

# Florida Boating Access Facilities Inventory and Economic Study including a Pilot Study for Lee County

## Executive Summary: Boating Access Facilities Inventory

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### PROJECT DESCRIPTION

The cornerstone of the Florida Boating Access Facilities Inventory and Economic Study, is a comprehensive statewide inventory of coastal and inland recreational boating access facilities. The inventory includes: boat launch ramps (with a focus on publicly-accessible ramps); marinas; dockominiums; private clubs; dry storage facilities; and hotels/restaurants, commercial establishments and large residential developments with recreational boat dockage or infrastructure.



comprehensive database enables the sharing of data among agencies at the state, county and municipal levels and with industry and the public.

The database contains records for over 3,100 boat ramps of which 51% are open to the public. The majority of these publicly-accessible ramps are managed by municipal, county, state or federal entities.

Additionally, the database currently contains records for over 2,700 boating access facilities. Of these, over 24% are commercial marinas, 28% are residential condominium developments with boating facilities and almost 13% are hotels/restaurants with associated boating facilities.

In addition to the inventory of boating access facilities, a probability sampling method was developed to estimate the amount of berthing at waterfront residential properties including: single family homes; apartment buildings; condominiums; and mobile home parks (both residential and recreational).

### PROJECT PURPOSE

The inventory data were gathered to create a baseline of characteristics of all recreational boating facilities in Florida and to collect information for use in economic analyses of recreational boating in Florida. The database represents the most comprehensive compilation of information on boating facilities in Florida and, perhaps, the nation.

The data in the inventory of boating facilities serves a number of valuable purposes including:

- Providing boaters with a statewide guide to boating facilities, berthing and launching opportunities;
- Providing managers with information for long-term facility planning;
- Guiding the allocation of funds to develop new or expanded boating opportunities at specific sites;
- Providing a baseline for monitoring future changes in recreational boating facilities/infrastructure; and
- Providing information to feed into economic models.

The facilities data are stored in a database maintained by Florida's Fish and Wildlife Research Institute. This centralized



The data will populate an online recreational boating guide so that boaters can access information on any boating facility in the state. The database can be used by industry or government to characterize and analyze the state's boating facilities for a wide variety of purposes. It is structured so that researchers can run queries to obtain specific information. For example, the database can be used to answer such questions as:

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Florida Fish and Wildlife  
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Project Manager:

David Harding Ph.D.  
Florida Fish and Wildlife  
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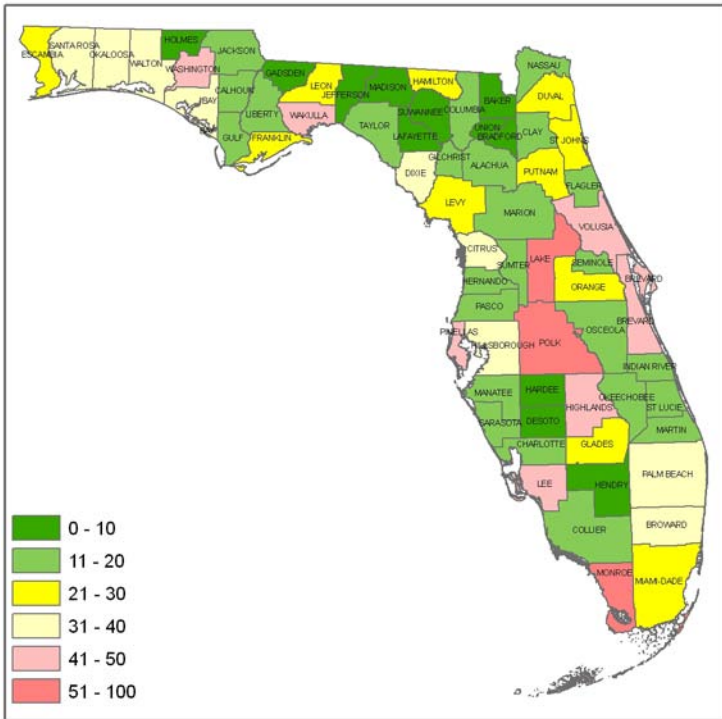
- Which boat ramps in Lee County have parking, and how much parking do they have?
- How many private clubs have pumpout capabilities?
- Which county has the most boat slips?
- Where are the boat ramps on Lake Okeechobee and are there any that do not have launch fees?
- Which boat ramps in Monroe County are in need of repair?

These data are essential for boater use surveys, economic impact studies, and for running Random Utility Models (RUMs), a type of economic model used to better understand concepts such as the value of boating access sites and the future demand of recreational boating.

**BOATING ACCESS FACILITIES INVENTORY METHOD AND RESULTS**

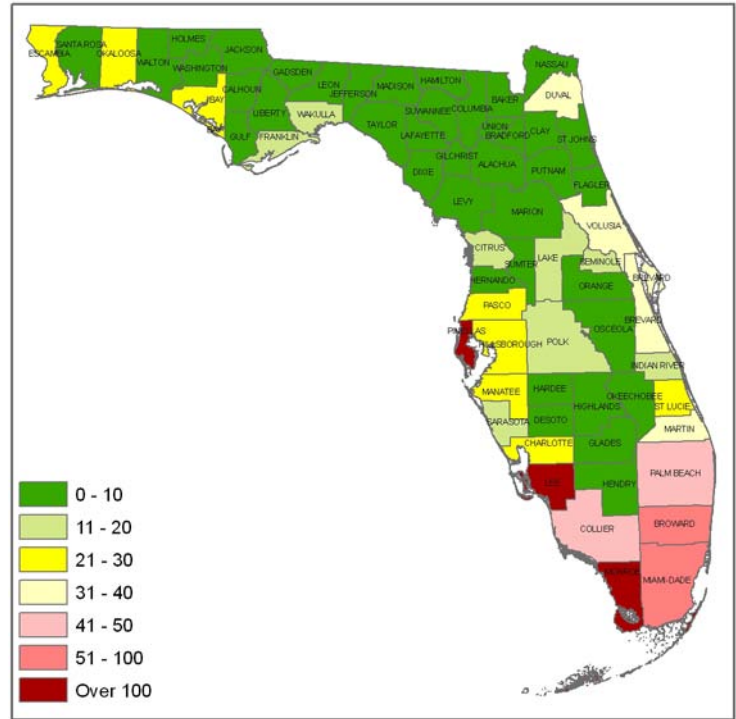
The method for conducting the statewide inventory was developed and refined based on experiences gained during a pilot study in Lee County. As an initial step, lists and GIS maps of facilities were compiled on a county-by-county basis using existing facility information from government and industry sources, GIS data, aerial photographs, websites, and relevant publications. Trained field personnel then visited each facility to gather both observational and interview-based information on a multitude of variables pertaining to the facility’s location, size, boat storage options, amenities and other characteristics. The data for each facility were entered into the centralized database via an online data entry system, and a protocol was implemented to ensure the quality and accuracy of the data.

Figure 1 shows the range in number of publicly-accessible boat ramp sites by county. Polk County has the highest number (96), followed by Lake County (67) and Monroe County (55).



**Figure 1: Total number of publicly-accessible boat ramp sites by county.**

The inventory reveals that Monroe county has the highest total number of marinas, dockominiums, private clubs, hotels and restaurants with associated boating facilities (195) followed by Lee and Pinellas counties (132 and 108 respectively), illustrated in Figure 2.



**Figure 2: Total number of marinas, dockominiums, private clubs, hotels and restaurants with boating facilities by county.**

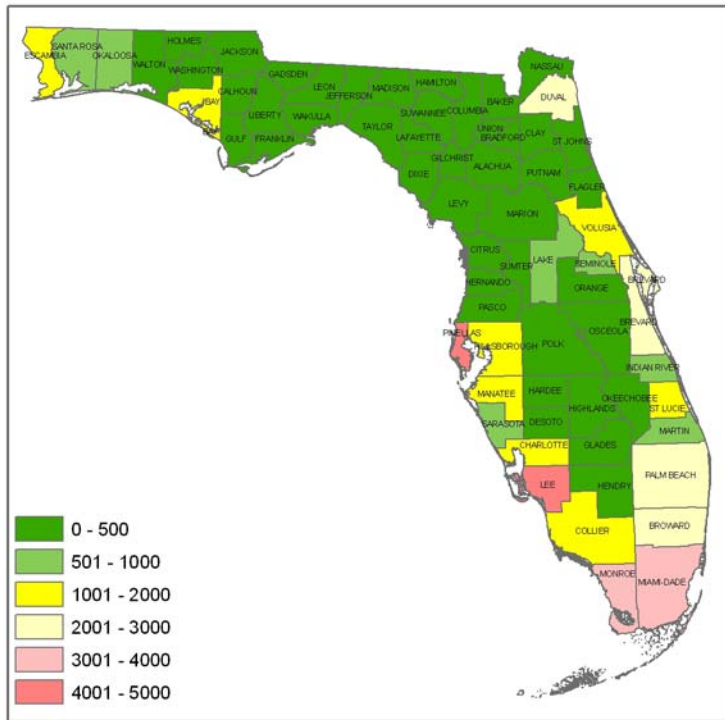
Figure 3 shows the range in number of wetslips (not including broadside berthing) at marinas, and at waterside dockominiums, private clubs, hotels and restaurants, by county. Pinellas had the highest number of wetslips (4,989) followed by Lee County (4,537).



**WATERFRONT RESIDENTIAL PROPERTY SAMPLING METHOD AND RESULTS**

A goal of the study was to determine the amount of private berthing at residential properties. It was neither possible nor feasible to physically survey every waterfront residential property in the state, so a probability sampling method was developed to estimate the amount of berthing at residential properties. The

method was developed in collaboration with a statistician from Florida’s Fish and Wildlife Research Institute. The method is dependent on the availability of digital parcel data and aerial photographs. Since parcel data were only available for 63 of the 67 counties, estimates of berthing at private residential properties were developed for all but Citrus, Highlands, Martin and Sumter counties.



**Figure 3: Total number of wet slips at marinas, dockminiums, private clubs, hotels and restaurants. Note – in this study, wet slips did not include broadside berthing.**

Based on the results of the sampling, it is estimated there are over 187,000 waterfront residential properties with boating-related structures (i.e. slips or docks) in the 63 counties.

The sampling method was designed specifically to allow it to be repeated at intervals in the future to monitor trends of dockage at residential properties.



## RECOMMENDATIONS

The current inventory was finalized in 2008 and contains a wealth of information never before available in one place. However, given the rapid rate of land use change along Florida’s coastal and inland waterways, it is essential that a process for maintaining and regularly updating the database be implemented to preserve the long-term value of the effort and investment made to date.

While site visits were determined to be the best way to obtain accurate and complete information to create this initial comprehensive statewide inventory, less expensive and time consuming options for updating are possible and recommended. Once the facility data are publicly viewable through the FWRI boating access website, public facility managers and private facility owners will have both an incentive and the means to keep their information current. Owners/managers could be provided with a secure way to access their records in the database, allowing them to update their facility information on a regular basis. Additionally, programs providing funds for public boating access facilities, and state, regional and municipal agencies that issue permits for new or expanding boating facilities could enter the relevant data into the database as projects are approved.

For this initial inventory, detailed data were sought on an exceptionally wide variety of variables to fulfill the study’s ambitious goals. Future data gathering efforts can be less intensive and achieve equal or greater success by employing purpose-driven surveys seeking data on a narrower set of variables that serve specific needs of boating agencies, the industry, and the public. Data gathered for purposes other than updating the facility inventory itself, e.g., economic studies, could be done effectively with sampling methods.



*The project was conducted by a team of researchers led by the Urban Harbors Institute of the University of Massachusetts Boston, and included the Recreational Marine Research Center at Michigan State University, Bordner Research, Inc., Resource Economics Research, LLC, Environmental Economics, Inc., the Catanese Center for Urban and Environmental Solutions at Florida Atlantic University, and the Planning and Zoning Center of the Land Policy Institute at Michigan State University. The waterfront residential sampling method was developed with Paul Kubilis, a statistician from Florida’s Fish and Wildlife Research Institute.*