

## Lake McBride Lake Vegetation Index Results (8-27-2015)

The Lake Vegetation Index (LVI) is a multi-metric index that evaluates how closely a lake’s plant community resembles one that would be expected in a condition of minimal human disturbance. It is based on a rapid field assessment of aquatic and wetland plants as indicators of various effects of human disturbance over time. Plants respond to physical disturbances such as introduction of exotic species or lakeshore alter-

ations, and chemical disturbance such as introduction of excess nutrients, particulates, or herbicides from the surrounding land uses.

The LVI method is performed from a boat, and involves dividing a lake into 12 units and identifying plants in 4 of the 12 units (Figure 1). Plants are identified in the selected unit by a visual boat “drive by” and also via a transect approach. The resulting data is used to calculate the LVI and is evaluated according to the scoring system in Table 1.

**TABLE 1. Category names, ranges of values for LVI, and example descriptions of biological conditions typically found for that category.**

<i>Aquatic life use category</i>	<i>LVI Range</i>	<i>Description</i>
Exceptional	78–100	Nearly every plant present is a species native to Florida, invasive taxa typically not found. About 30% of taxa present are identified as sensitive to disturbance.
Healthy	43–77	About 85% of plant taxa are native to Florida; invasive taxa present. Sensitive taxa have declined to about 15%.
Impaired	0–42	About 70% of plant taxa are native to Florida. Invasive taxa may represent up to 1/3 of total taxa. Less than 10% of the taxa are sensitive.

The Lake Vegetation Index score for Lake McBride was 71, placing the lake’s vegetative community in the healthy category.

Sixty-eight plant species were found during the survey. The native species, fanwort (*Cabomba caroliniana*), water shield (*Brasenia schreberi*) and fragrant waterlily (*Nymphaea odorata*) were the most dominant plants in the lake. Other examples of native shoreline vegetation included red maple (*Acer rubrum*), buttonbush (*Cephalanthus occidentalis*) and pickerelweed (*Pontederia cordata*).

Unfortunately, wild taro (*Colocasia esculenta*), hydrilla (*Hydrilla verticillata*) and Chinese tallow (*Sapium sebiferum*), listed as Category I Invasive Exotics by the Florida Exotic Pest Control Council <http://www.fleppc.org/>, are invasive exotics that are a concern in Lake McBride. Alligator weed (*Alternanthera philoxeroides*), a Category II Invasive Exotic, was found for the first time in Lake McBride in 2013 and is still present. Water spangles (*Salvinia minima*) and yellow nutsedge (*Cyperus esculentus*) are two additional non-native species found in Lake McBride. Burhead sedge (*Scirpus cubensis*) was also found

in Lake McBride and is especially prevalent on the tussocks found in and along the edges of the lake. Experts are in disagreement about whether this species is native or non-native to Florida.

For a complete list of plants found during the LVI survey, please see Table 2.

**TABLE 2. Scientific and common names of the plants identified during the Lake McBride LVI survey (8-27-15).**

<b>Scientific Name</b>	<b>Common Name</b>
<i>Acer rubrum</i>	red maple
<b><i>Alternanthera philoxeroides(II)</i></b>	alligator weed
<i>Andropogon virginicus</i>	broomsedge bluestem
<i>Bacopa caroliniana</i>	lemon bacopa
<i>Bidens laevis</i>	smooth beggartick
<i>Bidens mitis</i>	smallfruit beggartick
<i>Boehmeria cylindrica</i>	false nettle
<i>Brasenia schreberi</i>	watershield
<i>Cabomba caroliniana</i>	fanwort
<i>Cephalanthus occidentalis</i>	buttonbush
<b><i>Colocasia esculenta (I)</i></b>	wild taro
<b><i>Cyperus esculentus</i></b>	yellow nutsedge
<i>Cyrilla racemiflora</i>	swamp titi
<i>Decodon verticillatus</i>	swamp loosestrife
<i>Dichantherium</i> sp.	witch grass
<i>Dulichium arundinaceum</i>	three-way sedge
<i>Echinochloa walteri</i>	coast cockspear grass
<i>Eleocharis</i> sp.	eleocharis
<i>Eupatorium capillifolium</i>	dogfennel
<i>Fuirena scirpoidea</i>	southern umbrella sedge
<i>Habenaria repens</i>	water spider orchid
<b><i>Hydrilla verticillata (I)</i></b>	hydrilla
<i>Hydrocotyle</i> sp.	water pennywort
<i>Hydrolea quadrivalvis</i>	waterpod
<i>Juncus effusus</i>	common rush
<i>Juncus marginatus</i>	grassleaf rush
<i>Leersia hexandra</i>	southern cutgrass
<i>Leucothoe racemosa</i>	sweetbells
<i>Limnobium spongia</i>	frog's bit
<i>Liquidambar styraciflua</i>	American sweetgum
<i>Ludwigia arcuata</i>	needleleaf ludwigia
<i>Ludwigia decurrens</i>	wingleaf primrose willow
<i>Ludwigia leptocarpa</i>	anglestem primrose willow

<b>Scientific Name</b>	<b>Common Name</b>
<i>Ludwigia sphaerocarpa</i>	globe-fruited primrose willow
<i>Lycopus rubellus</i>	taperleaf water horehound
<i>Mikania scandens</i>	climbing hempvine
<i>Myrica cerifera</i>	wax myrtle
<i>Myriophyllum heterophyllum</i>	twoleaf watermilfoil
<i>Myriophyllum pinnatum</i>	cutleaf watermilfoil
<i>Najas guadalupensis</i>	southern waternymph
<i>Nuphar sp.</i>	spatterdock
<i>Nymphaea odorata</i>	fragrant waterlily
<i>Nyssa sylvatica var. biflora</i>	swamp tupelo
<i>Panicum hemitomon</i>	maidencane
<i>Paspalum urvillei</i>	vaseygrass
<i>Pinus taeda</i>	loblolly pine
<i>Polygonum densiflorum (glabrum)</i>	denseflower knotweed
<i>Polygonum punctatum</i>	dotted smartweed
<i>Pontederia cordata</i>	pickerelweed
<i>Rhexia mariana</i>	maryland meadowbeauty
<i>Rhynchospora glomerata</i>	clustered beaksedge
<i>Rubus trivialis</i>	southern dewberry
<i>Saccharum giganteum</i>	sugarcane plumegrass
<i>Sagittaria filiformis</i>	threadleaf arrowhead
<i>Sagittaria lancifolia</i>	duck potato
<i>Sagittaria latifolia</i>	broadleaf arrowhead
<i>Salix carolina</i>	coastal plain willow
<b><i>Salvinia minima</i></b>	water spangles
<b><i>Sapium sebiferum(I)</i></b>	Chinese tallow tree
<i>Scirpus cubensis</i>	burhead sedge
<i>Scirpus cyperinus</i>	woolgrass
<i>Sesbania herbacea</i>	bigpod sesbania
<i>Solidago fistulosa</i>	pine barren goldenrod
<i>Sphagnum sp.</i>	sphagnum moss
<i>Taxodium ascendens</i>	pond cypress
<i>Typha sp.</i>	cattail
<i>Utricularia subulata</i>	zigzag bladderwort
<i>Xyris sp.</i>	yelloweyed grass

Names in bold are exotic  
I-Category I Invasive Exotics  
II-Category II Invasive Exotics

For additional information about the LVI, please go to the Florida Department of Environmental Protection webpage <http://www.dep.state.fl.us/water/sas/train>

[ing/docs/lvi\\_primer.pdf](#). For additional information about exotic Category I and II invasive exotic plants, please go to the Florida Exotic Pest Plant Council <http://www.fleppc.org/list/list.htm>.

**FIGURE 1. Lake McBride showing unit divisions. Circled numbers denote surveyed units.**

