek Preservation Park	City	19		\$42,750.00
SC-162	Boyd Hill Nature Park	City		124	\$28,318.50
SE-255	Washington Preserve/Jones Creek	City	26	22	\$18,480.00
WC-158	MacKay Gardens/Lakeside	City		46	\$46,452.00
WR-177	Cofrin Nature Park	City		9	\$2,655.00
WR-182	Loblolly Woods	City		27	\$11,475.00
WR-183	Hogtown Creek Headwaters	City		32	\$12,800.00
<b>City Total</b>			406	795	\$501,168.92
EC-114	Lake Jesup Wilderness Area	CTY	481		\$82,962.88
EC-122	Seminole County Properties	CTY		272	\$59,400.00
EC-125	Orange County Properties	CTY	109	208	\$47,233.00
EC-128	Makinson Island Conservation Area	CTY		132	\$21,780.00
FK-128	Monroe Lands Maintenance Contract	CTY		365	\$60,000.00
FK-129	Monroe Lands Initial Contract	CTY	7		\$70,000.00
MC-157	Brevard County Properties	CTY		161	\$47,980.00
MC-158	Volusia County Properties	CTY	3	76	\$17,159.00
MC-164	Lake Beresford Trail	CTY		102	\$20,910.00
SC-158	Duette Preserve	CTY		410	\$34,440.00
SC-159	Wolf Branch	CTY		581	\$161,262.50
SC-161	Deer Prairie Creek Preserve	CTY		1,297	\$129,699.90
SC-163	Carlton Memorial Reserve	CTY		1,306	\$77,707.00
SC-166	Headwaters at Duette Preserve	CTY		450	\$39,150.00
SC-168	Wall Springs Park	CTY		112	\$34,836.89
SC-169	Hidden Harbour Park	CTY		92	\$22,008.00
SE-227	South Dade Wetlands combined	CTY		272	\$97,920.00
SE-238	Mikania EDRR	CTY		250	\$44,482.00
SE-242	Deering Estate @ Cutler	CTY		147	\$63,000.00
SE-244	R. Hardy Matheson Preserve	CTY	18		\$39,000.00
SE-248	Tree Top Park	CTY		211	\$48,670.00
SE-251	Jupiter Inlet Lighthouse	CTY	15	78	\$25,777.14
SE-252	Castello 28 Preserve	CTY	17		\$50,000.00
SE-253	Kendall Indian Hammock Park	CTY		32	\$52,106.00
SW-222	Caloosahatchee RP Cogongrass	CTY	190	190	\$23,740.50
SW-226	Caloosahatchee Creeks Preserve	CTY	54		\$91,746.00
SW-233	Six Mile Cypress Preserve MU 11	CTY		41	\$11,767.00
SW-234	Telegraph Creek Preserve	CTY	401		\$117,447.76
SW-236	Caloosahatchee RP Fichter's Creek	CTY	6	36	\$18,142.12
SW-239	Cow Slough/Deep Lagoon	CTY	20	20	\$43,352.60
SW-240	Wet Woods Preserve	CTY		27	\$7,938.00
SW-243	Buttonwood Preserve Melaleuca	CTY	101		\$89,300.00
SW-244	Six Mile Cypress North	CTY	1,067		\$172,584.00

TASK#	PROJECT NAME	MGR	I AC	M AC	TASKED
TC-184	Martin Co. Properties East	CTY		375	\$57,700.00
TC-191	St. Lucie County Indrio Corridor	CTY	297	50	\$115,898.00
TC-195	St. Lucie County Western Preserves	CTY		2,113	\$204,961.00
TC-197	St. Lucie County North Fork	CTY	119	201	\$180,781.00
TC-199	Oslo Riverfront Conservation Area	CTY	63		\$43,380.00
TC-200	Captain Forster Hammock Preserve	CTY	15	21	\$27,262.60
TC-201	Flinn Tract Conservation Area	CTY	5	16	\$29,012.00
TC-202	St. Lucie County Spoil Islands	CTY	23		\$32,491.50
TC-203	Savannas Recreation Area	CTY	309		\$242,565.00
TC-204	Martin Co. Properties West	CTY		835	\$97,040.00
TC-205	Martin Co. Culpepper Ranch	CTY		718	\$105,225.00
WR-178	Upper Pithlachascotee River	CTY		10	\$2,738.89
WR-179	Crews Lake Wilderness Park	CTY	11		\$7,305.98
WR-180	Lake Townsen Preserve	CTY	33		\$9,620.00
WR-181	Linda Pedersen/Jenkins Creek	CTY	34		\$16,128.00
<b>County Total</b>			3,397	11,206	\$3,095,611.26
SW-218	Babcock Ranch Preserve Cogon	DEP		1,930	\$144,750.00
SW-235	Charlotte Harbor AP (CAMA)	DEP	4		\$11,160.52
WC-152	Homeland (BMR)	DEP	231		\$69,828.64
<b>Department of Environmental Protection Total</b>			235	1,930	\$225,739.16
MC-166	Lake George SF Harper Road	FFS		153	\$33,201.00
SC-167	Myakka State Forest	FFS	55		\$28,162.65
WC-142	Okaloacoochee Slough SF	FFS		774	\$99,734.64
WC-146	Lake Wales Ridge SF	FFS		31	\$11,625.00
<b>Florida Forest Service (DACS) Total</b>			55	958	\$172,723.29
FK-130	Key Largo Hammock State Park	FPS		376	\$125,208.00
FK-134	John Pennekamp Coral Reef SP	FPS	113	52	\$64,865.50
MC-159	Bulow Creek State Park	FPS	51		\$14,490.00
MC-160	St. Sebastian River PSP	FPS		307	\$74,294.00
MC-161	Tomoka State Park	FPS	21	10	\$22,231.50
MC-162	IRL PSP Maintenance	FPS		152	\$32,160.00
MC-165	Indian River Lagoon PSP Initial	FPS	55		\$34,907.00
NE-098	Ichetucknee Springs State Park	FPS		28	\$2,887.50
NE-101	Ichetucknee Trace	FPS		123	\$6,150.00
NE-102	Nature Coast State Trail	FPS	335		\$56,366.59
PH-140	Blackwater River SF	FPS		570	\$88,409.00
PH-143	Alfred B. Maclay Gardens SP	FPS		45	\$10,395.00
SC-157	Little Manatee River State Park	FPS		617	\$76,242.11
SC-160	Terra Ceia Preserve State Park	FPS		203	\$70,012.74
SC-164	Alafia River State Park	FPS		384	\$133,917.00
SW-216	Cape Haze Mine	FPS		741	\$152,661.10
SW-219	Collier-Seminole State Park	FPS	47		\$27,965.00
SW-221	Stump Pass Beach State Park	FPS		66	\$49,499.34
SW-227	Koreshan State Historic Site	FPS	30		\$20,250.00
SW-238	Gordon River Greenway Preserve	FPS	3	100	\$53,734.03
TC-183	Jonathan Dickinson State Park	FPS		1,548	\$145,386.00
TC-187	Seabranck State Park	FPS		202	\$61,408.00
TC-193	Savannas Preserve State Park	FPS	363		\$194,982.00
TC-196	Atlantic Ridge Preserve State Park	FPS		1,831	\$139,156.00
WC-148	Catfish Creek Preserve SP	FPS		150	\$33,739.62

TASK#	PROJECT NAME	MGR	I AC	M AC	TASKED
WC-155	Colt Creek	FPS		160	\$30,880.00
WR-167	Crystal River Preserve SP	FPS		90	\$38,070.00
WR-168	Silver River SP	FPS		210	\$15,645.00
WR-169	Cross Florida Greenway	FPS		1,729	\$99,417.50
WR-173	Ravine Gardens SP	FPS		75	\$70,220.00
WR-174	San Felasco Hammock PSP	FPS	184		\$73,765.00
WR-175	Werner-Boyce Salt Springs SP	FPS	401		\$105,864.00
<b>Florida Park Service (DEP) Total</b>			1,603	9,768	\$2,125,178.53
EC-119	Triple N Ranch WMA	FWC		979	\$78,062.00
EC-121	Tosohatchee WMA	FWC		391	\$76,110.00
EC-123	Three Lakes WMA	FWC	186	244	\$66,942.00
PH-146	ARWEA (Cutoff Island)	FWC	300	1,000	\$238,000.00
SC-165	Moody Branch Mitigation WEA	FWC		273	\$15,394.47
SE-257	Triple N Ranch cogon grass	FWC		424	\$45,000.00
SW-214	Babcock-Webb Cogon/Lygodium	FWC	6,369		\$61,588.23
SW-223	Babcock-Webb Yucca Penns	FWC		788	\$87,483.76
WC-141	Crooked Lake WEA	FWC		184	\$59,003.01
WC-149	Platt Branch MP WEA	FWC		196	\$27,680.00
WC-157	Tenoroc FMA	FWC		71	\$18,279.66
<b>Fish &amp; Wildlife Conservation Commission Total</b>			6,855	4,549	\$773,543.13
EC-124	University of Central Florida	UNV		31	\$12,597.50
SE-247	Pine Jog Center (FAU)	UNV		137	\$41,100.00
SE-254	Tropical Research Center (UF)	UNV	11		\$16,775.00
<b>University Total</b>			11	168	\$16,775.00
NE-099	Branford Bend	WMD	30		\$6,390.00
NE-100	Falmouth Spring Conservation Area	WMD	34		\$7,922.00
SE-235	Melaleuca Program	WMD		10,094	\$1,250,000.00
SW-220	CREW Bird Rookery	WMD		4,271	\$357,005.00
TC-185	Allapattah Flats (SFWMD)	WMD	2,403		\$143,340.00
TC-188	Dupuis Reserve South	WMD		2,735	\$200,000.00
TC-189	Dupuis Reserve North	WMD		1,293	\$100,000.00
TC-192	Kissimmee River Pool D	WMD		6,500	\$200,000.00
TC-194	Kissimmee River Lygodium	WMD		2,176	\$200,000.00
WC-156	Observation Island	WMD	89	100	\$95,067.00
<b>Water Management District Total</b>			2,556	27,169	\$2,559,724.00
FK-133	Key Deer NWR	FWS		89	\$33,453.00
MC-156	Merritt Island NWR	FWS	52	662	\$209,125.00
SE-236	Loxahatchee NWR	FWS	1,487	6,291	\$2,550,000.00
SW-215	FL Panther NWR Units 1, 2, 3 & 5	FWS	632	723	\$164,825.00
SW-225	FL Panther NE Corner Re-Treat	FWS		1,718	\$190,975.00
SW-230	FL Panther NWR Units 7, 8 & 10	FWS	426	1,014	\$223,920.00
TC-190	Hobe Sound NWR	FWS		103	\$41,200.00
TC-198	Pelican Island NWR	FWS		335	\$134,198.00
WC-154	Everglades Headwaters NWR	FWS		100	\$51,503.00
WR-171	Cedar Keys NWR	FWS	34		\$12,376.00
<b>US Fish and Wildlife Service (DOI) Total</b>			2,631	11,034	\$3,611,575.00
MC-155	Canaveral National Seashore	NPS		777	\$229,215.00
SE-224	ENP Unit 6 West	NPS	991		\$371,625.00
SE-237	Everglades National Park	NPS	1	3,257	\$182,925.00
SW-197	Big Cypress National Preserve-Corndance	NPS		1,499	\$95,911.04

<b>TASK#</b>	<b>PROJECT NAME</b>	<b>MGR</b>	<b>I AC</b>	<b>M AC</b>	<b>TASKED</b>
<b>SW-212</b>	BCNP ITB 15/16-012	NPS		3,000	\$776,269.00
<b>National Park Service (DOI) Total</b>			992	8,533	\$1,655,945.04
<b>WC-145</b>	Avon Park Air Force Range	USAF		494	\$211,666.16
<b>US Air Force (DOD) Total</b>				494	\$211,666.16
<b>PH-141</b>	Apalachicola NF	USFS		1,955	\$252,064.59
<b>US Forest Service (USDA) Total</b>				1,955	\$252,064.59
<b>Grand Total</b>			<b>18,741</b>	<b>78,560</b>	<b>\$15,255,411.58</b>