

# LAKE ASSESSMENT REPORT

## IRISH, LAKE

7 /1 /2002

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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**

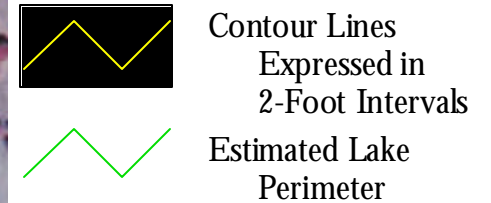
Surface Area (acres):	22
Mean Depth (feet):	9.7
Maximum Depth (feet):	17.3
Volume (gallons):	70,383,313



The lake assessments are created in partnership with Seminole County and the Florida Center for Community Design and Research. 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)).

# Lake Irish

Section - Township - Range  
35-19-29

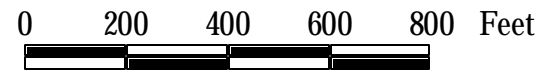


## EXPLANATION:

Assessment Date: July 2, 2002.  
Lake water level was 40.62 feet  
above sea level when the lake was  
assessed. Contours are expressed in  
absolute depth below this level and  
may not exclude the presence of  
submersed aquatic vegetation.

## DATA SOURCES:

April 2000 georeferenced Color Infrared  
Digital Ortho Quarter Quads (DOQQs)  
obtained from Seminole County GIS  
Division. All contours generated by  
Florida Center for Community Design  
and Research based on GPS/Sonar  
data provided by the Seminole County  
Stormwater Division.



## 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> IRISH, LAKE	<u>Watershed</u> Yankee Lake
	(Average)	
Number of Taxa:	32	24
Percent Exotic Plants:	9%	11%

**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
Torpedo Grass	<i>Panicum repens</i>	94%	Emergent	Exotic	I
Sedge	<i>Cyperus</i> spp.	63%	Emergent	Unknown	NL
Yellow-eyed Grass	<i>Xyris</i> spp.	38%	Emergent	Native	NL
Asian Pennywort, Coinwort	<i>Centella asiatica</i>	31%	Emergent	Native	NL
Fragrant Flatsedge	<i>Cyperus odoratus</i>	31%	Emergent	Native	NL
Manyflower Marshpennywort, Water Penny	<i>Hydrocotyl umbellata</i>	31%	Emergent	Native	NL
Carolina Redroot	<i>Lachnanthes caroliniana</i>	31%	Emergent	Native	NL
Maidencane	<i>Panicum hemitomon</i>	31%	Emergent	Native	NL
Pine Tree	<i>Pinus</i> spp.	31%	Emergent	Native	NL
Para Grass	<i>Urochloa mutica</i>	31%	Emergent	Exotic	I
Yerba De Tajo	<i>Eclipta alba</i>	25%	Emergent	Native	NL
Sedge	<i>Carex</i> spp.	19%	Emergent	Unknown	
Southern Umbrellasedge	<i>Fuirena scirpoidea</i>	19%	Emergent	Native	NL
Hypericum spp., St. John's Wort	<i>Hypericum</i> spp.	19%	Emergent	Unknown	Unknow
Peruvian Primrosewillow	<i>Ludwigia peruviana</i>	19%	Emergent	Exotic	NL
Duck Potato	<i>Sagittaria lancifolia</i>	19%	Emergent	Native	NL
Soft Rush	<i>Juncus effusus</i> var <i>solutus</i>	13%	Emergent	Native	NL
Mexican Primrosewillow, Long-stalked Lud	<i>Ludwigia octovalvis</i>	13%	Emergent	Native	NL

Creeping Primrosewillow, Red Ludwigia	Ludwigia repens	13%	Emergent	Native	NL
Banana Lily, Big Floatingheart	Nymphoides aquatica	13%	Floating	Native	NL
Pickrel Weed	Pontederia cordata	13%	Emergent	Native	NL
Beaksedge, Beakrush	Rhynchospora spp.	13%	Emergent	Unknown	NL
Aster spp., Elliot's Aster	Aster spp.	6%	Unknown	Unknown	Unknow
Jamaica Swamp Saw Grass	Cladium jamaicense	6%	Emergent	Native	NL
Buttonweed	Diodia virginiana	6%	Emergent	Native	NL
Baldwin's Spikerush, Roadgrass	Eleocharis baldwinii	6%	Submersed	Native	NL
Fourpetal St. John's-Wort	Hypericum tetrapetalum	6%	Emergent	Native	NL
Water Primroses, Primrosewillow	Ludwigia spp.	6%	Emergent	Unknown	NL
Watergrass	Luziola fluitans	6%	Emergent	Native	NL
Spatterdock, Yellow Pondlily	Nuphar lutea	6%	Floating	Native	NL
Marsh Fleabane,Camphorweed	Pluchea spp.	6%	Emergent	Native	NL
Willow	Salix spp.	6%	Emergent	Native	NL