

Lake Okeechobee – Fire Management Plan

*Chuck Hanlon
Sr. Environmental Scientist
Lake Okeechobee Division
March 25, 2009*



Lake Okeechobee Fire Management Plan

- Fall 2008 - An interagency team consisting of SFWMD, FFWCC, DOF and Audubon staff was formed to develop a Fire Management Plan for Lake Okeechobee
- Draft FMP - completed March 2009
- Final Fire Management Plan – summer 2009

WHY DEVELOP A FIRE MANAGEMENT PLAN?

Florida's wetland and upland plant communities have evolved with fire as an essential disturbance process.

Man-made changes to the landscape have altered natural fire frequencies and burn patterns and created a need for prescribed burning.

Burning promotes plant species diversity and limits the accumulation of organic muck sediments.

More than 8 million acres of land are burned annually by federal and state land managers. Most burns are conducted to reduce hazardous fuel loads and enhance wildlife habitat.

In Florida, lightning strikes provided a frequent ignition source for wildfires.



South Florida Water Management District

- Man-made barriers restrict the natural occurrence and movement of fire.
- Prescribed fire offers managers a tool to;
 - a) Reintroduce fire to maintain diverse marsh landscapes
 - b) Lessen the threat of damaging wildfires

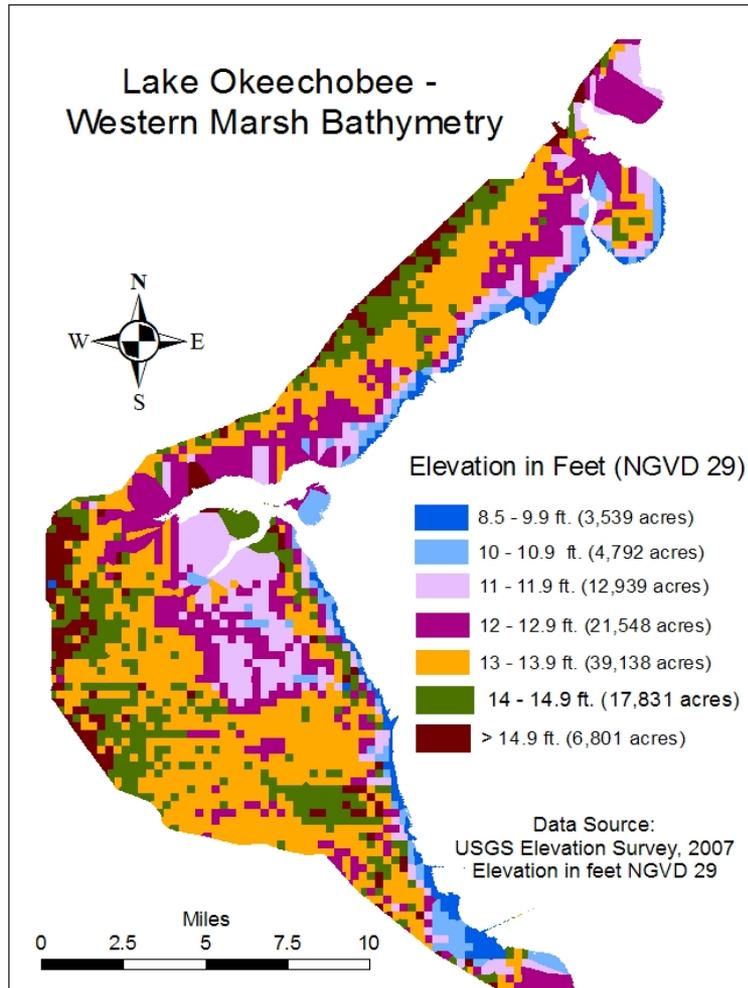


Miami River



STA5 – Cell 1A

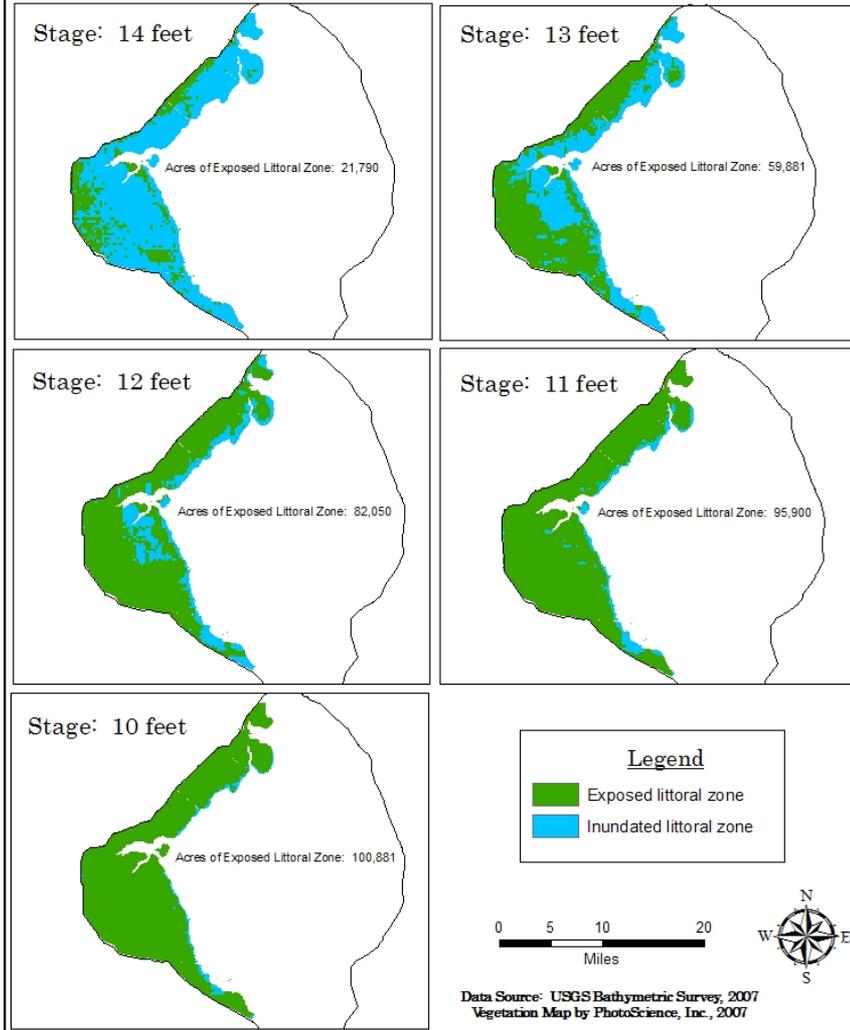
South Florida Water Management District



Plant distribution and fire frequency are strongly influenced by hydrologic conditions in Lake Okeechobee's 100,000 acre marsh

South Florida Water Management District

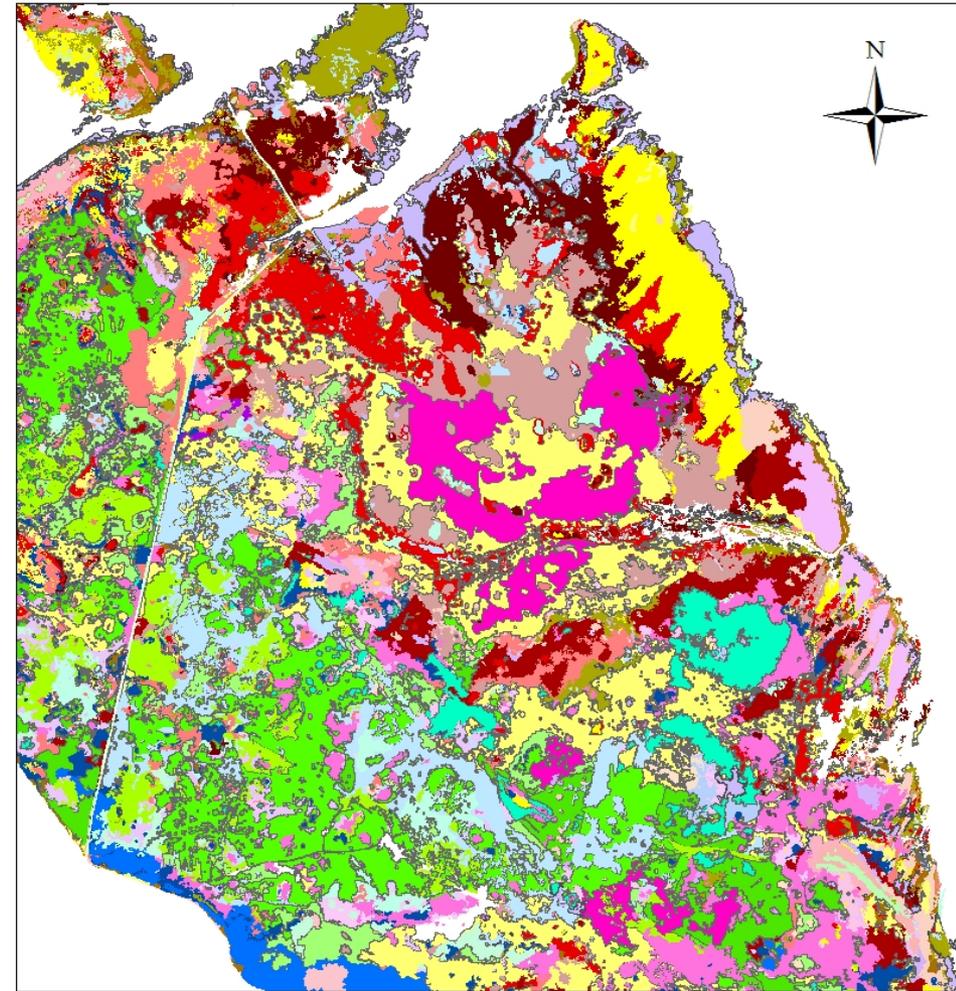
Lake Okeechobee Exposed Vegetation by Water Stage: Stage Contours in Feet (NGVD 29)



The area of burnable marsh increases as lake stage decreases

South Florida Water Management District

Before implementing a prescribed burn managers need to evaluate fuel loads and know “what’s there”



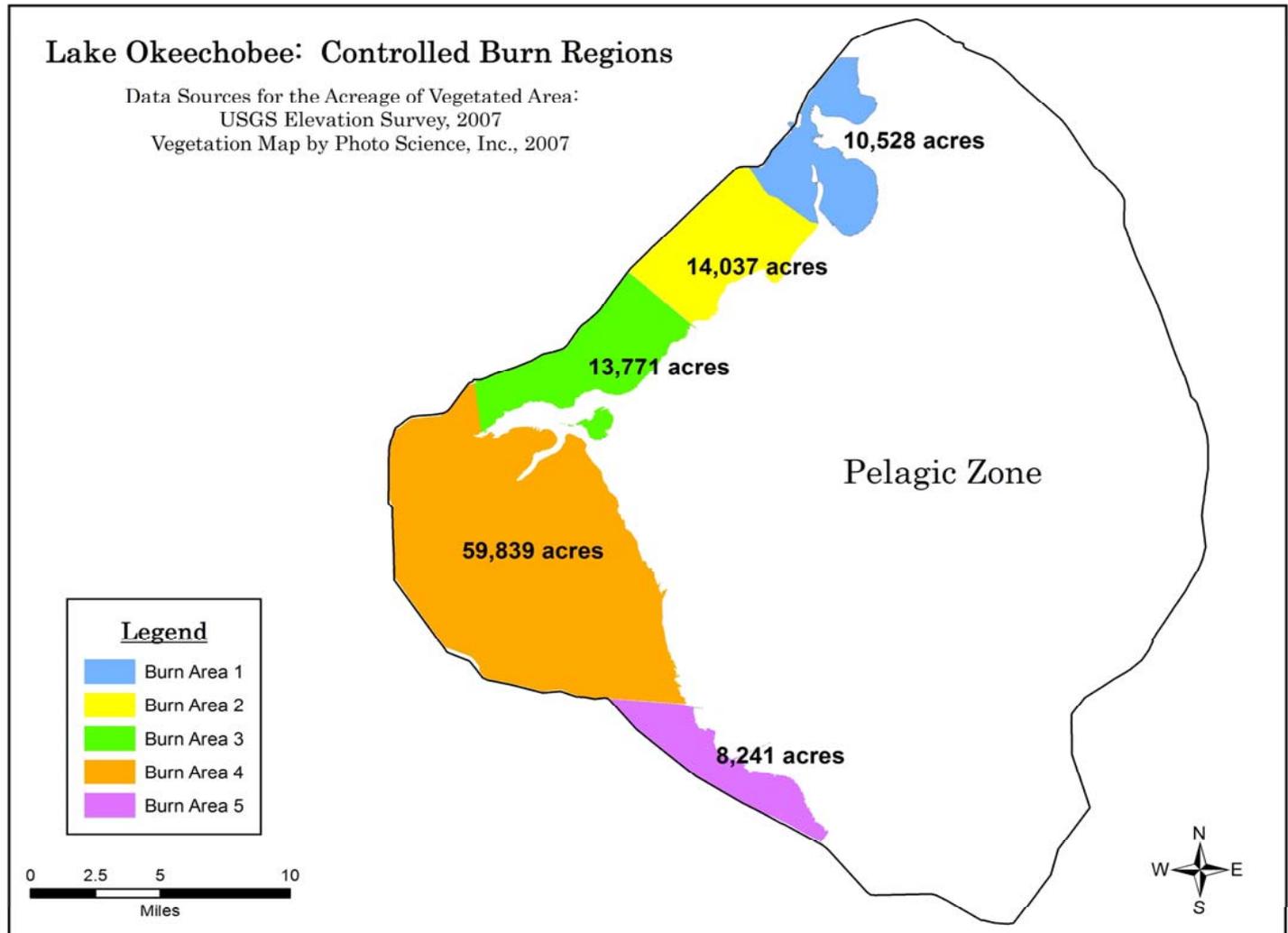
South Florida Water Management District

Fire containment and smoke management are priority safety concerns. Reducing the frequency of large marsh fires that burn for days is one of our goals.



South Florida Water Management District

To reduce the size of a permitted burn, the marsh has been divided into five regions that are separated by fire breaks.



South Florida Water Management District

USGS Bathymetric Data Survey, 2007

Inundated Area

Burn Area	Stage 10	Stage 11	Stage 12	Stage 13	Stage 14	Stage 15	Stage 16
1	309.71	1114.18	3153.56	7316.68	9726.46	10215.80	10288.91
2	887.24	1544.54	2711.33	4682.23	10116.23	12976.25	13663.76
3	375.16	1467.18	2838.51	7801.91	11686.00	13121.65	13583.30
4	992.69	2212.65	9697.30	19341.28	43938.81	55700.72	58928.89
5	1085.44	2292.34	4080.73	5507.76	7273.94	7946.64	8066.42
Total acres	3650.23	8630.88	22481.43	44649.85	82741.43	99961.06	104531.28

Dry Marsh Area

Burn Area	Stage 10	Stage 11	Stage 12	Stage 13	Stage 14	Stage 15	
1	9979.20	9174.73	7135.35	2972.23	562.45	73.11	
2	12776.52	12119.22	10952.43	8981.53	3547.53	687.51	
3	13208.14	12116.12	10744.79	5781.39	1897.30	461.65	
4	57936.20	56716.24	49231.59	39587.61	14990.08	3228.17	
5	6980.98	5774.08	3985.69	2558.66	792.48	119.78	
Total acres	100881.05	95900.40	82049.85	59881.43	21789.85	4570.22	

Use inundated and/or previously burned areas as natural fire breaks to limit the size of a fire within a burn unit



Potential 2009 burn target

Areas near Cochran's Pass that contain thick layers of dead cattail thatch that did not burn in 2007 or 2008.



Impacts of burning on wildlife must be considered – frequency, timing and location are important





