

# Lake Assessment Report

## ONORA, LAKE

### 6/24/2003

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Lake assessments are being conducted to contribute physical and ecological data to the Atlas as a collaborative effort between project partners. The goal is to rapidly assess many of the lakes in the county and thus provide stakeholders a better understanding of the character of the lake, its shore, and the aquatic plants present there. These data are intended to assist in the future management of the lake and its watershed.

The first section of the report provides the results of the bottom mapping effort: a contour (bathymetric) map of the lake, area, volume and depth statistics, and the water level at the time of assessment (if available).

The second section provides the results of the ecological (vegetation) assessment conducted on the lake. These results can be used to better manage vegetation in the lake. A list is provided with the different plant species found at various sites around the lake. Potentially invasive, exotic (non-native) species are identified in a plant list and the percent of exotics is presented in a summary table. The results of this study are compared with other lakes in the watershed.

The intent of the assessment is to provide a starting point from which to track changes in the lake. These data can provide the information needed to determine changes and to monitor trends in physical condition and ecological health of the lake.

### ***I. Physical Data – Area, Depth, Volume, & Bottom Contours***

The bottom of the lake was mapped using a Global Positioning System (GPS) to determine the boat's position, and a depth-finder to provide depth associated with that measured position. The result is an estimate of the lake's area, mean and maximum depths, and volume (Table 1) and the creation of a bottom contour map. *NOTE: This map is for recreational purposes only.*

**Table 1: Physical Characteristics of the Lake**


Surface Area (acres):	8.40
Mean Depth (feet):	8.60
Maximum Depth (feet):	16.10
Volume (gallons):	23,647,100



*The lake assessments are created in partnership with Seminole County and the Florida Center for Community Design and Research at USF. If you have any questions, please use the "Contact Us" form on the Seminole Atlas Website ([www.seminole.wateratlas.org](http://www.seminole.wateratlas.org))*

# Onora Lake

Section Township Range  
7,8-20-31

 Contour Lines Expressed  
in 2-Ft intervals

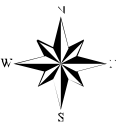
 Estimated Lake  
Perimeter


## EXPLANATION:

Assessment Date: June 24, 2003  
Lake water level was 43.75 ft above  
sea level when the lake was assessed.  
Contours are expressed in absolute  
depth below this level and may not  
exclude the presence of submerged  
aquatic vegetation.

## DATA SOURCES

Seminole County 1999 Color aerials  
provided by Seminole County Public  
Works. All contours generated by  
Florida Center For Community Design  
and Research based on GPS/Sonar  
data provided by Seminole County  
Stormwater Division.



0 30 60 120 180 240  
 Feet



## II. Ecological Data - Aquatic Plant Survey

Approximately equispaced sites (typically ten or more) are mapped around the lake and the aquatic plants at each site are surveyed. The total number of species from all sites is used to approximate the total diversity of aquatic plants and the percent of invasive-exotic plants on the lake and in the watershed (Table 2). Many of these plants are considered ecologically harmful, as they tend to out-compete beneficial native species. Such “nuisance” plants can also make boating and other recreational activities difficult or impossible. The common and scientific names of plant species found on your lake are listed in Table 3.

**Table 2: Comparison of species diversity between the lake and other assessed lakes located within the same watershed**

	<u>Lake</u> ONORA, LAKE <i>(Average)</i>	<u>Watershed</u> Lake Jesup
Number of Taxa:	27	31
Percent Exotic Plants:	19%	18%

**Table 3: Botanical and common names of the most commonly found plants on the lake. Percent frequency (of occurrence), habit (location where found), status (native or exotic), and EPPC status are provided**

Common Name	Scientific Name	Frequency	Habit	Status	EPPC
Spatterdock, Yellow Pondlily	Nuphar lutea	100%	Floating	Native	NL
Alligator Weed	Alternanthera philoxeroides	89%	Emergent	Exotic	II
Torpedo Grass	Panicum repens	89%	Emergent	Exotic	I
Water Spangles, Water Fern	Salvinia minima	89%	Floating	Native	NL
Para Grass	Urochloa mutica	89%	Emergent	Exotic	I
Buttonbush	Cephalanthus occidentalis	78%	Emergent	Native	NL
Panic Grasses	Panicum spp.	78%	Emergent	Unknown	NL
Mexican Primrosewillow, Long-stalked Ludwigia	Ludwigia octovalvis	67%	Emergent	Native	NL
Chinese Tallow Tree	Sapium sebiferum	56%	Emergent	Exotic	I
Baldwin's	Eleocharis	44%	Submersed	Native	NL

Spikerush, Roadgrass	baldwinii				
Manyflower Marshpennywort, Water Pennywort	Hydrocotyl umbellata	44%	Emergent	Native	NL
Common Bacopa	Bacopa monnieri	33%	Submersed	Native	NL
Pine Tree	Pinus spp.	33%	Emergent	Native	NL
Algal Mats, Floating	Algal spp.	22%	Floating	Unknown	Unknown
Aster spp., Elliot's Aster	Aster spp.	22%	Unknown	Unknown	Unknown
Camphor-tree	Cinnamomum camphora	22%	Emergent	Native	I
Fragrant Flatsedge	Cyperus odoratus	22%	Emergent	Native	NL
Black Gum, Swamp Tupelo	Nyssa sylvatica var. biflora	22%	Emergent	Native	NL
Sedge	Carex spp.	11%	Emergent	Unknown	Unknown
Asian Pennywort, Coinwort	Centella asiatica	11%	Emergent	Native	NL
Wild Taro	Colocasia esculenta	11%	Emergent	Exotic	I
Swamp lily	Crinum americanum	11%	Emergent	Native	NL
American Spongeplant, Frog's Bit	Limnobium spongia	11%	Floating	Native	NL
Climbing Hempvine	Mikania scandens	11%	Emergent	Native	NL
Royal Fern	Osmunda regalis	11%	Emergent	Native	NL
Elderberry	Sambucus canadensis	11%	Emergent	Native	NL
Cattails	Typha spp.	11%	Emergent	Native	NL