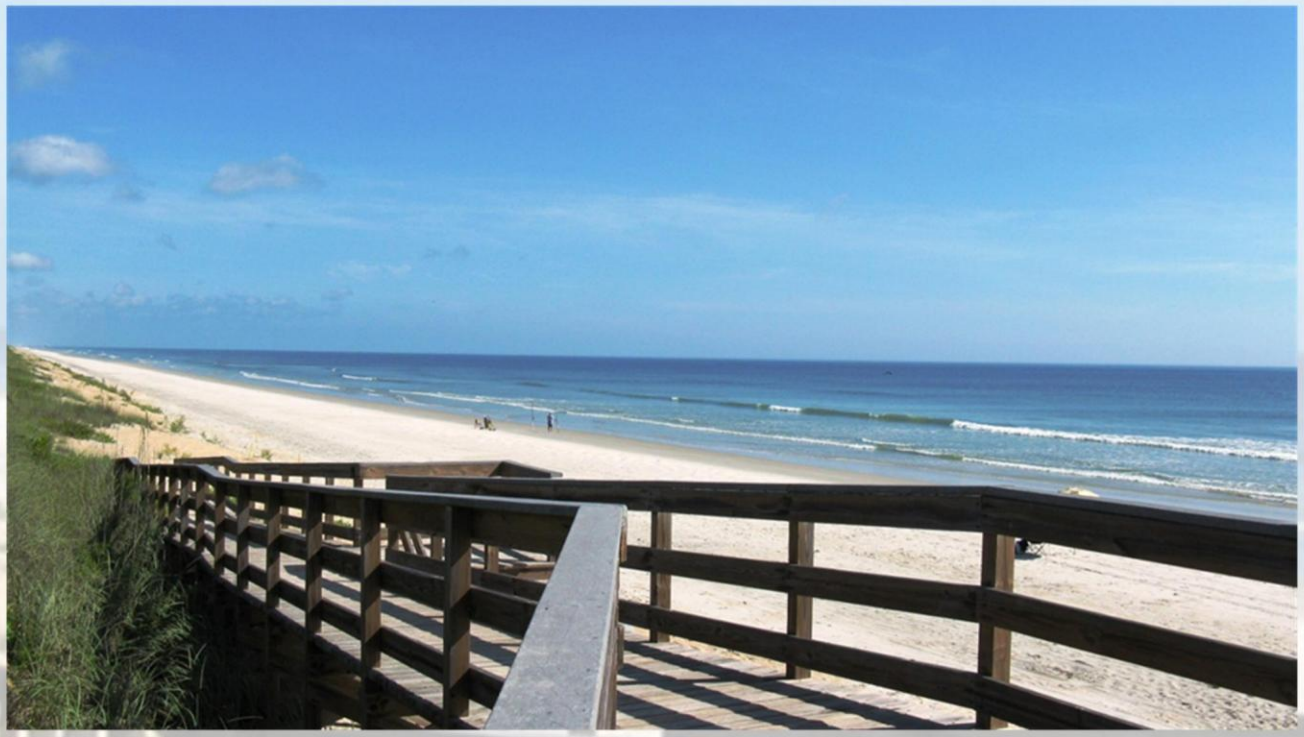
Coastal Access



Executive Summary

The Coastal Access focus area is comprised of ten indicators (Table 5-1) to assess the level of service of coastal, public access opportunities provided to the residents and visitors of Florida. The essential element of coastal access is the balance between the supply (availability of facilities and natural areas) and the demand for the facilities and natural resources of the coastal zone of the state.

The state of Florida is fortunate to have extensive coastal resources and vast opportunities to access and enjoy these resources. While the number of activities in which people are engaged in Florida's coastal environment is extensive, this chapter mainly presents participation data on three of the most popular: use of sandy beaches, visitation and use of park lands, and recreational boating.

Table 5-1
Coastal Access Indicators

5.1	Number of Access Points
5.2	Number and Acres of Park Areas, Lands, and Trails Managed for Recreation
5.3	Number of Recreational Boating Facilities
5.4	Adequacy of Public Access and Ways to Improve Access
5.5	Frequency of Visits to the Coast
5.6	Types of Coastal Access and Number of Participants
5.7	Number of Visitors at Recreational Areas - State Parks, Greenways and Trails, Aquatic Preserves
5.8	Number of Visitors on Southeast Florida Reefs
5.9	Number of Recreational Boat Registrations
5.10	FCMP Grants and Programs to Improve Coastal Access

The popularity of Florida beaches can be gauged by the estimated 192 million visitor beach days and 500 million resident beach days spent at the coast each year. Beach access can be limited through a number of processes including: encroachment by adjacent property owners, conversion of public access points, a lack of awareness of public access locations (especially for non-local visitors), loss of beach frontage or dune walkovers due to erosion or storm events, and limited parking and facilities. As the density of coastal populations and the incidence of storm landfalls on the coast causing significant erosion has increased, there has been a loss of public access points to the beach. Nevertheless, as of 2010, there were 1,820 saltwater beach access points distributed along the 825 miles of sandy beaches in Florida, or slightly more than one access point every half mile.

According to the Florida Coastal Issues 2009 Survey, 84% of respondents perceive coastal access in Florida to be adequate. While this is a drop of 5% from the previous survey results in 1999, the overwhelming majority of Florida resident respondents were satisfied with the 2009 level of access to beaches. However, a shift in the frequency of visits to the beach was seen from 1999 to

2009 in which more residents are going to beaches less frequently than previously, e.g. monthly instead of weekly. The percentage of residents who said they never visit the beach also increased from 7% to 12%. Features that respondents said would encourage more visits to the coast included more of the following: parking, facilities, access points, and restrooms. The majority of residents identified four beach activities that they engaged in most along the shoreline: sunbathing, swimming or surfing, picnicking, and enjoying the environment (photography, birding, or shell-collecting).

The Florida State Park System is nationally renowned, and consists of a diverse landscape of opportunities to experience the wide range of environments in Florida. More than half of the parks are located along the coast, with water access to estuaries or beaches. An active land acquisition program has increased the acreage of State Park lands by 32% between 2001 and 2010 to a total of more than 700,000 acres. The Greenways and Trails program increased the network of local public trails and lands by more than 23,000 acres (42%) between 2000 and 2010 for a total of more than 87,000 acres. The 41 Aquatic Preserves, managed by DEP-Coastal and Aquatic Managed Areas (CAMA), encompass over 2 million acres of submerged lands and wetlands, mostly in the estuaries of the 8,460 miles of tidally-influenced coastline of Florida. A 1,500 mile circumnavigation saltwater paddling trail has been established for canoes and kayaks through launch sites and access points in the numerous national and state parks, aquatic preserves, and waterways along the entire 1,260 linear miles of Florida coastline. The ten years between 2001 and 2010 have seen State Parks, Aquatic Preserves, and other programs increase in the number of acres managed and facilities provided to support public access throughout the state.

The annual attendance at State Parks increased from 18.1 million to 20.4 million people annually between 2001 and 2010, for a total of more than 190 million visitors over ten years. District 4, Southwest Florida, grew in park attendance (33%) more than any other district. Attendance within District 4 increased from 4.5 million to 6 million annually between 2001 and 2010, for a total District attendance of 59 million visitors over nine years. Greenways and Trails reported steadily increasing numbers of visitors from 2002 to more than 4.5 million in 2010. The total number of visitors exceeded 21 million for the nine year period. The Aquatic Preserves reported over 3 million visitors over the period 2001 to 2010. The majority of visits to the Preserves occurred since 2004. Reported attendance in the Aquatic Preserves was over 650,000 in 2010. The increase in annual visits between 2002 and 2010 exceeded 800% for the Aquatic Preserves and 1400% for Greenways and Trails.

In 2009, recreational boating was more popular in Florida than any other state in the United States (State of the Coast, NOAA). Eighty-two million Americans participated in recreational boating, and more than 9 million (greater than 10%) of them were Floridians. Of the 12.7 million boats in the United States in 2009, most (934,367) were registered in Florida (USDOT &FDOT). The number of registered recreational boats increased statewide steadily from 2000 to 2007, with a peak of nearly 980,000 registrations in 2007. In 2008 and 2009, successive years of decreases were seen amounting to a drop of 45,000 total registrations, or 4.5% from 2007. The total additional number of boats in Florida between 2000 and 2009 was over 108,000, averaging nearly 11,000 per year. Six counties (Miami-Dade, Pinellas, Broward, Lee, Hillsborough, and Palm Beach) account for 30% of

all boats registered in the state, with vessel populations of 40,000 to 60,000 in each county. Eight counties accrued more than 4,000 additional boats each between 2000 and 2009 (Miami-Dade – 7020, Pasco – 5794, Lee – 5446, Lake – 4630, Citrus – 4539, St. Johns – 4142, and Brevard – 4121, and Volusia – 4043). The percentage change of newly registered boats was greater in certain counties (Flagler – 67%, Jefferson – 65%, and Sumter – 58%), but these large increases occurred in counties which had relatively small initial vessel populations. Three counties (Duval, Orange, and Pinellas) showed decreases in the total number of annual registered recreational boats between 2000 and 2009 (-2200, -3160, and -660), respectively. The statewide total increase in annual boat registrations between 2000 and 2009 was 13%.

The Division of Recreation and Parks maintains an inventory of recreational resources statewide. The database includes the quantities of 74 resource-based and user-oriented recreational items in each county, and the associated provider, e.g. federal, state, municipal, or private. A number of these resources are supportive of recreational boating in Florida. For example, there are 932 saltwater and 1,692 freshwater boat ramp sites, statewide. There are also 45,475 saltwater and 11,233 freshwater boat slips and over 149,000 linear feet of saltwater pier and nearly 93,000 linear feet of freshwater pier in Florida. Such an inventory is important in planning for facility additions to maintain the level of service appropriate to an area's access needs.

The FCMP attempts to provide balanced means to enhance access to the coastal Florida environment without allowing damage to the natural characteristics found there. The annual allocation of funds for coastal access through projects statewide ranged from $159,410 to $586,325 from FY 2000 through FY 2010 for a total of $3.9 million. A total of 72 coastal access projects have been supported over the last eleven years.

The FCMP also administers an outreach program for beach safety and awareness providing access signs and warning flags to local governments and other entities to assist the public in identifying beach access locations and being aware of coastal hazards. A total of 1,501 beach access signs, 3,516 warning flag signs, and 4,969 rip current signs have been distributed to city, county, and state parks between 2004 and 2010.

Coastal Access Program Goals

Coastal access involves the ability of the general public to reach beaches and other public recreational and natural environments in the coastal zone. In Florida, the foreshore, wet sand beach between the mean low tide and mean high tide, belongs to the public. The legal right of the public to use this portion of the coast is referred to as "public trust rights." The public trust doctrine gives the state of Florida ownership of the coast up to the mean high tide line to hold for the benefit of all citizens; however, these rights can only be exercised if the foreshore can be reached. In some locations, private development along the shore forms a legal and physical barrier, and blocks access to the public trust zone of the coast. Public access to the coast is not limited to sandy beaches, but includes the ability to enjoy all the natural, historical, cultural and recreational resources of the coastal zone.

Human population, tourism, and development of coastal properties in Florida have all been increasing over time. The demand for coastal access corresponds directly to changes in population magnitude and density, tourist visitation, and the presence and attractiveness of natural and recreational areas. In some areas, beachfront has been privatized and public lands have been converted to other uses. As a result, the demand for access has been escalating, while public accessibility has been decreasing.

Balancing the sustainability of sensitive habitats with the various human uses of the coastal zone is an important issue for coastal management programs. To ensure there is adequate access to coastal resources, it is important to inventory the supply of access points, continuously monitor and maintain facilities and amenities, plan for current and projected access needs, and identify potential funding sources to support enhancing and developing additional access sites. While understanding and increasing the supply of coastal access points is important, a fully adequate system of access can be under-utilized if there is a lack of awareness of the types and locations of the points of access.

The primary objectives of managing public access include providing sufficient land area and points of access to meet the resident and visitor demand for Florida's natural resources and increasing the public awareness of the access opportunities in Florida. In order to address the complex issues involved with access to Florida's coastal resources, the Florida Coastal Management Program (FCMP) developed the following two goals:

1) To provide and enhance public access to natural, historical, cultural, and recreational coastal resources that does not damage or degrade these resources.
2) To promote and enhance community awareness of public access points, as well as the rights and responsibilities surrounding access.

These coastal access goals correspond with the Florida State Comprehensive Plan (Chapter 187, F.S.) "to ensure the public's right to reasonable access to beaches." The FCMP goals are also in accord with NOAA's strategic framework for the Coastal Zone Management Program that identifies "providing public access to the coast" as a priority issue. The FCMP devotes technical and

financial resources to achieve its coastal access goals. Significant FCMP funding is provided to local governments and partner entities through Coastal Partnership Initiative grants to improve coastal access. The grants have provided funding for a variety of coastal access projects, including picnic facilities, trails, dune walkovers, park facilities, paddling guides, and informational kiosk and signage.

The focus area of coastal access consists of several aspects which categorize the indicators used to measure the progress and degree of change occurring in relation to public access. The indicators of coastal access fall into three categories:

A. **Supply of Coastal Access**
B. **Demand for Access to Coastal Resources**
C. **Programmatic Activities Related to Public Access**

Barrier Island Management & Education Center, Brevard County, Florida

FCMP has partnered with Brevard County in numerous public access and stewardship projects.

A. Supply of Coastal Access

Public access to coastal lands and beaches in Florida did not become a matter of concern until the increase in population growth and land development after World War II. Availability of access to shorelines for outdoor recreational use was identified as a national priority in 1962 by the Outdoor Recreation Resources Review Commission, which spurred the creation of the Land and Water Conservation Fund in 1965 for the purchase of property for beach access and beach parks. This led to the acquisition and designation of Gulf Islands National Seashore and Canaveral National Seashore in Florida the 1970s. In the 1980s, state public land acquisition programs became more active with initiatives such as the Save Our Coast program.

Numerous efforts have been made to inventory the access points to coastal resources, and to disseminate this information to the public. Maintaining an inventory of access points over time is a difficult task to manage. Public access is continually changing due to coastal erosion, privatization of land and conversion to other uses. Beach access is continually in flux with the changing landscape of population growth and development.

Indicator 5.1 - Number of Access Points

The FCMP published the "Florida's Sandy Beaches – An Access Guide" in 1985, and updated the inventory in the 1995 report "Public Access to the Florida Coast." In 2012 the FCMP completed an update to the access guide, which provides access information in GIS format. A website was also developed to better distribute the information to Florida residents and tourists. The website is an interactive state-wide beach access guide that details the locations and amenities of the numerous sandy beach points of access for three regions of the state: Panhandle (from Escambia County to Citrus County), Gulf (from Hernando County to Monroe County) and Atlantic (Nassau County to Miami-Dade County). The 2012 updated Coastal Access guide is available at http://www.dep.state.fl.us/cmp/beachaccess/default.htm .

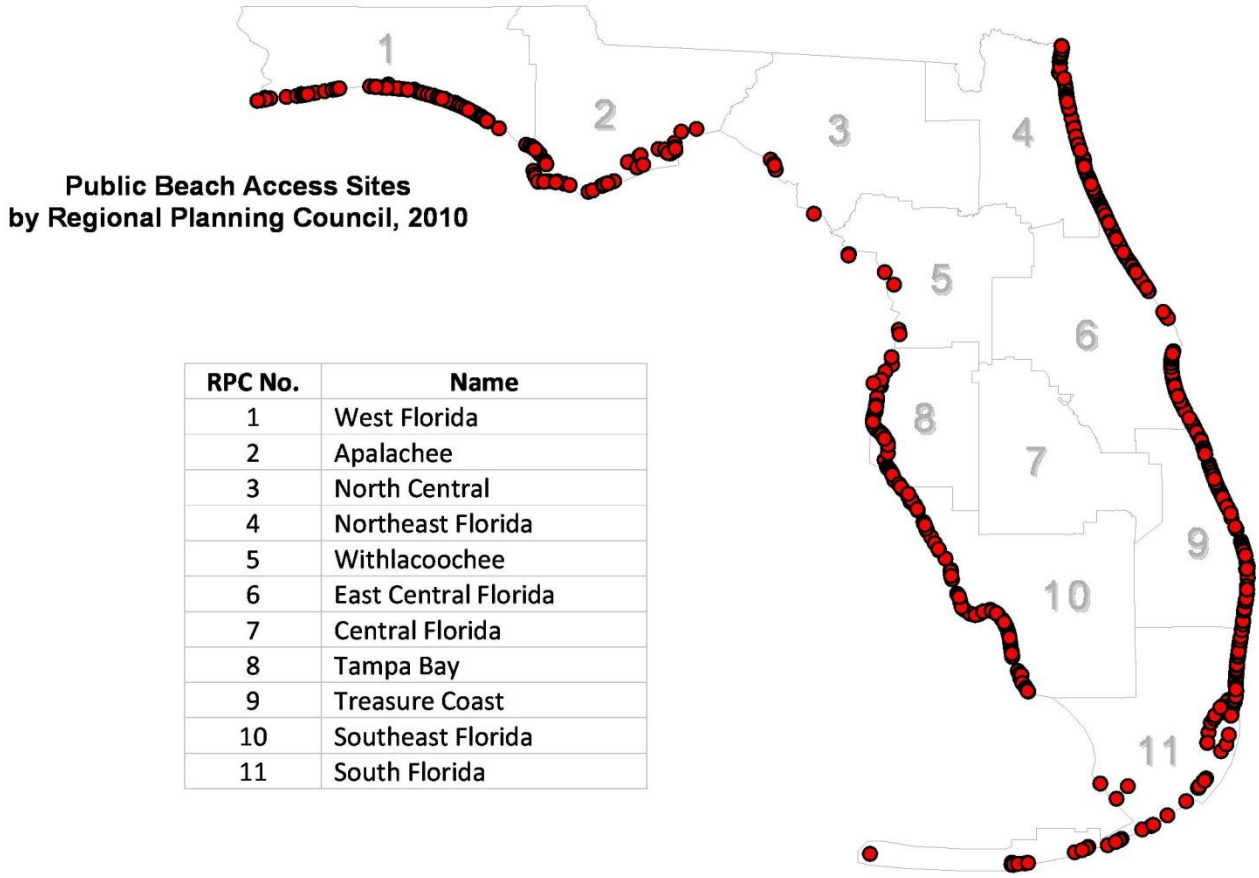
The 2000 Florida Assessment of Coastal Trends Report (FACT) reported 33% of Florida's 825 miles of sandy coastline was in public ownership, with 274 linear miles of accessible beach and an estimated 1,692 access points. Of the total number of beach access points, Atlantic beaches accounted for 1,021 access points (including Monroe County) and the Gulf Coast 671 access points. Based upon recent information, the beach access points located along the Gulf of Mexico have increased by 163 beach access points for a total of 834 while the access points on the Atlantic have increased by 287 for a total of 1,308 access points (Table 5-2). Therefore the total number of access points increased from 2000 to 2010 from 1,692 to 2,142 showing a 26.6 percent change.
Table 5-2 Number of Access Points distributed by Regional Planning Council Boundaries.

Table 5-2

Gulf Access Points				Atlantic Access Points		
	2000	**2010**			**2000**	**2010**
Region 1	231	286		Region 4	372	344
Region 2	95	99		Region 6	320	363
Region 3	2	5		Region 10	162	246
Region 5	4	7		Region 11	167	355
Region 8	190	236				
Region 9	149	201				
Total	**671**	**834**		**Total**	**834**	**1,308**

Figure 5-1 shows the locations for coastal access along the coast of Florida. The central portion in the Big Bend is an area with few sandy beaches, large stretches of mangrove and salt marsh coastline, and large areas of shallow soft bottom sediments with extensive submerged seagrass beds. The other areas around the state have numerous beach and public access points to meet the high demand for recreational use of the waters in state.

Figure 5-1
Public access points along the Gulf of Mexico shoreline and Florida Keys



RPC No.	Name
1	West Florida
2	Apalachee
3	North Central
4	Northeast Florida
5	Withlacoochee
6	East Central Florida
7	Central Florida
8	Tampa Bay
9	Treasure Coast
10	Southeast Florida
11	South Florida

According to DEP Division of Recreation and Parks data from the Statewide Comprehensive Outdoor Recreation Plan (SCORP) 2000 and Outdoor Recreation Planning (ORP) Inventory, October 2010, the total number of saltwater beach access points decreased 3.3% from 1,883 to 1,820 statewide between 1998 and 2010 (Table 5-3).

Table 5-3
Number of Saltwater Beach Access Points in 1998 and 2010

Resource	Unit	1998	2010	Percent Change
Saltwater Beaches	Number of Beach Access Points	1,883	1,820	-3.3

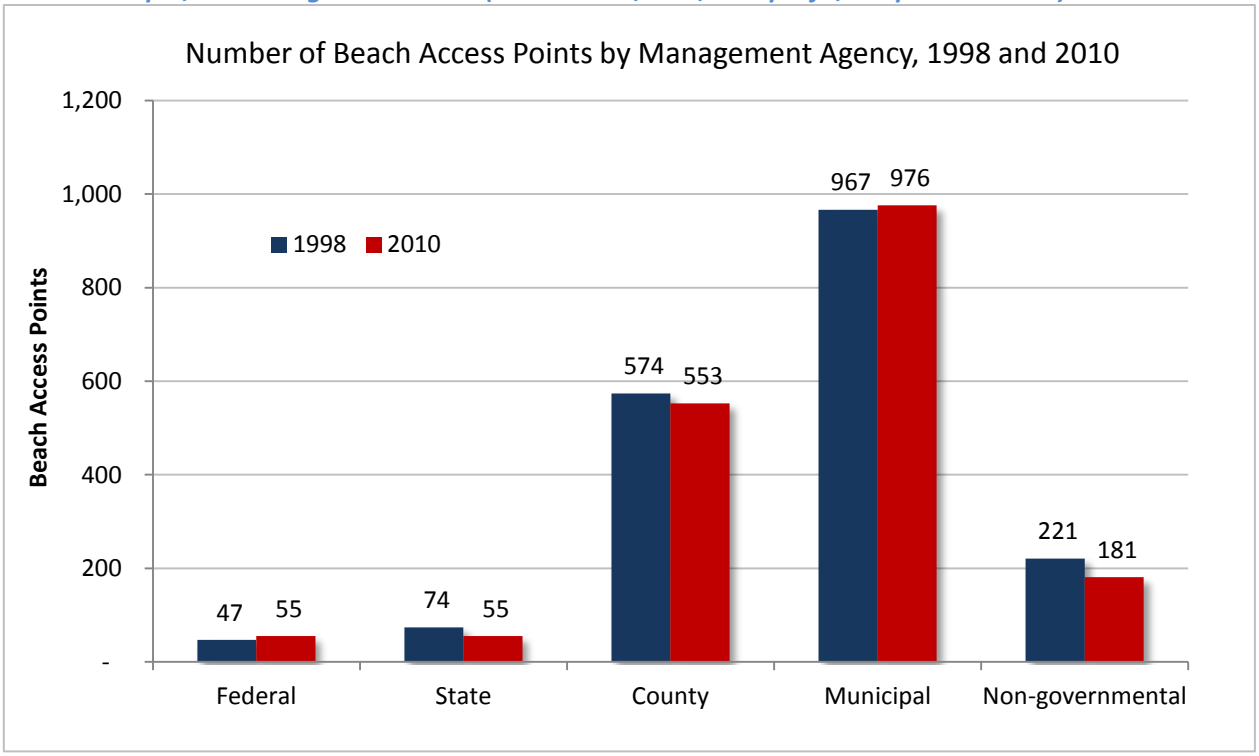
Source: SCORP 2000 and ORP Inventory, October 2010

When the access points are categorized by management agency (Figure 5-2), the majority of the loss is found in the state and non-governmental beach access points (-25.7% and -18.1%, respectively). Non-governmental beaches, which include commercial, club, non-profit, and special district shoreline, decreased by 40 access points from 221 to 181. Municipal beaches represent the greatest source of public access to sandy saltwater shoreline, accounting for 54% of the total number of coastal shore access points (976) in 2010. County beaches represent 30% of beach

access, and decreased by a total of 21 access points between 1998 and 2010. This data is obtained through volunteer participant's input. Therefore, the decrease in access points may reflect a decrease in voluntary reporting rather than a decrease in access points.

Figure 5-2

Number of beach access points in 1998 and 2010 categorized by provider: federal, state, county, municipal, and non-governmental (commercial, club, non-profit, or special district) shoreline.



Source: SCORP 2000 and ORP Inventory, October 2010

Table 5-4 shows the change in number of saltwater beach access points by regional planning council divisions between 1998 and 2010. Sixty-three fewer beach access points were listed on the statewide Outdoor Recreation Planning (ORP) inventory in 2010 compared to 1998. Losses were seen in every region, except North Central Florida (Region 3), which has only three sandy beaches. Southwest (Region 9) and South Florida (Region 11) saw the greatest number of access points lost, 18 and 12 respectively. Region 5, Withlacoochee, lost 2 of its 7 beach access points, or 22%. Region 2, Apalachee, decreased in number of saltwater access points by 12%. Regional Planning Council region 7 consists of all non-coastal counties, and has no saltwater beach access.

Table 5-4
Number of Saltwater Beach Access Points by Regional Planning Council

RPC	1998	2010	Numeric Change	Percent Change	Region
1	277	274	-3	-1.1	Panhandle
2	51	45	-6	-11.8	Panhandle
3	3	3	-	-	Panhandle
4	210	208	-2	-1.0	Atlantic
5	9	7	-2	-22.2	Panhandle
6	285	278	-7	-2.5	Atlantic
7	-	-	-	-	-
8	335	330	-5	-1.5	Gulf
9	233	215	-18	-7.7	Gulf
10	205	197	-8	-3.9	Atlantic
11	275	263	-12	-4.4	Atlantic
Total	**1,883**	**1,820**	**-63**	**-3.3**	**-**

Source: SCORP 2000 and ORP Inventory, October 2010

Indicator 5.2 - Number and Acres of Park Areas, Lands, and Trails Managed for Recreation

The Florida Division of Recreation and Parks maintains information on the public access opportunities and location of the 160 State Parks (www.floridastateparks.com). The information provided is for the entire State of Florida; however, the majority of the state parks (129) are located along the coast. The Division of Recreation and Parks publishes the Statewide Comprehensive Outdoor Recreation Plan or SCORP (most recently in 2008), a catalogue, assessment, and planning document of outdoor recreation (public access) in Florida. The data for these reports is available online in the ORP Inventory database (http://appprod.dep.state.fl.us/www_orp/Total/Total_Q.asp), which describes all Park and Recreation facilities and their locations.

The Florida State Park system (Figure 5-3), as of 2010, consists of 160 parks, recreation areas, preserves, and special sites spanning over 700,000 acres. The 100 miles of sandy beaches and numerous rivers, springs, natural areas provide access and vast opportunities for residents and visitors to enjoy Florida's coastal resources such as swimming, boating, paddling, fishing, birding, hiking, biking, camping, and enjoying archeological and cultural activities. This is only a partial list of numerous services provided by the Florida State Parks, which manage a substantial portion of the public access opportunities throughout the state. Nationally, the Florida State Park System is considered exemplary, and twice has been award the Gold Medal rating, in 1999 and 2005 (the only State Park system to have done so twice).

Since the time of the Civil Conservation Corps in 1933, land acquisition has been an important part of conservation of natural resources and management of the parks. The State Park system has continued an active acquisition and expansion of public lands through time. In 1963, the Land Acquisition Trust Fund was established to support land additions and growth of public access and use of Florida natural resources. Since that time, the state has implemented several substantial land acquisition programs including: the Conservation and Recreation Lands (CARL) program in 1979; Save Our Coast and Save Our Rivers programs in 1981; and the Florida Preservation 2000 program in 1990. The $3 billion Florida Preservation 2000 Trust Fund was enacted to invest in public lands acquisition over ten years in annual bonded disbursements of $300 million. Approximately three percent of these funds were directly designated for State Park additions.

In 1999, the Florida Legislature created the Florida Forever Program. The goals of the Florida Forever Program extend beyond land acquisition and include environmental restoration, water resource development and supply, increased public access, public lands management and maintenance, and increased protection of land by acquisition of conservation easements. The Florida Forever Program is funded under similar monetary terms ($300 million over ten years for a total of $3 billion), and has been instrumental in conserving a variety habitats and special areas as well as providing public access opportunities. For the Florida Forever Program, the allocation for funds was changed to distribute 1.5% for State Park additions, 1.5% for Greenways and Trails, and

2% for development of recreational facilities. In 2008, the Florida Forever Program was extended through 2020, at the same funding level. Information on the history of lands acquisition can be found at the DEP Division of State Lands (http://www.dep.state.fl.us/lands/history.html).

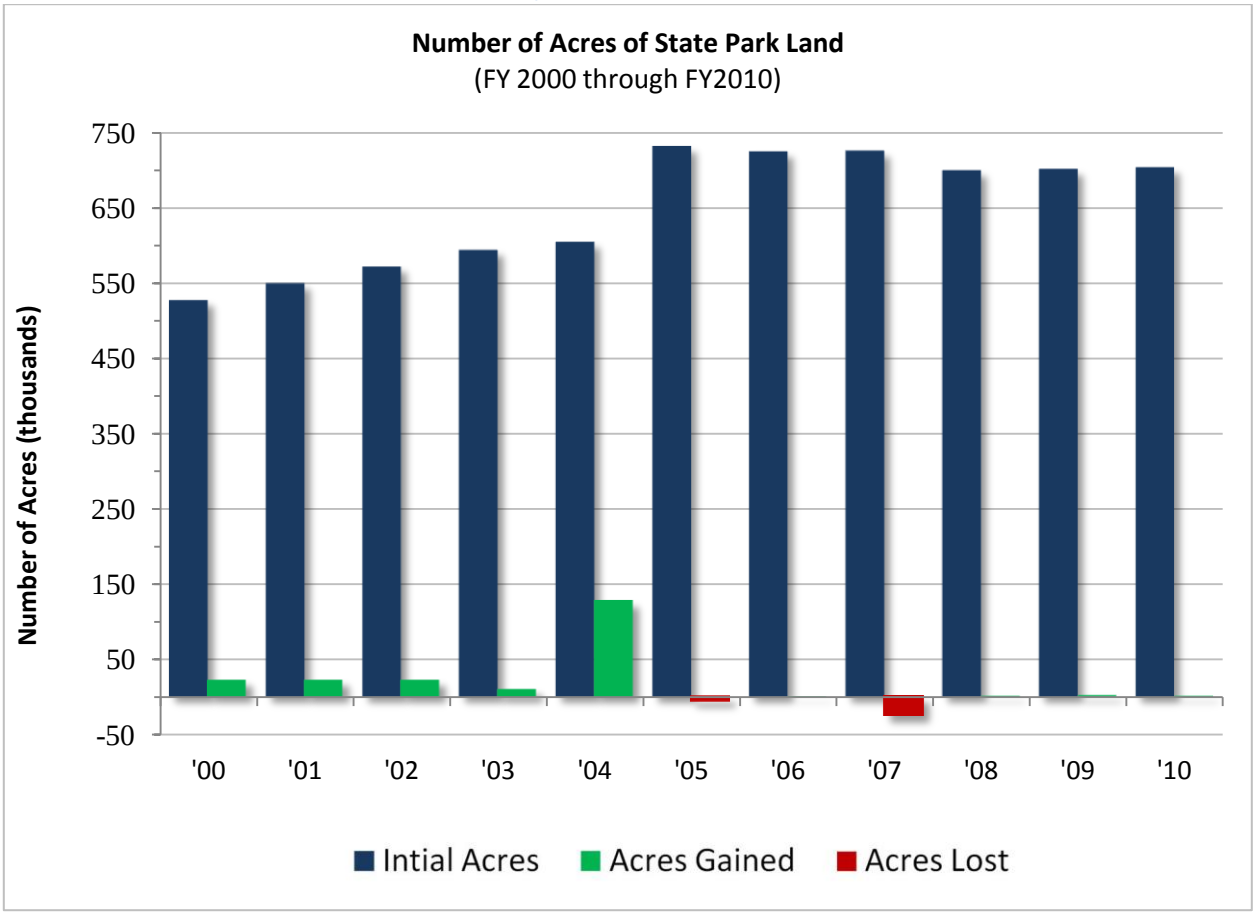
Figure 5-3

The Florida State Park System consists of 160 public parks of which 70% are located in coastal counties and 129 have water access. More than 55% of all state parks in Florida are located on ocean or estuarine frontage. Total acreage in 2010 exceeded 704,000 acres.

The number of acres of State Park lands has increased substantially from 548,977 acres in 2000 to 704,139 acres in 2010, primarily due to a large increase (126,620 acres) in 2004 (Figure 5-4). This area is split between 84% upland acreage and 16% submerged acreage. In 2009, the amounts of upland and submerged lands were 589,910 acres and 112,820 acres, respectively (Data from the DEP Office of Park Planning, Jurisdiction Report Update; July, 2009). The first half of the decade showed larger annual land acquisitions (1.8% to 4.2%, plus the 21% increase in 2004). The latter half, from 2005 to 2010, showed minimal increases (< 1%) or losses in lands managed as State

Parks. State Park lands have reduced from a peak of 730,573 acres in 2005 to the 2010 level of 704,139 acres. A total of 177,463 acres were added to State Park lands from FY 2000 to 2010. Most years showed positive changes in park land acreage; although, negative changes occurred in two years (2005 and 2007). The loss in land in 2007 was from a transfer of the 34,060 acre Tosohatchee Reserve State Park to Fish and Wildlife Conservation Commission management.

Figure 5-4
The number of acres of State Park lands increased 177,463 acres (32%) from 548,977 acres in 2000 to 704,139 acres in 2010.



Greenways and trails play a critical role in meeting the demand for public access to Florida's coastal resources. The DEP Office of Greenways & Trails works with local governments, developers, private landowners, and state and federal agencies to establish a statewide system of greenways and trails for recreational and conservation purposes (Figure 5-5). Currently, 769,603 acres (public and private lands) are designated as part of the state's greenways and trails system.

The Office of Greenways & Trails manages funds for the development of trails and facilities on state managed properties. The acquisition program for greenways and trails is a component of the Florida Forever Trust Fund, and receives $4.5 million dollars annually. A total of 26,618 acres of greenways and trails were acquired for the Greenways and Trails network between FY 2000 and

2010, increasing in area by 36.4% from 64,327 acres to 87,768 acres (Table 5-5). Additions to greenways and trails remained less than 4% prior to 2006, with the exception of FY 2001, which had an increase of 20% of the total number of acres. Fiscal Year 2007 showed greatly reduced acquisition activity (< 1%), and near zero activity was seen for Fiscal Years 2008 through 2010.

Figure 5-5

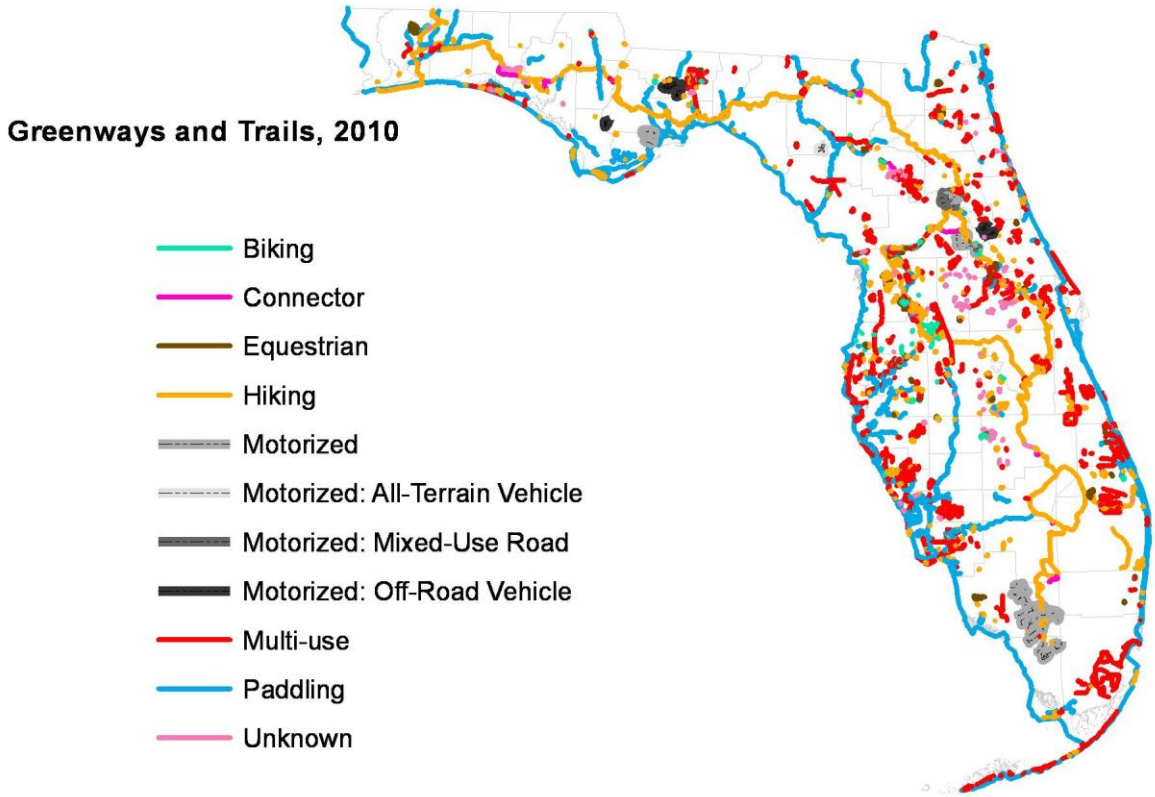


Table 5-5

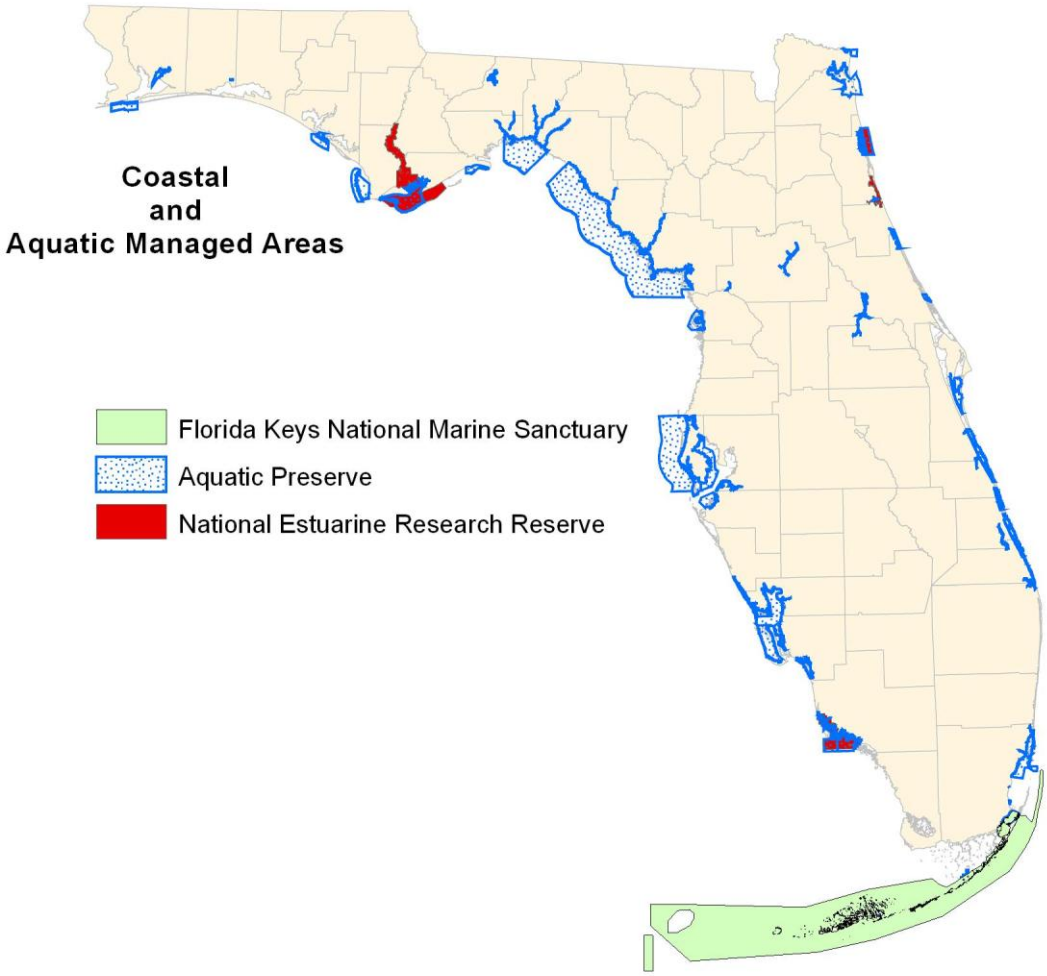
Acres managed by the Office of Greenways & Trails. 26,618 acres were acquired for the Greenways and Trails network between FY2000 and 2010.

Fiscal Year	Acres Acquired	Total Acres
'99-'00	2,177	64,327
'00-'01	12,981	77,308
'01-'02	588	77,896
'02-'03	2,210	80,106
'03-'04	2,041	82,147
'04-'05	2,948	85,095
'05-'06	1,943	87,038
'06-'07	-16	87,022
'07-'08	715	87,737
'08-'09	5.22	87,742
'09-'10	25.52	87,768
Total	**26,618**	

In 2005, the State began to establish the 1,500 mile sea kayaking trail, the Florida Circumnavigational Saltwater Paddling Trail, which passes through 37 coastal preserves, 20 national parks and wildlife refuges, and 47 state parks. The Florida Circumnavigational Saltwater Paddling Trail is divided into 26 segments which includes every Florida coastal habitat type, from barrier island dune systems to salt marsh to mangroves. Information on the saltwater paddling trail can be found at DEP's Office of Greenways & Trails website (http://www.dep.state.fl.us/gwt/paddling/saltwater.htm).

The DEP Office of Coastal and Aquatic Managed Areas (CAMA) manages more than 4 million acres of the most valuable submerged lands and select coastal uplands. In 1975, the Aquatic Preserve Act was enacted to protect coastal areas so that "their aesthetic, biological, and scientific values may endure for the enjoyment of future generations." The aquatic preserves are one way in which the state has designated areas of coastal use to sustain the unique natural resources and functional ecosystems in coastal waters. CAMA manages 41 aquatic preserves and, in coordination with the National Oceanic and Atmospheric Administration, three National Estuarine Research Reserves [Rookery Bay NERR - 96,277 acres, Apalachicola NERR - 238,079 acres, Guana Tolomato Matanzas NERR - 73,352 acres] and the Florida Keys National Marine Sanctuary [2,900 square nautical mile] (Figure 5-6). These areas are open to recreational public access, and have seen rapidly increasing attendance since 2004 (see Indicator 5.7).

Figure 5-6


Coastal
and
Aquatic Managed Areas
Florida Keys National Marine Sanctuary
Aquatic Preserve
National Estuarine Research Reserve

Indicator 5.3 - Number of Recreational Boating Facilities

Boating is a very popular recreational activity in Florida and is a significant element of coastal access. Over one-half of Florida residents and one-quarter of out-of-state visitors, or over 25 million people, participated in recreational boating activities in 2000. In 2007, there were an estimated 21.7 million recreational boating trips taken in Florida (Florida Fish and Wildlife Conservation, Boating Access Facilities Inventory and Economic Study, 2009). Economically, this translates to $8.5 billion in expenditures, $3.1 billion in labor income, and an additional $5.3 billion in economic value with indirect business taxes amounting to $726 million, and an equivalency of 97,000 boating related jobs annually. (Florida Fish and Wildlife Conservation, Boating Access Facilities Inventory and Economic Study, 2009)

Managing and supporting the demand for water access requires accurate information on the condition of existing facilities and their use. Through the Blueways Initiative, the FCMP has supported the development of boating characterization studies to describe the availability, use, and condition of boating facilities. In October 2005, the Florida Sea Grant published the "Recreational Vessel Registration Atlas 1996-2004," which identified the distribution of recreational boats throughout the state. Successive regional studies have provided detailed characterizations of boat ramp and coastal waterway usage, boating preferences, travel patterns, and boater perceptions of boating detractions and needs through surveys, site visits, and modeling for the recreational water areas of Tampa Bay, Sarasota Bay, Greater Charlotte Harbor, Lee County, Manatee County, Sarasota County, Brevard County, Bay County, and Collier County from 2001 through 2009.

Both the Florida Fish and Wildlife Conservation Commission and the DEP Division of Recreation and Parks have developed statewide databases of facilities supporting recreational water use. As described in Indicator 5.2, the Division of Recreation and Parks maintains the ORP Inventory database (http://appprod.dep.state.fl.us/www_orp/Total/Total_Q.asp), which describes all Park and Recreation facilities and their locations. In 2006, the Division of Recreation and Parks and Florida Fish and Wildlife Conservation Commission published the report "Recreational Boating Access in Florida State Parks" (http://www.dep.state.fl.us/parks/planning/forms/boating%20report%2012-20-05.pdf). State parks play a critical role in providing the facilities needed to meet the demand for public access to Florida's water resources. This report evaluated the status of boating access and facilities in the 129 state parks with waterfront access. The assessment determined what opportunities exist throughout the state park system for improving recreational boating access.

In 2009, the Florida Fish and Wildlife Conservation Commission concluded a four-year project, which produced a comprehensive inventory of recreational boating access facilities of Florida coastal and inland waters. The study compiled baseline data for recreational boating facilities throughout Florida. The inventory database contains over 3,100 boat ramps (of which, 51% are open to the public) and 2,700 other boating access facilities. Data are available on the Florida Fish and Wildlife Conservation Commission, Fish & Wildlife Research Institute website (http://ocean.floridamarine.org/mrgis/Description_Layers_Marine.htm).

Recreational boating and water-related facilities from the ORP Inventory database will be presented here to compare with previously published data in the 2000 FACT. Table 5-6 and 5-7 provides the number of saltwater and freshwater boating related facilities for Florida's 35 coastal counties. The supply of boating facilities is an indicator of the availability of resources to the meet the increasing pressure of population growth and tourism, and the demand for access to Florida waters. Access supply is a necessary part of models used to project future needs and to develop management plans.

Table 5-6
Number of Saltwater Boating Facilities in Coastal Counties.

County	Ramps	Lanes	Marinas	Marina Slips	Marina Dry Storage	Piers
Bay	41	55	27	1,602	777	27
Brevard	72	101	40	2,691	2,055	30
Broward	44	53	112	3,339	3,064	13
Charlotte	18	23	21	900	867	17
Citrus	10	13	3	45	0	4
Collier	17	25	14	622	975	9
Dade	55	106	93	6,221	3,590	26
Dixie	12	13	3	61	17	1
Duval	15	20	5	666	804	4
Escambia	29	41	29	1,475	515	11
Flagler	10	13	4	180	0	6
Franklin	23	36	10	335	320	8
Gulf	5	5	2	120	75	1
Hernando	4	5	1	35	0	3
Hillsborough	33	46	15	1,107	528	8
Indian River	17	23	11	403	267	4
Jefferson	0	0	0	0	0	0
Lee	47	56	85	2,876	2,098	26
Levy	6	7	2	37	0	6
Manatee	25	31	28	1,603	408	14
Martin	24	33	31	1,034	910	8
Monroe	101	119	125	4,311	4,388	35
Nassau	6	14	4	304	200	2
Okaloosa	43	48	29	1,205	1,021	17
Palm Beach	40	53	72	3,119	2,721	8
Pasco	13	13	5	167	80	8
Pinellas	66	117	54	4,795	4,210	39
Santa Rosa	16	21	2	62	165	11
Sarasota	25	35	40	1,849	1,493	23
St Johns	24	25	13	1,142	193	11
St Lucie	12	18	13	886	926	10
Taylor	11	12	4	170	100	5
Volusia	47	64	19	1,651	784	38
Wakulla	12	16	6	359	191	2
Walton	9	11	2	103	0	1

Source: 2000 SCORP and 2010 ORP Inventory database October 2010

Table 5-7
Number of Freshwater Boating Facilities in Coastal Counties.

County	Ramps	Lanes	Marinas	Marina Slips	Marina Dry Storage	Piers
Bay	20	24	0	0	0	24
Brevard	23	22	1	22	0	8
Broward	57	78	1	110	0	40
Charlotte	20	21	1	25	0	6
Citrus	41	46	19	540	535	12
Collier	7	9	3	82	12	8
Dade	45	53	2	134	155	2
Dixie	18	41	6	123	102	5
Duval	60	63	15	1,634	678	19
Escambia	15	17	1	20	97	4
Flagler	6	6	0	0	0	5
Franklin	16	19	5	110	55	2
Gulf	24	29	0	0	0	1
Hernando	5	5	1	30	0	2
Hillsborough	39	49	4	116	0	8
Indian River	15	19	4	320	0	2
Jefferson	5	5	0	0	0	0
Lee	16	15	5	142	260	9
Levy	17	19	4	128	10	3
Manatee	12	13	0	7	0	6
Martin	14	17	8	155	125	5
Monroe	2	1	2	46	0	1
Nassau	8	7	0	0	0	1
Okaloosa	49	49	0	0	0	7
Palm Beach	40	57	9	402	40	21
Pasco	11	12	4	32	50	37
Pinellas	11	24	2	16	0	14
Santa Rosa	54	57	3	21	0	13
Sarasota	11	10	0	0	0	6
St Johns	12	13	3	69	0	7
St Lucie	6	7	1	60	0	2
Taylor	11	13	1	29	9	0
Volusia	51	65	12	612	131	33
Wakulla	14	17	1	75	130	1
Walton	31	33	1	20	0	9

Source: 2000 SCORP and 2010 ORP Inventory database October 2010

Data for several facilities are reported here related to freshwater (FW) and saltwater (SW) access and boating including: boat ramps, marinas, boat storage, and other shoreline structures. Negative changes were observed in almost all resource categories in 2010 when compared to 1998 (Table 5-

8a and Table 5-8b). Only the numbers and lengths of FW catwalks, FW jetties, FW piers, and FW boat ramps showed substantial (near or above 10%) increases from 1998 to 2010. Many facilities directly supporting boating revealed large decreases in abundance (e.g., SW piers, SW and FW marinas, total number of FW marina slips and FW dry boat storage) from 1998 and 2010. The largest portion of negative change in saltwater facilities occurred during the 1998 to 2007 time period, and may be attributed to the impacts of two devastating years of hurricane landfalls on all coasts of Florida in 2004 and 2005. Economic constraints in the years 2007 to 2010 have slowed the recovery to the pre-2000 facility levels.

Table 5-8a

Saltwater Facilities that Support Boating and Recreational Use of Water Resources, 1998, 2007, and 2010

Resource	Unit	1998	2007	2010	Percent Change		
					'98 -'07	'07 -'10	'98 -'10
Boat Ramps	number of ramps	1,055	939	932	-11.0	-0.7	-11.7
Boat Ramp Lanes	number of lanes	1,328	1,268	1,271	-4.5	0.2	-4.3
Catwalks	number of catwalks	675	631	627	-6.5	-0.6	-7.1
Catwalks	linear feet	263,151	270,239	268,361	2.7	-0.7	2.0
Jetties	linear feet	63,934	48,197	63,920	-24.6	32.6	0.0
Piers	number of piers	578	412	436	-28.7	5.8	-24.6
Piers	linear feet	*na*	*na*	149,156			
Marinas	number of marinas	1,123	937	924	-16.6	-1.4	-17.7
Marina Slips	number of slips	45,839	45,716	45,475	-0.3	-0.5	-0.8
Marina Dry Storage	number of boats	33,791	*na*	33,742			-0.1

Source: SCORP 2000 and SCORP 2008 and ORP inventory online October 2010.

Table 5-8b

Freshwater Facilities that Support Boating and Recreational Use of Water Resources, 1998, 2007, and 2010

Resource	Unit	1998	2007	2010	Percent Change		
					'98 -'07	'07 -'10	'98 -'10
Boat Ramps	number of ramps	1,558	1,739	1,692	11.6	-2.7	8.6
Boat Ramp Lanes	number of lanes	2,017	2,049	1,995	1.6	-2.6	-1.1
Catwalks	number of catwalks	803	834	899	3.9	7.8	12.0
Catwalks	linear feet	139,412	141,560	157,864	1.5	11.5	13.2
Jetties	linear feet	74,991	74,797	83,052	-0.3	11.0	10.7
Piers	number of piers	375	570	616	52.0	8.1	64.3
Piers	linear feet	*na*	*na*	92,919			
Marinas	number of marinas	511	457	326	-10.6	-28.7	-36.2
Marina Slips	number of slips	12,237	11,762	11,223	-3.9	-4.6	-8.3
Marina Dry Storage	number of boats	4,980	*na*	4,348			-12.7

Source: SCORP 2000 and SCORP 2008 and ORP inventory online October 2010.

B. Demand for Access to Coastal Resources

A favorable climate, easy access to the ocean, sandy beaches, and endless outdoor, recreational opportunities are characteristics of Florida that have produced a steadily increasing visitor and resident population. Coastal access is important to the quality of life for both Florida residents and visitors. Consequently, the fixed supply of Florida's beaches and other coastal resources are experiencing increasing demands from the growth in population and tourists. Each year, over 150 million Americans (70% of survey respondents) visited natural locations in order to view or photograph scenery (National Survey on Recreation and the Environment, 2004). In the same survey, American households indicated participation in the following outdoor activities: visits to nature centers - nearly 136 million; visits to the beach - 122 million; visits to swim in lakes, streams, and springs - 116 million; visits to historic places - 114 million; and outdoor picnic days - 112 million. Nearly 95 million Americans engaged in boating trips at least one time per year with nearly 70% of those in motorboats. Over 80 million Americans participated in fishing activities in 2004. These data were surveyed from citizen households, and therefore do not include tourist impacts.

The list of resource-based activities in which people are engaged in coastal Florida is extensive (see 2008 Statewide Comprehensive Outdoor Recreation Plan for details). The highest demand activities for residents and tourists in Florida annually include: saltwater beach activities (57.6 million people), visiting archeological/historical sites (29.5 million people), nature study (27.5 million people), bicycling on paved and unpaved trails (20.5 million people), picnicking (20.2 million people), saltwater boat and non-boat fishing (17.0 million people), hiking (8.6 million people), and freshwater boat and non-boat fishing (7.9 million people), to name only a few.

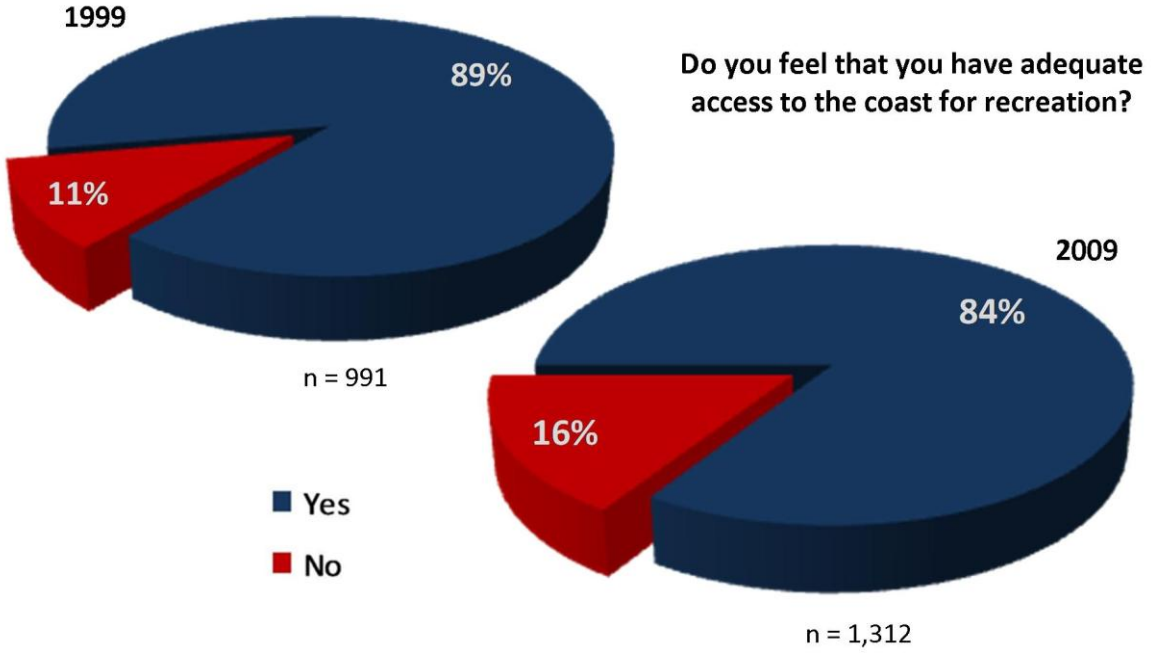
The primary resource-based recreation activity in Florida is visiting the beach. The economic impact of visits to beaches by citizens and tourists alike is far-reaching. In 2000, beach visits represented $41 billion in total spending (equivalent to 8.7% of the Gross State Product in that year and 80% of all state tourism spending). In 2008, the number of out-of-state (domestic) and international visitors was 84.2 million (Visit Florida FY09 Annual Report). These tourists infused $65.2 billion into the Florida economy. Generally, more than one third of non-Floridian tourists are vacationing at beaches. In 2008, it is estimated that at least 23 million out-of state visitors were at Florida beaches on average 5 days, and another 5.5 million international visitors for an average of 14 days. This equates to 192 million visitor beach days. In the *Florida Coastal Issues 2009 Survey* (Appendix A), over 89% of Florida's 18.5 million residents visit the beach at least once per year with many (46%) making repeated trips compounding the number by monthly, weekly, or daily frequencies, and exceeding 500 million resident visitor days annually (as a conservative estimate).

Indicator 5.4 - Adequacy of Public Access and Ways to Improve Access

The *Florida Coastal Issues 2009 Survey* (Appendix A) included a question concerning the survey participant's perceived measure of whether the supply of coastal access points is adequate. These data are compared to results from a similar 1999 survey reported in the FACT 2000 publication. The percentage of respondents who answered yes to the question concerning coastal access is an indicator of the adequacy of the level of facilities, information and signage provided for the public to enjoy activities on the beach and along the coast of Florida. Eighty four percent of respondents claimed to have adequate access to the coast for recreation in 2009. This represents a 5% decrease from the results of 1999 (Figure 5-7). Those residents who felt they did not have adequate access to the coast for recreation sited more access points (i.e., lack of parking areas, piers, or boardwalks) as the primary reasons. Respondents who live further away from the coast as well as respondents between the ages of 35 and 54 (40%) indicated that more web-based information and maps would encourage them to visit the coast more often.

Figure 5-7

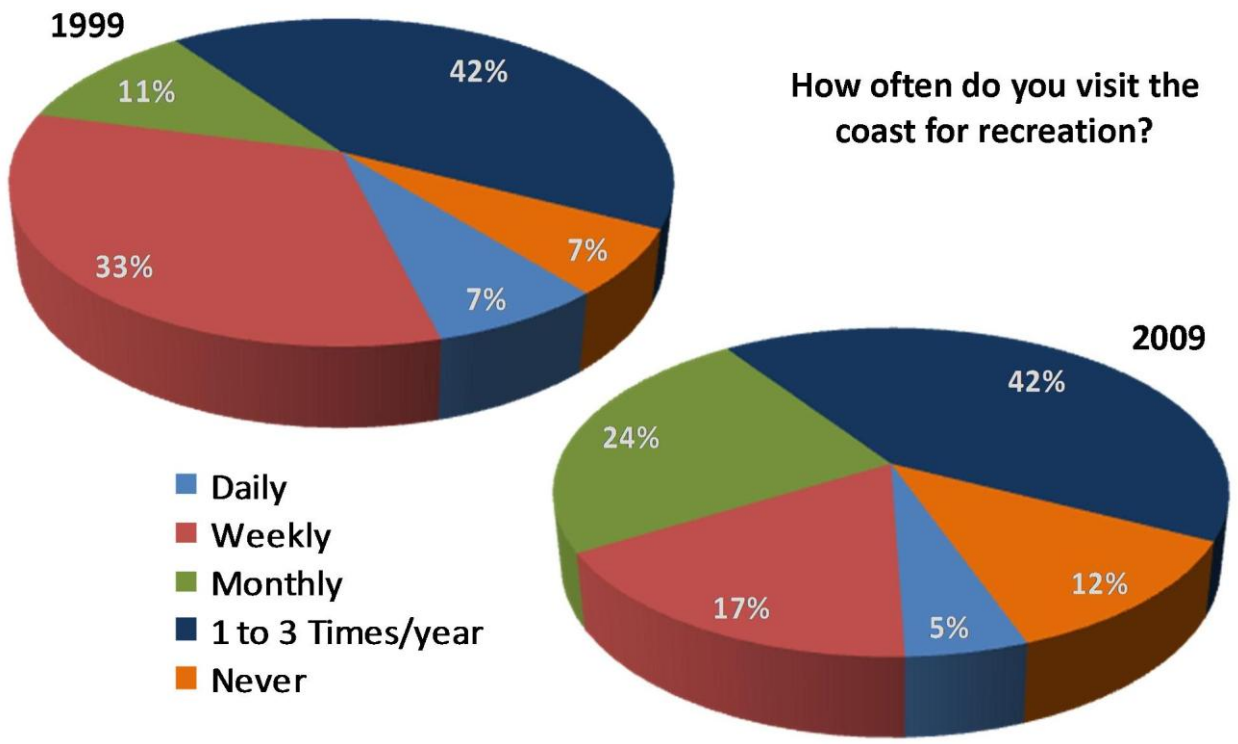
The percentage of respondents who answered yes to the question concerning the adequacy of the level of facilities and information and signage provided for the public on the beach and along the coast of Florida.



Indicator 5.5 - Frequency of Visits to the Coast

The *Florida Coastal Issues 2009 Survey* (Appendix A) also questioned people about the frequency of their visits to Florida beaches and coastal areas for recreation. A shift in frequency of visitation was seen indicating an overall decline in use of coastal areas for recreation by residents of Florida (Figure 5-8). Twenty four percent (24%) of respondents to the 2009 survey said they visit the coast for recreation once a month compared to 11% in the 1999 survey. At the same time, the number of Floridians that visit the coast weekly or daily decreased in 2009 from 40% to 22%. Furthermore, the number of 2009 respondents claiming to never visit the coast increased from 7% to 12%. Of the respondents who said they never visit the coast, 31% said that having points accessible for the disabled would encourage them to visit. No change was seen in the number of respondents who said they visit the coast 1 to 3 times per year.

Figure 5-8

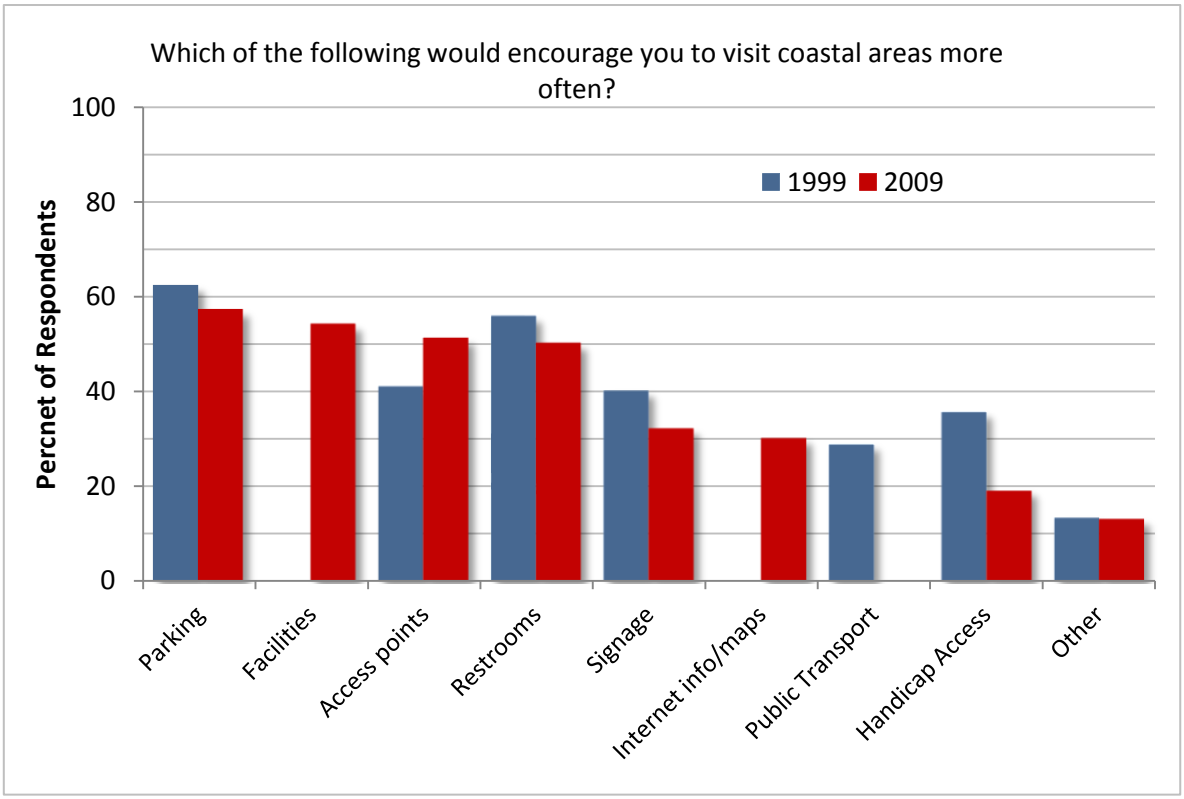


When asked if any of a series of items would encourage them to visit the coast more frequently, the item that increased most in percentage of responses was “an increase in the number of access points.” In 2009, fifty one (51) percent of all respondents identified “more access points” as an improvement that would encourage them to visit coastal more often, compared with 41% in 1999 (Figure 5-9). Four items were picked by 50% or more respondents of the 2009 survey as influencing them to visit the coast more often. These items were: parking, facilities, access points, and restrooms. Respondents between the ages of 34 and 44 (70%) were most likely to cite facilities as a feature that would encourage coastal visits. Parking, restrooms, and signage showed decreased concern by respondents (by 5% to 8%) as items that would have them visit the coast

more from 1999 to 2009. Having "handicapped accessible points" decreased by 19% as an item of concern for visiting the coast for recreation, from 36% in 1999 to 19% in 2009.

Figure 5-9

Percentage of respondents of the total number of survey respondents indicating that these items would encourage Floridians to visit the coast more frequently [1999 and 2009 Florida Coastal Issues Survey]



Of the respondents who visit the coast for recreation, 46% percent drive less than 30 minutes to access the coast from their residence, 24% drive 30 minutes to an hour, and 15% drive more than one hour. Twelve percent of residents are within walking distance of their coastal access.

In a separate survey of statewide outdoor recreation participation (SCORP, 2008) respondents were asked what measures would encourage greater participation at state parks and on public lands. Tourists responded strongly (more than 60% agreed) that "More information about facilities" would encourage greater participation. About 50% of respondents "disagreed, were uncertain, or [had] no opinion," on the seven other categories, suggesting these factors were not strongly motivating in decisions to participate (Table 5-9). Resident respondents were much more opinionated than visitors, and had fewer responses of "no opinion" or "uncertainty" (10%-15%). Residents strongly agreed that three factors were important in greater participation at state parks: Increased accessibility (68%), more information about facilities (66%), and more outdoor facilities (61%).

Table 5-9

Percentage of respondents of the total number of survey respondents indicating that these items would encourage people (residents or tourists) to visit the coast more frequently

Participation Motivator	Residents		Tourists	
	Agree	Disagree, Uncertain, No opinion	Agree	Disagree, Uncertain, No opinion
Increased accessibility to parks and public lands	68.1	31.9	40.7	59.2
More information about facilities	66.0	34.0	62.0	38.0
More outdoor facilities	61.1	38.9	37.8	62.1
No fees required to participate	58.0	42.0	51.0	48.9
Better repair of facilities	57.9	42.1	22.7	77.3
Lower fees required to participate	56.6	43.4	51.1	49.0
Better security	53.6	46.4	31.4	68.7
More organized activities and programs	49.1	50.9	26.2	73.8

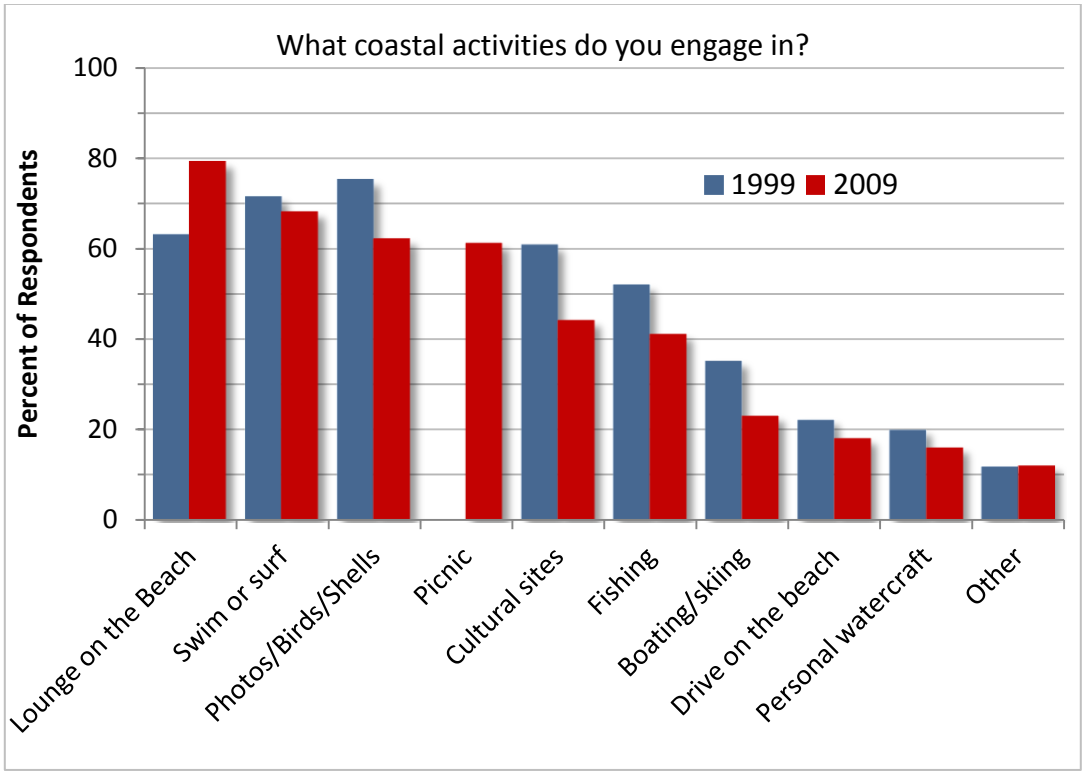
Source: SCORP, 2008

Indicator 5.6 - Types of Coastal Access and Number of Participants

In order to understand better how Floridians use coastal access points or facilities, and what types of coastal environments they prefer for recreation, a list of activities was provided in the *Florida Coastal Issues 2009 Survey* (Appendix A). The survey recipients were asked to respond affirmatively to all of the coastal activities in which they engage. Florida residents appear to be sunbathing more and participating in outdoor coastal hobbies less, e.g. birding, shell-collecting, outdoor photography, fishing, boating, and visiting cultural sites, than when previously surveyed (Figure 5-10). In the 2009 survey, sunbathing (79%), swimming or surfing (68%), photography or birding or shell-collecting (62%), and picnicking (61%) were the four activities most frequently performed. Other activities with frequent responses included visiting cultural sites and fishing (i.e., greater than 40%). The priority of activities differed from the 1999 survey, which ranked photography-birding-shell collecting highest (75%) followed by swimming-surfing and then sunbathing. Picnicking was not a part of the 1999 survey. The 1999 respondents also indicated cultural sites and fishing more frequently (by 17% and 11%, respectively) than the 2009 respondents.

Figure 5-10

Percentage of respondents of the total number of survey respondents indicating that they engage in these coastal activities. [1999 and 2009 Florida Coastal Issues Survey]



Source: Florida Coastal Issues Survey, 1999 and 2009

Non-coastal county residents cited several activities at a higher rate (approximately 10% more often) than coastal county respondents including: picnicking, visiting cultural or historical sites, and driving on the beach. Respondents with children were more likely to engage in picnicking (65%), fishing (44%), and cultural activities (49%) at a higher rate than respondents without children (57%, 38% and 38%, respectively). Respondents between the ages of 45 and 54 report fishing (54%) as an activity in which they engage more than any other age group; while those between the ages of 35 and 54 report bird watching, collecting shells, and taking pictures most often (71%). Individuals between the ages of 45 to 54 also visited cultural and historical sites 24% more frequently than those under age 45, and 8% more than those 55 and older.

Statistical estimates, derived from the Florida Statewide Outdoor Recreation Participation Study completed by the University of Florida, determined that 57.2% of residents and 54.4% of tourists participate in saltwater beach activities each year. Applying these percentages to 2009 population estimates of these groups (18.5 million residents and 80.9 million tourists) produces estimates of 10.6 million residents and 44.6 million tourists participating in beach activities that year.

According to the Visit Florida FY09 Annual Report, the total number of tourists visiting Florida increased from 73 million in 2000 to 84 million in 2005, with a 4.5% drop in 2001 in wake of the terrorist attacks on September 11 of that year (Figure 5-11). Total annual visitors remained steady between 2005 and 2008, and showed a 4.2% decrease in 2009, most likely due to ongoing economic recession in the U.S. The majority of these tourists are from other states in the U.S (domestic visitors). The number of international tourists declined from 11% of the total annual visitors (in 2000) to 7.4% in 2006, a reduction from 8 million to 6.2 million per year. The years 2007 and 2008 saw a recovery of international travelers to Florida, when the total number exceeded 8 million again (Table 5-10). The domestic visitors come from throughout the United States; however, 56% come from ten specific points of origin (Figure 5-12), with Georgia and New York being the top two.

Figure 5-11
The number of tourists (in millions) annually between 2000 and 2009. Number includes international tourists and domestic visitors from other states.

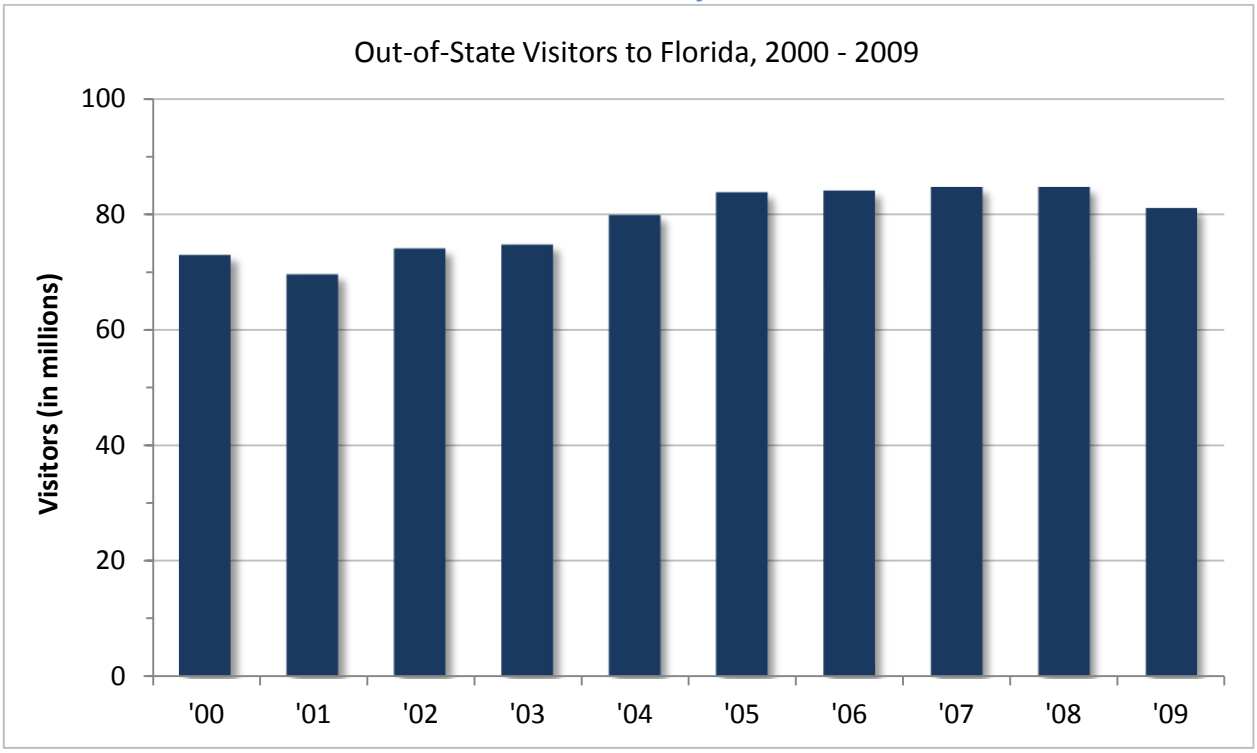
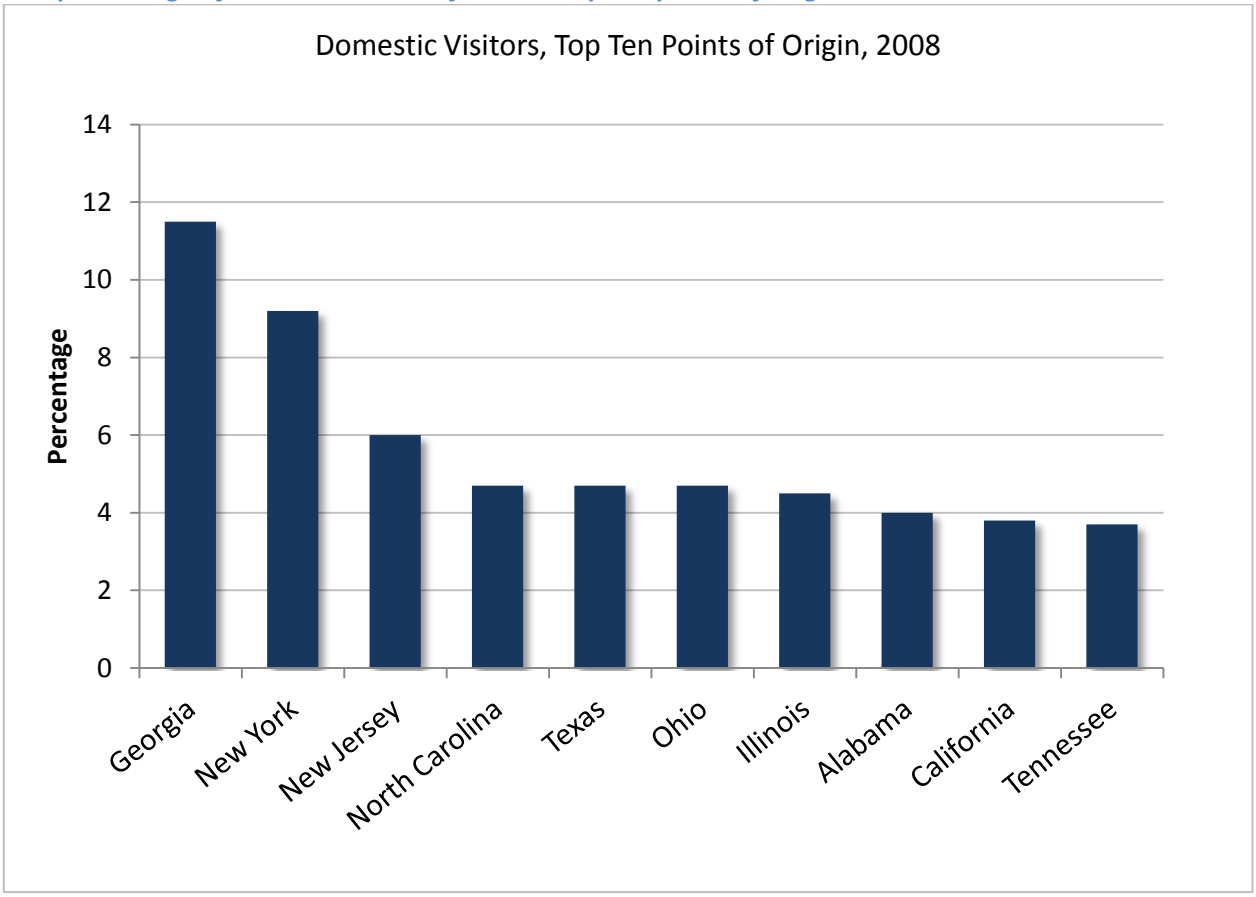


Table 5-10
Annual Number of Domestic and International Visitors, 2000, 2009

Year	Visitors to Florida (in millions)			Percent International
	Domestic	International	Total	
'00	64.8	8.0	72.8	11.0
'01	62.3	7.2	69.5	10.4
'02	67.9	6.0	73.9	8.1
'03	68.7	5.9	74.6	7.9
'04	73.4	6.3	79.7	7.9
'05	77.2	6.4	83.6	7.7
'06	77.7	6.2	83.9	7.4
'07	77.3	7.2	84.5	8.5
'08	76.4	8.1	84.5	9.6
'09			80.9	

Figure 5-12

The percentage of visitors to Florida from the top ten points of origin within the United States in 2008.



Indicator 5.7 - Number of Visitors at Recreational Areas - State Parks, Greenways and Trails, Aquatic Preserves

The Florida State Park system is an integral part of providing access to the variety of landscapes and resources that comprise coastal Florida. Of the 160 State Parks, 70% are found in coastal counties, and 129 have either saltwater or freshwater frontage. More than 55% of the parks are directly adjacent to bay or coastal waters. The annual attendance, in excess of 20 million visitors, is an indicator of the demand for public access to the various water and coastal resources.

Figure 5-13 displays State Park attendance by district for fiscal years 2001 through 2010. District 4, in Southwest Florida, was the area of greatest growth in visitation, totaling 53.9 million over the last decade. Annual visits increased steadily from 4.53 million in FY 2001 to 6.75 million in FY 2009 in District 4, with an especially large jump in 2006 (>15%)(Figure 5-14, Table 5-11). The change in annual park attendance for District 4, from FY 2001 to FY 2010, showed an increase of 33.2%. Districts 1, 2, and 3 had variable annual attendance with increases in visits some years offset by decreases in other years. The percent changes for Districts 1, 2, and 3 from FY 2001 to FY 2010 were -0.6%, 12.6%, and 7.8%, respectively. The annual number of visits for the decade for the three districts (1-Northwest, 2-Northeast, and 3-Central) ranged from 2.6 to 3.6 million, totaling 29 to 33 million visitors per district for the decade. District 5 in Southeast Florida had more years of decreases in attendance than increases, and dropped 8.4% from 4.8 million visits in FY 2001 to 4.4 million visits in FY 2010. All five districts had decreases in attendance from FY 2009 to FY 2010; -6.3%, -1.2%, -2.6%, -10.7%, and -6.5% in districts 1 through 5, respectively. It is unknown whether these decreases in visitation can be attributed to economic pressures, weather conditions, increases in park admission fees, or a combination of these factors. Florida also experienced an extremely cold winter from January through March 2010. In many places throughout the state, unusually low temperatures of less than 30°F occurred for 21 days in a row.

Figure 5-13

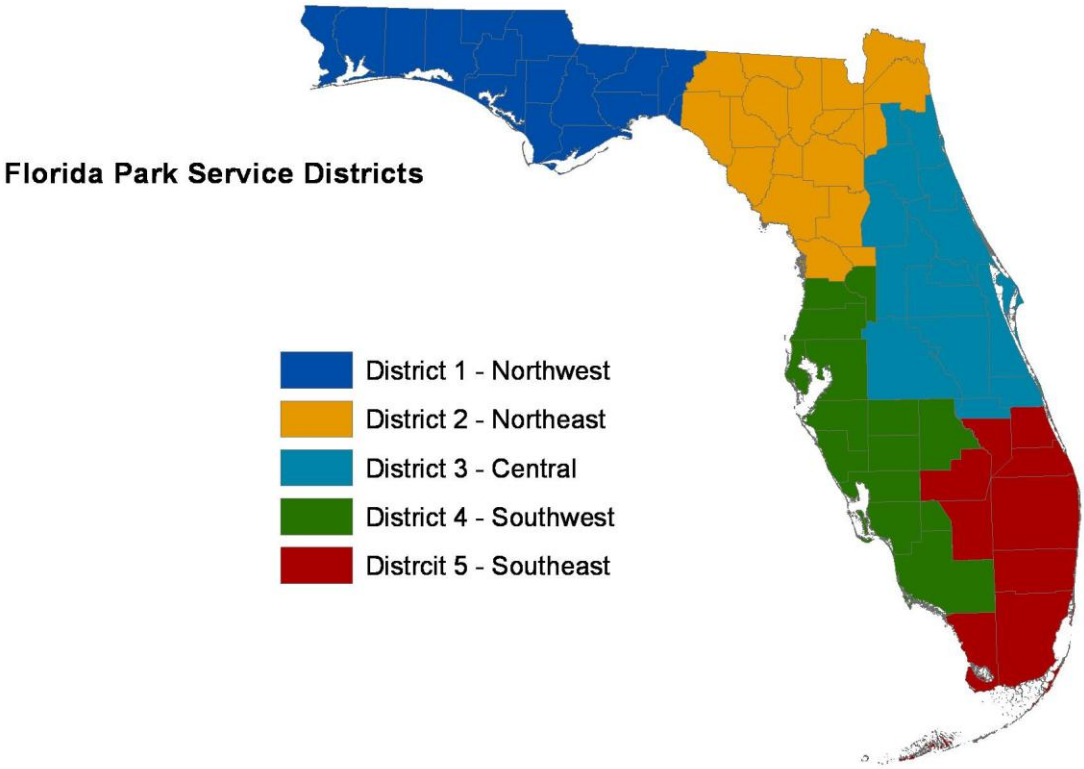


Figure 5-14

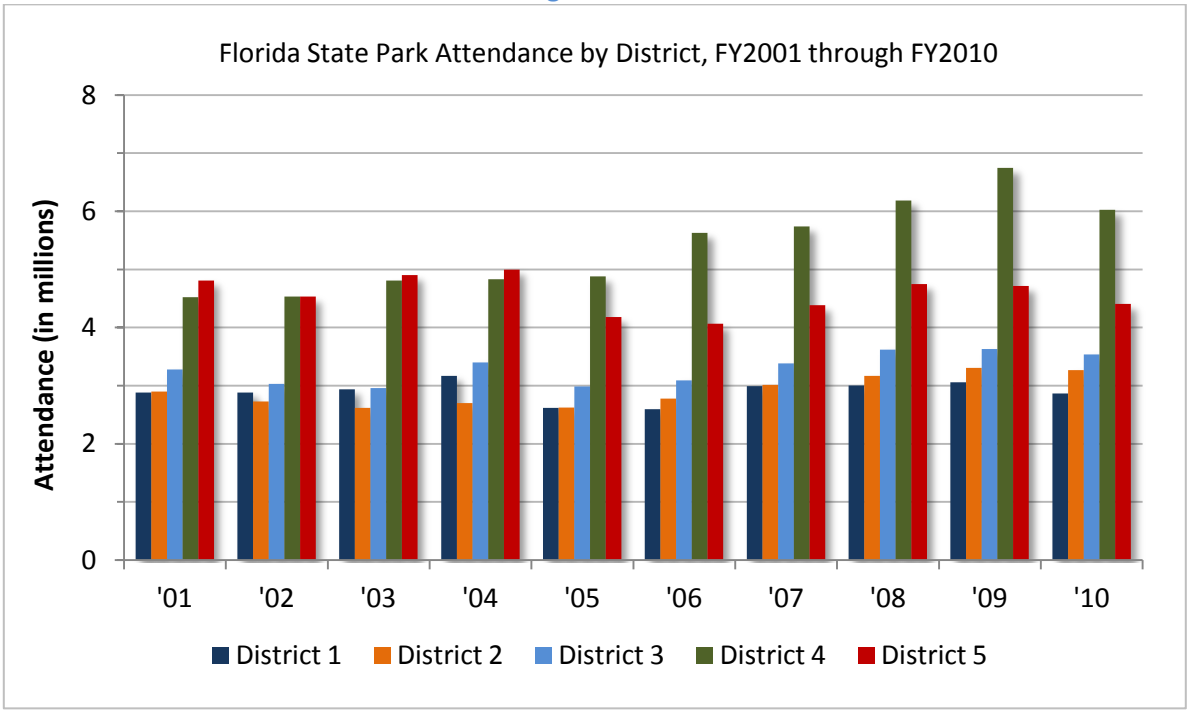


Table 5-11
Percent change in state park attendance by district for fiscal years 2001 through 2010.

District	Percent Change by Fiscal Year									
	'01 - '02	'02 - '03	'03 - '04	'04 - '05	'05 - '06	'06 - '07	'07 - '08	'08 - '09	'09 - '10	'01 - '10
1	0.1	1.9	7.8	-17.4	-0.8	15.1	0.4	1.8	-6.3	-0.6
2	-5.9	-4.1	3.3	-3.0	5.9	8.5	5.2	4.2	-1.2	**12.6**
3	-7.6	-2.2	14.7	-12.0	3.5	9.4	7.0	0.2	-2.6	**7.8**
4	0.2	6.1	0.4	1.0	15.4	1.9	7.8	9.1	-10.7	**33.2**
5	-5.8	8.2	2.0	-16.4	-2.7	7.8	8.4	-0.7	-6.5	-8.4

Recorded attendance at all Florida State Parks increased from 14,686,150 visitors in 1999 to 16,760,822 in 2000. Overall attendance from FY 2001 to FY 2009 increased from 18.4 to 21.5 million visitors, followed by a decrease of 6.3% to 20.1 million visitors in FY 2010 (Table 5-12).

Table 5-12
Statewide State Park Attendance and Percent Change for FY2001 through FY2010.

Fiscal Year	Number of Visitors	Annual Percent Change
'01	18,404,042	9.8
'02	17,717,242	-3.7
'03	18,239,511	2.9
'04	19,106,966	4.8
'05	17,296,273	-9.5
'06	18,172,559	5.1
'07	19,519,202	7.4
'08	20,737,052	6.2
'09	21,458,588	3.5
'10	20,110,021	-6.3
Total	**190,761,456**	**-**

Decreases in attendance were seen in two other years, -3.7% in FY 2002 and -9.5% in FY 2005. The majority of annual changes in attendance were increases, and the average year to year positive change was 5.7% during the decade. The increase in number of park visitors from FY 2001 to FY 2010 was 8.5%, and the total number in attendance at all State Parks during that time exceeded 190 million people. The ten-year trend of State Park attendance is depicted graphically in Figure 5-15. The number of visitors to other public recreational areas; Greenways and Trails (Figure 5-16) and the Florida Aquatic Preserves (Figure 5-17), are also shown.

Figure 5-15

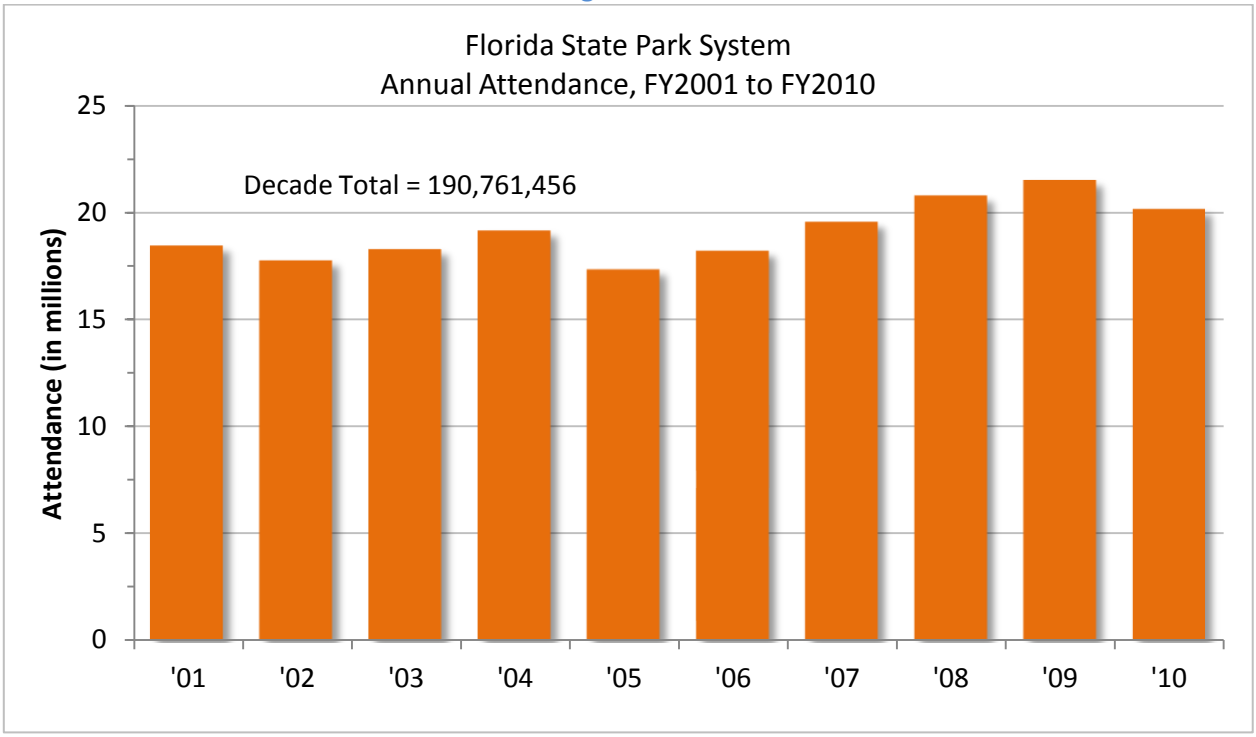


Figure 5-16

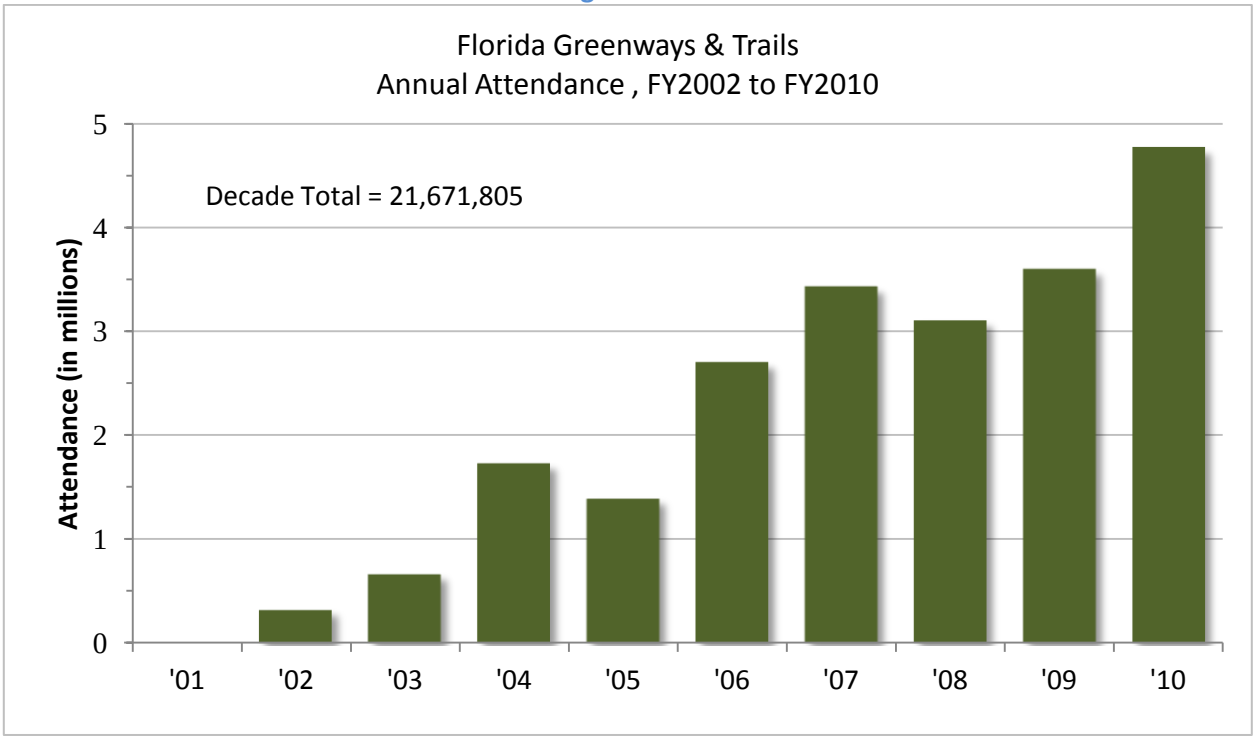
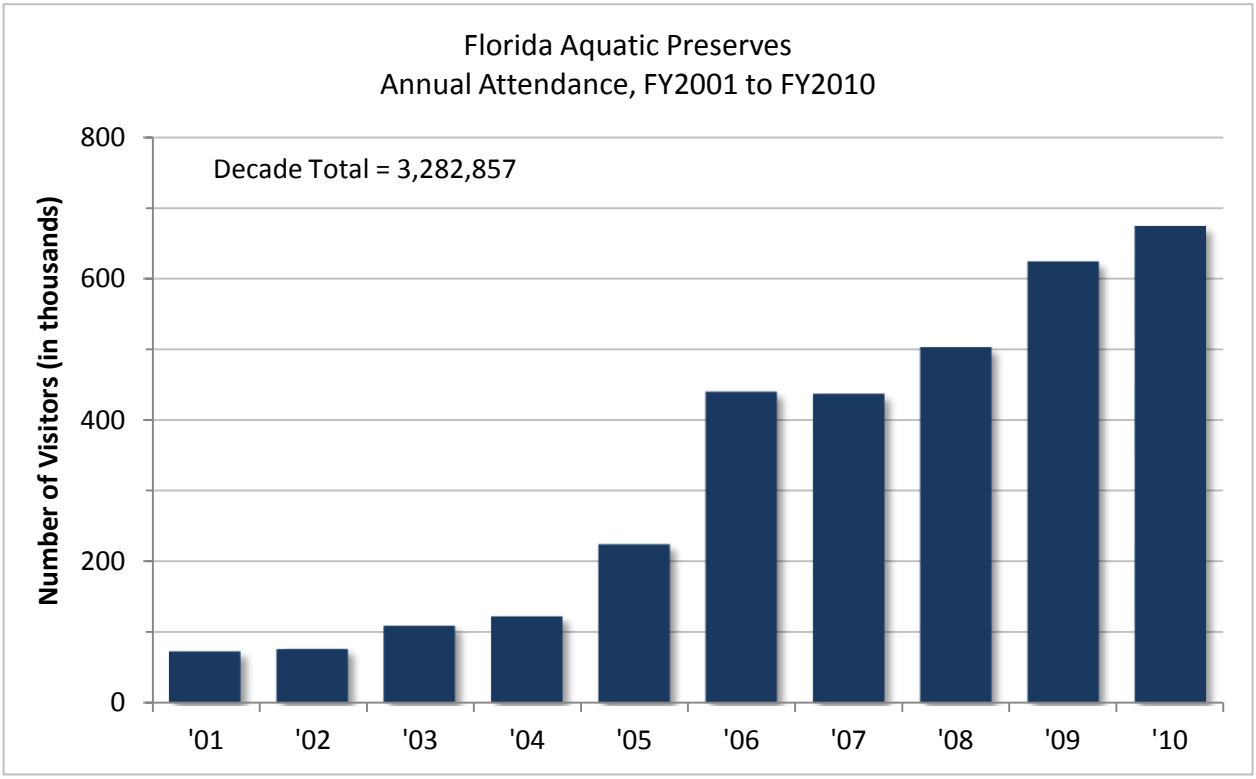


Figure 5-17



Data for usage of Greenways and Trails for the fiscal years 2002 to 2010 reveal annual fluctuations with an overall sharp increase in time from 300,000 to 4.7 million visitors annually, representing a 1400% increase. Approximately 21.7 million visits have been recorded for greenways and trails use since its establishment. Segments continue to be added to the system each year through the acquisition of the lands needed to connect the regional hub areas to one another throughout the state.

The recorded number of visitors to the Aquatic Preserves increased by more than 820% between fiscal years 2001 and 2010, from state-wide totals of 73,071 to 673,437. Records of Aquatic Preserve attendance show small incremental increases in usage by visitors until 2004. Thereafter, large annual increases have occurred, sometimes doubling the previous year, resulting in nearly 3.3 million total visitors overall. Nearly 90% of all recorded visitation is represented in the time period 2005 to 2010.

Indicator 5.8 - Number of Visitors on Southeast Florida Reefs

Florida is the only state in the continental United States to have extensive shallow coral reef formations near its coasts. The reefs in southeast Florida extend from the Dry Tortugas and Florida Keys in the south to Martin County in the north. Generally, the reefs in southeast Florida occur in three parallel lines extending north from Miami-Dade County, changing to more isolated patch reefs in Martin County. The attractions of the coral reef communities contribute greatly to Florida's tourism and fisheries. The artificial and natural reefs are public resources that provide recreational benefits to tourists and residents of Florida. Millions of tourists and local residents enjoy scuba diving, snorkeling, and fishing on Florida's coral reefs.

The Socioeconomic Study of Reefs in Southeast Florida (October 19, 2001 Final Report) provides information on reef use by residents and visitors in terms of person days. While this data is from 2000-2001, it still provides some insight on the demand for access to the reefs in Florida. The following figures provide the number of days people participated in recreational use of the reefs (presented in person-days). A person-day is defined as one person participating in an activity for a portion or all of a day.

The number of person-days of reef use by county and by reef type is presented in Table 5-13. Visitors are defined as nonresidents of the county that are visiting. Visitors and residents spent 28 million person-days using artificial and natural reefs in southeast Florida during the 12-month period from June 2000 to May 2001. Visitors and residents spent 10 million person days using artificial reefs and 18 million person-days using natural reefs. Residents spent 14.2 million person-days and visitors spent 13.7 million person-days in Florida's reefs (Table 5-14).

Table 5-13
The Number of Person-Days of Residents and Visitors Spent on Artificial and Natural Reefs in Southeast Florida from June 2000 to May 2001.

County	Number of Person-Days (in millions)		
	Artificial Reefs	Natural Reefs	All Reefs
Palm Beach	1.41	2.83	4.24
Broward	3.98	5.46	9.44
Miami-Dade	2.95	6.22	9.17
Monroe	1.47	3.64	5.11
Total	**9.81**	**18.15**	**27.96**

Table 5-14
Comparison of Visitor versus Resident Use on All Reefs in Southeast Florida from June 2000 to May 2001.

County	Number of Visitor Person-Days (in millions)		
	Residents	Visitors	All Users
Palm Beach	2.98	1.26	4.24
Broward	3.72	5.72	9.44
Miami-Dade	4.51	4.66	9.17
Monroe	3.03	2.08	5.11
Total	**14.24**	**13.72**	**27.96**

Visitors to the four counties spent about 14 million person-days on the reef systems of southeast Florida from June 2000 to May 2001. About 5 million of these days were spent on artificial reefs and about 9 million of these days were spent on natural reefs (Table 5-15).

Table 5-15
Total Person-Days of Visitors Spent on Artificial and Natural Reefs in Southeast Florida from June 2000 to May 2001.

County	Number of Visitor Person-Days (in millions)		
	Artificial Reefs	Natural Reefs	All Reefs
Palm Beach	0.33	0.93	1.26
Broward	2.69	3.03	5.72
Miami-Dade	1.41	3.25	4.66
Monroe	0.48	1.6	2.08
Total	**4.91**	**8.81**	**13.72**

Table 5-16 provides summary of reef use by type of activity. Overall, fishing activity on the reefs appears to dominate when snorkeling and scuba diving are compared separately. When snorkeling and scuba diving are considered together as diving activities, diving and fishing contribute about equally to total reef use in southeast Florida. In Palm Beach County, diving is a bit more prevalent than fishing while in Miami-Dade County, fishing is more prevalent than diving. In Broward and Monroe counties, the levels of diving and fishing are about equal.

Table 5-16
Number of Person-Days for Residents and Visitors on All Reefs by Recreational Activity for June 2000 to May 2001.

Activity	Palm Beach	Broward	Miami-Dade	Monroe	Total- Southeast Florida
Snorkeling	0.74	1.09	2.11	1.75	5.69
Scuba Diving	1.73	3.85	1.14	0.83	7.55
Fishing	1.76	4.45	5.9	2.45	14.56
Total	**4.23**	**9.39**	**9.15**	**5.03**	**27.8**

Demographic characteristics of visitor and resident reef users are provided in Table 5-17a - Table 5-17e. These characteristics were obtained from the resident boater survey and the visitor boater survey conducted for *The Socioeconomic Study of Reefs in Southeast Florida* (October 19, 2001 Final Report).

Table 5-17a
Median Age

County	Resident Reef-Users	Visitor Reef-Users
Palm Beach	48	41
Broward	48	39
Miami-Dade	46	41
Monroe	54	44

Table 5-17b
Gender

County	Resident Reef-Users		Visitor Reef-Users	
	Male	Female	Male	Female
Palm Beach	95%	9%	79%	21%
Broward	92%	8%	77%	23%
Miami-Dade	93%	7%	75%	25%
Monroe	86%	14%	70%	30%

Table 5-17c
Race

County	Resident Reef-Users			Visitor Reef-Users		
	White	Black	Other	White	Black	Other
Palm Beach	97%	0%	3%	94%	2%	4%
Broward	93%	2%	5%	89%	7%	4%
Miami-Dade	88%	1%	11%	83%	7%	10%
Monroe	94%	0.20%	5.80%	95%	2%	3%

Table 5-17d
Percent Hispanic/Latino

County	Resident Reef-Users	Visitor Reef-Users
Palm Beach	4%	5%
Broward	5%	13%
Miami-Dade	33%	29%
Monroe	7%	8%

Table 5-17e
Median Household Income

County	Resident Reef-Users	Visitor Reef-Users
Palm Beach	$ 71,695	$ 87,500
Broward	$ 72,310	$ 87,500
Miami-Dade	$ 69,722	$ 55,000
Monroe	$ 56,393	$ 87,500

Indicator 5.9 - Number of Recreational Boat Registrations

The number of boater registrations is an indicator of the potential demand for resources associated with water access. Registration is required of all recreational vessels for use in Florida waterways. Fees are collected dependent upon vessel class (determined by size and type, Table 5-18) and provide some support for construction and maintenance of boating facilities. The Florida Boating Improvement Program FY 2010 Annual Report published by the Fish and Wildlife Conservation Commission highlighted that vessel registration fees for 29 counties left a $10.5 million shortfall of financial need for boating facilities.

Table 5-19 and Table 5-20 provide the number of recreational vessels registered (classes A1, A2, and 1 through 5) in each of the 35 coastal and 32 non-coastal counties of Florida from 2000 to 2009. Coastal counties represent 75% of all recreational boater registrations. Statewide, total registrations increased each year from 2000 to 2007, and decreased by 1.7% in 2008 and 3.0% in 2009. Total registrations have increased 13% from 826,324 in 2000 to 934,367 in 2009 (Figure 5-19). This is an additional 108,043 registered boats statewide over nine years. Six counties (Dade, Pinellas, Broward, Lee, Hillsborough, and Palm Beach), each averaging between 40,000 to 60,000 registrations per year, represent 30% of all recreational boat registrations. In descending order, the eight counties showing the largest increases in registrations between 2000 and 2009 were: Dade – 7020, Pasco – 5794, Lee – 5446, Lake – 4630, Citrus – 4539, St. Johns – 4142, and Brevard – 4121, and Volusia – 4043. Three counties showed decreases in registrations between 2000 and 2009: Pinellas, Duval, and Orange (-660, -2200, and -3160, respectively).

Table 5-18

Vessel Classifications	
Class A-1	less than 12’
Class A-2	12 – 15’ 11”
Class 1	16 – 25’ 11”
Class 2	26 – 39’ 11”
Class 3	40 – 64’ 11”
Class 4	65 – 109’ 11”
Class 5	greater than 110’

Table 5-19

Number of Recreational Boats Registered by Coastal County, 2000 - 2009

County	Year										Change '00 to '09
	2000	'01	'02	'03	'04	'05	'06	'07	'08	'09	
Bay	16,981	18,370	18,669	18,696	18,937	19,441	19,773	19,790	19,414	19,181	2,200
Brevard	32,094	35,001	35,775	36,624	36,921	37,928	38,313	38,181	37,987	36,215	4,121
Broward	39,983	45,462	45,545	46,621	47,009	48,689	49,011	48,499	48,617	43,455	3,472
Charlotte	17,614	20,695	20,874	21,264	21,333	21,644	21,763	21,736	21,661	20,833	3,219
Citrus	12,142	13,940	14,520	15,232	15,816	16,558	17,172	17,309	16,572	16,681	4,539
Collier	18,397	21,324	21,586	21,788	22,068	22,898	23,526	23,281	23,009	21,937	3,540
Dade	53,190	54,816	55,036	55,063	54,449	56,039	57,859	59,366	56,029	60,210	7,020
Dixie	2,017	2,384	2,430	2,529	2,452	2,528	2,634	2,623	2,527	2,581	564
Duval	33,488	32,622	32,890	33,018	32,818	32,972	33,240	33,328	32,983	31,288	-2,200
Escambia	17,023	17,511	17,793	17,852	17,685	17,798	17,601	17,807	17,779	17,100	77
Flagler	3,157	3,873	4,145	4,358	4,542	4,642	4,865	5,108	4,648	5,268	2,111
Franklin	1,859	2,151	2,359	2,440	2,454	2,602	2,665	2,717	2,633	2,630	771
Gulf	2,213	2,522	2,580	2,686	2,779	2,893	2,935	3,001	2,888	2,862	649
Hernando	6,998	7,902	8,183	8,399	8,629	9,189	9,682	9,862	9,148	9,512	2,514
Hillsborough	42,740	44,026	45,266	45,675	45,174	45,965	46,834	46,554	46,073	44,541	1,801
Indian River	8,947	9,679	10,042	10,288	10,358	10,737	10,944	11,062	10,774	10,682	1,735
Jefferson	804	1,273	1,877	1,483	1,152	1,239	1,317	1,356	1,241	1,330	526
Lee	39,048	41,711	43,408	45,269	46,209	48,694	49,046	48,690	48,495	44,494	5,446
Levy	3,563	3,730	3,693	3,776	3,837	3,853	4,039	4,297	3,861	4,176	613
Manatee	17,983	18,956	19,056	19,427	19,176	19,458	19,491	19,177	19,444	18,207	224
Martin	12,677	14,824	15,727	16,425	16,615	16,659	16,362	15,866	16,807	15,025	2,348
Monroe	23,283	25,592	26,146	26,341	26,204	26,802	26,335	25,298	26,819	23,620	337
Nassau	3,984	4,955	5,164	5,304	5,440	5,640	5,954	6,148	5,674	6,130	2,146
Okaloosa	15,495	17,659	18,114	18,513	18,954	19,310	19,429	19,370	19,344	17,967	2,472
Palm Beach	38,553	40,516	41,838	42,636	42,860	43,618	43,257	42,704	43,572	40,820	2,267
Pasco	18,442	21,777	22,654	23,428	24,022	25,166	25,811	25,924	25,046	24,236	5,794
Pinellas	49,969	52,841	53,983	54,210	53,635	53,842	53,590	53,519	53,736	49,309	-660
Santa Rosa	11,172	12,760	13,076	13,577	13,746	14,018	14,204	14,650	13,965	14,716	3,544
Sarasota	19,431	21,439	22,075	22,292	22,963	24,019	24,190	23,903	24,121	22,537	3,106
St. Johns	9,071	10,344	10,681	10,993	11,285	11,938	12,481	13,144	11,947	13,213	4,142
St. Lucie	10,480	11,515	11,994	12,443	12,699	13,281	13,470	13,377	13,188	12,939	2,459
Taylor	3,298	3,436	3,489	3,578	3,721	3,814	3,817	3,776	3,808	3,742	444
Volusia	25,113	27,009	28,029	28,692	28,718	29,497	30,228	30,533	29,461	29,156	4,043
Wakulla	3,057	3,645	3,774	3,948	4,053	4,224	4,412	4,673	4,172	4,666	1,609
Walton	3,796	4,129	4,333	4,518	4,810	5,212	5,485	5,661	5,220	5,518	1,722
Coastal	618,062	670,389	686,804	699,386	703,523	722,807	731,735	732,290	722,663	696,777	78,715
State	826,324	895,320	914,587	930,815	936,351	963,244	977,181	979,719	963,062	934,367	108,043
Percent Coastal	74.8	74.9	75.1	75.1	75.1	75.0	74.9	74.7	75.0	74.6	72.9

Table 5-20

Number of Recreational Boats Registered by NonCoastal County, 2000 - 2009

County	Year										Average	Change '00 - '09
	2000	'01	'02	'03	'04	'05	'06	'07	'08	'09		
Alachua	8,882	9,602	10,052	10,324	10,419	10,664	10,872	11,075	10,691	10,924	10,351	2,042
Baker	1,753	2,009	1,976	2,002	2,088	2,130	2,253	2,333	2,147	2,383	2,107	630
Bradford	1,946	2,096	2,155	2,129	2,127	2,151	2,167	2,174	2,162	2,341	2,145	395
Calhoun	1,217	1,297	1,355	1,337	1,377	1,445	1,490	1,535	1,440	1,621	1,411	404
Clay	9,486	11,420	11,897	12,383	12,383	12,613	12,637	13,018	12,584	13,006	12,143	3,520
Columbia	4,525	4,716	4,549	4,567	4,547	4,667	4,738	4,828	4,609	4,658	4,640	133
Desoto	2,151	2,254	2,291	2,353	2,335	2,282	2,347	2,383	2,299	2,318	2,301	167
Gadsden	2,179	2,446	2,468	2,575	2,522	2,582	2,573	2,554	2,595	2,638	2,513	459
Gilchrist	1,377	1,508	1,520	1,580	1,623	1,652	1,729	1,788	1,657	1,774	1,621	397
Glades	992	1,190	1,234	1,357	1,353	1,444	1,362	1,336	1,413	1,196	1,288	204
Hamilton	729	807	843	861	870	888	928	931	921	1,007	879	278
Hardee	1,494	1,680	1,648	1,627	1,566	1,613	1,607	1,586	1,595	1,619	1,604	125
Hendry	2,637	3,048	3,170	3,098	3,049	3,017	3,035	3,011	3,019	2,898	2,998	261
Highlands	8,334	9,103	9,470	9,750	9,911	10,319	10,396	10,315	10,285	9,210	9,709	876
Holmes	1,538	1,789	1,776	1,840	1,820	1,932	2,065	2,069	1,915	2,149	1,889	611
Jackson	3,924	4,368	4,370	4,348	4,401	4,564	4,732	4,872	4,548	4,896	4,502	972
Lafayette	690	796	813	840	850	876	914	952	877	974	858	284
Lake	17,621	18,838	18,764	19,414	20,359	22,021	23,022	23,285	22,111	22,251	20,769	4,630
Leon	12,901	13,118	13,193	13,244	13,268	13,400	13,437	13,583	13,429	13,255	13,283	354
Liberty	848	1,030	1,008	1,046	1,040	1,075	1,122	1,118	1,079	1,134	1,050	286
Madison	1,023	1,152	1,194	1,201	1,185	1,220	1,198	1,215	1,217	1,176	1,178	153
Marion	17,027	18,414	18,600	18,685	18,901	19,764	20,347	20,555	19,763	19,945	19,200	2,918
Okeechobee	4,788	5,279	5,435	5,588	5,676	5,845	5,833	5,554	5,855	5,052	5,491	264
Orange	34,440	33,656	33,741	33,816	33,105	33,901	34,636	34,402	33,621	31,280	33,660	-3,160
Osceola	6,548	7,990	8,219	8,587	8,673	8,981	9,336	9,537	8,999	8,893	8,576	2,345
Polk	28,208	30,034	30,428	31,028	31,017	31,807	32,342	32,775	31,811	31,334	31,078	3,126
Putnam	7,359	8,146	8,388	8,443	8,435	8,659	8,706	8,821	8,639	8,564	8,416	1,205
Seminole	15,817	18,452	18,248	18,199	18,545	19,101	19,273	19,229	19,261	18,388	18,451	2,571
Sumter	2,781	3,291	3,444	3,563	3,650	3,885	4,170	4,292	3,932	4,395	3,740	1,614
Suwannee	2,637	2,693	2,764	2,802	2,815	2,887	2,970	3,004	2,862	3,009	2,844	372
Union	631	714	723	761	751	807	840	868	816	908	782	277
Washington	1,779	1,995	2,047	2,081	2,167	2,245	2,369	2,431	2,247	2,394	2,176	615
NonCoastal	208,262	224,931	227,783	231,429	232,828	240,437	245,446	247,429	240,399	237,590	233,653	29,328
State	826,324	895,320	914,587	930,815	936,351	963,244	977,181	979,719	963,062	934,367	932,097	108,043
Percent Noncoastal	25.20	25.12	24.91	24.86	24.87	24.96	25.12	25.26	24.96	25.43	25.07	27.14

Figure 5-18

Total recreational boater registrations have increased 13% from 826,324 in 2000 to 934,367 in 2009.

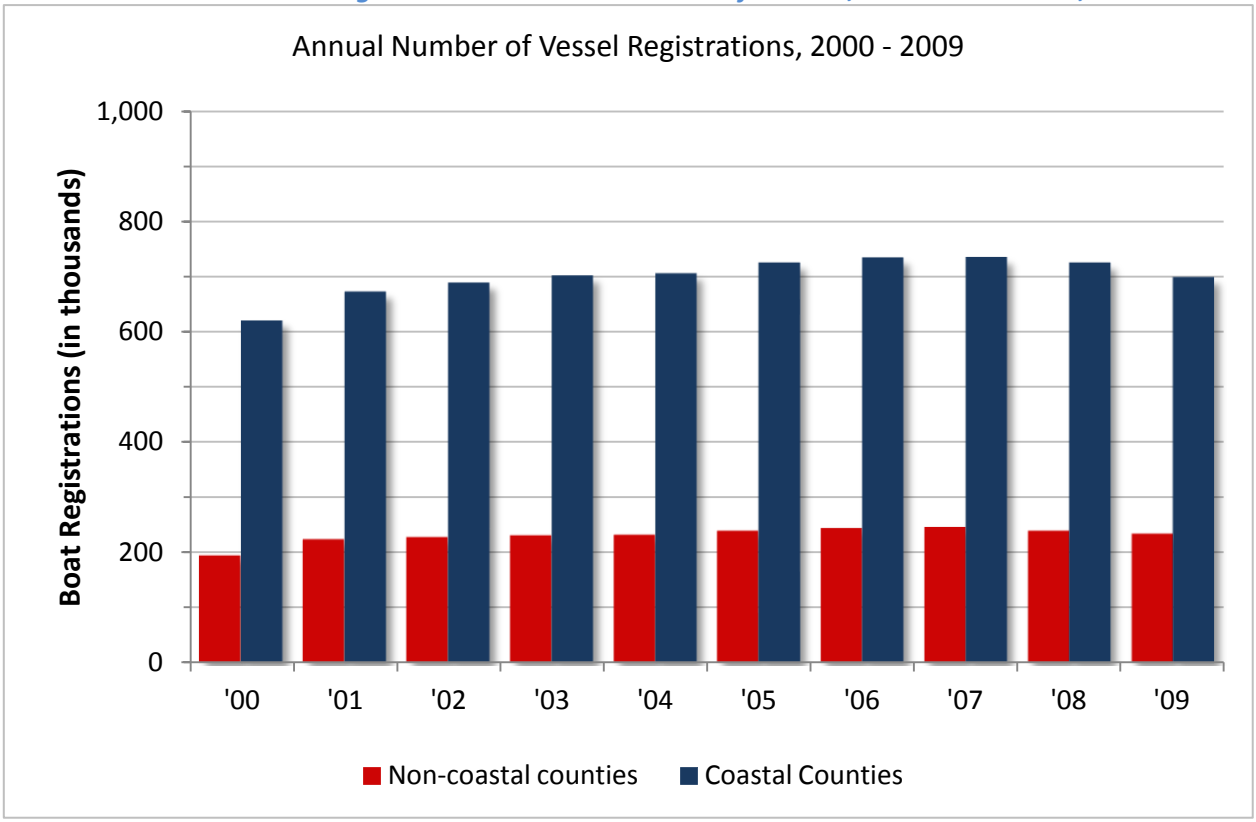


Table 5-21 and Table 5-22 show the year to year percent change in the number of recreational vessel registrations for coastal and non-coastal counties, respectively. The change in vessel registrations can be used as an indicator of the demand for water-related resources, and counties can be categorized by the total increase over time to assess the need for facilities such as boat ramps, docks, and boat storage.

Two coastal counties (Flagler at 66.9% and Jefferson at 65.4%) showed extremely high percentage increases in vessel registrations from 2000 to 2009. This represents average rates of increase greater than 6% per year. Both of these counties had relatively low total numbers (3,157 for Flagler and 804 for Jefferson) of recreational vessels in 2000. Two coastal counties recorded decreases in registered vessels between 2000 and 2009; Duval (-6.6%) and Pinellas (-1.3%). Non-coastal counties showed no extremely high rates of increase, and only one county with a decreased number of boater registrations (Orange County, -9.2%). Most of the additional 108,000 Florida vessel registrations reported for the 2000 to 2009 period were recorded between 2000 and 2006. Numerous year to year decreases have been seen in all counties from 2007 through 2009, especially coastal counties. The year 2007 to 2008 showed decreases of 1 to 10% in the number of vessel registrations in nearly 80% of counties.

Table 5-21
Percent Change in Vessel Registrations by Coastal County, 2000 - 2009

Coastal County	Percent Change									
	'00 - '01	'01 - '02	'02 - '03	'03 - '04	04 - 05	'05 - '06	'06 - '07	'07 - '08	'08 - '09	'00 to '09
Bay	8.2	1.6	0.1	1.3	2.7	1.7	0.1	-1.9	-1.2	13.0
Brevard	9.1	2.2	2.4	0.8	2.7	1.0	-0.3	-0.5	-4.7	12.8
Broward	13.7	0.2	2.4	0.8	3.6	0.7	-1.0	0.2	-10.6	8.7
Charlotte	17.5	0.9	1.9	0.3	1.5	0.5	-0.1	-0.3	-3.8	18.3
Citrus	14.8	4.2	4.9	3.8	4.7	3.7	0.8	-4.3	0.7	37.4
Collier	15.9	1.2	0.9	1.3	3.8	2.7	-1.0	-1.2	-4.7	19.2
Dade	3.1	0.4	0.0	-1.1	2.9	3.2	2.6	-5.6	7.5	13.2
Dixie	18.2	1.9	4.1	-3.0	3.1	4.2	-0.4	-3.7	2.1	28.0
Duval	-2.6	0.8	0.4	-0.6	0.5	0.8	0.3	-1.0	-5.1	-6.6
Escambia	2.9	1.6	0.3	-0.9	0.6	-1.1	1.2	-0.2	-3.8	0.5
Flagler	22.7	7.0	5.1	4.2	2.2	4.8	5.0	-9.0	13.3	66.9
Franklin	15.7	9.7	3.4	0.6	6.0	2.4	2.0	-3.1	-0.1	41.5
Gulf	14.0	2.3	4.1	3.5	4.1	1.5	2.2	-3.8	-0.9	29.3
Hernando	12.9	3.6	2.6	2.7	6.5	5.4	1.9	-7.2	4.0	35.9
Hillsborough	3.0	2.8	0.9	-1.1	1.8	1.9	-0.6	-1.0	-3.3	4.2
Indian River	8.2	3.8	2.4	0.7	3.7	1.9	1.1	-2.6	-0.9	19.4
Jefferson	58.3	47.4	-21.0	-22.3	7.6	6.3	3.0	-8.5	7.2	65.4
Lee	6.8	4.1	4.3	2.1	5.4	0.7	-0.7	-0.4	-8.3	13.9
Levy	4.7	-1.0	2.2	1.6	0.4	4.8	6.4	-10.1	8.2	17.2
Manatee	5.4	0.5	1.9	-1.3	1.5	0.2	-1.6	1.4	-6.4	1.2
Martin	16.9	6.1	4.4	1.2	0.3	-1.8	-3.0	5.9	-10.6	18.5
Monroe	9.9	2.2	0.7	-0.5	2.3	-1.7	-3.9	6.0	-11.9	1.4
Nassau	24.4	4.2	2.7	2.6	3.7	5.6	3.3	-7.7	8.0	53.9
Okaloosa	14.0	2.6	2.2	2.4	1.9	0.6	-0.3	-0.1	-7.1	16.0
Palm Beach	5.1	3.3	1.9	0.5	1.8	-0.8	-1.3	2.0	-6.3	5.9
Pasco	18.1	4.0	3.4	2.5	4.8	2.6	0.4	-3.4	-3.2	31.4
Pinellas	5.7	2.2	0.4	-1.1	0.4	-0.5	-0.1	0.4	-8.2	-1.3
Santa Rosa	14.2	2.5	3.8	1.2	2.0	1.3	3.1	-4.7	5.4	31.7
Sarasota	10.3	3.0	1.0	3.0	4.6	0.7	-1.2	0.9	-6.6	16.0
St. Johns	14.0	3.3	2.9	2.7	5.8	4.5	5.3	-9.1	10.6	45.7
St. Lucie	9.9	4.2	3.7	2.1	4.6	1.4	-0.7	-1.4	-1.9	23.5
Taylor	4.2	1.5	2.6	4.0	2.5	0.1	-1.1	0.8	-1.7	13.5
Volusia	7.5	3.8	2.4	0.1	2.7	2.5	1.0	-3.5	-1.0	16.1
Wakulla	19.2	3.5	4.6	2.7	4.2	4.5	5.9	-10.7	11.8	52.6
Walton	8.8	4.9	4.3	6.5	8.4	5.2	3.2	-7.8	5.7	45.4
Coastal Counties	**8.5**	**2.4**	**1.8**	**0.6**	**2.7**	**1.2**	**0.1**	**-1.3**	**-3.6**	**12.7**

Table 5-22
Percent Change in Vessel Registrations by NonCoastal County, 2000 - 2009

NonCoastal County	Percent Change									
	'00 - '01	'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08	'08 to '09	'00 to '09
Alachua	8.1	4.7	2.7	0.9	2.4	2.0	1.9	-3.5	2.2	23.0
Baker	14.6	-1.6	1.3	4.3	2.0	5.8	3.6	-8.0	11.0	35.9
Bradford	7.7	2.8	-1.2	-0.1	1.1	0.7	0.3	-0.6	8.3	20.3
Calhoun	6.6	4.5	-1.3	3.0	4.9	3.1	3.0	-6.2	12.6	33.2
Clay	20.4	4.2	4.1	0.0	1.9	0.2	3.0	-3.3	3.4	37.1
Columbia	4.2	-3.5	0.4	-0.4	2.6	1.5	1.9	-4.5	1.1	2.9
Desoto	4.8	1.6	2.7	-0.8	-2.3	2.8	1.5	-3.5	0.8	7.8
Gadsden	12.3	0.9	4.3	-2.1	2.4	-0.3	-0.7	1.6	1.7	21.1
Gilchrist	9.5	0.8	3.9	2.7	1.8	4.7	3.4	-7.3	7.1	28.8
Glades	20.0	3.7	10.0	-0.3	6.7	-5.7	-1.9	5.8	-15.4	20.6
Hamilton	10.7	4.5	2.1	1.0	2.1	4.5	0.3	-1.1	9.3	38.1
Hardee	12.4	-1.9	-1.3	-3.7	3.0	-0.4	-1.3	0.6	1.5	8.4
Hendry	15.6	4.0	-2.3	-1.6	-1.0	0.6	-0.8	0.3	-4.0	9.9
Highlands	9.2	4.0	3.0	1.7	4.1	0.7	-0.8	-0.3	-10.5	10.5
Holmes	16.3	-0.7	3.6	-1.1	6.2	6.9	0.2	-7.4	12.2	39.7
Jackson	11.3	0.0	-0.5	1.2	3.7	3.7	3.0	-6.7	7.7	24.8
Lafayette	15.4	2.1	3.3	1.2	3.1	4.3	4.2	-7.9	11.1	41.2
Lake	6.9	-0.4	3.5	4.9	8.2	4.5	1.1	-5.0	0.6	26.3
Leon	1.7	0.6	0.4	0.2	1.0	0.3	1.1	-1.1	-1.3	2.7
Liberty	21.5	-2.1	3.8	-0.6	3.4	4.4	-0.4	-3.5	5.1	33.7
Madison	12.6	3.6	0.6	-1.3	3.0	-1.8	1.4	0.2	-3.4	15.0
Marion	8.1	1.0	0.5	1.2	4.6	2.9	1.0	-3.9	0.9	17.1
Okeechobee	10.3	3.0	2.8	1.6	3.0	-0.2	-4.8	5.4	-13.7	5.5
Orange	-2.3	0.3	0.2	-2.1	2.4	2.2	-0.7	-2.3	-7.0	-9.2
Osceola	22.0	2.9	4.5	1.0	3.6	4.0	2.2	-5.6	-1.2	35.8
Polk	6.5	1.3	2.0	0.0	2.5	1.7	1.3	-2.9	-1.5	11.1
Putnam	10.7	3.0	0.7	-0.1	2.7	0.5	1.3	-2.1	-0.9	16.4
Seminole	16.7	-1.1	-0.3	1.9	3.0	0.9	-0.2	0.2	-4.5	16.3
Sumter	18.3	4.6	3.5	2.4	6.4	7.3	2.9	-8.4	11.8	58.0
Suwannee	2.1	2.6	1.4	0.5	2.6	2.9	1.1	-4.7	5.1	14.1
Union	13.2	1.3	5.3	-1.3	7.5	4.1	3.3	-6.0	11.3	43.9
Washington	12.1	2.6	1.7	4.1	3.6	5.5	2.6	-7.6	6.5	34.6
Non-Coastal Counties	**8.0**	**1.3**	**1.6**	**0.6**	**3.3**	**2.1**	**0.8**	**-2.8**	**-1.2**	**14.1**

Figure 5-19 and Figure 5-20 depict the total number of boat registrations in 2009 and the increases in number of recreational boats between 2000 and 2009 in the 35 coastal counties. Eighty percent of all counties were found in categories 2 and 3, which equate to rates of increase of less than

4.5% per year, with the majority of counties experiencing less than 3% annual increases in recreational boating registrations. A small number of counties have seen high or very high increases in numbers of vessels from 2000 to 2009 (greater than 4.5% per year equivalent), which may suggest the need for additional facilities to support greater boating usage of waterways in those areas.

Figure 5-19

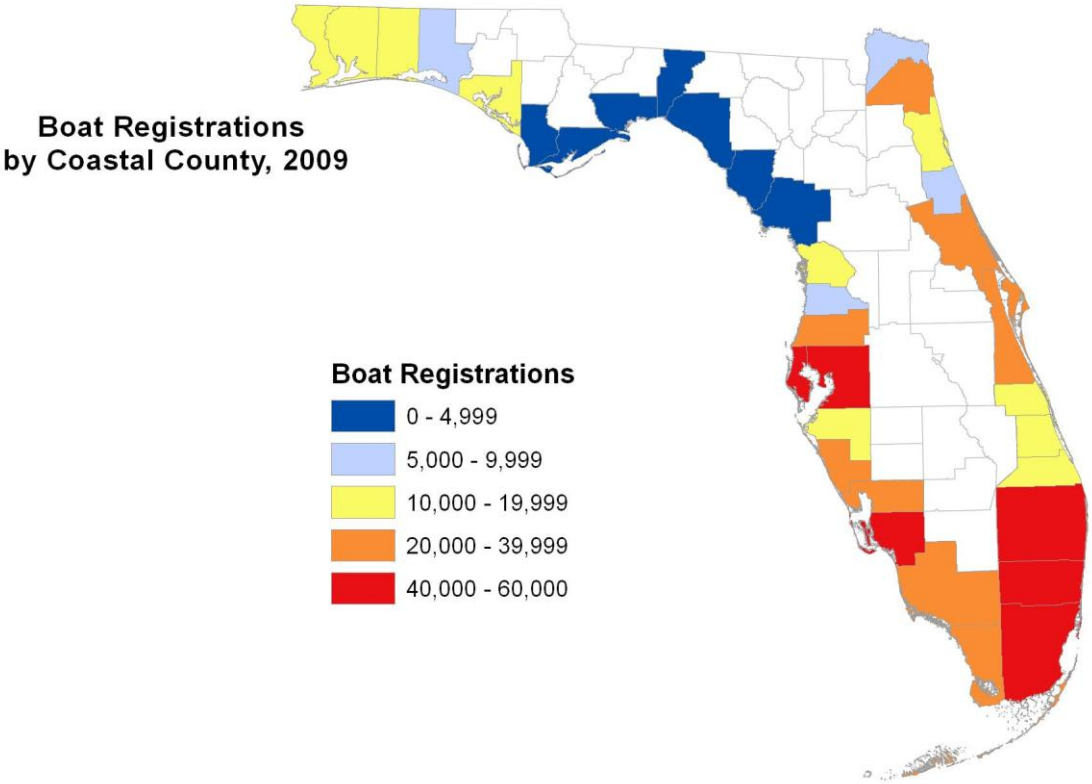
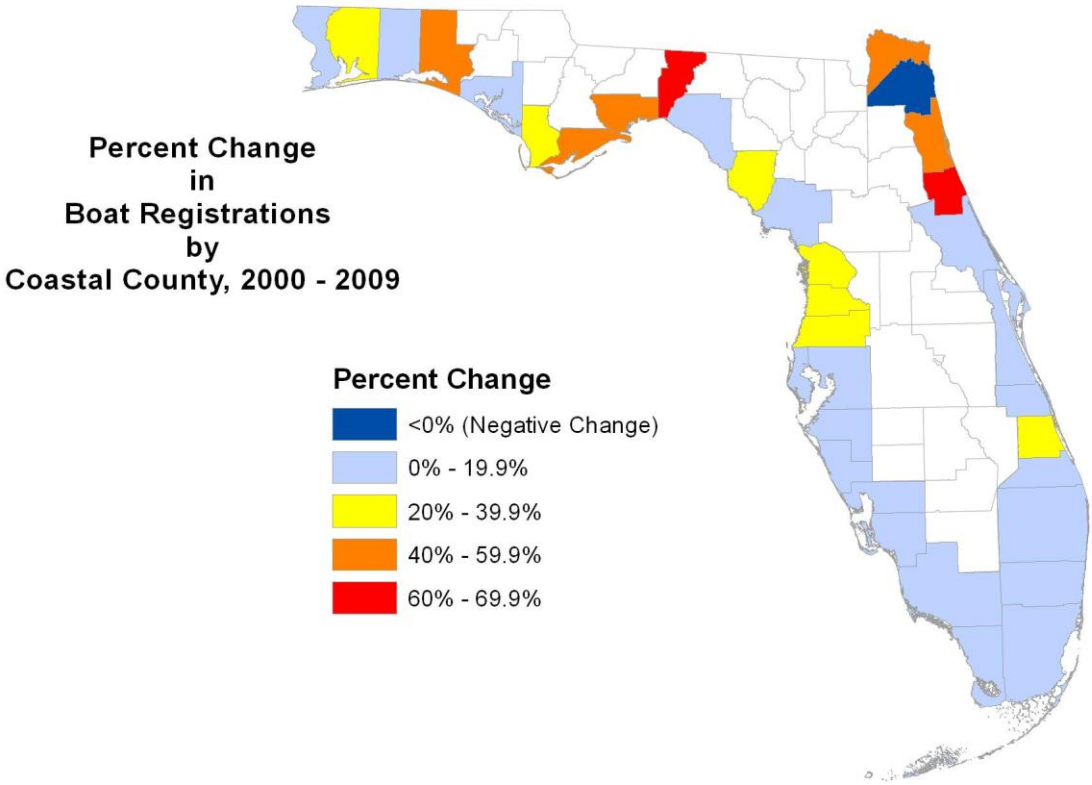


Figure 5-20



The annual percent change in number of recreational vessels registered was ranked for coastal and non-coastal counties from greatest to least for each year (Table 5-23 and Table 5-24, respectively). The top ten counties with the greatest increase were reported for both coastal and inland areas, and those counties appearing in the list in 5 or more years were highlighted. Identifying these counties on the map in Figure 5-20 indicates that most areas of high vessel registration percentage increases over the last ten years occurred in counties with low densities of vessels in 2000 (St. Johns and Citrus Counties excepted).

Table 5-23

Top ten coastal counties ranked in decreasing order by percentage annual increase of registered recreational vessels for the years 2001 to 2009. Highlighted counties were in the top ten for at least 5 of the nine years.

Rank	'01	'02	'03	'04	'05	'06	'07	'08	'09
1	Jefferson	Jefferson	Flagler	Walton	Walton	Jefferson	Levy	Monroe	Flagler
2	Nassau	Franklin	Citrus	Flagler	Jefferson	Nassau	Wakulla	Martin	Wakulla
3	Flagler	Flagler	Wakulla	Taylor	Hernando	Hernando	St. Johns	Palm Beach	St. Johns
4	Wakulla	Martin	Martin	Citrus	Franklin	Walton	Flagler	Manatee	Levy
5	Dixie	Walton	Lee	Gulf	St. Johns	Levy	Nassau	Sarasota	Nassau

6	Pasco	Nassau	Walton	Sarasota	Lee	Flagler	Walton	Taylor	Dade
7	Charlotte	Citrus	Gulf	Hernando	Pasco	St. Johns	Santa Rosa	Pinellas	Jefferson
8	Martin	St. Lucie	Dixie	Wakulla	Citrus	Wakulla	Jefferson	Broward	Walton
9	Collier	Lee	Santa Rosa	St. Johns	Sarasota	Dixie	Dade	n/a	Santa Rosa
10	Franklin	Pasco	St. Lucie	Nassau	St. Lucie	Citrus	Gulf	n/a	Hernando

na = not applicable; in 2008 there were no other counties that had positive changes

Table 5-24

Top ten non-coastal counties ranked in decreasing order by percentage annual increase of registered recreational vessels for the years 2001 to 2009. Highlighted counties were in the top ten for at least 5 of the nine years.

Rank	'01	'02	'03	'04	'05	'06	'07	'08	'09
1	Osceola	Alachua	Glades	Lake	Lake	Sumter	Lafayette	Glades	Calhoun
2	Liberty	Sumter	Union	Baker	Union	Holmes	Baker	Okeechobee	Holmes
3	Clay	Calhoun	Osceola	Washington	Glades	Baker	Gilchrist	Gadsden	Sumter
4	Glades	Hamilton	Gadsden	Calhoun	Sumter	Washington	Union	Hardee	Union
5	Sumter	Clay	Clay	Gilchrist	Holmes	Gilchrist	Calhoun	Hendry	Lafayette
6	Seminole	Highlands	Gilchrist	Sumter	Calhoun	Lake	Clay	Seminole	Baker
7	Holmes	Hendry	Liberty	Seminole	Marion	Hamilton	Jackson	Madison	Hamilton
8	Hendry	Glades	Holmes	Highlands	Highlands	Liberty	Sumter	n/a	Bradford
9	Lafayette	Madison	Lake	Okeechobee	Jackson	Lafayette	Washington	n/a	Jackson
10	Baker	Putnam	Sumter	Jackson	Washington	Union	Osceola	n/a	Gilchrist

na = not applicable; in 2008 there were no other counties that had positive changes

These areas represent the greatest potential need for increased facilities supporting boating. All of the high frequency "growth" counties, in relation to recreational boating, are in the northern half of the state, except for Glades County, located next to Lake Okeechobee in south central Florida. Among coastal counties, Flagler and Walton were most frequently in the list of counties with high increases in vessel registrations, followed by Jefferson, Wakulla, and Nassau, and including St. Johns and Citrus. Among non-coastal counties, Sumter was listed most frequently with high increases in recreational watercraft registrations. Baker, Calhoun, Gilchrist, Glades, and Holmes all appeared on the list in five of the years between 2001 and 2009.

It may be evident from the section above that percent change data have the bias of showing greater impacts on smaller initial numbers. For example, Lake County was the non-coastal county with the greatest magnitude change in registered boats (4,630) between 2000 and 2009; a number higher than all of the boats registered in most of the counties listed in Table 5-23 and Table 5-24, but since the base number of registered boats was 17,621, the percentage increase was approximately only 2.5% per year. Clay, Polk, Marion, and Seminole counties are similar to Lake County in this respect. Nevertheless, this may suggest the need for additional facilities to service the boaters in the counties frequently listing high percent changes over the last decade.

C. Programmatic Activities Related to Public Access

The Florida Coastal Management Program seeks to improve coastal access through a variety of activities which provide information to the public and support developing, maintaining, and enhancing coastal access. By means of an assortment of education and outreach material, FCMP assists in making the public aware of existing access opportunities. As mentioned in Indicator 2.1, FCMP has updated its inventory of sandy beach access points and will produced an online access guide. The FCMP also provides Public Access Signs, Beach Warning Flag Signs, Beach Warning Flag Sets and Rip Current Awareness Signs to state and local governments or other governmental entities that provide public access to and use of the coast.

Furthermore, through competitive grant programs, the FCMP makes funds available for projects and activities that protect and enhance coastal resources, stewardship, public access, water quality and coastal communities. Grant projects support a variety of efforts aimed at increasing public access to the coast.

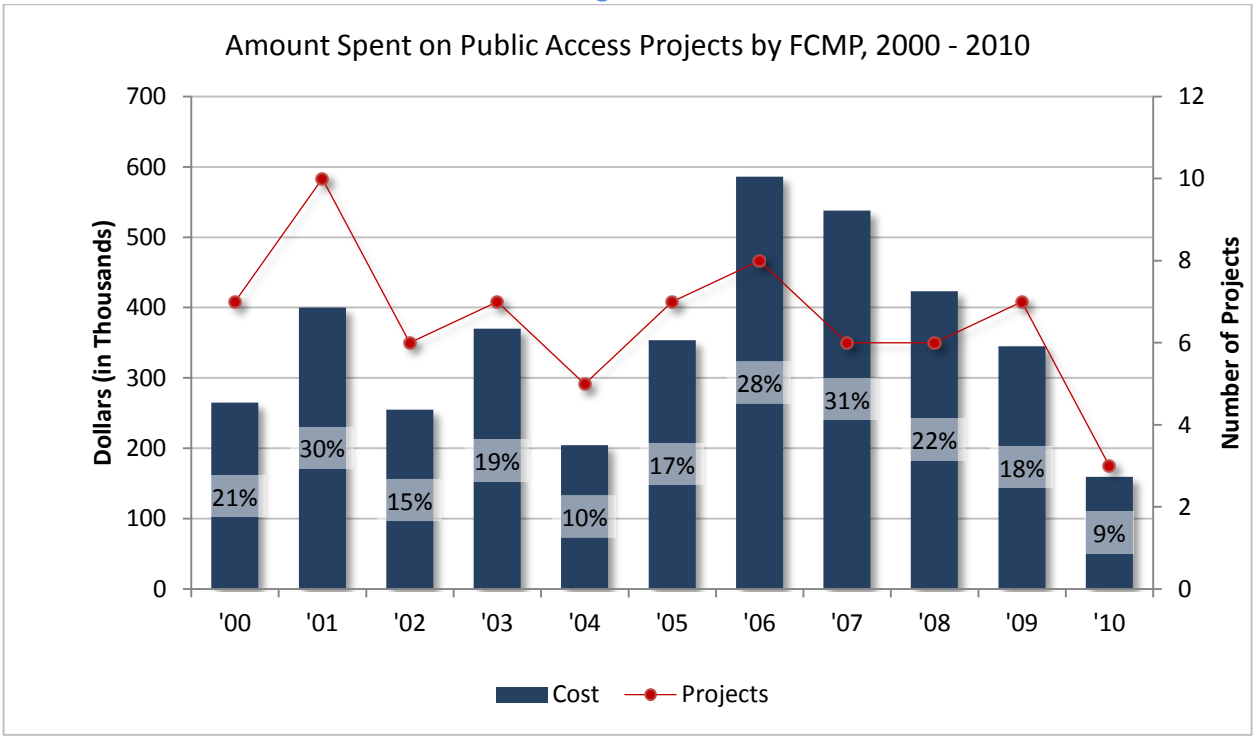
Indicator 5.10 - FCMP Grants and Program to Improve Coastal Access

The FCMP administers the Coastal Partnership Initiative and the State Agency and Water Management District grant program (http://www.dep.state.fl.us/cmp/grants/index.htm); both are competitive grant programs that support the protection, management and enhancement of Florida's ocean and coastal resources. The annual allocation of funds for public access projects statewide was variable over time during the period FY 2000 through FY 2010, for a total of $3.9 million (Table 2-25). The annual allocation has ranged between $159,410 to $586,325. Between 2000 and 2010 seventy-two Public Access projects have been funded for an average of 6.5 per year. Figure 5-21 illustrates the number of projects funded by year plus the amount of funding and percent of the total funding that was granted to Public Access projects each year. Public Access projects received the second highest number of projects funded and the third highest amount of the total funding for this time period between the six categories.

Table 5-25

Fiscal Year	Year	Funding	**Total Funding**	**Percent of Funding**	Projects	**Total All Projects**	**Percent of All Projects**
FY 00-01	'00	265,000	**$1,239,593**	**21**	7	**27**	**26**
FY 01-02	'01	400,000	**$1,320,000**	**30**	10	**30**	**33**
FY 02-03	'02	255,000	**$1,687,782**	**15**	6	**27**	**22**
FY 03-04	'03	370,000	**$1,990,240**	**19**	7	**26**	**27**
FY 04-05	'04	204,538	**$2,125,623**	**10**	5	**28**	**18**
FY 05-06	'05	353,663	**$2,037,309**	**17**	7	**30**	**23**
FY 06-07	'06	586,325	**$2,126,881**	**28**	8	**32**	**25**
FY 07-08	'07	538,051	**$1,730,751**	**31**	6	**22**	**27**
FY 08-09	'08	423,366	**$1,955,629**	**22**	6	**27**	**22**
FY 09-10	'09	345,250	**$1,900,218**	**18**	7	**29**	**24**
FY 10-11	'10	159,410	**$1,727,081**	**9**	3	**24**	**13**
	Total	$3,900,603	**$19,841,107**		72	**302**	

Figure 5-21



In addition to grant programs funding public access enhancement projects, the FCMP also provides educational flags & signs to enhance public access facilities. The FCMP provides Public Access Signs, Beach Warning Flag Signs, Beach Warning Flag Sets and Rip Current Awareness Signs free of charge to Florida's coastal communities and governmental agencies. These signs and flags are provided to promote beach safety and the protection of the state's fragile coastal environment while facilitating public access to cultural, historic and natural resources along the coast.

- ***Beach Access Signs*** help minimize environmental damage to beaches by designating points of entry for pedestrians and vehicles.
- Florida's uniform ***Beach Warning Flags*** come in four colors, red, yellow, green and purple, plus a second red imprinted with a Do-Not Swim Logo. The flags are accompanied by interpretive signs that explain the meaning of each color. The beach warning flags provide general warnings of overall surf conditions. The safety and enjoyment of Florida's public beaches are affected by changes in tide and surf conditions. To minimize the risks of drowning or serious injury, the FCMP worked with the Florida Beach Patrol Chiefs Association, the United States Lifesaving Association, and the International Life Saving Federation to develop a uniform warning flag program for use by Florida's beachfront communities.
- The ***Rip Current Educational Signs*** bring attention to the dangers of rip currents and educate people how to respond in the event that they are caught in a rip current.

A total of 3,720 beach access signs have been distributed for posting at Florida beaches throughout the state since 1997, with 1,501 of them provided between 2004 and 2010 (Table 2-

26). Signs describing the Florida beach warning flag system are also distributed by request, and 3,516 warning flag signs have been sent to city, county and state park entities between 2004 and 2010. Warning flags are provided in sets of five or individually, as requested, and a total of 3,966 flag sets and additional 1,634 single flags have been distributed between 2004 and 2010. Another part of the beach signage program concerns the hazard of rip currents. Four thousand nine hundred and sixty nine (4,969) rip current signs have been provided for posting at beaches between 2004 and 2010. In 2010, rip current signs in Spanish were started, and 117 signs delivered to requesting entities.

Table 5-26

The number of beach access signs and warning flags for coastal access, warning flag information, and rip currents (*117 signs were produced in Spanish in 2010), provided to local entities between 2004 and 2010 [beach access sign program was established in 1997].

Year	Number of Access Signs	Number of Warning Flag Signs	Number of Sets of Warning Flags (**)	Number of Rip Current Signs
'97	664			
'98	233			
'99	303			
'00	336			
'01	54			
'02	409			
'03	220			
'04	126	932	1,007	616
'05	289	1,190	937	1,553
'06	282	130	162	1,224
'07	379	423	721	97
'08	112	265	409	567
'09	113	285	342	396
'10	200	291	388	*516
'04 to '10	**1,501**	**3,516**	**3,966**	**4,969**
'97 to '10	**3,720**			

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