
FLORIDA SEAPORT SYSTEM PLAN



**FLORIDA DEPARTMENT
OF TRANSPORTATION**

DECEMBER 2010



Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

STEPHANIE C. KOPELOUSOS
SECRETARY

December 14, 2010

Citizens of Florida:

I am pleased to submit to you the 2010 Florida Seaport System Plan. Creation of the plan was guided by the Seaport Plan Working Group, whose members represent all modes of transportation; the public and private sector; and economic development and environmental interests. The working group met during 2009 and drafted the Recommendations Report which was used as policy guidance in developing the plan.

This plan ensures the State of Florida's actions with respect to its seaports are guided by a strategic system-wide approach. The plan demonstrates the benefits of a coordinated statewide seaport system, including benefits to the state through increased jobs and tax base; benefits to the transportation system and Florida residents and visitors by planning and constructing the best possible multimodal transportation system; and benefits to businesses, residents and visitors by access to needed goods and markets.

Florida, as a whole, will be shaped by the actions, decisions and policy choices made today. Water transportation will play a critical role in meeting the challenges of continuing population growth, a rapidly diversifying economy, improving our infrastructure and preserving our exceptional natural environment.

Please join with the Florida Department of Transportation and all of our partners in delivering the promise of this plan.

Sincerely,

A handwritten signature in blue ink that reads "SKopelousos".

Stephanie C. Kopelousos
Secretary

Acknowledgements

The Florida Department of Transportation would like to thank members of the Seaport Plan Working Group, Florida's fourteen deepwater seaports, and all other stakeholders that provided input for their contributions to this Plan. In addition, specific thanks to the following seaports for use of photographs included on the cover and within the document: Port Canaveral; Port Everglades; Port of Jacksonville; Port of Miami; Port of Palm Beach; Port of Panama City; and Port of Tampa.



Table of Contents

Executive Summary.....	ES-1
1.0 Background.....	1-1
1.1 Florida’s Ports Provide Critical Economic and Transportation Benefits.....	1-1
1.2 Seaport System Planning and Funding.....	1-3
1.3 Florida’s Seaports within the Larger State Transportation Program.....	1-6
1.4 Elements of the Seaport System Plan.....	1-8
2.0 The Vision for Florida’s Seaport System.....	2-1
2.1 A Vision for Florida’s Seaports.....	2-1
2.2 Relationship to Other Plans.....	2-2
2.3 Relationship to Florida Trade and Logistics Study.....	2-4
2.4 Seaport System Goals, Elements, and Objectives.....	2-6
3.0 Florida’s Seaport System – Trends and Conditions.....	3-1
3.1 System Overview and Performance.....	3-1
3.2 Functional Characteristics.....	3-6
3.3 Categorization of Florida’s Seaports.....	3-12
3.4 Competitive Position of Florida’s Seaports.....	3-13
3.5 Trend Analysis – Florida and its Competitors.....	3-18
4.0 Future Performance of Florida’s Seaport System.....	4-1
4.1 Expectations From Each of Florida’s Ports.....	4-1
4.2 Regional and Statewide Waterborne Activity Forecasts.....	4-10
4.3 Critical Issues, Opportunities, and Challenges.....	4-14
5.0 Seaport System Needs, Strategies, and Funding.....	5-1
5.1 Overview.....	5-1
5.2 Summary of On-Port Seaport Needs.....	5-1
5.3 Current FDOT Work Program Related to Seaports.....	5-12
5.4 Available Funding Programs.....	5-16
6.0 Seaport System Plan Implementation.....	6-1
6.1 Overview.....	6-1
6.2 Implementation Strategies and Actions.....	6-1
6.3 Integration of Plan with Other Planning Efforts.....	6-8
6.4 Next Steps.....	6-13



List of Tables

ES.1	Summary of Implementation Plan.....	ES-11
2.1	Policy Guidance for Seaports	2-3
2.2	Policy Guidance for Seaports	2-4
2.3	Summary of Recommended Strategies, Organized by the Six Pillars, Florida Trade and Logistics Study.....	2-5
2.4	Summary of Seaport System Plan Goals, Elements, and Objectives	2-7
3.1	Markets, Services, and Competitors.....	3-11
3.2	Total Containers among South Atlantic and Gulf States	3-20
4.1	2035 Forecasts by Region and Commodity Type	4-12
4.2	Trade and Logistics Study International Forecasts	4-13
4.3	Critical Issues and Choices Facing Florida’s Seaports	4-16
4.4	Global Trends Impacting Florida’s Seaports.....	4-17
5.1	Statewide Capital Improvement Program	5-2
5.2	Port Everglades 5-Year, 10-Year, 20-Year, and Long-Term Needs Beyond 20 Years	5-6
5.3	Port of Jacksonville Projected Needs to 2040	5-8
5.4	Port of Miami SIS Unfunded Needs Plan	5-9
5.5	Port of Palm Beach Long-Term Needs	5-10
5.6	Port Canaveral 2035 Needs Plan Projects	5-10
5.7	Tampa Port Authority Rail and Capital Project Needs Through 2040	5-11
5.8	Summary of Current FDOT Seaport Work Program for All Funding Types	5-14
5.9	Summary of FDOT Work Program for Port Highway-Connector Projects	5-15
5.10	Summary of Identified Port Rail-Connector Project Needs	5-16
6.1	Summary of Implementation Plan.....	6-2
6.2	Partner Roles and Responsibilities	6-9



List of Figures

ES.1 Water Tonnage by Port in FY 2008/2009	ES-6
ES.2 Container Movement by Port in FY 2008/2009	ES-6
ES.3 Cruise Passenger Embarkations and Debarkations by Port in FY 2008/2009	ES-6
ES.4 “Recession Adjusted” Florida Port Projections.....	ES-8
1.1 Florida’s Transportation Planning Framework: Where Do Seaports Fit In?	1-6
1.2 Relationship of the Seaport System Plan and Other Plans	1-7
3.1 Florida’s Seaport System.....	3-2
3.2 Water Tonnage by Port in FY 2008/2009	3-3
3.3 Container Movement by Port in FY 2008/2009	3-5
3.4 Cruise Passenger Embarkations and Debarkations by Port in FY 2008/2009	3-6
3.5 Geographical Grouping of Florida’s Seaports.....	3-8
3.6 Florida’s Port Throughput, FY 2008/2009 Cargo and Passengers	3-9
3.7 Categorization of Florida’s Seaports	3-13
3.8 Florida Port Throughput (FY 2008/2009) versus Direct Competitors (CY 08 Tonnage, CY 09 TEUs)	3-14
3.9 Florida Port Throughput (FY 2007/2008) versus Competing Regions (CY 07).....	3-15
3.10 Florida Port Throughput (FY 2007/2008) versus Competing Regions (CY 07).....	3-16
3.11 Florida Port Throughput (FY 2007/2008) versus Competing Regions (CY 07).....	3-17
3.12 Total Tonnage by State for 2004-2008.....	3-18
3.13 Total Containers by State for 2005-2009	3-19
3.14 Florida Port Annual Growth versus Direct Competitors	3-21
4.1 “Recession Adjusted” Florida Port Projections.....	4-11
5.1 Five-Year Cumulative Seaport CIP by Year	5-3
5.2 Five-Year Cumulative Seaport CIP by Port	5-4
5.3 Five-Year Collective Seaport CIP by Category (in millions)	5-5



Executive Summary

Florida's Ports Provide Critical Economic and Transportation Benefits

Florida is served by 14 publicly-owned deepwater seaports. Over 98 percent of Florida's population is within 50 miles of one of these 14 seaports. Florida's quality of life is directly impacted by these seaports as they serve as gateways for a large majority of what Florida's population, businesses, and visitors consume and generate. Collectively, they move a variety of cargo such as apparel, automobiles, cement, computer parts, fertilizer, fresh and frozen foods, lumber, and petroleum.

Some ports specialize in specific commodities while others serve a diverse market. In addition to cargo movement, half of the ports also provide service to passengers with single- and multi-day cruises. This ready access to water transportation has afforded many communities the opportunity to develop industry (cargo) and tourist (passenger) operations that otherwise would not exist. This extensive and diversified 14 seaport system is a major driver for the State's economy, as well as an irreplaceable component of its transportation system, including the critical role seaports play in national defense and deployment activities.

Economic Benefits

Research completed by the Florida Department of Transportation (FDOT) in 2006 found every \$1 in state funds spent for seaports results in \$6.90 in economic benefits to the State.¹ Subsequent analyses performed using the FDOT Seaport System Planning Framework tool confirmed this level of benefit. Further research completed by the Florida Ports Council (FPC) in 2009 found Florida's seaport system cargo activity provides 550,000 direct and indirect jobs throughout Florida, including 100,000 port-related jobs and 450,000 user-related jobs, amounting to \$66 billion in business output and \$24 billion in personal income.² Cruise operations generated an additional 127,000 jobs.³ This clearly demonstrates investments in Florida's seaports – whether by the ports themselves, or by private sector partners, or by other public agencies, including the State – represent a good business decision and an economic benefit to the State as a whole.

¹ Evaluate Florida's 14 Deepwater Seaports' Economic Performance and the Return on Investment of State Funds, Cambridge Systematics, Inc., 2006.

² Martin & Associates, Inc. for Florida Ports Council, 2009.

³ Cruise Lines International Association, 2009.



Transportation Benefits

Florida's ports function as part of a larger multimodal transportation network, in which the functions of waterborne transportation are closely integrated with highway transportation, rail transportation, and air transportation. A multimodal transportation system allows for the most effective and efficient movement of passengers and freight.

Because of its seaports, many commodities produced and consumed in Florida can be moved by water instead of by surface transportation modes. That is, materials and products that would otherwise be moved to and from Florida via highway or rail can instead move via water. For example, fuel products can be barged via the Gulf of Mexico, rather than via land modes, at far lower cost.

Seaport System Planning and Funding

Historically, each of Florida's ports was created through local and/or state legislative processes. Each port has developed over time, in accordance with the needs of its local area. This has resulted in differing operating structures, relationships to each other, and relationships to local, regional, and state governments in different areas of the State. In the past, these independent responsibilities and complex relationships have been adequate to address seaport needs and the needs of Florida businesses, residents, and visitors. But the benefits provided by Florida's seaports are dynamic, and there are contradictory forces at work both providing new opportunities and challenges. Today, several factors are changing this dynamic, including expansion of the Panama Canal, increased use of the Suez Canal, ongoing and increasing competition from both domestic and international ports, ongoing developments in global and intermodal freight logistics, and increasingly constrained financial resources. Development of a systemwide approach to seaport planning is needed to help deal with these challenges.

In order to preserve our current system and maximize future growth opportunities, significant investment is needed. Increasing the overall amount of funding that can be provided to Florida's ports, through whatever local, regional, state, and Federal resources may be available, is highly desirable; using whatever funding is available in a strategic, focused manner to maximize benefits to the State of Florida as a whole, is essential. This Seaport System Plan will guide the State's involvement and investment in the statewide seaport system.

A Vision for Florida's Seaports

Florida's seaport system is driven by two overarching themes: *freight and passenger transportation* and *trade and economic development*. These two themes represent the reason Florida's seaports are so important to Florida's economic well-being – they stimulate economic development through the efficient movement of waterborne trade and passengers, while complementing and adhering to established local government comprehensive plan policies. The vision statement illustrates the significant level of integration of Florida's seaports into the foundation of Florida's business community and transportation system.

Florida's Seaport System Vision Statement

Florida's seaports will provide world-class facilities and services to meet the waterborne trade and transportation needs of freight shippers and receivers, trade-dependent businesses, cruise lines, residents, and tourists. Florida's ports will continue to serve as vital economic engines for their host communities and the State as a whole, and will compete successfully for both historic markets and emerging opportunities. Florida's ports will invest to meet their respective current and anticipated needs, and the State of Florida will partner in these investments in a manner that provides the highest levels of demonstrable transportation and economic benefits to the State of Florida. Florida and its ports will seek to increase the level of strategic investment in Florida's ports by making the best use of available funds and by exploring opportunities for additional funding sources at the local, regional, state, and Federal levels.

Relationship to Other Plans

Florida's transportation network consists of an integrated multimodal and intermodal system of hubs, corridors, and intermodal connectors guided by state-level transportation policies. The Seaport System Plan provides specific policy guidance for development, enhancement, and preservation of Florida's seaport system. It builds on established transportation goals and objectives as laid out in the Florida Transportation Plan (FTP) and Strategic Intermodal System (SIS). In addition, it recognizes and incorporates the adopted policy language from the Seaport Mission Plan, including the seaport visioning exercise completed in 2006, which identified eight critical seaport vision elements. Existing policy language from FDOT and the seaport community complement each other with each providing a comprehensive listing of what is needed to ensure Florida's transportation system meets the needs of residents and businesses.



Relationship to Florida Trade and Logistics Study

The *Florida Trade and Logistics Study* was undertaken by the Florida Chamber Foundation, in partnership with FDOT and private-sector stakeholders. The purpose of this study was to identify key opportunities for the State in international trade and logistics; develop a set of strategies or actions; and equip local, regional, and state partners with data and materials to implement the strategies. The study built off of and was consistent with the established economic development (e.g., Florida Chamber Foundation's Six Pillars) and transportation (e.g., FTP) programs. The study identified three opportunities for Florida, defined as:

- Maximize its ability to serve Florida businesses and consumers, primarily through attracting Asian container imports directly to Florida seaports;
- Grow the value of Florida origin exports, and leverage more efficient logistics patterns to attract advanced manufacturing and other export-related industries to Florida; and
- Emerge as a global hub for trade and investment, leveraging its location on north-south and east-west trade lanes to become the Singapore of the Western Hemisphere.

Specific recommended strategies were developed to address these opportunities. Given the dominant role Florida's seaports play in international trade, the defined strategies must be integrated in Florida's Seaport System Plan. Strategies specifically related to Florida's seaport system include:

- Develop at least one seaport with 50 feet of water and on-dock or near-dock rail;
- Expand capacity at seaports to serve container, break-bulk, and bulk markets;
- Maximize the use of inland waterway and smaller seaports;
- Support acquisition and redevelopment of new waterfront land or inland locations for seaport operations;
- Improve landside connectivity to airports, seaports, and rail terminals;
- Maintain and enhance regional distribution networks;
- Develop and maintain high-capacity, long-distance rail, water, and truck corridors;
- Expand distribution center capacity at appropriate locations; and
- Adopt land use plans supporting freight-intensive activities.

System Overview and Performance

Florida's 14 deepwater seaports represent a critical component of Florida's multimodal transportation system, functioning as domestic and international trade gateways, regional economic engines, and major transportation hubs. Florida's seaports handle a variety of traffic, including containerized and noncontainerized cargo as well as cruise passengers.

- Eleven of Florida's 14 ports handle some combination of domestic, import, and export cargo, totaling over 104 million tons in fiscal year 2008/2009. The Port of Tampa is the largest cargo seaport handling 36 percent of the state's total tonnage (see Figure ES.1).
- Ten Florida seaports handle container traffic, totaling over 2.7 million twenty-foot equivalent units (TEUs) in fiscal year 2008/2009. The Port of Miami is the largest container port handling around 30 percent of all containers moving through Florida ports. Port Everglades and Port of Jacksonville follow; these three container ports make up nearly 87 percent of all container movement (see Figure ES.2).
- Seven of Florida's seaports offer passenger service for single- and multi-day cruises, totaling over 12.7 million passengers in fiscal year 2008/2009. Port of Miami is the largest home-based cruise port handling nearly a third of all cruise passenger in Florida. Port Canaveral and Port Everglades follow at a close second and third, respectively, with the three together representing nearly 83 percent of all cruise passengers (see Figure ES.3).

Competitive Position of Florida's Seaports

In general, Florida's seaports are highly competitive with other seaports throughout the United States. At the state level, Florida is in the top five states for total waterborne tonnage and containers handled. This is due to its large consuming population and the presence of a well established and competitive system of seaports. As a State, Florida competes with other coastal trading states in the South Atlantic and Gulf, from Virginia to Texas. However, many vessels call at multiple ports within these ranges – Houston and Tampa, or Hampton Roads and Miami, for example. Florida's ports compete most directly with ports between South Carolina and Alabama, a range within which most vessels will make only a single call.

- Florida's Atlantic coast ports are dominant with respect to cruise markets; competitive with respect to overall tonnage; and competitive but lagging with respect to containers. The Port of Savannah alone handles nearly as many containers as Florida's ports combined.
- Florida's Gulf coast ports are dominant with respect to cruise markets, but handle around one-half the tonnage and one-third the TEUs of their competitors. The tonnage numbers are skewed by the fact that competitors include several huge coal and petroleum centers; and the TEU numbers should not be a concern because the absolute numbers are fairly small and this is a rapidly growing market for all Gulf ports.



Figure ES.1 Water Tonnage by Port in FY 2008/2009

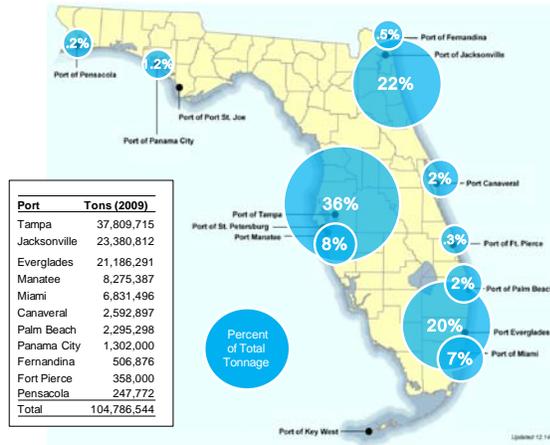


Figure ES.2 Container Movement by Port in FY 2008/2009
Millions of TEUs

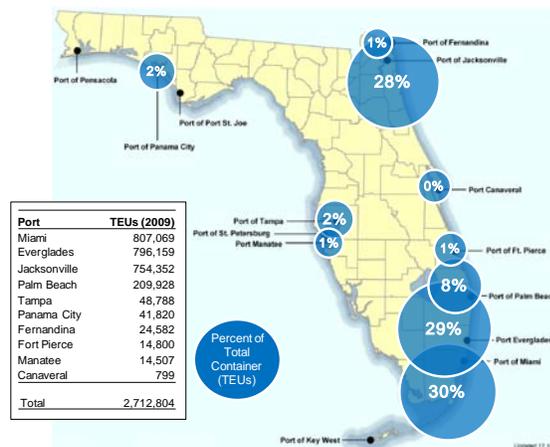
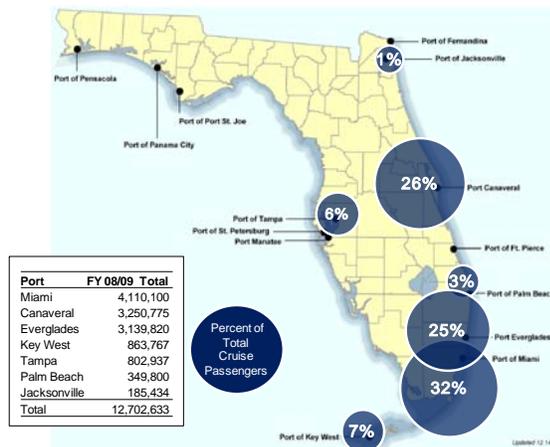


Figure ES.3 Cruise Passenger Embarkations and Debarkations by Port in FY 2008/2009



Source: A Five-Year Plan to Achieve the Mission of Florida's Seaports, 2009/2010-2013/2014.

Florida's competitive position is in large part due to its continued growth in seaport capacity and rapid growth in population. Over the last 20 years, Florida's ports have experienced strong growth in containerized cargo. Among South Atlantic and Gulf states, Florida ranked first in TEUs in 1990 and 2009; Florida ranked second only to Georgia in TEUs added during the period 1990-2009.

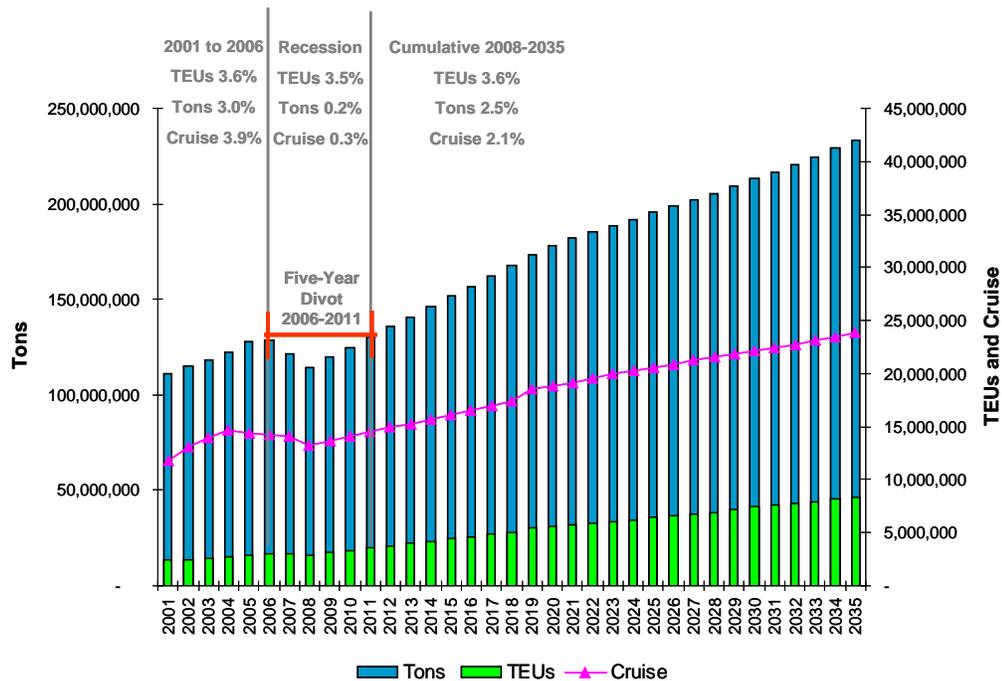
While the growth story has been very positive over the past 20 years, the past 7 years have seen relatively little change in Florida's Atlantic coast TEUs and tonnage, due in large part to the effects of the recession. Growth rates for Atlantic coast competitors were higher, mostly on the strength of growth at Savannah prior to the recession. In the Gulf, Florida's TEU growth has been very rapid, even with the recession, due to the introduction of new facilities and services, but its traditional strength in bulk tonnage has declined.

Regional and Statewide Waterborne Activity Forecasts

Regional and statewide projections were developed for use as a planning tool, similar to other statewide modal system forecasts. Generally, ports plan on a 5 to 10-year horizon. The waterborne industry is very dynamic and because so much can change in a period of 30 years, these forecasts are used as order of magnitude estimates of what the future could look like over the next 25 years. Understanding potential cargo and passenger volumes is a critical factor driving major investment decisions, like dredging to 50-feet or constructing major Interstate connections. Forecasts show container growth continues at a historic rate with tonnage and cruise growth resuming after the recession at slightly lower rates (see Figure ES.4). The cumulative growth rate for 2008-2035 is shown at 3.6 percent for containers, 2.5 percent for tonnage, and 2.1 percent for cruise passengers.



Figure ES.4 “Recession Adjusted” Florida Port Projections



Source: Cambridge Systematics analysis of U.S. Army Corps of Engineers, American Association of Port Authorities, and port data.

Note: Cruise passenger statistics consist of embarking and debarking passengers.

It is important to note that the forecasts above are independent of both constraints and opportunities. They are free of constraints, in that they assume that ports, channels, and landside transportation systems would provide the capacity needed to accommodate these levels of activity. They are free from consideration of opportunities, in that they represent what might happen if Florida’s ports continue on their historic and planned trajectories – but not what might happen if Florida acts more aggressively to grow its traffic and improve its competitive market position for waterborne freight and passengers.

Critical Issues, Opportunities, and Challenges

Looking forward, it is generally agreed that Florida’s ports face a series of critical issues, opportunities, and challenges. Over the next few years there will be significant developments in the state, national, and international environments that will create opportunities and challenges for Florida’s seaports. At the state level, the transportation system’s needs and priorities should be reevaluated as the economic recovery begins and implementation of the 2060 FTP gets underway. Reduced volumes have created excess capacity

and given seaports the opportunity to regroup and strategize on medium to long-term investment needs. At the national level, the next Federal transportation bill is anticipated to have a more robust freight program – that is, the potential for a freight funding element to support state freight programs. Florida needs to position itself to be eligible for this potential new program.

From an operations and competitiveness perspective, security remains a critical challenge for Florida’s seaports. With both state and Federal regulations in place, some level of redundancy exists, which continues to place Florida seaports at a competitive disadvantage with other states and countries.

At the international level, there are several developments that will impact Florida’s ports.

- **Panama Canal expansion.** The expansion of the Panama Canal, with completion anticipated in 2014, will open new doors for trading with Asia with increased use of the “all water route.” Florida ports are competing with Gulf and Atlantic seaports in other states for this increase in traffic. Deep water, terminal capacity, and landside intermodal connectivity are critical.
- **Opening of trade with Cuba.** The much anticipated opening of trade with Cuba will create significant trade opportunities for Florida that no other state has due to Florida’s close proximity and cultural ties to this country.
- **Increased use of Suez Canal.** The Suez Canal provides another gateway for waterborne trade to reach Florida. The Suez does not have any size restrictions on for existing or planned mega vessels. The use of this canal will continue to expand as global trade patterns shift.
- **Shifts in global manufacturing centers.** Global trade is driven by the location of manufacturing centers. These centers shift over time based on cost, resources, efficiencies, and labor. Shifts will impact the competitiveness of Pacific versus Atlantic trade routes which will create new competitive opportunities for U.S. ports.
- **Growth in North/South trade.** Florida is dominant in North/South trade with the Caribbean, Central, and South America. Over the next decade, this market, particularly that of South America, is anticipated to grow significantly, offering continued opportunities for growth at Florida ports.

Seaport System Needs, Strategies, and Funding

Florida’s seaports update their capital improvement plans (CIPs) regularly to identify and assess future improvements necessary to meet potential market demands. Despite the current economic conditions, the five-year CIPs for





Florida's seaports have increased. The projected five-year program for fiscal years 2009-2010 through 2013-2014 is over \$2.73 billion. The four largest ports (Everglades, Jacksonville, Miami, and Tampa) represent over 81 percent of the total capital improvement program.



The seaports are responsible for identifying and programming on-port improvements. However, they also rely on landside connectors, both rail and roadway, to provide access to their markets. FDOT, metropolitan planning organizations (MPOs), and local agencies identify and program off-port connector projects. These off-port projects/needs are in addition to the \$2.73 billion in capital improvement needs. These projects are essential for efficient passenger and freight movements throughout the state's multimodal transportation network. Over the next six years, FDOT anticipates spending over \$442 million on seaport projects; this reflects all existing state funding sources. Projects include on-port terminal improvements, on-port intermodal improvements, and to a lesser degree on-port connectors (water, rail, roadway).



In addition to these "seaport projects", FDOT also funds roadway and rail projects that promote access to/from Florida's seaports. Over the next five years, FDOT anticipates spending over \$1.6 billion on roadway connector projects. These include mega projects like the Port of Miami Tunnel, as well as numerous improvements such as adding lanes to existing connectors. FDOT also has programmed and partially-funded investments in railroads in excess of \$448 million that will specifically benefit seaports. These include connector, bridge, and terminal improvements.



Implementation Strategies and Actions



Implementation strategies and actions that drive FDOT's seaport program cover a variety of areas. These areas address state transportation policies, seaport and seaport-related infrastructure, ongoing program evaluation activities, integration with the State's overall freight system, and outreach and education initiatives.



At the policy level, it is important the seaport strategies and actions are harmonious with the goals laid out in the 2060 FTP. The objectives of the Plan have been organized around the 2060 FTP goals. Building off of that, the following identifies key implementation strategies, which should be addressed by the seaport community, followed by specific implementation actions that should be led by FDOT – organized by the FTP goals.

Table ES.1 Summary of Implementation Plan

FTP Goal	Key Implementation Strategies	FDOT Implementation Actions
<p>Invest in transportation systems to support a prosperous, globally competitive economy.</p>	<ul style="list-style-type: none"> • Provide capacity and operational improvements that ensure long-term sustainability of key markets for Florida’s seaports – this includes providing improvements that serve existing needs without precluding the ability to develop new and expanded services in the future. • Preserve and expand Florida’s share of trade and transportation activity with respect to competing ports in other states and countries. • Develop at least one first port of call with 50 feet of water; this should be accomplished to correspond with completion of the Panama Canal expansion. • Develop longer-term statewide deepening program that identifies regional and statewide capacity needs; this should address market penetration, competitiveness, and funding. • Provide on-dock or on-port rail at Florida’s major seaports; this should be coordinated with the deepening program. • Build partnerships for other seaports (Florida and non-Florida) to serve as feeders to Florida’s major deep water hub seaports; this should include development of a marine highways network (short sea shipping) to serve transshipments market. • Expand and enhance key niche/specialized gateways along inland waterways. • Develop international warehouse/distribution centers close to major seaports to facilitate/support growth in international trade. • Encourage development of high-capacity, efficient interstate rail and highway corridors to provide improved access to hinterland markets for discretionary cargo. • Provide a flexible funding program that ensures Florida’s seaports are responsive to economic development opportunities. • Tie local/regional initiatives with state programs and goals and position major regional projects to compete for discretionary Federal funding programs. • Develop new or enhance existing processes for freight planning at trade corridor/ mega-region and statewide level. 	<ul style="list-style-type: none"> • Support implementation of Florida Trade and Logistics Study strategies to promote the ability of Florida’s seaports to compete for and serve Florida and non-Florida markets. • Implement Florida’s seaport system planning program through two principal components; the Florida Seaport Transportation and Economic Development Council (FSTED) primarily focuses on on-port improvements at individual seaports on a collective basis; other state seaport investments primarily focus on capacity improvements and intermodal and connector improvements at a statewide system level. • Coordinate state work program, port master plan/ capital improvement plan, and Capital Improvements Element of the local government comprehensive plan development activities. • Prioritize state investments and support seaport improvement programs that provide compatible and long-term economic development opportunities. • Promote flexibility in existing and new seaport-related funding programs to help ports effectively and competitively respond to economic development opportunities. • Develop and maintain statewide and regional cargo and passenger forecasts to support state-level seaport planning activities.

Table ES.1 Summary of Implementation Plan (continued)

FTP Goal	Key Implementation Strategies	FDOT Implementation Actions
<p>Make transportation decisions to support and enhance livable communities.</p>	<ul style="list-style-type: none"> • Ensure ability for passenger and freight traffic to coexist on key corridors. • Work with local governments to develop industrial land preservation program to protect port access and expansion plans. • Reduce encroachment of incompatible land uses around major trade gateways. • Identify/develop industrial sites with efficient access to seaports. • Develop integrated logistics centers at key urban and rural locations as markets dictate. • Foster closer working relationships among economic development organizations, chambers, seaports, airports, and other freight partners. 	<ul style="list-style-type: none"> • Support industrial land use preservation program through review of development plans and partnership with local municipalities and counties. • Encourage airports, seaports, and the freight industry to be actively involved in metropolitan planning organization (MPO) planning/regional visioning processes, and local comprehensive planning, particularly around major gateways. • Expand regional collaboration among seaports, airports, rail, and other modal providers/partners.
<p>Make transportation decisions to promote responsible environmental stewardship.</p>	<ul style="list-style-type: none"> • Identify lands and water resources that host port-related or port-supporting uses, or may be important for hosting future port and port-related uses; and identify a designated buffer zone around key facilities and operating areas, within which incompatible uses should be discouraged; and include this information in Port Master Plans. Ensure that, to the extent feasible, such lands and water resources and buffer zones are appropriately reflected in local, regional, and state land use and transportation plans. • Provide needed capacity in a way that minimizes marine impacts: first by avoiding or minimizing new landfills and channel widening/extension where possible, second by managing marine operations within sensitive habitats, third by mitigating unavoidable impacts. • Explore, with appropriate state and Federal partners, the development of a streamlined process for environmental review and implementation of dredging and other environmentally sensitive projects. • Explore, with appropriate state and Federal partners, the development of mitigation banking programs. 	<ul style="list-style-type: none"> • Work in partnership with Florida seaports and other stakeholders to support environmental protection – including facilitation of saltwater mitigation opportunities, as well as development of shore power infrastructure, reductions in truck idling queues, and maximized use of rail.

Table ES.1 Summary of Implementation Plan (continued)

FTP Goal	Key Implementation Strategies	FDOT Implementation Actions
<p>Make transportation decisions to promote responsible environmental stewardship (continued).</p>	<ul style="list-style-type: none"> • Provide air quality benefits by reducing the reliance of Florida freight shippers, receivers, and customers on goods trucked to and from out-of-state ports. • Explore, and implement as feasible, emerging best practices to minimize vessel emissions (via shoreside electrification and other strategies), to minimize on-terminal operations (via low-emission equipment), and to minimize truck-related emissions (via advanced gate systems, off-peak operations where feasible, chassis pools, off-site equipment management, and use of rail and barge). • Explore additional regulatory and funding strategies necessary to support Port air quality efforts, and to identify next-generation transportation logistics strategies that could be used to improve the movement of goods. • Encourage seaport investments in green technologies – particularly those that complement state and national environmental programs and address climate change initiatives. 	
<p>Provide a safe and secure transportation system for all users.</p>	<ul style="list-style-type: none"> • Ensure Florida’s seaports are safe; port workers and visitors must be provided a safe environment that prevents or minimizes unintentional injury. • Ensure Florida’s seaports are secure; port property, port workers, and host communities must be protected from intentional harm. • Promote efficient Federal and state security protocols at Florida seaports to meet security needs without impeding mobility; this includes elimination of duplicate requirements. 	<ul style="list-style-type: none"> • Participate in ongoing master and capital planning activities which include provisions for a safe and secure seaport. • Support testing and deployment of technologies to streamline traffic flow and automate security clearance activities at main gate complexes. •
<p>Maintain and operate Florida’s transportation system proactively.</p>	<ul style="list-style-type: none"> • Ensure Florida’s seaport infrastructure (on- and off-port) is maintained at an adequate level to support current and future business opportunities and to serve strategic state interests: <ul style="list-style-type: none"> – Expand seaport operational capacity through densification, longer work hours and/or use of technology; and – Expand seaport capacity through maintenance and construction of new infrastructure to match individual seaport master plans and niche markets. 	<ul style="list-style-type: none"> • Implement Florida’s seaport system planning program through two principal components; FSTED primarily focuses on on-port infrastructure; other state seaport investments primarily focus on capacity improvements and intermodal and connector infrastructure.
<p>Improve mobility and connectivity for people and freight.</p>	<ul style="list-style-type: none"> • Participate in individual seaport planning activities to promote coordination between seaport and state investment decisions. • Consider impacts on the complete supply chain as part of seaport project evaluations to enhance seaport investment decisions. • Ensure the seaport system has efficient and reliable access to SIS corridors and hubs to facilitate competition and provide public benefits. • Explore and develop marine highway corridors to improve cargo flows to/from and through Florida. 	<ul style="list-style-type: none"> • Prioritize state seaport investments based on clear strategies and criteria within an established multimodal transportation system consistent with established FDOT and partner programs (e.g., SIS and FSTED). • Provide regional freight forums as part of modal system plan updates and other freight mobility initiatives to support ongoing freight system enhancements and improvements.

In addition to, and in support of the above implementation strategies, additional recommendations are provided at the programmatic level to help facilitate FDOT's implementation activities.

Integration of Plan with Other Planning Efforts

The successful development and implementation of the Seaport System Plan is dependent upon effective integration with other key planning and programming initiatives within FDOT as well as by its seaport partners and local and regional planning partners. The Plan lays out the key objectives and strategies to guide FDOT's seaport planning activities, which feed data and analysis into the State's overall transportation program. The integration requirements are predicated upon the roles and responsibilities of the involved stakeholders, as well as the existing and adopted transportation policies and plans that guide the various elements of Florida's transportation system.

Next Steps

The material presented in this section presents a comprehensive list of strategies designed to support Florida's seaport system. The next critical activity is to develop a short-term implementation/action plan. With adoption of the Seaport System Plan, FDOT will begin key short-term and identify long-term implementation activities and tool development/enhancement. This process will involve close coordination with the seaports, the FPC staff, and other partners.

1.0 Background

1.1 Florida's Ports Provide Critical Economic and Transportation Benefits

Florida is served by 14 publicly owned deepwater seaports. Over 98 percent of Florida's population is within 50 miles of one of these 14 seaports. Florida's quality of life is directly impacted by these seaports as they serve as gateways for a large majority of what Florida's population, businesses, and visitors consume and generate. Collectively, they move a variety of cargo such as apparel, automobiles, cement, computer parts, fertilizer, fresh and frozen foods, lumber, and petroleum.

Some ports specialize in specific commodities while others serve a diverse market. In addition to cargo movement, half of the ports also provide service to passengers with single- and multi-day cruises. This ready access to water transportation has afforded many communities the opportunity to develop industry (cargo) and tourist (passenger) operations that otherwise would not exist.

This extensive and diversified 14 seaport system is a major driver for the State's economy, as well as an irreplaceable component of its transportation system, including the critical role seaports play in national defense and deployment activities.

Economic Benefits

Research completed by the Florida Department of Transportation (FDOT) in 2006 found every \$1 in state funds spent for seaports results in \$6.90 in economic benefits to the State.¹ Subsequent analyses performed using the FDOT Seaport System Planning Framework tool confirmed this level of benefit for new capacity projects.² Maintenance projects and bottleneck elimination projects, which allow existing facilities and assets to function at their maximum capacity, tend to generate even higher economic benefits per dollar invested. This clearly demonstrates an important premise, which is at the heart of this Seaport System Plan: namely, investments in Florida's seaports – whether by the ports themselves, or by private sector partners, or by other public agencies,

¹ Evaluate Florida's 14 Deepwater Seaports' Economic Performance and the Return on Investment of State Funds, Cambridge Systematics, Inc., 2006.

² FDOT developed a benefit/cost analysis tool to evaluate the impact of seaport projects; this tool relies on seaport-provided data.



including the State – represent a good business decision and an economic benefit to the State as a whole.

Further research completed by the Florida Ports Council (FPC)³ in 2009 found Florida’s seaport system cargo activity provides 550,000 direct and indirect jobs throughout Florida, including 100,000 port-related jobs and 450,000 user-related jobs, amounting to \$66 billion in business output and \$24 billion in personal income.⁴ Cruise operations generated an additional 127,000 jobs.⁵

Some of the economic benefit of Florida’s seaports is in direct employment related to the actual operations of marine terminals (cargo and cruise) and directly related off-port activities. For example, in addition to the benefits resulting for the homeport of cruise ships at Florida ports, the local and regional economies also benefit from the pre- and post-cruise tourism and hotel stays. But much of the benefit is because Florida’s ports provide efficient waterborne transportation access to and from international and domestic U.S. markets and suppliers, creating value for Florida’s producers and consumers, which is reflected in greater business activity, employment, wages, and taxes. By providing a high level of access to national and global markets, Florida’s ports increase the State’s ability to retain, grow, and attract businesses and industries dependent on efficient waterborne transportation.

Transportation Benefits

Florida’s ports function as part of a larger multimodal transportation network, in which the functions of waterborne transportation are closely integrated with highway transportation, rail transportation, and (in the case of cruise passengers) air transportation. A multimodal transportation system allows for the most effective and efficient movement of passengers and freight.

Because of its seaports, many commodities produced and consumed in Florida can be moved by water instead of by surface transportation modes. That is, materials and products that would otherwise be moved to and from Florida via highway or rail can instead move via water. For example, fuel products can be barged via the Gulf of Mexico, rather than via land modes, at far lower cost.

³ “The FPC is a Florida nonprofit corporation and serves as a professional association for seaports and their management. The 14 deepwater port directors comprise the Board of Directors with staff support located in Tallahassee. The FPC provides leadership and information on seaport-related issues before the Legislative and Executive Branches of State and Federal Government. Pursuant to Section 311.09(12), Florida Statutes, the Florida Ports Council provides administrative support services on matters related to the FSTED Council and the FSTED Program.” <http://www.flaports.org/fpc.htm>.

⁴ Martin & Associates, Inc. for Florida Ports Council, 2009.

⁵ Cruise Lines International Association, 2009.

While ports can produce local concentrations of truck and rail activity, these effects are offset by the systemwide benefits they provide, in the form of reduced surface transportation miles of travel and associated impacts – congestion, system maintenance, safety, and air quality. Without Florida seaports, goods destined for Florida consumers, as well as goods Florida exports, would be moved greater distances on the highway and rail network in order to get to market, resulting in greater highway congestion than exists today.

1.2 Seaport System Planning and Funding

Historically, each of Florida’s ports was created through local and/or state legislative processes. Each port has developed over time, in accordance with the needs of its local area, pursuant to local government comprehensive planning processes.⁶ This has resulted in differing operating structures, relationships to each other, and relationships to local, regional, and state governments in different areas of the State. Examples of this include:

- Each of Florida’s ports prepares its own individual master plan. Each port has its own adopted mission, and is accountable to its own governing Board. Each port collects revenues and makes investment decisions according to its own plans, business strategies, and requirements.
- To some extent, the ports function independently of each other, serving local/regional needs, or unique gateway markets, or specialized niche markets and customers. In some markets, they also compete with each other for the same business, particularly for high-value cruise and container markets.
- Florida’s ports and the State cooperate on matters of mutual interest, and this cooperation is codified in Chapter 311 of the Florida Statutes, which established the duties of the Florida Seaport Transportation and Economic Development Council (FSTED). The FSTED Council is made up of the Directors of the 14 deepwater seaports, the Secretary of Transportation, the Secretary of the Department of Community Affairs (DCA), and the Executive Director of the Governor’s Office of Trade, Tourism, and Economic Development (OTTED). The Council develops and maintains through annual updates “A Five-Year Mission for Florida’s Seaports” (the Seaport Mission Plan) which provides a profile of Florida’s deepwater seaports, including current conditions and five-year forecasts for each seaport, identifies critical issues for the maritime community and addresses overall seaport goals, opportunities, constraints, and needs. FSTED also allocates seaport system funding provided by the State, through a strategic and criteria-based process. In addition, FPC staffs the FSTED Council and supports ongoing visioning exercises and research for Florida’s seaports.

⁶ Local government comprehensive planning process requirements are defined in Section 163.3178(2)(k), F.S., and Rules 9J-5.012(5) and 9J-5.019, F.A.C.



- Each port works with its host communities, local governments, and regional, state, and Federal governments to further its objectives. While each port seeks to fund its operating and development costs from operating revenues, some level of Federal, state, and/or local match is necessary. Primarily, this support is required for access infrastructure outside of port boundaries – navigation channels, highway connections and improvements, rail connections, and facilities – but support may also be needed for on-terminal infrastructure improvements of structures or equipment, in response to specific conditions or market opportunities.
- The State of Florida provides direct funding for seaport improvements and also funds local and regional surface transportation improvement projects, through the FSTED process, Strategic Intermodal System (SIS) funding, and other means. The State’s support for its seaports is typically responsive in nature when addressing on-port projects – that is, seaports identify needs and the State addresses these needs based on available revenues and other competing priorities. FDOT has a more proactive role in working with the seaports to define and plan for landside transportation improvements, such as highways connecting the ports to their markets. Examples of successful intermodal connector improvements include the Crosstown Connector for the Port of Tampa, Eller Drive for Port Everglades, and the new Tunnel for the Port of Miami.

In the past, these independent responsibilities and complex relationships have been adequate to address seaport needs and the needs of Florida businesses, residents, and visitors. But the benefits provided by Florida’s seaports are dynamic, and there are contradictory forces at work both providing new opportunities and challenges. Today, several factors are changing this dynamic:

- Anticipated shifts in global trade patterns are creating unique opportunities that must be seized, or else foregone. Expansion of the Panama Canal, increased use of the all-water route from Asia to the East Coast, the potential for opening trade with Cuba, increased use of the Suez Canal, shifts in global manufacturing centers, and growth in North/South trade all represent significant opportunities for Florida’s seaports.
- At the same time, port benefits are continually at risk from competition. Florida’s seaports face competition from both domestic and international ports. Domestically, they compete for market share with Gulf and South Atlantic ports. For international markets, they compete with major transshipment facilities in the Caribbean and Central America. In order for Florida’s ports to be competitive, they need to have modern facilities, adequate capacity, and efficient landside access (rail and highway) to markets and major trade corridors. Florida is fortunate to have its 14 seaports positioned throughout the State providing efficient access to the majority of the population. This, combined with the effective development and use of America’s Marine Highway System, is a key opportunity for Florida’s seaports. Constant improvement and innovation are necessary for Florida’s ports to protect and grow their market shares.

- Responding to these opportunities, and effectively confronting competitive challenges, requires a more systemwide approach to seaport planning, one addressing economic and transportation issues in a comprehensive, statewide manner, consistent with local government comprehensive plans. While the individual ports bear responsibility for ongoing port operations and development, the State has responsibility to ensure the multimodal transportation system as a whole can respond to changing needs and dynamics, and that state investments in the transportation system are made in a way that provides the most benefits to the State.
- Over the past two decades, there have been tremendous changes with respect to global and intermodal freight logistics, trading partners and services, trade volumes and cargo handling types, vessel design and deployment, marine infrastructure development and ownership, and inland transportation systems. While the recent economic downturn has led to reduced port volumes and a yet undefined recovery period, the long-term prospect for growth is still strong.
- Florida's ports are losing cargo market share to key competitors. Partly, this is due to geographic and market factors beyond their control, and partly, this is due to more aggressive investment by competitors. South Carolina, Georgia, and Alabama have state port authorities and a limited number of facilities. In addition, these states have identified logistics as a targeted industry. This helps them focus their investments in seaport development for maximum effect. In Florida, port investments are not focused through a specific state economic development policy, but are dispersed among many different competing facilities.
- Despite current economic conditions, Florida's ports have identified over \$2.73 billion for capital improvement projects for the period of FY 2009/2010 to FY 2013/2014 for cargo, cruise, and intermodal facilities. The four largest seaports (Everglades, Jacksonville, Miami, and Tampa) represent nearly 81 percent of the total capital improvement program.
- Finally, state resources to help meet port needs are increasingly constrained. While overall state funding for ports has increased over the last 20 years, overall revenue for the State's transportation program has decreased, resulting in an almost \$10 billion reduction in project commitments in FDOT's work program over the last 5 years. With the majority of state transportation funding going to maintain and preserve the existing system, capacity projects face more and more competition.

In order to preserve our current system and maximize future growth opportunities, significant investment is needed. Increasing the overall amount of funding that can be provided to Florida's ports, through whatever local, regional, state, and Federal resources may be available, is highly desirable; using whatever funding is available in a strategic, focused manner to maximize benefits to the State of Florida as a whole, is essential. This Seaport System Plan will guide the State's involvement and investment in the statewide seaport system.



1.3 Florida’s Seaports within the Larger State Transportation Program

Figure 1.1 illustrates how seaport planning is coordinated with other modal plans in the State’s overall transportation planning framework. Florida’s waterways and marine terminals are addressed through two separate plans; the Waterway System Plan, covering all of Florida’s navigable waterways (including harbors); and the Seaport System Plan, covering Florida’s 14 deepwater seaports (landside and water side). Figure 1.2 shows how the Seaport System Plan builds on, and is coordinated with, other established planning and funding processes and programs. While there is overlap among the various plans, they are developed by different agencies at different times and for different purposes. The Seaport System Plan serves as a coordinated “clearinghouse” for various identified seaport-related needs, and as a means of establishing priorities for state-level investments.

Figure 1.1 Florida’s Transportation Planning Framework: Where Do Seaports Fit In?

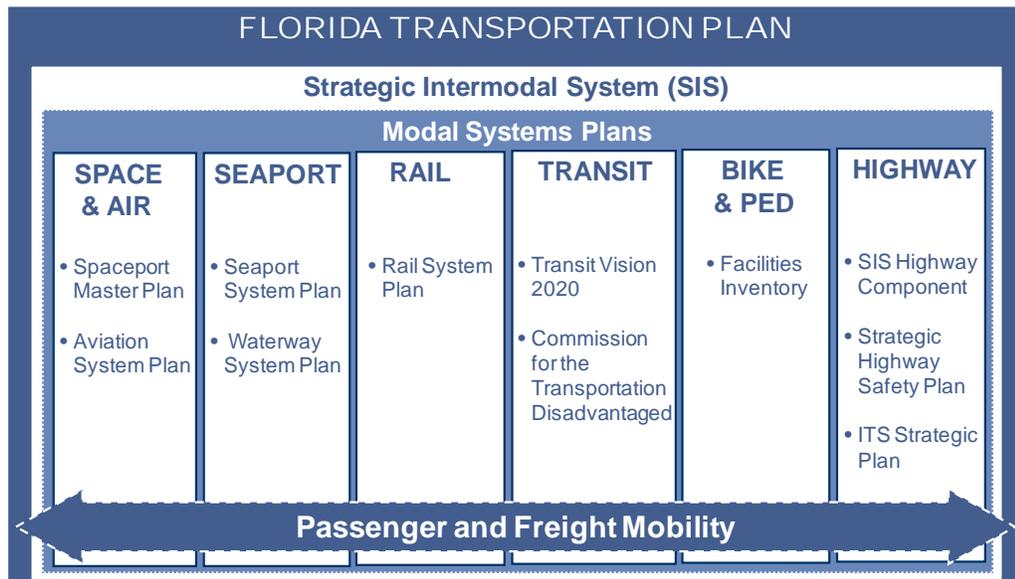
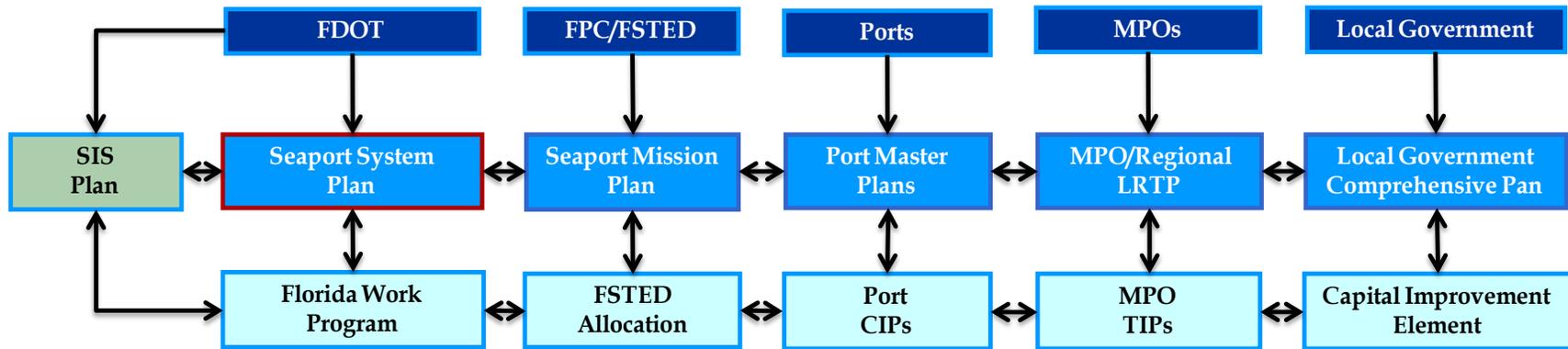


Figure 1.2 Relationship of the Seaport System Plan and Other Plans



Florida Department of Transportation (FDOT).

Florida Ports Council (FPC).

Metropolitan Planning Organization (MPO).

Strategic Intermodal System (SIS).

Long-Range Transportation Plan (LRTP).

Florida Seaport Transportation and Economic Development Council (FSTED).

Capital Improvement Program (CIP).

Transportation Improvement Program (TIP).

1.4 Elements of the Seaport System Plan

This Seaport System Plan includes the following:

- Components that are shared and generally agreed upon by the State, the individual ports, and other stakeholders and partners. These include:
 - A vision for Florida’s Seaport System;
 - A description of current system conditions; and
 - A general set of future performance objectives for the system by region.
- Components directly reflecting the planning of individual ports. These include: market projections; on-port needs; and off-port needs.
- Components reflecting the roles, responsibilities, objectives, and actions of the State of Florida with respect to seaports. These focus on FDOT, but also address other state agencies and local/regional governments.

In this form, the Seaport System Plan recognizes that while Florida’s ports will continue to be operated as individual businesses, there is the need for continued and increased partnership between the State and the ports to ensure the system as a whole functions at the highest possible level – increasing benefits to the State through increased jobs and tax base; increasing benefits to the transportation system and Florida residents and visitors by ensuring the best possible multimodal system is planned and constructed; increasing benefits to residents and visitors by access to needed goods and to markets; increasing benefits to visitors through recreational opportunities and increasing revenues to the ports themselves. The articulation of a shared vision and future performance targets for the system as a whole provides the ports with useful guideposts as they fulfill their mission, as well as helping them better align with larger statewide strategic system objectives.

The Seaport System Plan ensures that the State of Florida’s actions with respect to its seaports are guided by strategic, systemwide thinking. The State as a whole will benefit from a strategic statewide approach to investments in on-port and off-port infrastructure and facilities. This includes, but is not limited to, active participation in master planning activities, establishing investment priorities for state funds, planning for a multimodal transportation system by developing the SIS (which includes 11 of the 14 seaports), and helping to promote the importance of Florida’s seaports.

Finally, the Seaport System Plan clearly demonstrates the State’s seaport resources will be used effectively to the maximum effect and benefit. This will be critical as responsible decision-makers consider how to prioritize limited state funds, and as they seek to maximize the availability of funding from any and all potentially available sources.

The Seaport System Plan was developed by the FDOT in the following manner:

- Existing seaport and FDOT planning documents were compiled and reviewed.
- FDOT established a formal Seaport System Plan Working Group, maximizing partner input. The group included a diverse mix of stakeholders, including: Florida's seaports, FDOT, DCA, OTTED, Department of Environmental Protection (DEP), U.S. Army Corps of Engineers, Enterprise Florida, Metropolitan Planning Organization Advisory Council (MPOAC), railroads, shippers, elected officials, and more.
- The group specifically was charged with developing policy recommendations for consideration and use by FDOT during preparation of the Seaport System Plan. The Working Group met five times in open public meetings to develop policy recommendations to guide the Plan, to develop recommendations for the 2010 SIS Strategic Plan, and to review and discuss technical material to be used as input to the Plan.
- Analyses and updates from the recent 2010 Strategic Plan Update, the ongoing Florida Transportation Plan update, and the Florida Trade and Logistics Study were incorporated as appropriate.
- A 30-day public review process was used to gather stakeholder input on the draft Plan. Comments were reviewed and incorporated in the Plan as appropriate.



2.0 The Vision for Florida's Seaport System

Existing state-level planning documents provide guidance on Florida's goals for its transportation system, and for its economic development. Existing port plans and the Seaport Mission Plan provide guidance on the individual and collective goals of the ports. What has been missing is a clearly articulated vision statement that reflects the shared views of the State of Florida, its ports, and its port stakeholders, that can serve as a framework for port planning and development.

2.1 A Vision for Florida's Seaports

Florida's seaport system is driven by two overarching themes: *freight and passenger transportation* and *trade and economic development*. As described in Section 1.0, these two themes represent the reason Florida's seaports are so important to Florida's economic well-being – they stimulate economic development through the efficient movement of waterborne trade and passengers, while complementing and adhering to established local government comprehensive plan policies.

- **Freight and Passenger Transportation** – The trade and economic development impacts generated by Florida's seaports rely on the efficient movement of people and goods throughout the State. The Florida Transportation Plan (FTP), Strategic Intermodal System Plan (SIS), and the Seaport Mission Plan emphasize freight and passenger movement. The 2060 FTP identifies the areas of safety and security, maintenance and operations, community livability, and environmental stewardship as it provides guidance on how the Florida Department of Transportation (FDOT) facilitates the movement of people and goods. The SIS focuses on mobility and economic competitiveness, including the efficient movement of cargo and passengers. The Seaport Mission Plan calls out the importance of freight and passenger transportation by striving for efficient and cost-effective facilities to accommodate the growing travels needs for both cargo and passengers.
- **Trade and Economic Development** – The international commerce and cruise tourism made possible by Florida's seaports ultimately result in statewide economic growth and stability. The FTP, SIS, and the Seaport Mission Plan address the importance of trade and economic development by stressing the need for enhanced mobility for people and freight. The 2060 FTP recognizes the need to invest in transportation systems to support a



prosperous, globally competitive economy. The SIS contributes to the FTP goals by making economic competitiveness a priority in implementing this system. The SIS specifically prioritizes the need to facilitate anticipated growth in domestic and international freight and visitor flows to and from Florida to contribute to the desire for strong trade and economic development in Florida. The Seaport Mission Plan also recognizes Florida's continued competitiveness in international trade is dependent on having an efficient, interconnected transportation system. Additionally, FDOT and the Florida Ports Council (FPC) partnered with the Florida Chamber of Commerce to develop a Florida Trade and Logistics Study, which developed further guidance on critical trade and economic goals.

Overarching themes emerging from the plans mentioned above have been used to guide development of the Seaport System Plan vision statement. The vision statement illustrates the significant level of integration of Florida's seaports into the foundation of Florida's business community and transportation system. The vision statement is as follows:

Florida's Seaport System Vision Statement

Florida's seaports will provide world-class facilities and services to meet the waterborne trade and transportation needs of freight shippers and receivers, trade-dependent businesses, cruise lines, residents, and tourists. Florida's ports will continue to serve as vital economic engines for their host communities and the State as a whole, and will compete successfully for both historic markets and emerging opportunities. Florida's ports will invest to meet their respective current and anticipated needs, and the State of Florida will partner in these investments in a manner that provides the highest levels of demonstrable transportation and economic benefits to the State of Florida. Florida and its ports will seek to increase the level of strategic investment in Florida's ports by making the best use of available funds and by exploring opportunities for additional funding sources at the local, regional, state, and Federal levels.

2.2 Relationship to Other Plans

Florida's transportation network consists of an integrated multimodal and intermodal system of hubs, corridors, and intermodal connectors guided by state-level transportation policies. The Seaport System Plan provides specific policy guidance for development, enhancement, and preservation of Florida's seaport system. It builds on established transportation goals and objectives as laid out in the FTP and SIS. In addition, it recognizes and incorporates the adopted policy language from the Seaport Mission Plan, including the seaport visioning exercise completed in 2006, which identified eight critical seaport

vision elements. Tables 2.1 and 2.2 highlight these existing goals, objectives, and missions. Existing policy language from the FDOT and the seaport community complement each other with each providing a comprehensive listing of what is needed to ensure Florida’s transportation system meets the needs of residents and businesses. These policies also must be consistent with the key elements of local comprehensive plans for each jurisdiction adjacent to port facilities.

Table 2.1 Policy Guidance for Seaports
FDOT Plans

Florida Department of Transportation Mission^a	
<i>The Department will provide a safe transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities.</i>	
2060 FTP Long-Range Goals	2010 SIS Strategic Plan Objectives ^b
<ul style="list-style-type: none"> • Invest in transportation systems to support a prosperous, globally competitive economy. • Make transportation decisions to support and enhance livable communities. • Make transportation decisions to promote responsible environmental stewardship. • Provide a safe and secure transportation system for all users. • Maintain and operate Florida’s transportation system proactively. • Improve mobility and connectivity for people and freight. 	<p>Interregional Connectivity</p> <ul style="list-style-type: none"> • Enhance connectivity between Florida’s economic regions and between Florida and other states and nations for both people and freight. <p>Efficiency</p> <ul style="list-style-type: none"> • Reduce delay on and improve the reliability of travel and transport using SIS facilities. <p>Choices</p> <ul style="list-style-type: none"> • Expand modal alternatives to SIS highways for travel and transport between regions, states, and nations. <p>Intermodal Connectivity</p> <ul style="list-style-type: none"> • Provide for safe and efficient transfers for both people and freight between all transportation modes. <p>Economic Competitiveness</p> <ul style="list-style-type: none"> • Provide transportation systems to support statewide goals related to economic diversification and development. <p>Energy, Air Quality, and Climate</p> <ul style="list-style-type: none"> • Reduce growth rate in vehicle-miles traveled and associated energy consumption and emissions of air pollutants and greenhouse gases. <p>Emergency Management</p> <ul style="list-style-type: none"> • Help ensure Florida’s transportation system can meet national defense and emergency response and evacuation needs.

^a S. 334.046(2), Florida Statutes.

^b <http://www.dot.state.fl.us/planning/sis/strategicplan/2010sisplan.pdf>.



**Table 2.2 Policy Guidance for Seaports
Florida's Ports**

2009/2010 Seaport Mission ^a	2009/2010 Mission Plan Goals
<p><i>Enhance the economic vitality and quality of life in the State of Florida by fostering the growth of domestic and foreign waterborne commerce.</i></p>	<ol style="list-style-type: none"> 1. Provide efficient and cost-effective facilities for cargo and passengers.
<p>2016 Vision of Success – Key Elements^b</p>	<ol style="list-style-type: none"> 2. Build the intermodal facilities needed by Florida's seaports to move their goods and passengers more efficiently than competing out-of-state and off-shore seaports.
<ol style="list-style-type: none"> 1. Strategic port planning – locally, regionally, and statewide. 	<ol style="list-style-type: none"> 3. Maintain and expand existing trade markets and patterns, increasing cargo flow.
<ol style="list-style-type: none"> 2. Deepwater access. 	<ol style="list-style-type: none"> 4. Develop funding alternatives that will enable Florida's seaports to implement required improvements in a timely manner and meet revenue projections.
<ol style="list-style-type: none"> 3. Efficient landside access. 	<ol style="list-style-type: none"> 5. Implement security measures that balance compliance with Federal and state minimum security standards and the need for an efficient flow of commerce through our seaports.
<ol style="list-style-type: none"> 4. Capacity for port growth – locally and regionally. 	<ol style="list-style-type: none"> 6. Develop a state policy on economic development recognizing that international trade is dependent on Florida's transportation system.
<ol style="list-style-type: none"> 5. Balance between user needs and the cost of maritime operations. 	
<ol style="list-style-type: none"> 6. Ability to build and sustain key partnerships. 	
<ol style="list-style-type: none"> 7. Value of investing in Florida seaports and serving Florida's population. 	
<ol style="list-style-type: none"> 8. Enhanced public understanding and support for Florida's seaports. 	

^a <http://www.flaports.org/mission.asp>.

^b [http://www.flaports.org/docs/seaportsvisioning10506jdsrevision%20power%20point%20to%20ports\(1\).pdf](http://www.flaports.org/docs/seaportsvisioning10506jdsrevision%20power%20point%20to%20ports(1).pdf).

2.3 Relationship to Florida Trade and Logistics Study

The *Florida Trade and Logistics Study* was undertaken by the Florida Chamber Foundation, in partnership with FDOT and private-sector stakeholders. The purpose of this study was to identify key opportunities for the State in international trade and logistics; develop a set of strategies or actions; and equip local, regional, and state partners with data and materials to implement the strategies. The study built off of and was consistent with the established economic development (e.g., Florida Chamber Foundation's Six Pillars) and transportation (e.g., FTP) programs. The study identified three opportunities for Florida, defined as:

- Maximize its ability to serve Florida businesses and consumers, primarily through attracting Asian container imports directly to Florida seaports;
- Grow the value of Florida origin exports, and leverage more efficient logistics patterns to attract advanced manufacturing and other export-related industries to Florida; and
- Emerge as a global hub for trade and investment, leveraging its location on north-south and east-west trade lanes to become the Singapore of the Western Hemisphere.

Specific recommended strategies developed by the study are defined in Table 2.3. Appendix B provides examples of the waterborne data analyzed and used to support these strategies. Given the dominant role Florida’s seaports play in international trade, the defined strategies must be integrated in Florida’s Seaport System Plan. These strategies have been reviewed and included, as appropriate, in Section 6.0.

Table 2.3 Summary of Recommended Strategies, Organized by the Six Pillars, Florida Trade and Logistics Study

The Six Pillars	Recommended Strategies
Talent Supply and Education	<ul style="list-style-type: none"> • Expand the capacity of the Florida global logistics workforce and manufacturing workforce through targeted training and educational programs. • Identify global trade and logistics as a qualified targeted industry for the State’s Quick Response Training and Incumbent Worker Training programs. • Expand vocational and associate degree programs to support skill requirements for trade, logistics, and manufacturing industries. • Expand targeted programs for global trade, logistics, and manufacturing in the State’s four-year colleges and universities. • Build international business and foreign-language skills among Florida workforce.
Innovation and Economic Development	<ul style="list-style-type: none"> • Support the Governor’s leadership as the State’s chief economic development officer and trade ambassador globally and nationally. • Market Florida’s advantages as a trade gateway and logistics hub. • Identify global trade and logistics as a statewide targeted industry. • Attract international distribution centers to reinforce Florida’s location and cost advantage. • Provide support for export-oriented manufacturing businesses. • Enhance incentive programs for Florida-based distribution, manufacturing, and other export-oriented businesses. • Promote policies to support Florida’s role in the global marketplace.
Infrastructure and Growth Leadership	<ul style="list-style-type: none"> • Develop at least one seaport with 48 feet of water and on-dock or near-dock rail. • Expand capacity at seaports to serve container, break-bulk, and bulk markets. • Maximize the use of inland waterway and smaller seaports. • Support acquisition and redevelopment of new waterfront land or inland locations for seaport operations. • Provide sufficient air cargo capacity at Miami International Airport to maintain or expand market share, and explore opportunities for regional air cargo hubs. • Improve landside connectivity to airports, seaports, and rail terminals. • Maintain and enhance regional distribution networks. • Develop and maintain high-capacity, long-distance rail, water, and truck corridors. • Expand distribution center capacity at appropriate locations. • Adopt land use plans supporting freight-intensive activities.
Business Climate and Competitiveness	<ul style="list-style-type: none"> • Reduce cost of doing business for logistics, distribution, and manufacturing. • Assess potential tax changes to support logistics, distribution, and manufacturing. • Harmonize state and Federal security requirements.
Civic and Governance Systems	<ul style="list-style-type: none"> • Continue statewide partnership in support of trade and economic development. • Strengthen regional trade planning and implementation. • Represent Florida’s interests in Federal multistate trade planning. • Provide sufficient and reliable funding for future state investments in Florida’s trade and economic development systems.
Quality of Life, Quality Places	<ul style="list-style-type: none"> • Maximize negative impacts of freight on communities and the environment. • Plan and develop freight systems to reduce energy consumption, improve air quality, and reduce greenhouse gas emissions.

Source: *Florida Trade and Logistics Study*, December 2010, prepared by the Florida Chamber Foundation.



2.4 Seaport System Goals, Elements, and Objectives

Specific seaport system objectives have been developed to facilitate the achievement of Florida's seaport vision. These objectives are consistent with and organized by the 2060 FTP goals and key Plan elements. Keeping in mind the two overarching themes (*freight and passenger transportation* and *trade and economic development*), Table 2.4 presents the seaport objectives organized by FTP goals and key Plan elements. Key plan elements represent key functionalities that drive seaport operations and capacities. They are defined as follows:

- **Markets and Services** – System capacity, competitiveness with other seaports, preservation and expansion of key emerging and dominant markets, and ability to provide innovative state-of-the-art services.
- **Terminal Facilities and Capacities** – Preservation and expansion of existing terminal capacity, increase in the efficiencies of existing terminals, and creation of new port-related lands; also includes promotion of standardized security inspections to streamline port efficiencies.
- **Vessel Navigation** – Need for preservation and expansion of water resources, including channels, turning basins, and berths; this includes discussion of deepwater capacity.
- **Landside Access** – Direct connections to highway and rail networks, appropriate level of intermodal facility development, and restriction of noncomplementary development along key access corridors
- **Land Use and Environment** – Preservation of existing industrial lands and the availability of additional industrial land; also includes promotion of the positive environmental contributions of seaports, the need for streamlined permitting processes, and investments in green technologies, such as shore power.
- **Planning and Governance** – Capital improvement plans, master plans and long-range visions developed by individual seaports; systemwide planning and investment strategies at state level.
- **Funding and Prioritization** – Self-funding, private-sector investments, state and Federal investments; establishing priorities within a given port as well as across the entire system.

The Seaport System Plan Working Group, over the course of five meetings, developed many recommendations. Almost all of them focus on activities FDOT and its state partners should do, or do differently. The Working Group findings are documented and summarized in Appendix A. These recommendations were used to support the development of goals presented in Table 2.4 as well as the strategies and actions presented in Section 6.0.

Table 2.4 Summary of Seaport System Plan Goals, Elements, and Objectives

2060 FTP Goals	Key Plan Elements	Seaport System Plan Objectives
Invest in transportation systems to support a prosperous, globally competitive economy.	<ul style="list-style-type: none"> • Markets and Services • Landside Access • Land Use and Environment • Planning and Governance • Funding and Prioritization 	<ul style="list-style-type: none"> • Increase seaport system capacity to meet projected demand. • Provide seaport services competitive with neighboring states and countries. • Maintain dominant position in key markets, position seaports to compete for emerging markets, and take advantage of shifts in global trade lanes. • Expand market capture through investments in innovative service strategies and infrastructure. • Position Florida, as appropriate, to capture new generation of mega-ship vessels through creation of deepwater capacity. • Support acquisition, redevelopment, and creation (via landfill) of new waterfront land for port operations, as appropriate. • Promote deepwater investments to serve Florida origin/destination markets and minimize impacts of out-of-state discretionary traffic. • Provide key seaport system capacities (bulk, break bulk, container, cruise) in key regions to serve niche, state, and national markets.
Make transportation decisions to support and enhance livable communities.	<ul style="list-style-type: none"> • Land Use and Environment • Planning and Governance 	<ul style="list-style-type: none"> • Preserve and expand industrial lands available for port-related or port-dependent business. • Support land acquisition/preservation initiatives designed to protect lands adjacent to or in close proximity to seaports.
Make transportation decisions to promote responsible environmental stewardship.	<ul style="list-style-type: none"> • Land Use and Environment • Funding and Prioritization 	<ul style="list-style-type: none"> • Promote environmental contributions of seaport investments. • Support seaport initiatives to streamline environmental permitting requirements. • Collaborate with seaports on salt water mitigation strategies and programs.
Provide a safe and secure transportation system for all users.	<ul style="list-style-type: none"> • Terminal Facilities and Capacities • Funding and Prioritization 	<ul style="list-style-type: none"> • Promote safe and secure seaport operations. • Promote fair and equitable regulatory program requirements for seaport access. • Promote fair and equitable cargo inspection and immigration activities. • Accommodate current and anticipated future levels of trade and transportation demand in a manner that emphasizes safety and security.



Table 2.4 Summary of Seaport System Plan Goals, Elements, and Objectives (continued)

2060 FTP Goals	Key Plan Elements	Seaport System Plan Objectives
Maintain and operate Florida's transportation system proactively.	<ul style="list-style-type: none"> • Terminal Facilities and Capacities • Vessel Navigation • Landside Access • Funding and Prioritization 	<ul style="list-style-type: none"> • Expand and maintain channels and berths to meet master plan investments. • Preserve and increase existing terminal capacities and operations. • Focus investments on advanced operating practices to increase efficient use of existing terminal space. • Preserve and increase landside access and/or connectivity including on-dock or near-dock rail facilities.
Improve mobility and connectivity for people and freight.	<ul style="list-style-type: none"> • Terminal Facilities and Capacities • Vessel Navigation • Landside Access • Land Use and Environment • Planning and Governance 	<ul style="list-style-type: none"> • Provide direct connections to major highway and rail networks. • Consider the total integrated landside network by providing connections to serve inland Florida and the hinterlands. • Promote complementary developments along key access routes. • Increase bulk capacity to serve key niche markets as well as commodities of statewide significance.

3.0 Florida's Seaport System – Trends and Conditions

This section provides an overview of Florida's seaport system, building upon the work undertaken annually by the Florida Seaport Transportation and Economic Development (FSTED) Council. Data available from "A Five-Year Plan to Achieve the Mission of Florida's Seaports, 2009/2010-2013/2014" have been reviewed and incorporated, as appropriate, to support development of a high-level description of Florida's seaport system.¹

3.1 System Overview and Performance

Florida's 14 deepwater seaports (see Figure 3.1) represent a critical component of Florida's multimodal transportation system, functioning as domestic and international trade gateways, regional economic engines, and major transportation hubs.

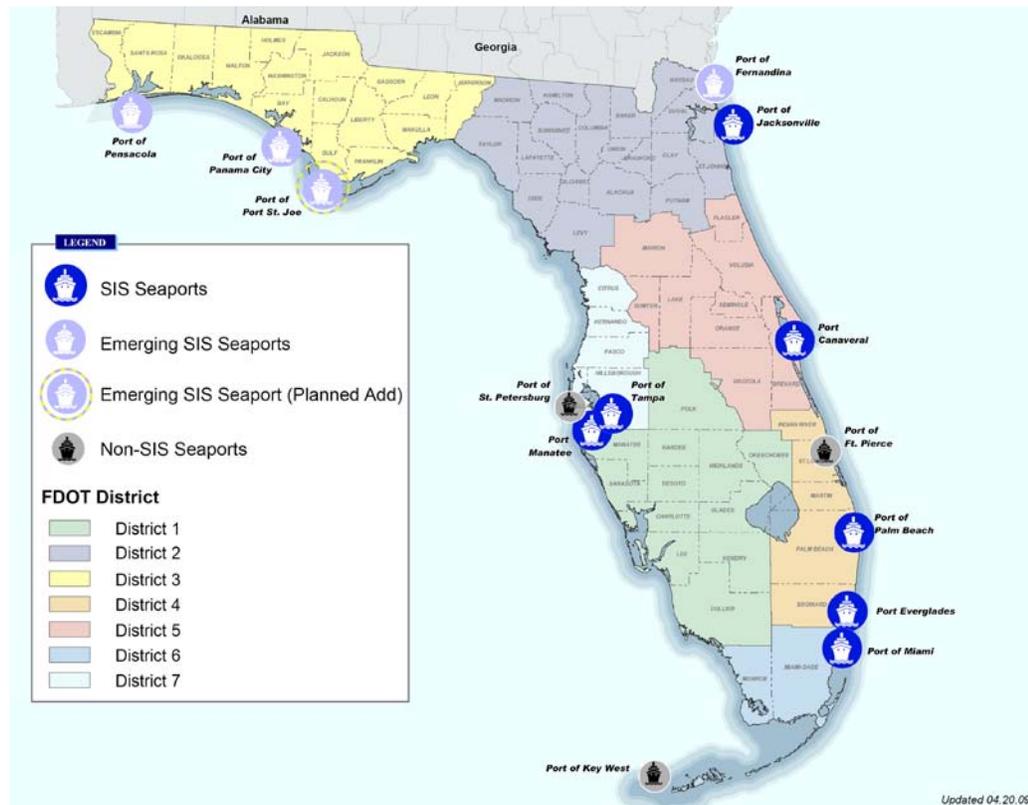
Florida's seaports handle a variety of traffic, including containerized and noncontainerized cargo as well as cruise passengers. In recent years, a shift in business operations of the industry has resulted in many commodities being shipped in containers, more than ever before. In most cases, any cargo able to be put into containers has been shifted to this type of transport. The standard measurement of a cargo container is a 20-foot equivalent unit (TEU). Therefore, one 40-foot container would be counted as two TEUs. Noncontainerized cargo representing key bulk and breakbulk commodities are measured in short tons. The majority (as high as 75 percent in some markets) of cargo shipped to Florida through a Florida port is consumed within the State.

Passenger movement is measured by the number of revenue passengers cruising from Florida's ports. All but one cruise port in Florida are home-based ports, meaning the passengers embark and disembark at the same location. Port of Key West operates as a port-of-call, meaning it provides a stop for many cruise ships but is not a home port.

¹ The FSTED Council produces "A Five-Year Plan to Achieve the Mission of Florida's Seaports." This document is updated annually and provides a profile for each port, highlighting international trade trends; cargo and cruise operations at Florida's seaports; and seaport capital improvement and access needs.



Figure 3.1 Florida’s Seaport System

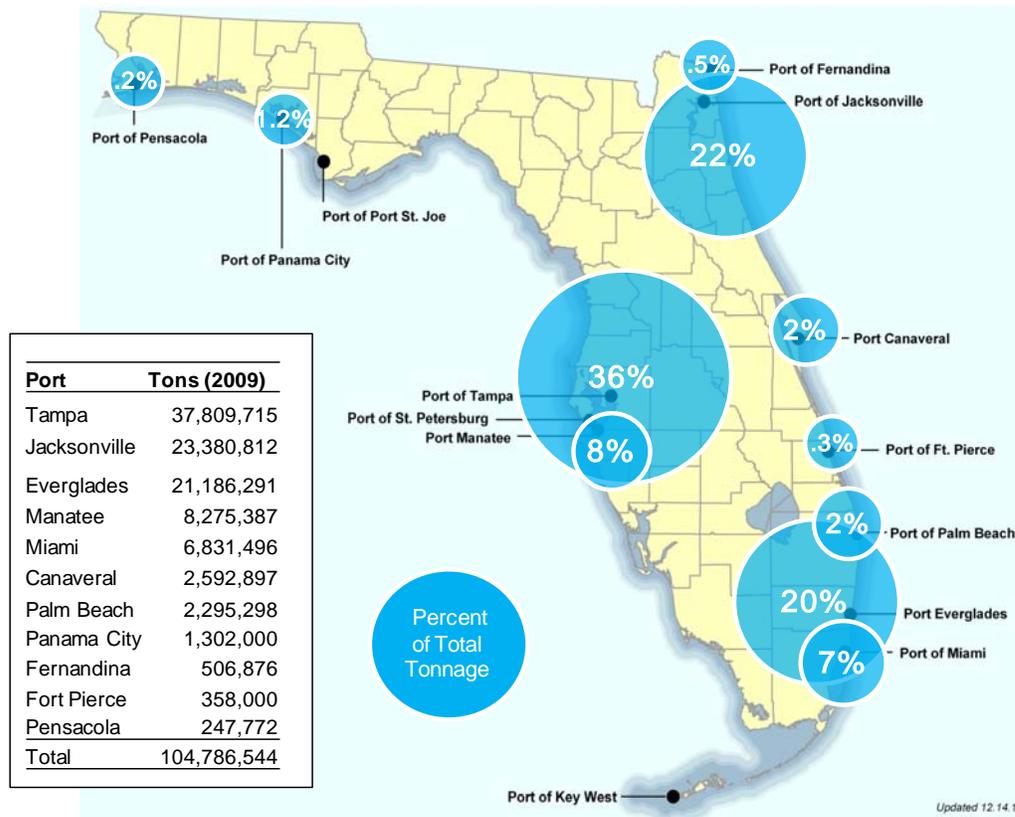


Source: Florida SIS.

Total Tonnage

Figure 3.2 details the total waterborne cargo tonnage by port. This data includes tonnage associated with all handling types: containers, break-bulk (packaged, palletized, and smaller unit cargo handled with conventional stevedoring equipment), neo-bulk and project cargo (typically very large or very heavy units requiring special handling), dry bulk (dry cargo shipped without packaging in vessel holds), liquid bulk (liquid cargo shipped without packaging in vessel holds), and roll-on/roll-off cargo (automobiles, construction equipment, boats on trailers, containers on trailers, etc. which are physically rolled on and off vessels). It also includes import and export cargo moving between the United States and foreign countries, as well as domestic cargo moving between U.S. states and territories (including Puerto Rico). Additionally, Port Manatee’s reported tonnage includes approximately four million tons of natural gas, which is moving through the Port via pipeline, but is not transferred to or from waterborne vessels at the port.

Figure 3.2 Water Tonnage by Port in FY 2008/2009



Source: A Five-Year Plan to Achieve the Mission of Florida’s Seaports, 2009/2010-2013/2014.

Eleven of Florida’s 14 ports handled some combination of domestic, import, and export cargo in fiscal year 2008/2009. During this time period, Florida’s ports moved over 45 million tons of domestic cargo, imported over 42 million tons, and exported 17 million tons for a total of over 104 million tons.

The Port of Tampa is by far the largest cargo port handling over 36 percent of the State’s tonnage. Tampa is followed by Port of Jacksonville and Port Everglades in tonnage handled; the three together represent over 78 percent of all tonnage moving through Florida ports. In addition, these three ports are the only ones to handle a significant amount of domestic cargo – mostly petroleum, phosphate, and Puerto Rican trade. The Port of Tampa has historically focused on domestic cargo while Port of Jacksonville and Port Everglades are fairly balanced between domestic and international traffic. Other ports, including Manatee, Miami, Palm Beach, Canaveral, Panama City, Ft. Pierce, Fernandina, and Pensacola handle the remaining tonnage moving in Florida.



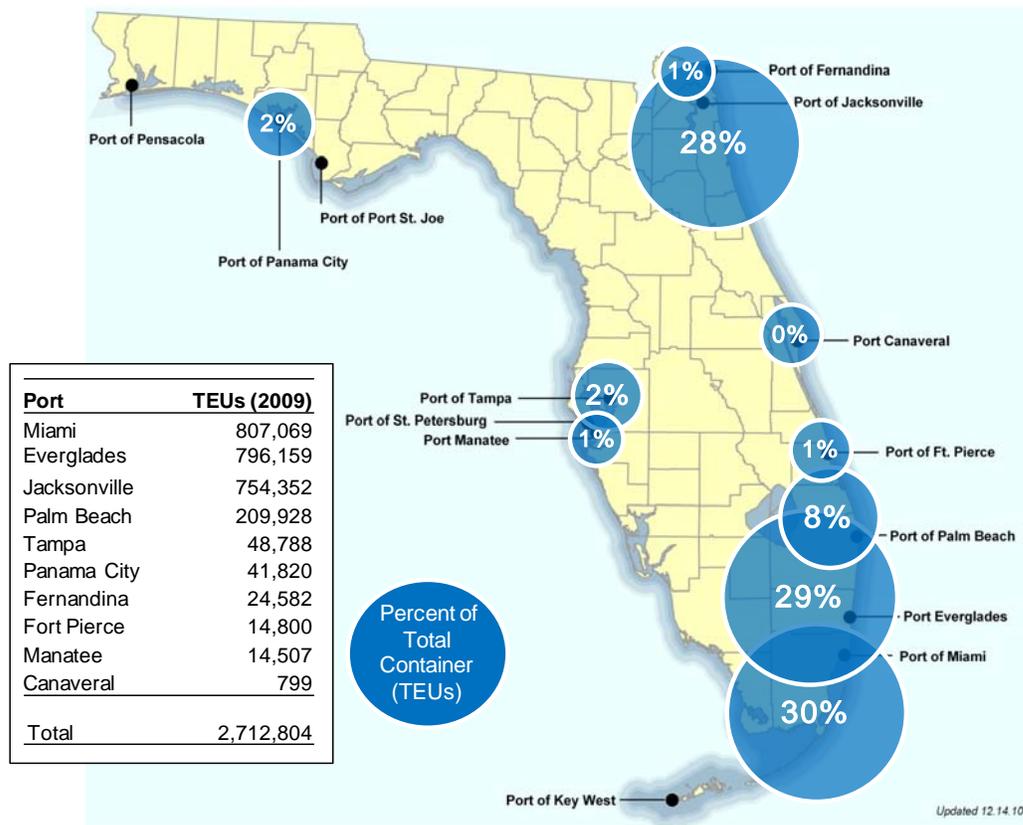
Containers

Figure 3.3 highlights the waterborne container movement by port. During fiscal year 2008/2009, 10 Florida seaports handled container traffic, totaling over 2.7 million TEUs. Currently, Port of Miami is the largest container port handling around 30 percent of all containers moving through Florida ports. Port of Miami is followed by Port Everglades and Port of Jacksonville for number of containers moved. These top three container ports make up nearly 87 percent of all container movement. These three ports all have major investments underway to stimulate and support continued growth. For example:

- Port Everglades is developing a near-dock intermodal container transfer facility (ICTF) in Southport, is extending its Southport turning notch to increase berthing capacity, and is in the process of pursuing approval to deepen to 50 feet.
- Port of Jacksonville recently developed a state-of-the-art container terminal to serve new Asian service, will soon break ground on a second container terminal, is working to improve rail service, and is pursuing approval to deepen to 50 feet.
- Port of Miami is underway with development of a highway tunnel to connect the port directly to the Interstate system, will be restoring on-port intermodal rail service, and currently is the only Florida port approved to deepen to 50 feet.
- Port of Tampa, which historically focused on bulk and break bulk cargo, has developed a container terminal (currently under expansion); has the Crosstown Connector project underway, which will provide a direct Interstate connection; and continues to pursue waterway and rail connector improvements. Tampa has shown significant growth over the last few years and will likely be one of the top four container ports in Florida over the next decade.

Other ports, including Palm Beach, Panama City, Fernandina, Ft. Pierce, Manatee, and Canaveral handle the remaining containers moving in Florida. The great majority of Florida's container traffic is international. However, for Jacksonville, container trade with Puerto Rico (which is considered a domestic trade lane) is a significant share of business. Other Florida ports are seeking to grow their domestic container trade lanes to relieve surface transportation network pressures, consistent with the U.S. Department of Transportation's "Marine Highways" initiative.

Figure 3.3 Container Movement by Port in FY 2008/2009
Millions of TEUs



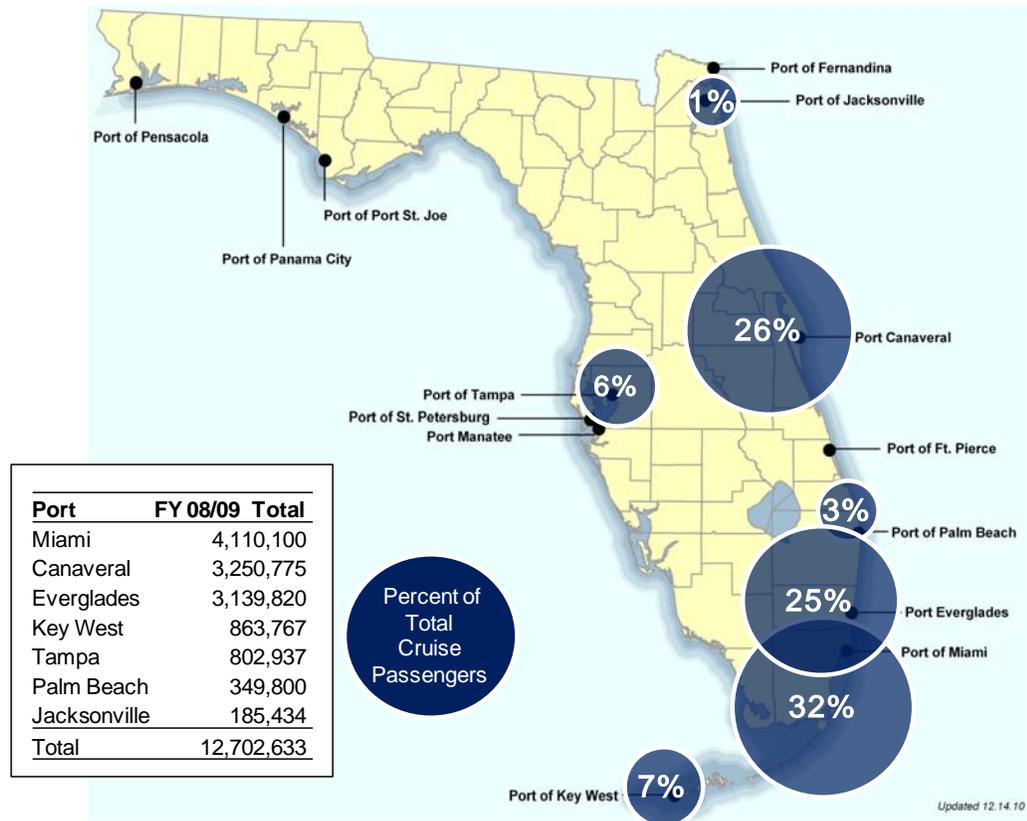
Source: A Five-Year Plan to Achieve the Mission of Florida’s Seaports, 2009/2010-2013/2014.

Passengers

Along with freight movement, seven of Florida’s seaports offer passenger service for single- and multi-day cruises. In fiscal year 2008/2009, Florida’s cruise ports handled over 12.7 million passengers. Figure 3.4 presents passenger traffic by port. Port of Miami is the largest home-based cruise port handling nearly a third of all cruise passenger in Florida. Port Canaveral and Port Everglades follow at a close second and third, respectively, with the three together representing nearly 83 percent of all cruise passengers. Florida’s top three cruise ports dominate the national and international cruise industry. This is illustrated by ongoing investments in infrastructure and industry commitments. For example, Royal Caribbean Cruises Ltd. decision to homeport the world’s two largest cruise ships – “Oasis of the Seas” in December 2009 and the “Allure of the Seas” in December 2010 – at Port Everglades is anticipated to make it the largest cruise operation in the world. Other ports, including Key West, Tampa, Palm Beach, and Jacksonville handle the remaining passenger movement in Florida.



Figure 3.4 Cruise Passenger Embarkations and Debarkations by Port in FY 2008/2009



Source: A Five-Year Plan to Achieve the Mission of Florida’s Seaports, 2009/2010-2013/2014.

3.2 Functional Characteristics

While part of a system, Florida’s seaports are very diverse in nature. Some are located inside urban population centers mainly serving their regional population while others are outside the urban core. Some of the “rural” ports serve markets outside their local area. Some control all on-port activities while others are surrounded by private marine terminals. Some function as “landlord” or “tenant” ports leasing land to private tenants to operate, while others are managed as “operating” ports. Six operate under a local government port authority, one as a special district, and seven are part of a county or city government. All of Florida’s seaports work with their host communities to plan for economic development surrounding their facilities. For example, Manatee County recently adopted an economic port development overlay on land near Port Manatee; the City of Port St. Joe recently revised its land use element to plan for future growth of the port and the surrounding area; and Palm Beach County is working to support development of an intermodal logistics center.

Despite their diverse nature, Florida's seaports as a system share a common goal: economic competitiveness in a global market. Each has a different market and commodity focus diversifying in containers – serving both Florida and U.S. markets; and noncontainerized general cargo, liquid bulk, and dry bulk – serving mostly Florida markets, although some northern Florida ports serve the southeastern United States as well. They also have different trade lane focuses. Some center on traditional routes such as Puerto Rico, Caribbean, and Central/South America. Others are aligned with domestic services in the Gulf and Atlantic. Still others are pursuing emerging markets with Asia and other short sea/transshipment routes.

Florida's geographic location, as well as its extensive coastline, has resulted in the development of a system of regional ports – that is, ports that primarily serve Florida's businesses and residents. The largest population centers (South Florida, Central Florida, Tampa Bay, and Jacksonville) generally coincide with the location of the large ports. The Seaport System Plan has arranged Florida's seaports into four geographic groups to help illustrate how the system functions today. Each group of ports represents key consumption markets in Florida. The groups are based on both geography and markets served. For example, Port Canaveral is grouped with the North Atlantic ports due to its geographic location; however, it serves the Central Florida market, which makes it more closely tied to the Central Gulf ports.

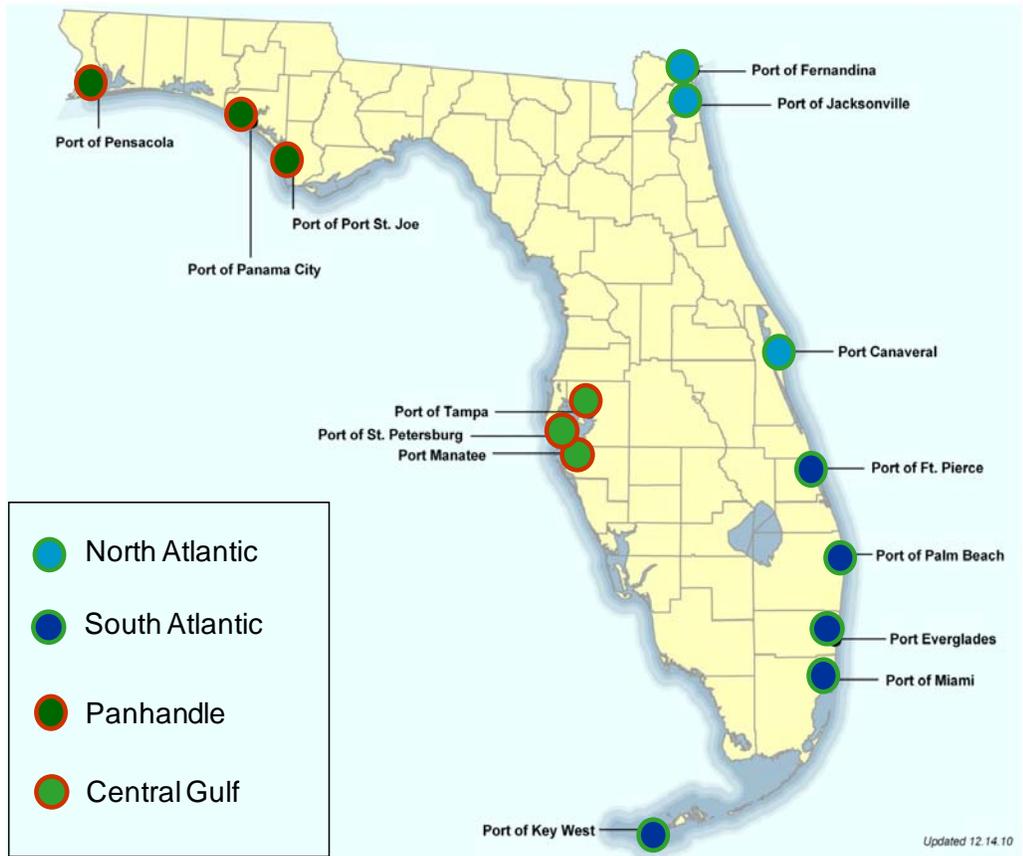
While there may be some coordination and cooperation, each port within a group operates independently within a competitive environment. Maintaining a competitive seaport system within each geographic region is important for the State's transportation and overall economic sustainability. Florida's ports are grouped as follows:

- South Atlantic (Ports of Miami, Everglades, Palm Beach, Fort Pierce, and Key West);
- North Atlantic (Ports of Jacksonville, Canaveral, and Fernandina);
- Central Gulf (Ports of Tampa, Manatee, and St. Petersburg); and
- Panhandle (Ports of Panama City, Pensacola, and Port St. Joe).

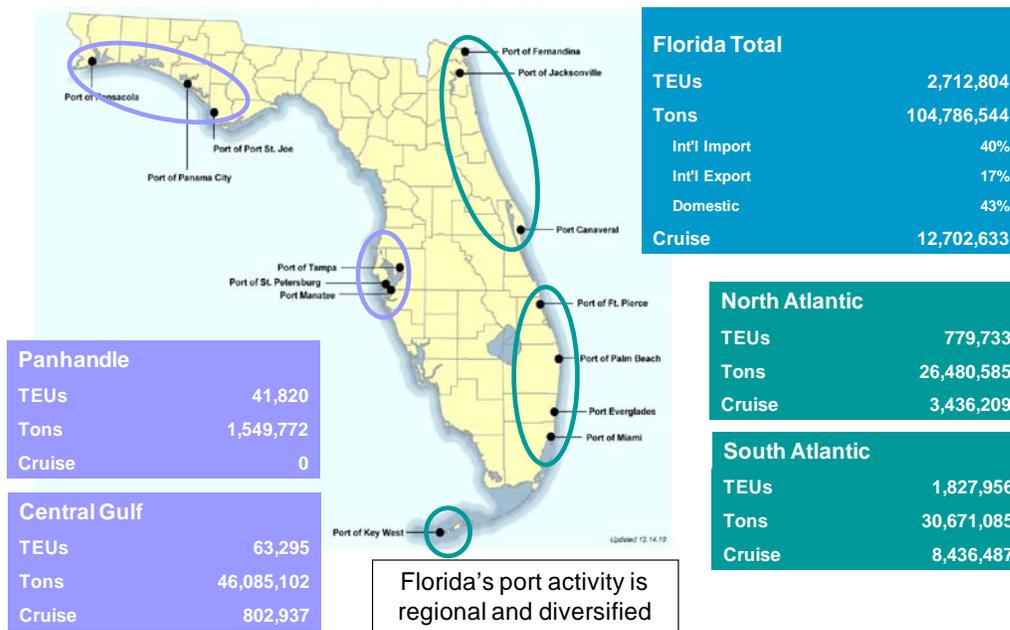
These subregions are illustrated in Figure 3.5 on the following page. Container, tonnage, and passenger activity by subregion is summarized in Figure 3.6 on the following page.



Figure 3.5 Geographical Grouping of Florida's Seaports



**Figure 3.6 Florida's Port Throughput, FY 2008/2009
Cargo and Passengers**



Source: A Five-Year Plan to Achieve the Mission of Florida's Seaports, 2009/2010-2013/2014.

Each group of ports serves national, statewide, and regional needs; handles key commodities and passenger services; has similar trade partners, and external competitors.

- The South Atlantic, Central Gulf, and Panhandle ports mostly serve statewide and regional needs; however, the South Atlantic ports do serve national needs for some Latin American and Caribbean cargo.
- The North Atlantic region, which includes the Port of Jacksonville, provides a larger portion of its service to national markets due to its geographic location and network of transportation facilities (Interstates and Class I railroads). While these ports serve statewide and regional needs, a significant percent is trucked or railed out of the State to the hinterlands.
- The South and North Atlantic regions are home to the cruise industry's leading facilities and function as national and global attractions. The Central Gulf region primarily supports a statewide and regional cruise market. The Panhandle is the only region not providing cruise service; it also is a rural part of the State with much smaller population centers.
- Each region provides some level of container service; not surprising given the growth in this mode of transport and Florida's reliance on consumer goods. Each region also provides bulk cargo service although in many cases to a lesser degree than containers. Port Everglades (South Atlantic), Port of Tampa (Central Gulf), and Port of Jacksonville (North Atlantic) provide the majority of fuel for their regions. Port Canaveral also recently built a new fuel facility, which will provide increased capacity in its region.



- Both Atlantic and Gulf seaports have a wide range of trade partners. These are based in part on the ability of steamship lines to call on multiple facilities. For example, Tampa will be competitive in attracting service from lines that call Mobile and Houston. Shifts in the future will be dependent on the ports' abilities to handle the vessels in service, as well as provide efficient market connectivity/accessibility.
- Florida's system of seaports faces domestic and international competition. Domestic competition comes from neighboring states; international competition comes from existing and new transshipment facilities in the Caribbean and Central America. Domestic competition is driven by proximity to hinterland markets, development of distribution center, warehousing, and landside transportation infrastructure, and timely service. In addition, the proximity of light to heavy industry can be a factor. International competition has the same considerations, but often also includes labor costs and regulatory requirements.

Table 3.1 provides a summary of markets, services, and competitors for each region in Florida.



Table 3.1 Markets, Services, and Competitors

	South Atlantic	North Atlantic	Central Gulf	Panhandle
Serving National, Statewide, or Regional Needs	Cargo: Primarily statewide and regional, but serving as national gateway for certain Latin American and Caribbean trades.	Cargo: National, statewide, and regional.	Cargo: Primarily statewide, and regional.	Cargo: Primarily statewide and regional, with multistate markets for certain commodities.
	Cruise: National, statewide, and regional.	Cruise: National, statewide, and regional.	Cruise: Primarily statewide, and regional.	Cruise: None.
Key Commodities and Passenger Services	Containers, fuel, bulk.	Containers, autos, break bulk, bulk.	Fuel, bulk, break-bulk, containers.	Break bulk, bulk, containers.
	Multi-day and day cruises.	Multi-day and day cruises.	Multi-day cruises.	
Trade Partners	Current: Puerto Rico, Japan, Germany, Venezuela, Dominican Republic, Honduras, China, Brazil, Colombia, Costa Rica, Guatemala, United Arab Emirates, Netherlands, Saudi Arabia, El Salvador, Bahamas, Chile, Argentina, United Kingdom, France, Peru.		Current: India, Chile, Mexico, Peru, Trinidad and Tobago, Japan, Brazil, Australia, China, Netherlands, Russia, Colombia, Algeria, Costa Rica, Spain, Ukraine, United Kingdom, Argentina, Thailand, Turkey.	
	Future: Maintain leadership in Caribbean; increase competitiveness with Europe; significantly expand all-water trade with China and East Asia.		Future: Expand competitiveness in diverse markets, especially Asia, Mexico, Caribbean, and South America.	
Competitors	Cargo: Georgia (Savannah, Brunswick), South Carolina (Charleston, Georgetown). Cruise: None.		Cargo: Alabama (Mobile), Mississippi (Gulfport, Pascagoula).	

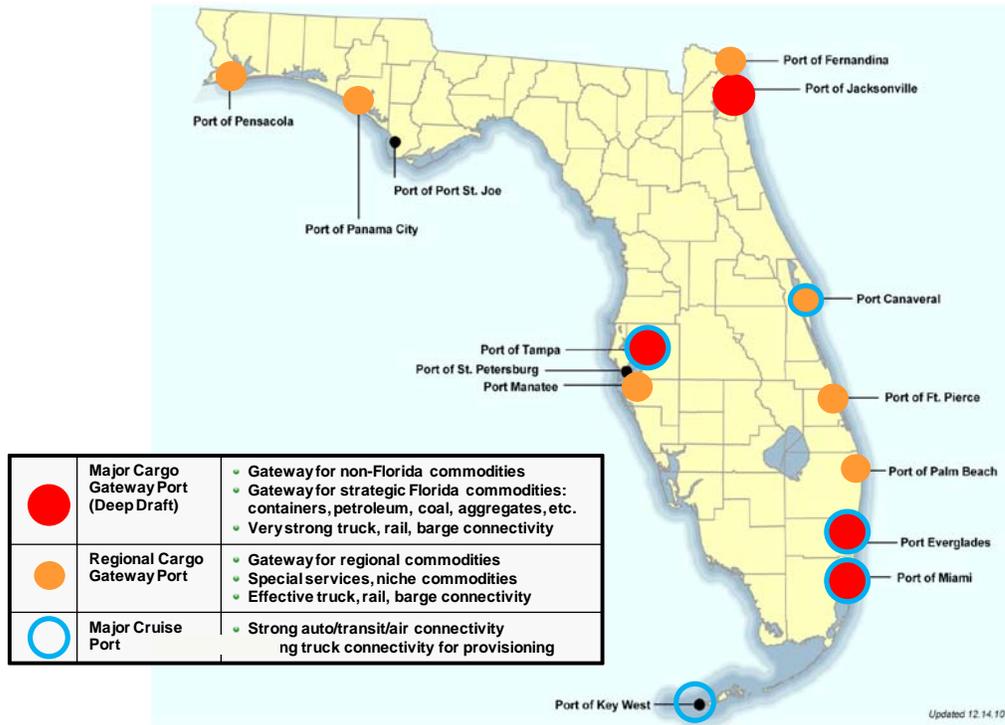
3.3 Categorization of Florida's Seaports

As with other modal systems, it is important to characterize or categorize the types of seaports in Florida. Florida's seaports vary by size and type of operations. Some are specialized in one type of operation while others handle a variety of cargo types. For example, the Port of Miami exclusively handles international containers; the Port of Tampa handles a mix of bulk, break bulk, and containerized cargo. Some seaports function as major trade gateways, while others handle local traffic or niche movements. Port Everglades provides petroleum products that serve all of South Florida; the Port of Panama City is one of the U.S. leaders in the import of copper. The location of a port also dictates where it fits in the overall transportation system. For example, cargo off loaded at a south Florida port bound for the Midwest would have to be trucked or put on rail through Florida to reach its destination, adding cost to the shipment and congestion to highways and rail lines in Florida. Understanding the impact on the transportation system as a whole is crucial to making the system function smoothly.

The Seaport System Plan categorizes Florida's seaports as national/Florida cargo hubs, regional/niche cargo hubs, and/or major cruise hubs (see Figure 3.7). This categorization begins to outline how each seaport with its individual focus works in concert with the others to function as a system of domestic and international gateways within Florida.

- Major cargo gateway ports represent Florida's major seaport facilities. They serve as major trade gateways for domestic and international cargo, handling a mix of commodities that serve regional, state, and national markets. This includes commodities that are strategic to Florida such as petroleum and aggregate. These seaports rely on deep water access and strong landside intermodal connections. There are four seaports in Florida that meet these characteristics: Port of Miami and Port Everglades in South Florida; Port of Tampa in West Central Florida; and Port of Jacksonville in Northeast Florida.
- Regional cargo gateway ports represent small- to medium-sized seaports handling key cargo moves. Seven of Florida's seaports are categorized as regional/niche, ranging in size and operation. They typically serve local or regional markets; in some instances they serve niche national markets. Intermodal connectors are critical to these hubs to ensure market connectivity. Examples include: Port of Palm Beach, which handles an export market of consumer products as well as agricultural products; and Port of Panama City, which handles a niche copper market as well as a local consumer market.
- Five of Florida's seaports are major cruise hubs. These facilities are defined as those that carry more than 800,000 passengers annually. They require strong road, transit, and air connections for passenger traffic. The Port of Miami, Port Everglades, and Port Canaveral are leaders in the global cruise industry, each carrying over three million passengers per year; Key West and Tampa each carry more than 800,000 passengers.

Figure 3.7 Categorization of Florida’s Seaports



3.4 Competitive Position of Florida’s Seaports

In general, Florida’s seaports are highly competitive with other seaports throughout the United States. At the state level, Florida is in the top five states for total waterborne tonnage and containers handled. This is due to its large consuming population and the presence of a well established and competitive system of seaports.

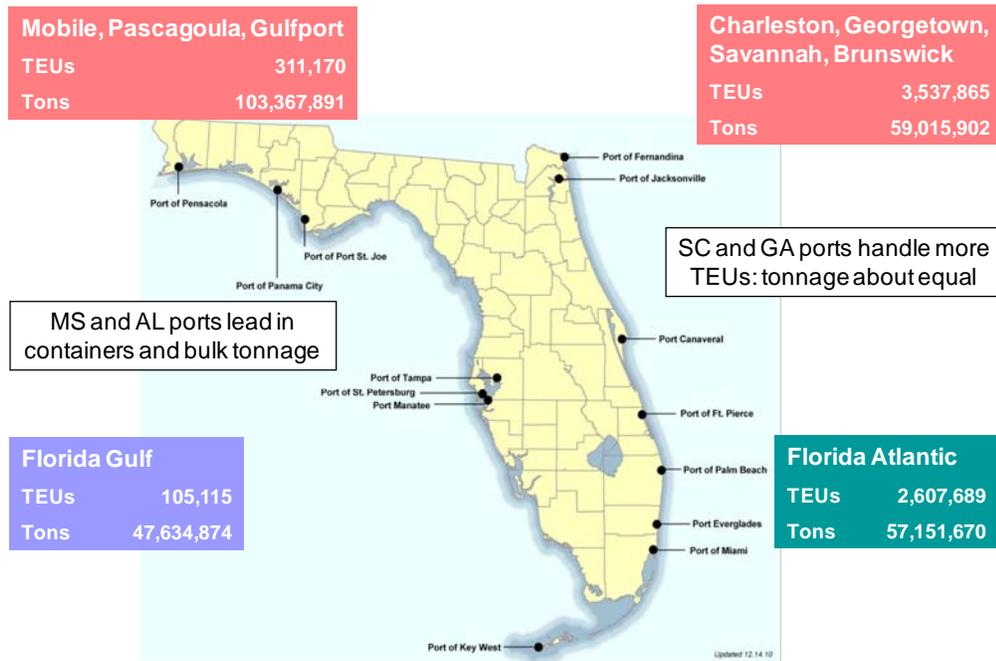
As a State, Florida competes with other coastal trading states in the South Atlantic and Gulf, from Virginia to Texas. However, many vessels call at multiple ports within these ranges – Houston and Tampa, or Hampton Roads and Miami, for example. Florida’s ports compete most directly with ports between South Carolina and Alabama, a range within which most vessels will make only a single call. Florida’s Atlantic and Gulf ports dominate the cruise market.



Figure 3.8 compares Florida port throughput with “direct competitor” port cargo throughput. Florida’s Atlantic coast ports are competitive with respect to overall tonnage; and competitive but lagging with respect to containers. The Port of Savannah alone handles nearly as many containers as Florida’s ports combined.

Florida’s Gulf coast ports handle around one-half the tonnage and one-third the TEUs of their competitors. The tonnage numbers are skewed by the fact that competitors include several huge coal and petroleum centers; and the TEU numbers should not be a concern because the absolute numbers are fairly small and this is a rapidly growing market for all Gulf ports.

Figure 3.8 Florida Port Throughput (FY 2008/2009) versus Direct Competitors (CY 08 Tonnage, CY 09 TEUs)
TEUS and Tonnage



Sources: U.S. Army Corps of Engineers (tons) and American Association of Port Authorities (TEUs).

A Five-Year Plan to Achieve the Mission of Florida’s Seaports, 2009/2010-2013/2014.

Looking at competitiveness by trade lane on the basis of value (see Figure 3.9), Florida's Atlantic ports capture high market shares of Caribbean and South American trade, but lower market shares of European and Asian trade. Florida's Gulf ports have strong market shares of trade with key countries such as India, Chile, and China, but are weaker with respect to trade with Mexico and Venezuela, which are major trade partners for fuels moving through non-Florida ports.

Figure 3.9 Florida Port Throughput (FY 2007/2008) versus Competing Regions (CY 07)
International Trading Partners

ATLANTIC PARTNERS -- VALUE (\$) -- TOP 15 = 61%			
	Total Atlantic	FL Share	Competitor Share
Federal Republic of Germany	\$ 27,144,529,113	19%	81%
China	\$ 22,920,481,873	16%	84%
Japan	\$ 13,234,636,807	48%	52%
United Kingdom	\$ 7,746,846,245	16%	84%
Brazil	\$ 7,235,711,545	49%	51%
Venezuela	\$ 6,005,859,278	79%	21%
France	\$ 5,389,872,506	22%	78%
Italy	\$ 4,761,335,633	24%	76%
Netherlands	\$ 4,478,053,243	37%	63%
Dominican Republic	\$ 4,142,347,848	96%	4%
Honduras	\$ 4,105,417,654	90%	10%
Korea, South	\$ 4,087,730,899	9%	91%
India	\$ 4,010,113,895	1%	99%
Australia	\$ 3,600,180,571	4%	96%
Belgium	\$ 3,425,802,739	10%	90%

GULF PARTNERS -- VALUE (\$) -- TOP 15 = 73%			
	Total Gulf	FL Share	Competitor Share
Mexico	\$ 8,092,545,881	19%	81%
India	\$ 2,333,167,560	91%	9%
Chile	\$ 2,278,466,074	86%	14%
Colombia	\$ 2,030,618,014	11%	89%
Algeria	\$ 2,006,814,578	10%	90%
Russia	\$ 1,588,974,883	17%	83%
Honduras	\$ 1,364,385,791	3%	97%
Korea, South	\$ 1,299,693,880	6%	94%
Venezuela	\$ 1,185,711,409	5%	95%
Trinidad and Tobago	\$ 1,150,591,442	42%	58%
Brazil	\$ 1,125,867,157	36%	64%
Angola	\$ 903,846,559	0%	100%
China	\$ 822,128,074	48%	52%
Nigeria	\$ 793,486,276	1%	99%
Japan	\$ 743,195,798	55%	45%

Florida's Atlantic ports are strongest with Latin and South American partners, less so with Europe and Asia

Florida's Gulf ports are stronger (by percentage share) with India and Asia, weak with Mexico

Source: <http://usatradeonline.gov/>.



For import commodity value (see Figure 3.10), Florida has strong market shares of import vehicles, fuels, and apparel in the Atlantic, and very high shares of copper and chemicals imports in the Gulf. It is weaker with respect to imports of high-value machinery, pharmaceuticals, and furniture in the Atlantic, and imports of fuels, iron and steel, apparel, vehicles, and machinery in the Gulf.

Figure 3.10 Florida Port Throughput (FY 2007/2008) versus Competing Regions (CY 07)
Import Commodity Value

ATLANTIC IMPORTS -- VALUE (\$) -- TOP 10 = 66%	Total Atlantic	FL Share	Competitor Share
87 Vehicles, Except Railway Or Tramway, And Parts Etc	\$ 20,432,171,707	40%	60%
84 Nuclear Reactors, Boilers, Machinery Etc.; Parts	\$ 15,836,036,131	12%	88%
27 Mineral Fuel, Oil Etc.; Bitumin Subst; Mineral Wax	\$ 10,777,652,329	59%	41%
61 Apparel Articles And Accessories, Knit Or Crochet	\$ 6,451,218,379	56%	44%
85 Electric Machinery Etc; Sound Equip; Tv Equip; Pts	\$ 5,805,221,199	26%	74%
30 Pharmaceutical Products	\$ 4,467,339,528	3%	97%
94 Furniture; Bedding Etc; Lamps Nesoi Etc; Prefab Bd	\$ 3,932,914,449	16%	84%
62 Apparel Articles And Accessories, Not Knit Etc.	\$ 3,382,493,118	39%	61%
40 Rubber And Articles Thereof	\$ 3,130,202,253	8%	92%
39 Plastics And Articles Thereof	\$ 2,564,070,668	18%	82%

GULF IMPORTS -- VALUE (\$) -- TOP 10 = 89%	Total Gulf	FL Share	Competitor Share
27 Mineral Fuel, Oil Etc.; Bitumin Subst; Mineral Wax	\$ 14,885,172,299.00	4%	96%
74 Copper And Articles Thereof	\$ 2,213,404,319.00	99%	1%
28 Inorg Chem; Prec & Rare-earth Met & Radioact Compd	\$ 1,128,404,067.00	78%	22%
72 Iron And Steel	\$ 1,062,396,788.00	9%	91%
61 Apparel Articles And Accessories, Knit Or Crochet	\$ 980,301,062.00	20%	80%
87 Vehicles, Except Railway Or Tramway, And Parts Etc	\$ 731,725,319.00	19%	81%
62 Apparel Articles And Accessories, Not Knit Etc.	\$ 689,016,475.00	38%	62%
76 Aluminum And Articles Thereof	\$ 544,106,168.00	2%	98%
84 Nuclear Reactors, Boilers, Machinery Etc.; Parts	\$ 483,112,331.00	18%	82%
85 Electric Machinery Etc; Sound Equip; Tv Equip; Pts	\$ 409,103,486.00	65%	35%

In the Atlantic, Florida has a strong share of vehicles, fuels, and apparel; in the Gulf, Florida is strongest in copper and chemicals - for imports.

Source: <http://usatradeonline.gov/>.

In terms of export commodity value (see Figure 3.11), Florida’s Atlantic ports have very high market shares of manufactured goods export trade, and its Gulf ports have a dominant share of fertilizer export trade in the Gulf. Florida is weaker with respect to export of wood products and chemicals in the Atlantic, and with respect to export of wood products, chemicals, and fuels in the Gulf.

**Figure 3.11 Florida Port Throughput (FY 2007/2008) versus Competing Regions (CY 07)
Export Commodity Value**

ATLANTIC EXPORTS -- VALUE (\$) -- TOP 10 = 68%			
	Total Atlantic	FL Share	Competitor Share
87 Vehicles, Except Railway Or Tramway, And Parts Etc	\$ 20,319,064,298	52%	48%
84 Nuclear Reactors, Boilers, Machinery Etc.; Parts	\$ 14,403,058,592	52%	48%
85 Electric Machinery Etc; Sound Equip; Tv Equip; Pts	\$ 4,922,040,327	63%	37%
39 Plastics And Articles Thereof	\$ 4,465,916,713	24%	76%
47 Wood Pulp Etc; Recovd (waste & Scrap) ppr & pprbd	\$ 2,488,103,863	4%	96%
48 Paper & Paperboard & Articles (inc Papr Pulp Artl)	\$ 2,332,944,009	19%	81%
29 Organic Chemicals	\$ 1,984,259,224	14%	86%
38 Miscellaneous Chemical Products	\$ 1,839,722,179	18%	82%
52 Cotton, Including Yarn And Woven Fabric Thereof	\$ 1,745,994,535	47%	53%
90 Optic, Photo Etc, Medic Or Surgical Instrmnts Etc	\$ 1,660,603,060	60%	40%

GULF EXPORTS -- VALUE (\$) -- TOP 10 = 81%			
	Total Gulf	FL Share	Competitor Share
31 Fertilizers	\$ 4,155,947,240	93%	7%
27 Mineral Fuel, Oil Etc.; Bitumin Subst; Mineral Wax	\$ 1,770,113,409	1%	99%
02 Meat And Edible Meat Offal	\$ 861,914,593	3%	97%
47 Wood Pulp Etc; Recovd (waste & Scrap) ppr & pprbd	\$ 659,075,033	8%	92%
48 Paper & Paperboard & Articles (inc Papr Pulp Artl)	\$ 617,315,951	20%	80%
72 Iron And Steel	\$ 537,397,129	41%	59%
84 Nuclear Reactors, Boilers, Machinery Etc.; Parts	\$ 424,644,631	32%	68%
44 Wood And Articles Of Wood; Wood Charcoal	\$ 302,100,434	5%	95%
52 Cotton, Including Yarn And Woven Fabric Thereof	\$ 283,772,112	16%	84%
29 Organic Chemicals	\$ 261,247,473	0%	100%

In the Atlantic, Florida has a strong share of high value manufactured goods; in the Gulf, Florida’s share is mostly in fertilizers – for exports.

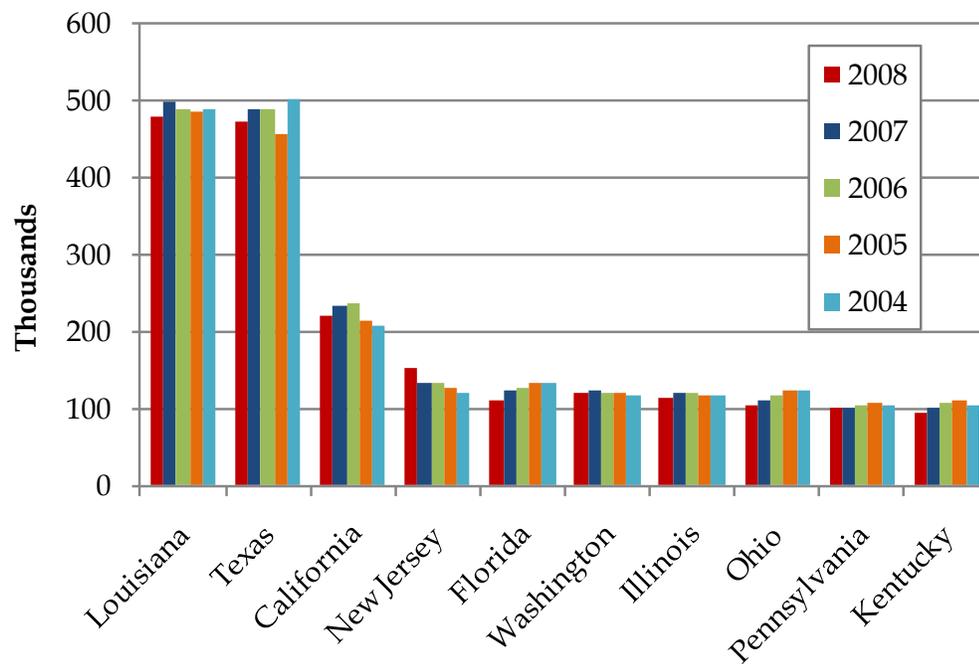
Source: <http://usatradeonline.gov/>.



3.5 Trend Analysis – Florida and its Competitors

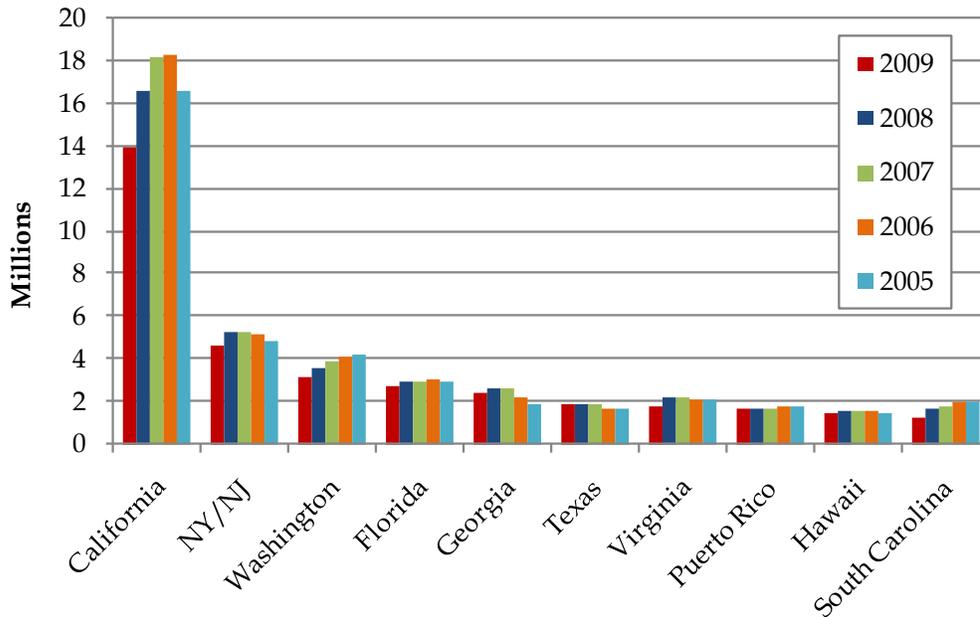
Between 2004 and 2008/2009, most states saw relatively little growth in waterborne tonnage, and some even saw substantial losses, due to the effects of the recession. Florida has maintained its fifth place rank in total tons handled by its seaports with over 110 million tons in 2008. This tonnage represents almost five percent of the national total in 2008 (see Figure 3.12). Between 2005 and 2009, Florida has maintained its fourth place rank in total TEUs handled by its seaports, with over 2.7 million TEUs in 2009. This represents over seven percent of the national market in 2009 (see Figure 3.13).

Figure 3.12 Total Tonnage by State for 2004-2008



Source: U.S. Army Corps of Engineers.

Figure 3.13 Total Containers by State for 2005-2009



Source: American Association of Port Authorities.

Florida’s competitive position is in large part due to its continued growth in seaport capacity and rapid growth in population. Over the last 20 years, Florida’s ports have experienced strong growth in containerized cargo (See Table 3.2). Among South Atlantic and Gulf states, Florida ranked first in TEUs in 1990 and 2009; Florida ranked second only to Georgia in TEUs added during the period 1990-2009.

Annual growth percentages have been faster in Georgia and Texas due to significant development of new terminal facilities, access to growing “hinterland” markets, accommodation of large port-related manufacturing and warehouse/distribution centers, and growing Asia-direct maritime trade. Georgia, as an example, has made significant investments in its seaports. Savannah aggressively expanded container facilities during the past decade and supported extensive distribution center development. The Georgia Ports Authority attracted 19 distribution centers totaling 15 million square feet. The Georgia Port Authority Tax Bonus is available to industries locating or expanding in the state and using Georgia’s ports. The Port of Savannah is studying the deepening of the Savannah River to 48 feet.² Mississippi and Alabama also experienced higher growth rates, but only represent about three percent of the market share combined in the South Atlantic and Gulf states.

² Florida Trade and Logistics Study, December 2010, prepared for the Florida Chamber Foundation by Cambridge Systematics, Inc. and Martin Associates.



**Table 3.2 Total Containers among South Atlantic and Gulf States
1990-2009**

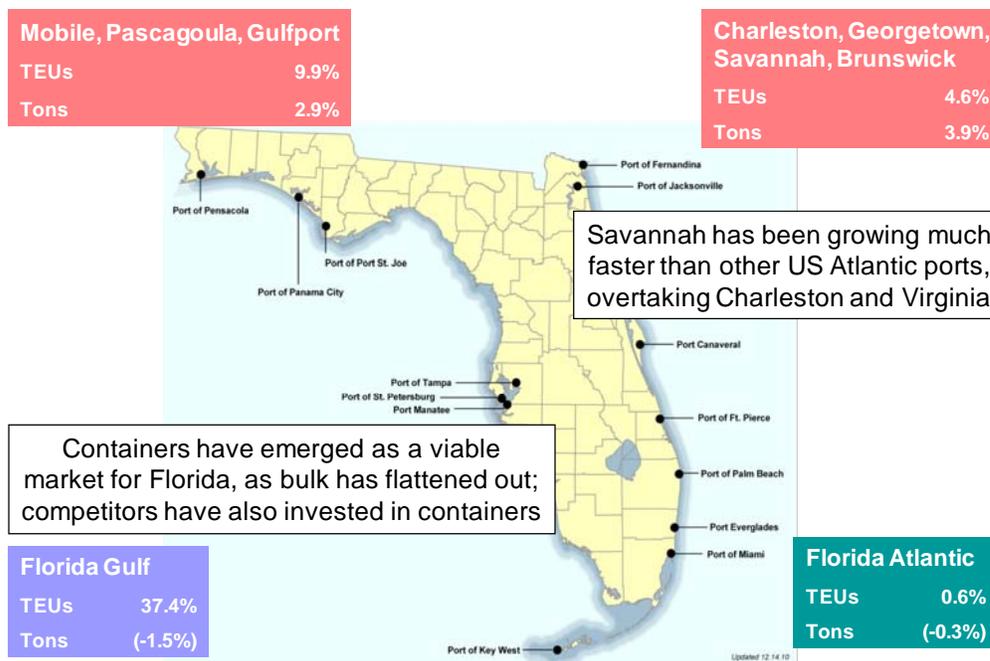
State	1990		2009		TEUs Added	CAGR ^a	Change in Market Share
	TEUs	Share	TEUs	Share			
Florida	956,120	24.7%	2,708,765	25.6%	1,752,645	5.34%	0.9%
Georgia	419,079	10.8%	2,356,512	22.2%	1,937,433	9.02%	11.4%
Texas	553,202	14.3%	1,813,572	17.1%	1,260,370	6.12%	2.8%
Virginia	825,132	21.3%	1,769,608	16.7%	944,476	3.89%	-4.6%
South Carolina	801,105	20.7%	1,181,353	11.1%	380,248	1.96%	-9.5%
Louisiana	157,037	4.0%	232,634	2.2%	75,597	1.98%	-1.9%
North Carolina	92,720	2.4%	225,176	2.1%	132,456	4.54%	-0.3%
Mississippi	55,929	1.4%	198,900	1.9%	142,971	6.55%	0.4%
Alabama	18,401	0.5%	112,270	1.1%	93,869	9.46%	0.6%

^a Compound Annual Growth Rate (CAGR).

Source: American Association of Port Authorities.

While the growth story has been very positive over the past 20 years, the past 7 years have seen relatively little change in Florida's Atlantic coast TEUs and tonnage, due in large part to the effects of the recession. Growth rates for Atlantic coast competitors were higher, mostly on the strength of growth at Savannah prior to the recession. In the Gulf, Florida's TEU growth has been very rapid, even with the recession, due to the introduction of new facilities and services, but its traditional strength in bulk tonnage has declined (See Figure 3.14).

Figure 3.14 Florida Port Annual Growth versus Direct Competitors
 From CY 1997 to FY 2008/2009 for Florida,
 from CY 1997 to CY 2007 for Others



Sources: U.S. Army Corps of Engineers (tons) and American Association of Port Authorities (TEUs).

A Five-Year Plan to Achieve the Mission of Florida's Seaports, 2009/2010-2013/2014.

What happens next? Do Florida's ports resume their 20-year growth trajectory, or do they remain for the most part in a slow growth pattern? What infrastructure or policy variables will influence the extent and nature of growth? Will Florida's ports be more or less competitive in the future, and why? These key issues are discussed in Section 4.0.



4.0 Future Performance of Florida's Seaport System

4.1 Expectations From Each of Florida's Ports

Each of Florida's ports has a particular set of market-driven and condition-driven expectations and targets for growth and performance. This information is documented in the Seaport Mission Plan, in individual port master plans and studies, and in Florida Department of Transportation (FDOT) studies. FDOT previously worked with Florida's seaports to develop a comprehensive inventory and assessment of current conditions and anticipated future performance at Florida's seaports.¹ The current conditions information is summarized below for the ports that responded to the survey; in some instances, this includes updates provided by the seaports. Throughput and anticipated growth data from the most current Seaport Mission Plan is also summarized below.²

Port Canaveral

- **Throughput.** 2.6 million tons; 799 twenty-foot equivalent units (TEU); and 3.3 million passengers.
- **Anticipated Growth.** For Fiscal Year 2013/2014, Port Canaveral anticipates handling 9.0 million tons, 5,000 TEUs, and 3.7 million passengers.
- **Strengths to Build On.** Port Canaveral is Florida's leading cruise port by volume and has a diversified cargo mix. It reports good connections to its key markets, and a limited number of critical constraints.
- **Constraints.** Channel dimensions; turning basin dimensions; non-container berths; non-container truck access and queuing; and connectivity with container warehouse/distribution clusters.
- **Moving Forward.** Port Canaveral reports a variety of planned improvements which will produce mostly acceptable conditions. These include channel, berth, and dredging projects (partially funded, under study

¹ Florida's Seaports: Conditions, Competitiveness, and Statewide Policies, Cambridge Systematics, Inc., 2006.

² Florida Ports Council, "A Five-Year Plan to Achieve the Mission of Florida's Seaports: 2009/2010-2013-2014," March 2010; supplemental data provided by individual seaports.



by the U.S. Army Corps of Engineers); on-terminal improvements (some under construction, some partially funded, some unfunded); and access road and parking improvements.

Port Everglades

- **Throughput.** 21.2 million tons; 796,159 TEUs; and 3.1 million passengers.
- **Anticipated Growth.** For Fiscal Year 2013/2014, Port Everglades anticipates handling 28.3 million tons, 1.2 million TEUs, and 4.3 million passengers.
- **Strengths to Build On.** Port Everglades is one of the largest container ports in the South Atlantic and the second largest in Florida. It is Florida's third largest bulk port, and is particularly important in supplying Florida's east coast with petroleum and-related products. It also is Florida's third largest cruise port by volume. Port Everglades reports good access to its key markets, good compatibility with adjoining land uses, and great near-dock rail potential – all of which are important strengths.
- **Current Constraints.** Under current conditions, significant constraints are fairly limited, relating only to passenger access and parking and the ability to fund needed improvements.
- **Moving Forward.** Future conditions will create additional pressures, related to air draft requirements of next generation container vessels, additional terminal structure and storage needs, increased landside access congestion, and increased regional growth (making it more difficult to reach critical markets). Planned improvements (pending authorization and funding of the U.S. Army Corps of Engineers dredging program) will significantly upgrade channel, turning basin, and berth depths, resulting in acceptable conditions. Port Everglades is moving forward with the Southport Turning Notch expansion project which will significantly increase cargo berthing capacity by adding a minimum of four additional berths. The development of a near-dock intermodal container transfer facility at Southport and the proposed long-term development of a passenger people mover between the port and nearby Fort Lauderdale-Hollywood International Airport would improve highway and rail access conditions. The remaining unaddressed constraints appear to be: 1) availability of funding for needed improvements; and 2) impacts of overall metropolitan and regional growth on port access and market connectivity.

Port of Fernandina

- **Throughput.** 0.507 million tons; and 24,582 TEUs.
- **Anticipated Growth.** For Fiscal Year 2013/2014, Port of Fernandina anticipates handling 1.1 million tons, and 60,000 TEUs.

- **Strengths to Build On.** Port of Fernandina has excellent on terminal rail capable of receiving double-stack intermodal rail cars; it also connects the two adjoining paper mills. The rail access allows the port to draw forest products from Georgia, South Carolina, Virginia, and Alabama. Port of Fernandina offers good waterside conditions with a short-entrance channel. The port has a diversified customer base and is capable of handling containers and various break-bulk cargoes. Its geographical location is conducive for distribution to the Northeast region of Florida and Southeast Georgia.
- **Constraints.** Port of Fernandina reports its most significant limitation as being its ability to expand its limited terminal area; local truck impacts also are an issue and the Port anticipates improvements will be needed. Overall, its limited developable area, combined with its limited channel depth and distance from the nearest interstate, will serve as practical limitations on container traffic growth, but these constraints are less applicable to break bulk cargo and regional container shipping lines serving the Caribbean and South America.
- **Moving Forward.** Port of Fernandina can be expected to continue its role as an important regional niche or reliever port within Northeast Florida. The development of an additional off-port container depot and distribution facility will be critical to its future growth.

Port of Jacksonville

- **Throughput.** 23.4 million tons; 754,352 TEUs; and 185,434 passengers.
- **Anticipated Growth.** For Fiscal Year 2013/2014, the Port of Jacksonville anticipates handling 33.3 million tons, 1.3 million TEUs, and 350,000 passengers.
- **Strengths to Build On.** The Port of Jacksonville is one of the largest container ports in the South Atlantic and the third largest in Florida, just behind Port Everglades. It is also the leading automobile-handling port in the South Atlantic and Gulf regions. The Port of Jacksonville is Florida's second largest bulk handling port. It currently reports relatively good conditions for each of its facilities in the areas of waterside capacity and performance, terminals, landside access, and market connections.
- **Constraints.** Current constraints are relatively limited. For Blount Island, the most critical factors are financing of future navigation improvements, inter-terminal cargo processing ("turn time"), and availability of land for expansion. For Dames Point, the most critical issues are air draft for passenger vessels, near-dock rail for container operations, and land availability for future expansion. For Talleyrand, the most critical issues are truck access and queuing and land availability for future expansion.



- Moving Forward.** In anticipation of very strong future growth, the Port of Jacksonville identifies a number of emerging concerns and conditions that could become critical unless they are adequately addressed. At all three facilities, the likelihood of larger cargo and passenger vessels will generate the need for marine improvements and related berth and crane improvements. Gate congestion, truck and rail access needs, and local congestion and impacts could become more significant. Land availability and the financing of needed improvements will continue to be important issues. Completion of the 158-acre TraPac Container Terminal and development of the 90-acre Hanjin Container Terminal (to be completed by 2014) represent significant on-port investments by the Port of Jacksonville and its private partners. These terminals will rely on improvements to waterside and landside connectors. The Port is working through the established U.S. Army Corps of Engineers process to become approved to deepen to 50 feet; the port continues to work with FDOT and the region's railroads to improve roadway and rail connectors.

Port Manatee

- Throughput.** 8.3 million tons; and 14,507 TEUs.
- Anticipated Growth.** For Fiscal Year 2013/2014, Port Manatee anticipates handling 19.7 million tons, and 58,028 TEUs.
- Strengths to Build On.** Port Manatee is a growing port serving important niche markets. It reports good capabilities across the board, in terms of waterside performance, terminal capacity and performance, landside access, and market connectivity, with a limited number of critical constraints. It offers good access to the Tampa and Orlando metropolitan areas, with the potential to expand its handling of containerized traffic serving these markets.
- Constraints.** Terminal facilities for container handling (cranes and yard equipment, open storage, and structures) and ability to finance needed improvements were identified as current constraints.
- Moving Forward.** Port Manatee anticipates that the ability to finance needed improvements will remain an issue, and with anticipated improvements to container operations, land availability for container and non-container cargo will be an emerging constraint. Anticipated improvements will also address a number of concerns, including berth depths, navigational restrictions, terminal facilities, truck, and rail access.

Port of Miami

- **Throughput.** 6.8 million tons; 807,069 TEUs; and 4.1 million passengers.
- **Anticipated Growth.** For Fiscal Year 2013/2014, the Port of Miami anticipates handling 16 million tons, 1.9 million TEUs, and 4.3 million passengers.
- **Strengths to Build On.** The Port of Miami is Florida's leading container port and one of the largest in the South Atlantic and also is Florida's largest multiday cruise port. It is positioned near the center of South Florida's consumer market and represents a vital transportation and economic asset. Particular strengths include: navigation access for vessels – it is the only Florida port authorized by Congress to dredge to 50' – design and permitting currently are underway; it is restoring rail service with a near-dock rail yard and with a connection to an intermodal distribution center; and will have direct access from the Port to the interstate highway system through a new tunnel connector.
- **Constraints.** Currently the Port of Miami identifies the following constraints: overall ability to finance needed improvements, difficulty in acquiring adjacent property to expand acreage, current water depth, highway access, and rail limitations.
- **Moving Forward.** The Port of Miami has a significant program of investments in on-port infrastructure, water side improvements, intermodal access, and SIS projects. It expects that its navigation access, market reach, and competitiveness will dramatically increase; landside access will be addressed through the completion of the Port of Miami Tunnel and the Intermodal and Rail Service Reconnection projects; expanding cargo capacity will be addressed through completion of the 50' dredge. All projects are planned for completion by 2014, the time of the completion of the Panama Canal expansion. The Port's Master Plan, currently being updated, addresses additional passenger terminals and berthing capacity.

Port of Palm Beach

- **Throughput.** 2.3 million tons; 209,928 TEUs; and 349,800 passengers.
- **Anticipated Growth.** For Fiscal Year 2013/2014, the Port of Palm Beach anticipates handling 2.6 million tons, 236,276 TEUs, and 590,000 passengers.
- **Strengths to Build On.** The Port of Palm Beach is a unique asset. It is the most efficient container terminal in the United States, on a TEU per acre basis. Most U.S. ports handle 3,000 to 5,000 TEUs per acre per year, but Tropical Shipping moves over 14,000 TEUs per acre per year – a world-class figure, far more typical of Asian than U.S. ports. It is similarly efficient with respect to non-containerized cargo, handling a diverse mix of



commodities despite limited berthing, limited land, and navigation constraints. It offers good on-dock and near-dock rail connectivity, and is well-connected to its key markets.

- **Constraints.** Like the Port of Miami, the Port of Palm Beach reports constraints that largely reflect its past success. These include: channel, berth, navigation and marine environmental constraints; terminal berthing and storage; limited land availability and landfill potential; compatibility with adjoining land uses (both existing and planned); connectivity to warehouse/distribution clusters; automobile access and parking; and ability to finance needed improvements.
- **Moving Forward.** The Port of Palm Beach's last Master Plan Update included a variety of planned projects. Implementation of these projects will address many existing constraints. Remaining concerns include: marine environmental issues; sufficiency of berths and passenger-serving structures; truck and rail turn times; landfill potential and land availability; compatibility with adjoining uses; auto access and parking; local congestion and potential impacts; and ability to fund improvements.

Port of Panama City

- **Throughput.** 1.3 million tons; and 41,820 TEUs.
- **Anticipated Growth.** For Fiscal Year 2013/2014, the Port of Panama City anticipates handling 2.3 million tons, and 100,000 TEUs.
- **Strengths to Build On.** The Port of Panama City is a diversified facility that handles important bulk and break-bulk commodities, and serves a fast-growing geographic region of Florida that is not easily reached from other ports. It offers good waterside conditions and accessibility to local markets and generally good terminal operating conditions.
- **Constraints.** Some of the Port of Panama City's near-term constraints are related to growth in its core commodities, while others are due to the new influx of container traffic. Panama City reports constrained conditions with respect to open storage, landfill potential and land availability, compatibility with adjoining land uses, truck access, near-dock rail, local congestion and impacts, and overall ability to finance needed improvements.
- **Moving Forward.** The Port of Panama City does not anticipate needing significant waterside improvements, but sees the possible emergence of pressures from increased activity. Planned terminal improvements will address a number of constraints, but berthing for passenger vessels, open storage for non-container cargo, and lack of land and landfill potential will remain as issues. Local congestion resulting from port growth and rapid growth in the surrounding community will remain as an issue, as will overall ability to fund needed improvements.

Port of Pensacola

- **Throughput.** 0.248 million tons.
- **Anticipated Growth.** For Fiscal Year 2013/2014, the Port of Pensacola anticipates handling 0.316 million tons.
- **Strengths to Build On.** The Port of Pensacola is a modest-sized facility primarily handling a diverse mix of non-containerized cargos. It serves a geographic region of Florida that is not easily reached from other Florida ports, although the region is relatively close to the Port of Mobile. It reports acceptable to good performance in almost all respects.
- **Constraints.** The key constraints reported are channel dimensions, turning basin dimensions, berth depths, and ability to fund needed improvements.
- **Moving Forward.** The Port of Pensacola anticipates deepening to 36', but this is not yet funded.

Port of Port St. Joe

- **Throughput.** No cargo or passenger activity.
- **Anticipated Growth.** For Fiscal Year 2013/2014, Port St. Joe anticipates handling 2.3 million tons.
- **Strengths to Build On.** Port of Port St. Joe identifies the lack of marine environmental constraints, labor sufficiency, and lack of local congestion as strengths.
- **Constraints.** Significant constraints reported include: channel dimensions, turning basin dimensions, and berth depths; terminal capacity and performance; and auto, truck, and rail access.
- **Moving Forward.** Development of throughput capability at Port of Port St. Joe will require a series of improvements, including channel deepening, a new turning basin, new berths, new terminal construction, and new access improvements.

Port of Tampa

- **Throughput.** 37.8 million tons; 48,788 TEUs; and 802,937 passengers.
- **Anticipated Growth.** For Fiscal Year 2013/2014, the Port of Tampa anticipates handling 42.1 million tons, 125,000 TEUs, and 1.0 million passengers.
- **Strengths to Build On.** The Port of Tampa is Florida's largest bulk port, handling a variety of import and export commodities, including petroleum



and petrochemicals, phosphate and fertilizer, cement and aggregate, and other material vital to Florida's economy. It is strategically positioned in one of Florida's fastest-growing regions and offers excellent access to the Tampa and Orlando metropolitan areas, with the capability to significantly expand its handling of containerized traffic serving these markets. Most of its conditions factors are acceptable. Areas of particular strength include turning basins, berths, lack of conflict with other vessels, terminal equipment and facilities, rail service, and overall access to markets.

- **Constraints.** Under current conditions, significant constraints are fairly limited. Current constraints are limited to channel dimensions and the air draft of 178 feet due to the Sunshine Skyway Bridge (which is only a limitation for the largest cruise vessels).
- **Moving Forward.** Channel improvements and a variety of highway and rail improvements are planned for the Port of Tampa. The I-4 Connector project, which is well underway, will provide seamless access to and from the Interstate system for the Port. Implementation of these improvements should address current concerns and limit the emergence of future constraints. Land availability and financing of major capital improvements will continue to be important issues.

Port of St. Petersburg

- **Throughput.** No cargo or passenger throughput. The Port of St. Petersburg's focus is on the mega yacht business sector and the research vessel business sector.
- **Anticipated Growth.** The Port of St. Petersburg is expecting growth in both business sectors.
- **Strengths to Build On.** The Port of St. Petersburg has an established record in growing port revenues related with its two business sectors.
- **Constraints.** The Port of St. Petersburg is small and has a depth of 23 feet. Currently, port renovations/upgrades must be accomplished in small increments over several years due to limited availability of capital funds.
- **Moving Forward.** The Port of St. Petersburg will continue to seek grant funds to assist with capital improvements and will continue to seek mega yacht business and research vessel business.

For the seaports not included above, the following summarizes their current traffic and anticipated growth.

Port of Fort Pierce

- **Throughput.** 0.358 million tons; and 14,800 TEUs.
- **Anticipated Growth.** For Fiscal Year 2013/2014, the Port of Fort Pierce anticipates handling 0.923 million tons, and 27,500 TEUs.

Port of Key West

- **Throughput.** 0.864 million passengers.
- **Anticipated Growth.** For Fiscal Year 2013/2014, the Port of Key West anticipates handling 0.775 million passengers.

Common Themes

Taking these findings as a whole, common themes can be identified:

- Collectively, Florida's ports have significant "strengths to build on," provided that key constraints are addressed. Most (although not all) ports report a common set of constraints: navigation channel/turning basin/berth improvements, terminal space, compatibility with adjoining land uses, truck/rail access, and connectivity with key inland markets. Assisting the ports in addressing these constraints, as a funding and implementation partner, has been and should continue to be an FDOT priority.
- Individually, some of Florida's ports are several years from facing significant conditions (congested or constrained), while others face these conditions today. In part this reflects differences in physical and operational factors, but for the most part it reflects differences in timing. Ports tend to grow in a step-wise fashion – they develop to meet an initial market need, then expand to serve market growth. The first phases of capacity expansion tend to be the least expensive and easiest to accomplish; the later phases tend to become increasingly more expensive and/or difficult, but the benefits of achieving them tend to be greater because there is more throughput at stake.
- Different ports are at different stages in this life cycle, and FDOT must consider the needs of well developed ports (to manage immediate and near-term pressures) as well as the needs of lesser developed ports (to support healthy expansion), in the context of a larger statewide strategy.
- Many of Florida's ports have reached or are approaching the end of the life span of core infrastructure elements (e.g., bulkheads, berths, wharfs, slips). These structural deficiencies represent significant challenges to seaports; they are expensive to reconstruct and a failure results in an inability to service vessels. The reconstruction of core infrastructure will need to be addressed.



4.2 Regional and Statewide Waterborne Activity Forecasts

As part of the development of the Plan, activity data for all ports in Florida were reviewed to determine a reasonable long-range state-level forecast for Florida's seaports, consistent with Florida's forecast information for other modes.

In developing a state-level forecast, the key challenge is that each port prepares its own individual forecasts, according to its own methods and using its own timelines. The only forecast that is developed in common by the ports is the six-year projection in the Seaport Mission Plan. Therefore, the forecasting methodology required several steps and sources:

- For the first six years, the Seaport Mission Plan projections through 2012/2013 were used.³
- For subsequent years, each port's individual Master Plan and/or traffic forecast was utilized. Each port was contacted for this information and had the opportunity to review how the information was applied in developing the forecast.
- For any years through 2035 where information was not provided directly by the ports, historic and forecast growth rates were translated into trendline projections and applied through all forecast years. In cases where trendline projections were negative, or exceeded statewide averages for the last seven years, the projections were limited to this range.
- Because the Seaport Mission Plan projections and many of the port's Master Plans and individual forecasts were developed prior to the recession, they do not reflect the current economic downturn, in which national and statewide freight movement volumes have regressed somewhat. Adjustments for the recession were therefore applied.
- The Seaport Mission Plan projections and the ports' Master Plans and individual forecasts reflect generally foreseeable opportunities, such as the expansion of the Panama Canal and growth in Asia all-water container trade. No adjustments were required for these effects.
- Finally, each port was contacted to review the final forecast product.

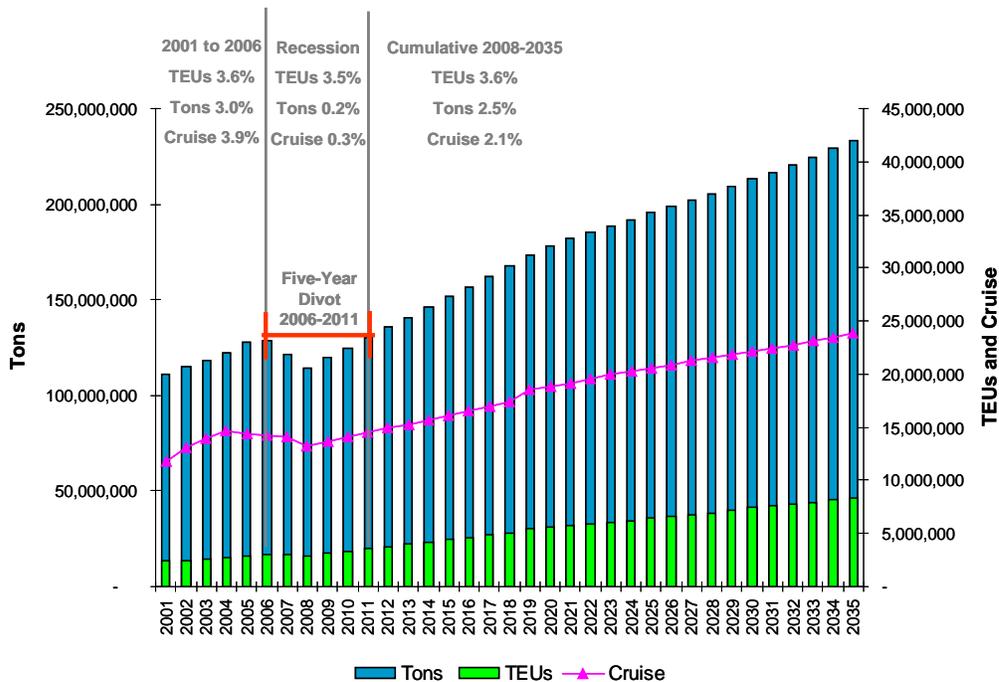
The regional and statewide projections were developed for use as a planning tool, similar to other statewide modal system forecasts. Generally, ports plan on a 5 to 10 year horizon. The waterborne industry is very dynamic and

³ Forecasts are now available for FY 13/14 for each seaport; however, the existing forecasts were reviewed by Cambridge Systematics and found to be accurate given the methodology used and validation with the Florida Trade and Logistics Study.

because so much can change in a period of 30 years, these forecasts are used as order of magnitude estimates of what the future could look like over the next 25 years. Understanding potential cargo and passenger volumes is a critical factor driving major investment decisions, like dredging to 50-feet or constructing major Interstate connections.

Forecasts show container growth continues at a historic rate with tonnage and cruise growth resuming after the recession at slightly lower rates. Figure 4.1 details ‘recession adjusted’ projections for Florida’s ports. Based on available data and port input, these projections appear reasonable. The cumulative growth rate for 2008-2035 is shown at 3.6 percent for containers, 2.5 percent for tonnage, and 2.1 percent for cruise passengers.

Figure 4.1 “Recession Adjusted” Florida Port Projections



Source: Cambridge Systematics analysis of U.S. Army Corps of Engineers, American Association of Port Authorities, and port data.

Note: Cruise passenger statistics consist of embarking and debarking passengers.

Table 4.1 following provides a detailed breakdown of the 2035 forecasts by cargo type and region. The State as a whole is expected to reach as many as 8.3 million containers by 2035, a near tripling of containers handled in 2008. It is anticipated the South Atlantic region (mainly Port Everglades and Port of Miami) will continue to lead the State in number of containers with over 4.4 million TEUs by 2035. This is almost one and a half times more than the State total in 2007/2008. The North Atlantic region (mainly Port of Jacksonville) is forecasted to be a little over half of the South Atlantic region with nearly 2.4 million TEUs. Growth in



the North Atlantic region will be driven by significant investments by two major Asian shipping lines at the Port of Jacksonville; with their plans to invest over a \$500 million in private sector funds, significant growth is anticipated. All Atlantic coast ports combined will reach over 6.8 million TEUs. The Port of Tampa (Central Gulf region) also is anticipated to grow its container trade significantly from its current small operation.

The amount of tonnage is also expected to increase. A forecast of more than 233 million tons by 2035 represents a little over twice the amount shipped through Florida’s ports in 2008. The Central Gulf region (mainly Port of Tampa) leads the way with almost half of the tonnage moved at over 100 million in 2035. The Atlantic region ports (North and South) are forecasted to carry an almost even amount but together reach over 124 million tons.

As the world’s leading cruise region, it is no surprise an increase in cruise passengers is expected. The South Atlantic region (mainly Port of Miami and Port Everglades) is expected to attract over 16 million passengers in 2035 – more than all seven cruise ports served in 2008. The North Atlantic region (primarily Port Canaveral) is anticipated to handle over 5 million passengers in 2035. All cruise ports combined are expected to reach over 23 million passengers by the same year.

Table 4.1 2035 Forecasts by Region and Commodity Type

	South Atlantic	North Atlantic	Central Gulf	Panhandle
Containers (TEUs)	4,468,462	2,390,979	1,378,236	112,000
General Cargo (Tons)	30,566,609	23,100,935	8,399,942	707,979
Dry Bulk (Tons)	9,175,417	11,430,719	23,586,499	5,026,989
Liquid Bulk (Tons)	24,086,115	22,339,666	22,304,003	106,189
Neo/Break (Tons)	931,904	3,106,129	5,547,473	946,651
Other (Tons)	0	9,644	42,104,177	0
Total Tons	64,760,045	59,987,094	101,942,092	6,787,808
Day Cruise Pax	2,983,265	1,647,822	0	0
Multiday Cruise Pax	13,828,872	4,107,858	1,249,102	0

Finally, it is important to note that the forecasts above are independent of both constraints and opportunities. They are free of constraints, in that they assume that ports, channels, and landside transportation systems would provide the capacity needed to accommodate these levels of activity. They are free from consideration of opportunities, in that they represent what might happen if Florida’s ports continue on their historic and planned trajectories – but not what might happen if Florida acts more aggressively to grow its traffic and improve its competitive market position for waterborne freight and passengers.

How Florida and its ports deal with constraints and opportunities is, of course, a critical policy question. To better address this question, the Florida Chamber Foundation, FDOT, the Florida Ports Council (FPC), and other stakeholders partnered in a comprehensive Trade and Logistics Study of all transportation modes serving Florida. As part of that study, a set of detailed international cargo forecasts was developed.

The Trade and Logistics Study base case forecast actually envisions slightly lower growth rates than the recession-adjusted projections from Figure 4.1 – 2.5 percent annual growth through 2035 for containers (versus 3.6 percent in the projection), and 1.9 percent for total tonnage (versus 2.5 percent in the projection). One reason for the difference is that the Trade and Logistics Study does not include domestic tonnage. The other reason is that the study base case forecast assumes no significant improvements to Florida’s capacity that would lead it to increase its share of key international trades, particularly all-water Asian trades. The projections in Figure 4.1 are derived from port forecasts, and to the extent that the port forecasts have made those assumptions, it reflects those assumptions.

Table 4.2 Trade and Logistics Study International Forecasts
Base Case

Direction	Handling Type	Tons			CAGR ^a
		2010	2020	2035	
Import	Container	5,120,602	6,947,917	9,727,340	
	All Types	27,885,264	32,615,065	36,985,262	
Export	Container	11,013,881	13,362,281	19,216,355	
	All Types	17,438,450	22,873,627	34,303,975	
Total	Container	16,134,483	20,310,198	28,943,695	2.5 percent
	All Types	45,323,714	55,488,692	71,289,237	1.9 percent

^a Source: Trade and Logistics Study, Florida Chamber Foundation, 2010.

Compound Annual Growth Rate (CAGR)

The Trade and Logistics Study base case forecast is therefore an excellent benchmark for a “do nothing” scenario for international waterborne trade, in which Florida maintains its seaport system but does not invest aggressively to improve its competitiveness with respect to other ports.

The study also looked at two other scenarios – one in which Florida invested at a level necessary to capture 25 percent of potential additional Asian container imports, and one where it invests to capture 50 percent. The result would be near-term attraction of significant blocks of new demand, with stepwise “jumps” in Florida TEUs over the next ten years, followed by resumption of stable year-over-year compound growth. In the base case, import containers grow at 3.1 percent over the next ten years; in the “25 percent capture” scenario, they grow at 7.4 percent over the next ten years; and in the “50



percent capture” scenario, they grow at 10.5 percent over the next ten years. Export containers are not impacted, and continue to grow but at a slower rate than import containers.

Interestingly, under the “25 percent capture” scenario, the total container growth rate (imports plus exports) is 3.7 percent through 2020, which is nearly identical to the 3.6 percent container growth rate from the recession-adjusted Florida port projections. This suggests that the projections, which again were derived from the ports, already included an assumption that some additional Asian trade would be captured. This makes sense, as recent and planned improvements at Port Everglades, Port of Jacksonville, Port of Miami, Port of Tampa, and other ports are explicitly targeting this cargo opportunity.

There are many other scenarios to consider. On the upside, Florida might be successful in achieving a “50 percent capture” rather than a “25 percent capture” of import Asian containers. It might be successful in growing its export container trade, with existing trading partners and/or possibly with new trading partners such as Cuba. It might be successful in developing domestic “Marine Highway” container trade routes. These are important possibilities to consider, but on balance, the recession-adjusted Florida port projection is seen as representing a reasonable “most likely” scenario for planning purposes.

4.3 Critical Issues, Opportunities, and Challenges

Looking forward, it is generally agreed that Florida’s ports face a series of critical issues, opportunities, and challenges. Critical issues are summarized in Table 4.3 below.

Over the next few years there will be significant developments in the state, national, and international environments that will create opportunities and challenges for Florida’s seaports. At the state level, the transportation system’s needs and priorities should be reevaluated as the economic recovery begins and implementation of the 2060 Florida Transportation Plan (FTP) gets underway. Reduced volumes have created excess capacity and given seaports the opportunity to regroup and strategize on medium to long-term investment needs. At the national level, the next Federal transportation bill is anticipated to have a more robust freight program – that is, the potential for a freight funding element to support state freight programs. Florida needs to position itself to be eligible for this potential new program.

From an operations and competitiveness perspective, security remains a critical challenge for Florida’s seaports. Within Florida Statute 311.12, the Florida Seaport Security Assessment 2000 and the resulting Port Security Standards—Compliance Plan established a set of requirements for Florida’s 14 deepwater seaports. These requirements in general exceeded those imposed by other states. In 2002, (following September 11, 2001), the Federal government imposed similar requirements on all seaports in the U.S. through passage of the

Maritime Transportation Security Act (MTSA). With both of these requirements in place, some level of redundancy exists, such as the requirement for criminal background checks and security audits – which continue to place Florida seaports at a competitive disadvantage with other states and countries.⁴

At the international level, there are several developments that will impact Florida's ports.

- **Panama Canal expansion.** The expansion of the Panama Canal, with completion anticipated in 2014, will open new doors for trading with Asia with increased use of the “all water route.” Florida ports are competing with Gulf and Atlantic seaports in other states for this increase in traffic. Deep water, terminal capacity, and landside intermodal connectivity are critical.
- **Opening of trade with Cuba.** The much anticipated opening of trade with Cuba will create significant trade opportunities for Florida that no other state has due to Florida's close proximity and cultural ties to this country.
- **Increased use of Suez Canal.** The Suez Canal provides another gateway for waterborne trade to reach Florida. The Suez does not have any size restrictions on for existing or planned mega vessels. The use of this canal will continue to expand as global trade patterns shift.
- **Shifts in global manufacturing centers.** Global trade is driven by the location of manufacturing centers. These centers shift over time based on cost, resources, efficiencies, and labor. Shifts will impact the competitiveness of Pacific versus Atlantic trade routes which will create new competitive opportunities for U.S. ports.
- **Growth in North/South trade.** Florida is dominant in North/South trade with the Caribbean, Central, and South America. Over the next decade, this market, particularly that of South America, is anticipated to grow significantly, offering continued opportunities for growth at Florida ports.

⁴ TranSystems Florida Seaport Security Assessment 2010, Contract No. 1-DS-20-14-00-22-087, February 2010, prepared for Florida Office of Drug Control.



Table 4.3 Critical Issues and Choices Facing Florida’s Seaports

Issue	Choices
Markets	<p>How to accommodate existing markets – domestic/international, container/non-container.</p> <p>How to attract new markets – China, transshipment, short-sea, cargo diversification, better integration with warehouse/distribution (the “Savannah Strategy”) through freight villages, etc.</p> <p>How to compete effectively with other South Atlantic and Gulf ports.</p>
Capacity	<p>How to provide physical expansion where needed.</p> <p>How to improve efficiency and productivity through technology and operations.</p>
Environment	<p>How to mitigate marine and landside impacts.</p> <p>How to implement needed improvements in timely manner.</p>
Land-Use	<p>How to protect seaports from non-port developments on adjacent properties.</p> <p>How to obtain or preserve land for terminals and port-related industries.</p>
Access	<p>How to provide needed improvements to channels, turning basins, berths.</p> <p>How to provide needed improvements to highways and railroads.</p>
Security	<p>How to eliminate or minimize redundancy and overlap of Florida and Federal seaport security requirements.</p> <p>How to reduce costs of equipment and day-to-day operations.</p> <p>How to improve customs inspection procedures and reduce impacts.</p>
Risk-and-Change	<p>How to provide adequate and flexible capacity to deal with service disruptions.</p> <p>How to provide adequate and flexible funding for “quick response” to challenges, opportunities.</p>
Internal Competition	<p>How to collaborate effectively with other Florida ports and further the economic goals of the State as a whole.</p>
Funding	<p>How to ensure adequate, flexible funding for on-port and off-port infrastructure requirements.</p>
Public Understanding	<p>How to educate local and state leaders and the public about the importance of Florida’s seaports and engage them in preservation and expansion activities.</p>

In conjunction with these opportunities come risks. As Florida prepares for the changes in trade patterns, they will have to assume a certain amount of risk. In order to secure future business relationships, a port has to provide evidence it has the capacity, facilities and pricing to attract and adequately service the business. In some cases, this may mean deepening their shipping channels or updating their waterside infrastructure. In addition, as Florida ports discuss the right strategy, ports in other states are working on their own strategy that will provide serious competition to the amount of trade Florida ports can secure for the State. Some of the key factors are summarized in Table 4.4 following.

Table 4.4 Global Trends Impacting Florida’s Seaports

Trend	Issue	Opportunity	Challenge
Global Economy	• Rapid growth of China as producer and consumer.	X	
	• China’s disruption of established trade and manufacturing patterns.		X
	• Continued growth of Florida’s traditional trading partners.	X	X
Global Logistics	• Continued globalization of production and consumption.	X	
	• Shippers spreading cargo to three coasts (Pacific, Atlantic, Gulf) to minimize risk of service disruption – containerized and non-containerized cargo – more China-direct service.	X	
	• More global transshipment of containers.	X	X
	• Short-sea opportunities for Atlantic and Gulf markets.	X	
	• More cargo controlled by fewer shippers and carriers who integrate with land-intensive warehouse/distribution systems.		X
Technology	• Better equipment, information systems, and utilization of land and labor have made terminals more efficient.	X	
	• Containerships getting larger; deeper channels at some ports.		X
Policy	• Trade agreements (CAFTA, NAFTA, et al.).	X	X
	• Security requirements (cost and delay).		X

The Seaport System Plan Working Group discussed a variety of options and strategies to directly respond to these issues, opportunities, and challenges. These options and strategies are taken up in Section 6.0 of this Plan.



5.0 Seaport System Needs, Strategies, and Funding

5.1 Overview

Florida's seaports are responsible for the identification of short- and long-term facility improvement needs. These needs typically are identified annually as part of five-year capital improvement plans (CIPs) and as part of longer term, comprehensive master plan updates. As part of the development of this Plan, current CIPs and master plans have been reviewed and summarized to document a comprehensive list of on-port seaport needs. This section provides a summary of the needs by year, by port, and by type of improvement. While the majority of needs are short term, most of Florida's major seaports engage in longer-range planning as part of master plan development and in some cases development of long-term visions. This longer-term planning horizon is a key component of the State's seaport system plan, particularly as it relates to land preservation, growth management, diversification of the economy, and continued growth in population.

In addition to on-port terminal needs, on and off-port roadway and rail connector projects also have been identified. These projects typically are identified collaboratively by the Florida Department of Transportation (FDOT) and seaport staff. On- and off-port projects that receive state funding are included in the FDOT's work program. Summaries of these projects are provided below. Finally, there are several possible funding sources for seaport and seaport-related projects. A description of these sources also is provided below.

5.2 Summary of On-Port Seaport Needs

Needs were taken from a variety of resources, including the most current CIPs available. Existing on-port capital improvement needs presented in this section reflect the current five-year period (FY 2009/2010 through FY 2013/2014). The capital improvement needs were obtained from existing documents, including existing Master Plans, CIPs, Funded Projects Transportation Lists, Cost Estimates of Port Development Worksheets, Capital Budget Worksheets, and phone interviews. A list of needs for each seaport is provided in Appendix C. All seaports were contacted to confirm the most updated information was included.

While the statewide-compiled seaport capital improvement plan is generally accepted as the best publicly available data source for seaport needs by the Florida Ports Council (FPC), it should be noted there are some limitations in how this



information should be used and interpreted. The ports have different methodologies for reporting their short-term capital needs. The information used as part of the Plan represents a good faith effort to ascertain the most current data available. The needs should be reviewed and updated annually to maintain as accurate a list as possible. SeaCIP 4.0¹ will become an active data management tool to ensure up-to-date project information is available.

Summary of Five-Year Cumulative On-Port Needs

Florida's seaports update their CIPs regularly to identify and assess future improvements necessary to meet potential market demands. Despite the current economic conditions, the five-year CIPs for Florida's seaports have increased. The projected five-year program for fiscal years 2009-2010 through 2013-2014 is over \$2.73 billion. Table 5.1 presents the seaports' cumulative five-year CIP for fiscal years 2009/2010 through 2013/2014. The four largest ports (Everglades, Jacksonville, Miami, and Tampa) represent over 81 percent of the total capital improvement program. The Port of Jacksonville stands out from its peers given the large amount of identified capital needs in fiscal year 2013/2014.

Table 5.1 Statewide Capital Improvement Program
FY 09/10 – 13/14

Seaports	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	Total CIP
Canaveral	\$65,766,000	\$40,788,000	\$69,075,000	\$31,618,000	\$25,474,000	\$232,721,000
Everglades	\$35,737,000	\$54,590,000	\$36,586,000	\$97,146,000	\$113,634,000	\$337,693,000
Fernandina	\$1,000,000	\$1,805,000	\$4,700,000	\$5,910,000	\$3,360,000	\$16,775,000
Fort Pierce	\$3,699,251	\$3,500,000	\$0	\$0	\$0	\$7,199,251
Jacksonville	\$66,818,869	\$146,896,958	\$193,514,275	\$18,709,275	\$492,000,000	\$917,939,377
Key West	\$0	\$0	\$2,600,000	\$1,600,000	\$0	\$4,200,000
Manatee	\$32,150,000	\$18,650,000	\$28,400,000	\$26,400,000	\$18,400,000	\$124,000,000
Miami	\$42,599,000	\$158,143,000	\$86,068,000	\$151,950,000	\$143,775,000	\$582,535,000
Palm Beach	\$1,150,000	\$4,484,000	\$6,500,000	\$4,700,000	\$19,641,000	\$36,475,000
Panama City	\$6,375,000	\$12,425,000	\$4,850,000	\$4,300,000	\$6,200,000	\$34,150,000
Pensacola	\$1,305,000	\$3,115,000	\$3,075,000	\$6,400,000	\$0	\$13,895,000
Port St. Joe	\$1,322,000	\$1,482,000	\$11,280,000	\$27,960,000	\$0	\$42,044,000
St. Petersburg	\$0	\$1,664,600	\$1,015,000	\$1,015,000	\$0	\$3,694,600
Tampa	\$76,535,000	\$76,911,670	\$69,995,000	\$77,240,000	\$77,170,000	\$377,851,670
Total	\$334,457,120	\$524,455,228	\$517,658,275	\$454,948,275	\$899,654,000	\$2,731,172,898

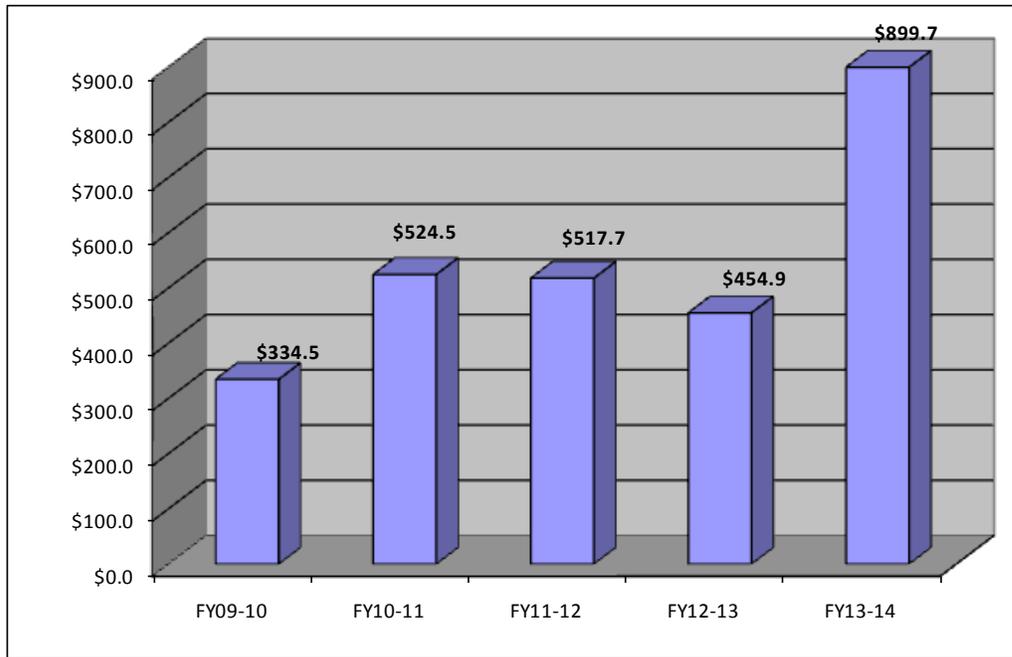
Source: Seaport-specific CIPs were collected and reviewed; seaports provided updates as of October 2010.

Figure 5.1 illustrates the on-port seaport capital improvement program by year. Over 12 percent of the capital improvement program is allocated for fiscal year 2009/2010. Nineteen percent is allocated for fiscal years 2010/2011 and

¹ SeaCIP 4.0 is the next generation of the application management program for Florida Seaport Transportation and Economic Development Council (FSTED) projects. This version has been expanded to capture all state funded seaport projects and operate a needs database in addition to the application management function.

2011/2012. This slightly decreases in FY 2012/13 to around 17 percent and rises rapidly in 2013/2014 to almost 33 percent. Typically, a five-year program has the largest allocation of needs in the first year, reflecting top priorities, which is not shown here. Most of the larger ports deferred their needs to later years.

Figure 5.1 Five-Year Cumulative Seaport CIP by Year
 FY 09/10 – FY 13/14



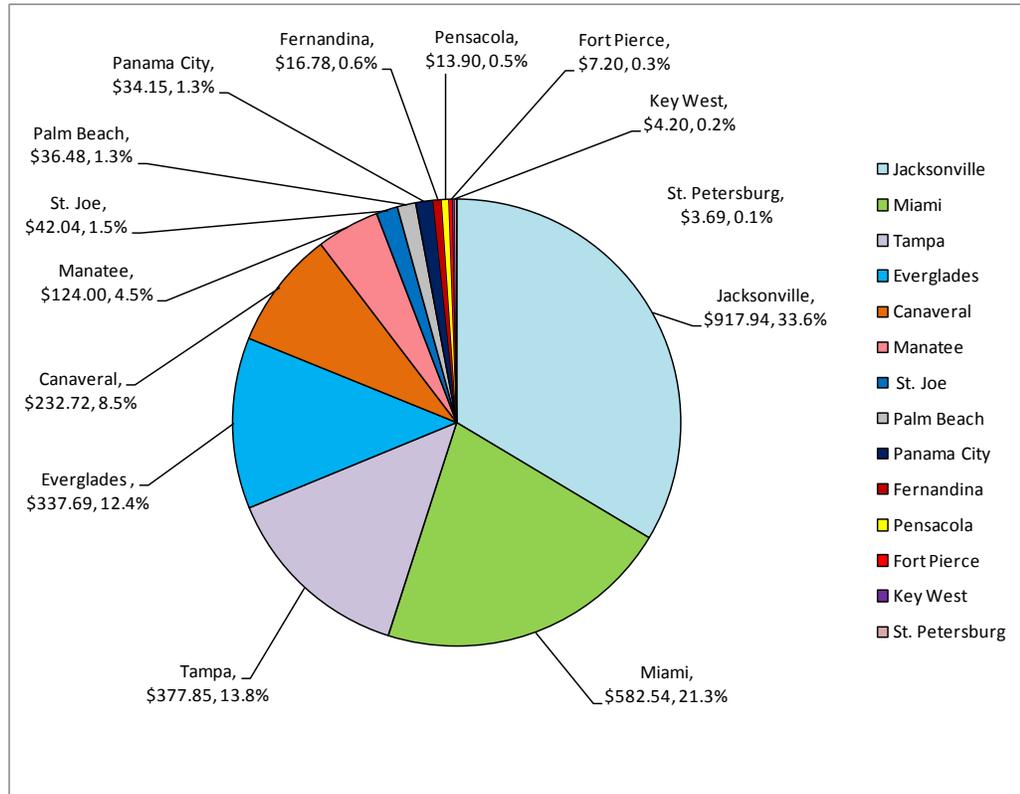
Source: Seaport-specific CIPs were collected and reviewed; seaports provided updates as of October 2010.

Figure 5.2 illustrates the cumulative on-port needs by port. Almost 34 percent of the total capital improvement program represents needs at the Port of Jacksonville. Figure 5.2 also visually demonstrates the significant differences among the larger seaports (Everglades, Jacksonville, Miami, and Tampa), medium sized ports (Canaveral, Manatee, and Palm Beach²), and the smaller seaports (Fernandina, Fort Pierce, Key West, Pensacola, Panama City, Port St. Joe, and St. Petersburg). The largest seaports have larger needs to meet and maintain the growing demands of the container industry, major bulk, and break bulk operations, cruise operations – including dredging, terminal, and land side connections.

² Although the Port of Palm Beach’s current CIP is small compared to its current output in tonnage and twenty-foot equivalent units (TEUs), the Port remains one of Florida’s key medium-sized niche ports.



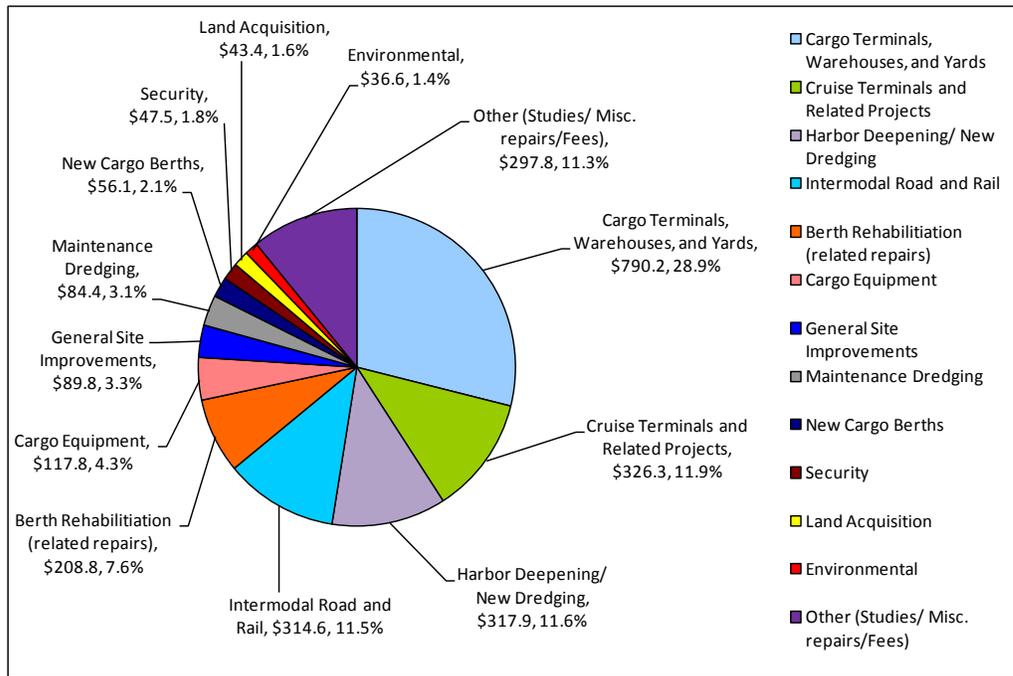
Figure 5.2 Five-Year Cumulative Seaport CIP by Port
 FY 09/10 – FY 13/14



Source: Seaport-specific CIPs were collected and reviewed; seaports provided updates as of October 2010.

Figure 5.3 illustrates the cumulative seaport needs by project category. The top four project categories (cargo terminals, warehouse, and yards; cruise terminal and related projects; harbor dredging/new dredging; and intermodal road and rail) represent over 64 percent of the total projects for the capital improvement program. The project categories related to cargo operations (cargo terminals, warehouses and yards; cargo equipment; and cargo berths) represent over 35 percent of the total capital improvement program. Projects related to cruise operations only represent 11.9 percent of the total capital improvement program, even though Florida has three of the top cruise ports in the world (Canaveral, Everglades, and Miami) and one of the busiest ports-of-call in the nation (Key West).

Figure 5.3 Five-Year Collective Seaport CIP by Category (in millions)



Source: Seaport-specific CIPs were collected and reviewed; seaports provided updates as of October 2010.

Long-Term Seaport Needs

In addition to the immediate five-year needs documented in the CIPs, several seaports have identified longer-term project needs to support their visions and goals. These are coordinated with local government comprehensive plans through the master plan development process. As part of the Plan development, Florida’s seaports were asked to identify long-term needs. Six seaports have documented future needs for inclusion in this Plan. Table 5.2 illustrates the 5-year, 10-year, 20-year, and beyond 20-year needs for Port Everglades. Table 5.3 details Port of Jacksonville’s projected needs to 2040. Table 5.4 highlights Port of Miami’s SIS Unfunded Needs Plan. Similarly, Table 5.5 illustrates the long-term needs identified by the Port of Palm Beach given available funding. Table 5.6 outlines Port Canaveral’s project needs to 2035. Table 5.7 presents Port of Tampa’s project needs through 2040. These needs represent a mix of projects that illustrate significant planned investments over the next several decades to help position individual ports for new and expanding markets.



Table 5.2 Port Everglades 5-Year, 10-Year, 20-Year, and Long-Term Needs Beyond 20 Years³

Project Name		Estimated Cost
5-Year Vision Plan: Years 2011-2015		
Northport	Slip 1 New Bulkheads and Reconfiguration- Phase 1	\$55,000,000
	By-Pass Road- Phase 1	\$2,000,000
	By-Pass Road- Phase 2	\$32,000,000
	Cruise Terminal #2 Improvements	\$4,200,000
	Cruise Terminal #4 Improvements	\$13,000,000
	New Petroleum Tank Farm	\$75,000,000
	Slip 2 Westward Lengthening	\$23,000,000
Midport	Cruise Terminal #19 Improvements	\$11,430,000
	Cruise Terminal #19 Improvements	\$5,050,000
	Cruise Terminal #19 Improvements	\$13,320,000
	CT #18 Parking Garage	\$32,000,000
	Tracor Basin Finger Pier Replace with Catwalk + Dolphin	\$5,200,000
Southport	McIntosh Road Improvements	\$11,200,000
	Upland Enhancement	\$11,000,000
	Westlake Mitigation	\$12,600,000
	Super Post Panamax Crane (1)	\$12,000,000
	Turning Notch Expansion- Contract 1	\$67,080,000
	ICTF – Rail and Yard	\$42,000,000
Portwide	ACOE Deepening and Widening- Design	\$4,000,000
Total		\$431,080,000
10-Year Vision Plan: Years 2016-2019		
Northport	Berth 1, 2, 3 bulkheads	\$31,000,000
	CT#4 Parking Garage	\$32,000,000
Midport	Berth 16, 17, 18 bulkheads	\$32,000,000
	Multimodal Facility- Phase 1	\$35,000,000
Southport	Turning Notch Expansion- Contract 2	\$28,810,000
	Crushed Rock Facility	\$55,000,000
	FTZ and CBP Relocation	\$44,410,000
	Super Post Panamax Cranes (2)	\$24,000,000
	Container Yard Improvements	\$30,000,000
Portwide	ACOE Dredging/Widening	\$255,000,000
Total		\$567,220,000

³ This table represents proposed projects that will be part of the 2009 Port Everglades Master/Vision Plan Update which is ongoing at this time.

Table 5.2 Port Everglades 5-Year, 10-Year, 20-Year, and Long-Term Needs Beyond 20 Years⁴ (continued)

Project Name		Estimated Cost
20-Year Vision Plan: Years 2020-2029		
Northport	Slip 2 New Bulkheads and Widening	\$71,000,000
	Slip 1 New Bulkheads and Reconfiguration- Phase 2	\$48,000,000
	Slip 3 New Bulkheads and Widening	\$85,000,000
Midport	Berth 19, 20 Bulkheads	\$25,000,000
	Berth 21, 22 Bulkheads	\$29,000,000
	Berth 23 Bulkhead	\$8,000,000
	Berth 24, 25 Bulkheads	\$27,000,000
	Multimodal Facility- Phase 2	\$100,000,000
	Container Yard Improvements	\$30,000,000
Southport	Super Post Panamax Cranes (2)	\$24,000,000
	Demolish RORO Berths and Lengthen Berth 33	\$22,000,000
Total		\$461,000,000
Outside 20-Year Timeframe		
Automated People Mover/Intermodal Center (APM/IMC)		\$1,377,000,000
Total		\$1,377,000,000

Source: Port Everglades, October 2010.

⁴ This table represents proposed projects that will be part of the 2009 Port Everglades Master/Vision Plan Update which is ongoing at this time.



Table 5.3 Port of Jacksonville Projected Needs to 2040

PROJECT	2020	2025	2030	2035	2040	TOTAL
Development of Permanent Cruise Terminal	\$0	\$10,000,000	\$0	\$0	\$0	\$10,000,000
Harbor Deepening, Maintenance and Improvements	\$150,000,000	\$50,000,000	\$25,000,000	\$25,000,000	\$25,000,000	\$275,000,000
Acquisition of Land to Support Marine Growth	\$10,000,000	\$50,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$90,000,000
Mayport Ferry Project	\$10,000,000	\$5,000,000	\$5,000,000	\$10,000,000	\$5,000,000	\$35,000,000
Blount Island – Improvements/Expansion	\$150,000,000	\$150,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$330,000,000
Talleyrand – Improvements/Expansion	\$25,000,000	\$35,000,000	\$50,000,000	\$5,000,000	\$5,000,000	\$120,000,000
Berth Rebuilds BIMT	\$40,000,000	\$5,000,000	\$20,000,000	\$20,000,000	\$20,000,000	\$105,000,000
Asphalt Repairs BIMT	\$20,000,000	\$50,000,000	\$10,000,000	\$7,000,000	\$20,000,000	\$107,000,000
Berth Rebuilds TMT	\$20,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$60,000,000
Asphalt Repair TMT	\$0	\$10,000,000	\$0	\$5,000,000	\$10,000,000	\$25,000,000
Intermodal Yard at Dames Point	\$20,000,000	\$0	\$0	\$0	\$0	20,000,000
Bartram Island Dredge Expansion	\$20,000,000	\$0	\$10,000,000	\$0	\$10,000,000	\$40,000,000
PCOB New	\$10,000,000	\$0	\$0	\$0	\$0	\$10,000,000
New Terminal Development	\$0	\$150,000,000	\$150,000,000	\$0	\$0	\$300,000,000
Total	\$475,000,000	\$525,000,000	\$300,000,000	\$102,000,000	\$125,000,000	\$1,527,000,000

Source: Port of Jacksonville, October 2010.

**Table 5.4 Port of Miami SIS Unfunded Needs Plan
FY 2009-10 through 2035**

Projects	Estimated Cost
Unfunded Projects from FY 2009-10- 2014/15	
Cruise Bollards and Fence Hardening	\$253,000
Command and Control Phases 4 and 5	\$4,900,000
Repair of Railroad Bascule Bridge	\$3,900,000
Cargo Yard Freight Accessibility Yard	\$4,500,000
Dolphin Mooring Extension	\$1,900,000
Cargo Gate New Canopies	\$601,000
Cruise Terminal D Canopies	\$755,000
Cruise Terminal C Parking Lot	\$23,100,000
Command and Control Center Remodeling	\$5,250,000
Cruise Terminal A	\$80,000,000
Terminal A Parking	\$23,100,000
Yard Stacker and Dockside Cranes	\$22,500,000
Emergency Generators	\$642,000
Photoelectric Cells	\$2,500,000
Cargo Gate New Canopies	\$601,000
Cruise Terminal D Canopies	\$755,000
Cold Iron Project	\$10,500,000
Berth 56 Expansion	\$9,200,000
Cargo- CIPS Facility	\$1,020,000
Energy Farm	\$14,000,000
Off-Port Cruise Terminal Improvement/Maritime Park	\$90,000,000
Space Plan for Administrative Offices	\$2,700,000
Total	\$302,677,000
Unfunded Projects from FY 2010-11- 2015/16	
Repair of Vehicular Bascule Bridge	\$7,600,000
Wharf 7 Extension	\$7,500,000
Expanded Water Service Capacity	\$5,000,000
Cruise Terminal J Remodeling	\$6,200,000
Dredge Disposal Site	\$5,000,000
Crane Maintenance Facility	\$1,000,000
Dodge Island Sewer Improvements	\$2,000,000
Expand Parking Capacity in Garage 6	\$3,605,000
Electric Generating Turbines	\$15,000,000
Railroad Track to Serve POMTOC and AP Moeller-Maersk	\$12,000,000
Southwest Corner Infill	\$97,200,000
Intermodal Container Transfer Facility	\$42,930,000
Dante B. Fascell Port of Miami-Dade Maritime Center	\$15,000,000
Enhanced Security	\$15,000,000
Airline Ticketing Facility	\$4,000,000
Cruise Ferry Complex	\$15,000,000
Shoreside Electrical Power	\$10,500,000
Passenger Terminal Mobile Walkways	\$10,200,000
Total	\$274,735,000



**Table 5.4 Port of Miami SIS Unfunded Needs Plan
FY 2009-10 through 2035, continued**

From	To	Horizon	Improvement Type	Estimated Cost
Unfunded Projects through 2035				
Port of Miami	Downtown Miami	Short-Term	Pedestrian Bridge/Repair to Vehicular Bascule Bridge	\$7,566,795
Cruise Boulevard	Cruise Boulevard	Short-Term	Redevelopment of Cruise Boulevard	\$2,500,000
Wharves	Wharves	Mid-Term	Additional Post-Panamax Gantry Cranes	\$44,000,000
Cruise Terminals	Cruise Terminals	Mid-Term	Cruise Terminal 7	\$52,000,000
Wharves	Wharves	Mid-Term	Cruise Berth 6	\$11,600,000
Wharves	Wharves	Mid-Term	Cruise Berth 7	\$2,660,000
Cruise Terminals	Cruise Terminals	Mid-Term	Improvements to CT D&E	\$52,000,000
Cargo Gate	Cargo Yards	Mid-Term	New Cargo Road	\$5,400,000
Cargo Yards	Cargo Yards	Mid-Term	Cargo Yard Improvements	\$12,000,000
South West Corner	South West Corner	Long-term	Fill South West Corner (Transshipment Yard)	\$27,000,000
South West Corner	South West Corner	Long-term	New Berth SW Corner 1	\$15,100,000
South West Corner	South West Corner	Long-term	New Berth SW Corner 2	\$11,300,000
Cruise Terminals	Cruise Terminals	Long-term	Cruise Terminal 8	\$52,000,000
Wharves	Wharves	Long-term	Cruise Berth 8	\$27,800,000
Cargo Yards	Cargo Yards	Long-term	Yard Stacker Cranes	\$22,000,000
Wharves	Wharves	Long-term	Cargo Berth 5	\$18,000,000
Wharves	Wharves	Long-term	Cargo Berth 6	\$19,400,000
Wharves	Wharves	Long-term	Cargo Berth 7	\$19,800,000
Off-Port	Off-Port	Long-term	Off-Port ICTF (Intermodal Container Transfer Facility)	\$25,000,000
Cruise Boulevard	Cruise Boulevard	Long-term	Multimodal Terminal	\$1,000,000,000
Total				\$1,451,508,795

Source: Port of Miami, October 2010.

Table 5.5 Port of Palm Beach Long-Term Needs

Project Name	Future Needs
Reconstruction of Slip #3	\$1,300,000
Port of Palm Beach Railroad Switching Project	\$3,700,000
Total	\$5,000,000

Source: Port of Palm Beach, October 2010.

Table 5.6 Port Canaveral 2035 Needs Plan Projects

Facility	Project	Approximate Costs
Port Canaveral	Harbor expansion/deepening to support cargo development	\$30,000,000-40,000,000
Port Canaveral	Rail connection between existing heavy rail facilities on KSC/USAF to the Port	\$15,000,000-30,000,000
Port Canaveral	Multimodal Transport Center	\$10,000,000
Port Canaveral	Additional Passenger Terminals	\$40,000,000-60,000,000
Port Canaveral	Cargo Facilities/Terminals	\$60,000,000
Port Canaveral	Offshore mooring stations for bulk (liquid/gas/dry) cargo	\$30,000,000
Port Canaveral	Widening of SR 528 from Port to I-95	\$911,809,000 ^a
Total		\$1,096,809,000-1,141,809,000

^a FDOT estimate.

Source: Port Canaveral, October 2010.

Table 5.7 Tampa Port Authority Rail and Capital Project Needs Through 2040

Port Region	Project	Approximate Costs
Rail Projects through 2015		
Hookers Point	Ethanol Terminal/ Rail Yard Expansion with East-West Connecting Loop	\$15,000,000
Port Redwing	Construct existing track from the CSX mainline to Port Redwing terminals	\$3,600,000
Hookers Point	Rail switch upgrade to rails serving B202-B209 breakbulk and container terminals	\$6,000,000
Rail Projects through 2020		
Hookers Point	Rail extension to South Hookers Point	\$5,800,000
Hookers Point	Additional railcar storage capacity near scrap metal terminals	\$2,000,000
Hookers Point	Additional rail storage capacity near existing CF Industries terminal	\$2,000,000
Hookers Point	Additional railcar storage capacity near Cargill Plant	\$1,700,000
Pendola Point and Port Sutton	Rail access improvements	\$5,300,000
Hookers Point	Railroad crossing replacements/improvements to multiple locations on Hookers Point	\$1,100,000
Port Redwing/ U.S. 41	10,000 feet of Mainline Rail construction and 2,500 feet extension to existing siding with cross-over track to improve rail access and U.S. 41 traffic movement	\$8,100,000
Major Roadway and Rail Projects through 2020		
Major Roadway/Rail	Causeway Boulevard at CSX Railroad Tracks east of U.S. 41	\$22,000,000
Major Roadway/Rail	U.S. 41 at CSX Railroad Tracks south of Causeway Boulevard	\$18,000,000
Total		\$90,600,000
Capital Projects through 2040		
Big Bend	Dredging – Big Bend Channel and Turning Basin Widener	\$10,500,000
Channelside	Berth Repair and Reconstruction	\$43,100,000
Eastport	Dredging – Upper Eastbay Channel Extension- Deepening	\$4,000,000
Eastport	Marine and Upland Improvements and Terminal Development	\$224,300,000
Hookers Point	Dredging – Berths 222 and 230	\$2,200,000
Hookers Point	Dredging – Berths 214 and 215	\$5,600,000
Hookers Point	Berth Reconstruction/Improvements	\$47,000,000
Hookers Point	Traffic Improvements	\$7,000,000
Hookers Point	Container Yard Development	\$51,000,000
Hookers Point	Rail Improvements	\$7,100,000
Hookers Point	Ship Building and Repair Berth Improvements	\$19,000,000
Inner Harbor	Dredging – Inner Harbor Deep Draft Anchorage	\$4,200,000
Pendola Point	Marine and Upland Improvements and Terminal Development	\$300,500,000
Pendola Point	Rail Access Improvements	\$5,400,000
Port of Tampa	Existing Facilities Improvements	\$11,000,000
Port Redwing	Berth Reconstruction/Improvements	\$22,000,000
Port Sutton	Dredging – Port Sutton Channel	\$2,700,000
Port Sutton/ Pendola Point	Berth Repair and Reconstruction	\$2,100,000
Port Ybor	Berth Repair and Reconstruction	\$19,400,000
Portwide	Dredging – TPA Dredging for Harbor Deepening	\$7,300,000
Portwide	Dredging – Annual Berth Maintenance	\$105,000,000
Shipping Channel	Dredging – A and B Cuts Widener	\$10,600,000
Shipping Channel	Dredging – Annual Maintenance Dredging	\$120,000,000
Tampa Harbor	Dredging – Tampa Harbor Widening and Deepening	\$61,000,000
Total		\$1,092,000,000

Source: Port of Tampa, October 2010.



5.3 Current FDOT Work Program Related to Seaports

FDOT makes funding available for port and port-serving transportation improvements through a variety of programs. This funding falls short of the stated investment needs of Florida's ports. Therefore, it is essential that the Department be as efficient as possible with respect to its investments in Florida's seaports. The Department will base these decisions on: 1) consistent, transparent, and fairly-applied decision criteria; 2) the sound evaluation of benefits and costs, similar to the level of analysis it applies to its investments in other modes of transportation; and 3) achievement of adopted FDOT goals. The most recent update to the Department's goals is summarized in the 2060 Florida Transportation Plan (FTP). To this last point, it is recognized that FDOT does not build or operate ports, nor does it dictate their development or operation. However, by strategic and targeted application of its support, it may act to encourage port improvements and strategies that are most consistent with the Seaport Plan vision and Florida Transportation Plan goals.

The seaports are responsible for identifying and programming on-port improvements. However, they also rely on landside connectors, both rail and roadway, to provide access to their markets. FDOT, MPOs, and local agencies identify and program these off-port connector projects. These off-port projects/needs are in addition to the \$2.73 billion in capital improvement needs identified above. These projects are essential for efficient passenger and freight movements throughout the State's multimodal transportation network. These projects are generally coordinated through the FDOT Seaport Office and FDOT Districts along with various interagency partners, including local governments, MPOs, and the Florida Seaport Transportation and Economic Development Council (FSTED). The rail and highway connector projects benefiting seaports typically are summarized in FDOT's work program under rail and highway categories.

Table 5.8 presents the seaport-specific projects currently reflected in FDOT's work program by port. Over the next six years, FDOT anticipates spending over \$442 million on seaport projects; this reflects all existing state funding sources. Projects include on-port terminal improvements, on-port intermodal improvements, and to a lesser degree on-port connectors (water, rail, roadway).

In addition to these "seaport projects", FDOT also funds roadway and rail projects that promote access to/from Florida's seaports. Table 5.9 provides a summary of roadway connector projects by port. Over the next five years, FDOT anticipates spending over \$1.6 billion on roadway connector projects. These include mega projects like the Port of Miami Tunnel, as well as numerous improvements such as adding lanes to existing connectors.

Table 5.10 provides a port-level summary of needed investments in railroads that will specifically benefit seaports. This list exceeds \$448 million and is partially funded. These include connector, bridge, and terminal improvements.

The dollar values presented in Tables 5.8 through 5.10 cannot simply be summed to determine the State's overall investment in seaports. Closer scrutiny of the detailed project lists reveals that some key port projects have been duplicated across modal needs lists. While this may seem like a conflict, it in fact is actually an illustration of the recognition that seaports rely on other modes of transportation. In addition, some of these projects are not duplicates, but rather on- and off-port components that meet up at the port boundary. As such, the tables suggest a significant level of direct and indirect investment in our seaports over the next five years.



Table 5.8 Summary of Current FDOT Seaport Work Program for All Funding Types

Port	2011	2012	2013	2014	2015	2016	Total 6 Yrs
Port Manatee	\$6,210,660	\$4,631,965	\$2,076,703	\$3,539,286	\$0	\$0	\$23,714,229
Port of Fernandina	\$150,000	\$200,000	\$0	\$0	\$0	\$0	\$350,000
Port of Jacksonville	\$1,900,000	\$12,687,500	\$10,000,000	\$0	\$10,000,000	\$0	\$34,587,500
Port of Panama City	\$1,175,000	\$1,800,000	\$500,000	\$0	\$0	\$0	\$3,475,000
Port of Pensacola	\$75,000	\$1,500,000	\$0	\$0	\$0	\$0	\$1,575,000
Port of port St. Joe	\$0	\$0	\$0	\$0	\$5,382	\$0	\$5,382
Port Everglades	\$1,900,000	\$19,811,665	\$25,246,463	\$3,000,000	\$4,718,000	\$0	\$54,676,128
Port of Palm Beach	\$1,236,000	\$3,684,467	\$3,392,500	\$4,692,500	\$2,001,000	\$0	\$15,006,467
Port of Ft. Pierce	\$0	\$0	\$1,300,000	\$0	\$0	\$0	\$1,300,000
Port Canaveral	\$9,105,166	\$6,333,000	\$0	\$0	\$9,750,000	\$0	\$25,188,166
Port of Miami	\$3,293,685	\$3,639,217	\$2,287,419	\$18,165,637	\$0	\$0	\$27,385,958
Port of Tampa	\$6,235,223	\$17,891,069	\$2,048,466	\$1,896,175	\$11,895,941	\$1,318,598	\$41,285,472
Port of St. Pete	\$819,839	\$363,793	\$0	\$0	\$0	\$0	\$1,183,632
FSTED 311 Funding ^a	\$0	\$0	\$15,000,000	\$15,000,000	\$15,000,000	\$15,000,000	\$60,000,000
Data and Planning	\$630,050	\$678,197	\$299,999	\$300,000	\$300,000	\$300,000	\$2,508,246
Total Seaport and Intermodal Funding	\$32,730,623	\$73,220,873	\$62,151,550	\$46,593,598	\$60,400,933	\$17,143,603	\$292,241,180
Bond Debt Repayments	\$25,000,000	\$25,000,000	\$25,000,000	\$25,000,000	\$25,000,000	\$25,000,000	\$150,000,000
Grand Total of Seaport Investments	\$57,730,623	\$98,220,873	\$87,151,550	\$71,593,598	\$85,400,933	\$42,143,603	\$442,241,180

^a FSTED funding not yet allocated to specific ports for FY 13- FY 16.

Source: FDOT, December 2010.

Table 5.9 Summary of FDOT Work Program for Port Highway-Connector Projects

Port	2011	2012	2013	2014	2015	2016	Current Work Program Total
Port Canaveral	\$0	\$0	1,028,200	\$0	\$0	\$0	\$1,028,200
Port Everglades	\$61,204,527	\$0	\$0	\$0	\$0	\$0	\$61,204,527
Port of Fernandina	\$29,484,271	\$4,211,512	\$8,072,400	\$27,543,360	680,990	403,216	\$70,395,749
Port of Jacksonville	\$2,175,034	\$54,910,099	\$19,984,743	\$389,269	\$82,455,097	\$0	\$159,914,242
Port of Miami	\$190,842,652	\$125,056,180	\$46,982,284	\$377,164,004	\$42,006,995	43,244,792	\$825,296,907
Port Manatee	\$231,564	\$7,600,000	\$0	\$0	\$0	\$0	\$7,831,564
Port of Palm Beach	\$41,037,027	\$19,039,344	\$9,339,371	\$5,975,880	\$524,700	\$26,011,226	\$101,927,548
Port of Panama City	\$2,246,544	\$0	\$0	\$9,174,856	\$0	\$0	\$11,421,400
Port of Tampa	20,004,880	\$8,094,463	\$271,757,167	\$82,119,211	\$25,370,400	\$0	\$407,346,121
Total	347,226,499	\$218,911,598	\$357,164,165	\$502,366,580	\$151,038,182	\$69,659,234	\$1,646,366,258

Source: FDOT, December 2010.

Table 5.10 Summary of Identified Port Rail-Connector Project Needs

Airport or Seaport	Freight Rail				
	Capacity Upgrade	Grade Separation	New Line	Rehabilitation and Maintenance	Total
Port Canaveral	\$0	\$0	\$50,000,000	\$0	\$50,000,000
Port Everglades	\$60,500,000	\$87,000,000	\$0	\$0	\$147,500,000
Port of Jacksonville	\$20,000,000	\$0	\$0	\$0	\$20,000,000
Port of Miami		\$0	\$0	\$36,900,000	\$36,900,000
Port of Palm Beach	\$3,700,000	\$0	\$100,000,000	\$0	\$103,700,000
Port of Tampa	\$30,300,000	\$40,000,000	\$13,900,000	\$6,400,000	\$90,600,000
Total	\$114,500,000	\$127,000,000	\$163,900,000	\$43,300,000	\$448,700,000

Source: Cambridge Systematics.

Note: Identified project costs impact goods and passenger movement to and from key seaport and airport model hubs. A blank cell does not necessarily indicate an absence of projects in this category. Project cost may not have been identified by the source(s).

5.4 Available Funding Programs

A multifaceted funding program is a key element to achieving the objectives of Florida's seaport system. While seaports are largely self funding through their revenue streams, they look for funding partners, typically on a match basis, to expand and accelerate their programs. There are a variety of funding sources available to Florida's seaports. Different sources have different requirements regarding the types of projects that are eligible and typically have defined requirements for applying. In addition, the ability to expand or grow these sources varies. Examples of several key funding partner programs are listed below.

- FSTED.** FSTED is the primary state seaport funding program for on-port investments. The program was created by statute and provides funding on an annual basis to Florida's 14 deep water seaports. Projects must be consistent with a Port's Master Plan the Florida Transportation Plan and the State's economic and land use goals. The FSTED program helps finance port projects on a 50/50 or 75/25 matching basis.
- Strategic Intermodal System (SIS).** With the adoption of the SIS in 2003, Florida has focused on the development of an investment in a statewide network of high-priority transportation facilities vital to Florida's economy and quality of life. Eleven of 14 deepwater seaports are designated as SIS facilities, Emerging SIS, or planned Emerging SIS facilities. SIS funding is programmed over a five-year period and is used for capital improvement projects enhancing multimodal connectivity and accessibility through highway, rail, and aviation connections as well as for on port capacity projects. Match requirements vary by project type (50/50 or 75/25).

- **State Infrastructure Bank (SIB).** The SIB is a revolving loan and credit enhancement program consisting of two separate accounts. The Federally-funded SIB account is capitalized by Federal money matched with state money as required by law; the state-funded SIB account is capitalized by bond proceeds and state money only. SIB participation from the state-funded SIB account is limited to a transportation facility project that is on the State Highway System or that provides for increased mobility on the State's transportation system in accordance with Section 339.55, Florida Statutes, or provides for intermodal connectivity with airports, seaports, rail facilities, transportation terminals, and other intermodal options for increased accessibility and movement of people, cargo, and freight.⁵ To date, the Port of Jacksonville is the only seaport to use this program.
- **FDOT District Intermodal Funds.** District discretionary intermodal funds are eligible for port-related initiatives. Districts have used intermodal funds primarily to support intermodal connectivity projects. These funds can also be used, at the district's discretion, to match port-related planning studies. A 50/50 match is usually required.
- **Private Funds. Seaports finance projects and other initiatives through public-private partnerships (PPP).** Many if not all of Florida's seaports form partnerships with their terminal operators and steamship lines to share the costs associated with major improvements. More formalized PPPs are also becoming more common. The Port of Miami Seaport Tunnel was one of the first public projects in the state to be financed largely through private funds through a competitive bidding process.
- **U.S. Army Corps of Engineers (USACE)** – The USACE is a Federal agency that provides funding for commercial navigation, flood and coastal storm damage reduction, and ecosystem restoration. The seaports may apply for funding from the USACE South Atlantic Division for operations and maintenance or new work activities. The USACE is responsible for maintaining authorized Federal navigation channels and may be provided authority by Congress for new work, including widening, deepening, and structural improvements. Extensive economic justification for expenditures is required.
- **America's Marine Highway Program.** The Marine Highway Program was fully implemented in April 2010. In August 2010, the U.S. Department of Transportation (U.S. DOT) Secretary identified 18 marine corridors, 8 projects, and 6 initiatives for further development. \$7 million was made available at the same time by the Maritime Administration; grants were made through a competitive process. While funding remains limited, Florida should continue to position itself for future funding. Currently Florida is part of two marine highway corridors (M-95 and M-10), two projects (Gulf Atlantic Marine Highway Project and Cross Gulf Container

⁵ <http://www.dot.state.fl.us/financialplanning/finance/sibshort.shtm>.



Expansion Project), and one initiative (East Coast Marine Highway Initiative).⁶

- **Federal Stimulus.** Since early 2009, the Federal government has undertaken several stimulus programs to help the country recover from the current recession. These programs have been used to fund projects designed to drive economic development and recovery. In addition, in lieu of reauthorization, these programs have been instrumental in advancing key infrastructure projects in a timely manner. As the recovery continues, Florida must remain active in pursuing funds through these types programs as they become available. The following summarizes several of the programs in existence today:
 - **American Recovery and Reinvestment Act of 2009 (ARRA)** – This stimulus funding program was signed into law in February 2009. This program provided funding for transportation projects in Florida. Primarily, only “ready to go” surface transportation projects supported by the MPOs and addressing access needs were eligible for ARRA funds. Two projects were approved for ARRA funds; improvements to Alta Road in Jacksonville and the Crosstown Connector in Tampa. While on-port infrastructure projects were not eligible, the U.S. Army Corps of Engineers did receive ARRA funds for waterside projects at several Florida ports. These include: Port Everglades, Port of Palm Beach, Port Canaveral, and the Port of Jacksonville. The funding went to both construction activities and feasibility study activities.⁷
 - **Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grants Program** – This stimulus funding program was financed through the U.S. DOT. This program established \$1.5 billion for funding mobility improvements. Several of Florida’s seaports applied for funding from this program to accelerate key infrastructure projects. The Department applied for a major access improvement, Eller Drive, with the support of Port Everglades. No projects were awarded in Florida.
 - **Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grants Program II** – TIGER II is a \$600 million competitive grant program focused more on longer-term outcomes; that is, projects do not necessarily need to be “shovel ready”. Overall criteria remain similar to its predecessor, the TIGER program. Two of Florida’s seaports will receive TIGER II funds. The Port of Miami received a \$22 million grant to restore and upgrade rail service between the Port and the Florida East Coast Rail Yard in Hialeah. Port Manatee received \$9 million to help construct a 32-acre container

⁶ http://www.marad.dot.gov/ships_shipping_landing_page/mhi_home/mhi_home.htm.

⁷ <http://www.usace.army.mil/recovery/Pages/ProjectLocationsbeta.aspx>.

terminal and expand the port's cargo storage capacity for its Marine Highway (short-sea shipping) operation and for other tenants.⁸

- **New Federal transportation bill.** The Safe, Accountable, Flexible, Efficient Transportation Equity Act—A Legacy for Users (SAFETEA-LU) is the current legislation that authorizes the Federal transportation program. It was passed in 2005 and focuses on: improving safety; reducing traffic congestion; improving efficiency in freight movement; increasing intermodal connectivity; and protecting the environment. Funding under SAFETEA-LU was heavily earmarked and/or designated for regions with specific issues (e.g., rural, non attainment). SAFETEA-LU was scheduled to expire on September 30, 2009. Congress has passed numerous extensions to SAFETEA-LU and legislation is now scheduled to expire on December 31, 2010. There is no clear schedule for reauthorization at this time. The U.S. House of Representatives has been/remains prepared to act on reauthorization, while the U.S. Senate and White House prefer to take up legislation in 2011.

Key issues anticipated to drive the next authorization include: congestion; safety; infrastructure preservation; livability; sustainability; and funding mechanisms. Key themes are likely to include: increased funding; freight and economic development; performance measurement; consolidation of Federal programs; and high-speed rail. While the current authorization process is on hold, bipartisan leadership of the House Transportation and Infrastructure Committee has released a proposed framework for reauthorization. With no better information available, this proposal provides insight into the types of programs that may be included in the future legislation. It contains numerous freight elements, including a Freight Improvement Program and a Projects of National Significance Program.

While the future authorization is unknown at this time, it is clear that congressional leadership will likely consider a significant expansion of freight-specific programs. Florida must ensure that its transportation program is prepared and positioned to maximize the opportunities this new authorization may provide. The Seaport System Plan, along with the other modal plans, the Strategic Intermodal System Plan, and Florida's Transportation Plan should provide Florida with the necessary planning and programmatic infrastructure to qualify for any new freight funding program. In addition, FDOT has an established pattern of effectively engaging stakeholders in advisory committees to guide development of these plans and programs. To address possible discretionary programs for projects of national significance, FDOT will need to continue working with its private sector and regional partners to identify and build support for eligible projects. FDOT will need to monitor and participate as appropriate in new authorization activities.

⁸ <http://www.prnewswire.com/news-releases/ports-awarded-nearly-95-million-in-tiger-ii-infrastructure-grants-105390123.html>.



It is imperative that FDOT, the seaports, and other key partners work together to maximize the use of these funding programs. Collaboration and coordination help ensure success for competitive programs like TIGER/TIGER II and discretionary programs within the Federal transportation bill. Decision-makers like to see joint applications and public sector endorsements of projects. For established state programs, like the SIS, it is important that the seaports and FDOT establish appropriate priorities and justifications to help promote allocation of funds. Over the next decade, as the state, and nation as a whole, work to refine how to pay for transportation investments, the seaport partnerships and priorities must continue to be elevated. In addition, as Florida revisits its opportunities to grow the trade and logistics industry, economic development resources should be reviewed and used as appropriate to support ongoing direct and indirect seaport investments.



6.0 Seaport System Plan Implementation

6.1 Overview

The mission of the Florida Department of Transportation (FDOT) is to provide a safe transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities. To further its mission, the Department establishes specific goals for, and makes substantial investments in, all modes of transportation affecting Florida residents, businesses, and visitors. This section describes strategies and actions that should be undertaken by FDOT and its partners to help ensure Florida's seaports continue to prosper and support the State's economy.

6.2 Implementation Strategies and Actions

Implementation strategies and actions that drive FDOT's seaport program cover a variety of areas. These areas address state transportation policies, seaport and seaport-related infrastructure, ongoing program evaluation activities, integration with the State's overall freight system, and outreach and education initiatives.

At the policy level, it is important the seaport strategies and actions are harmonious with the goals laid out in the draft 2060 Florida Transportation Plan (FTP). As described in Section 2.0, the objectives of the Plan have been organized around the draft FTP goals. Building off of that, the following identifies key implementation strategies, which should be addressed by the seaport community, followed by specific implementation actions that should be led by FDOT – organized by the FTP goals. In addition, FDOT-specific programmatic strategies are provided to help guide program activities. The implementation strategies and actions are summarized in Table 6.1.



Table 6.1 Summary of Implementation Plan

FTP Goal	Key Implementation Strategies	FDOT Implementation Actions
<p>Invest in transportation systems to support a prosperous, globally competitive economy.</p>	<ul style="list-style-type: none"> • Provide capacity and operational improvements that ensure long-term sustainability of key markets for Florida’s seaports – this includes providing improvements that serve existing needs without precluding the ability to develop new and expanded services in the future. • Preserve and expand Florida’s share of trade and transportation activity with respect to competing ports in other states and countries. • Develop at least one first port of call with 50 feet of water; this should be accomplished to correspond with completion of the Panama Canal expansion. • Develop longer-term statewide deepening program that identifies regional and statewide capacity needs; this should address market penetration, competitiveness, and funding. • Provide on-dock or on-port rail at Florida’s major seaports; this should be coordinated with the deepening program. • Build partnerships for other seaports (Florida and non-Florida) to serve as feeders to Florida’s major deep water hub seaports; this should include development of a marine highways network (short sea shipping) to serve transshipments market. • Expand and enhance key niche/specialized gateways along inland waterways. • Develop international warehouse/ distribution centers close to major seaports to facilitate/support growth in international trade. • Encourage development of high-capacity, efficient interstate rail and highway corridors to provide improved access to hinterland markets for discretionary cargo. • Provide a flexible funding program that ensures Florida’s seaports are responsive to economic development opportunities. • Tie local/ regional initiatives with state programs and goals and position major regional projects to compete for discretionary Federal funding programs. • Develop new or enhance existing processes for freight planning at trade corridor/ mega-region and statewide level. 	<ul style="list-style-type: none"> • Support implementation of Florida Trade and Logistics Study strategies to promote the ability of Florida’s seaports to compete for and serve Florida and non-Florida markets. • Implement Florida’s seaport system planning program through two principal components; the Florida Seaport Transportation and Economic Development Council (FSTED) primarily focuses on on-port improvements at individual seaports on a collective basis; other state seaport investments primarily focus on capacity improvements and intermodal and connector improvements at a statewide system level. • Coordinate state work program, port master plan/capital improvement plan, and Capital Improvements Element of the local government comprehensive plan development activities. • Prioritize state investments and support seaport improvement programs that provide compatible and long-term economic development opportunities. • Promote flexibility in existing and new seaport-related funding programs to help ports effectively and competitively respond to economic development opportunities. • Develop and maintain statewide and regional cargo and passenger forecasts to support state-level seaport planning activities.

Table 6.1 Summary of Implementation Plan (continued)

FTP Goal	Key Implementation Strategies	FDOT Implementation Actions
<p>Make transportation decisions to support and enhance livable communities.</p>	<ul style="list-style-type: none"> • Ensure ability for passenger and freight traffic to coexist on key corridors. • Work with local governments to develop industrial land preservation program to protect port access and expansion plans. • Reduce encroachment of incompatible land uses around major trade gateways. • Identify/develop industrial sites with efficient access to seaports. • Develop integrated logistics centers at key urban and rural locations as markets dictate. • Foster closer working relationships among economic development organizations, chambers, seaports, airports, and other freight partners. 	<ul style="list-style-type: none"> • Support industrial land use preservation program through review of development plans and partnership with local municipalities and counties. • Encourage airports, seaports, and the freight industry to be actively involved in metropolitan planning organization (MPO) planning/ regional visioning processes, and local comprehensive planning, particularly around major gateways. • Expand regional collaboration among seaports, airports, rail, and other modal providers/partners.
<p>Make transportation decisions to promote responsible environmental stewardship.</p>	<ul style="list-style-type: none"> • Identify lands and water resources that host port-related or port-supporting uses, or may be important for hosting future port and port-related uses; and identify a designated buffer zone around key facilities and operating areas, within which incompatible uses should be discouraged; and include this information in Port Master Plans. Ensure that, to the extent feasible, such lands and water resources and buffer zones are appropriately reflected in local, regional, and state land use and transportation plans. • Provide needed capacity in a way that minimizes marine impacts: first by avoiding or minimizing new landfills and channel widening/extension where possible, second by managing marine operations within sensitive habitats, third by mitigating unavoidable impacts. • Explore, with appropriate state and Federal partners, the development of a streamlined process for environmental review and implementation of dredging and other environmentally sensitive projects. • Explore, with appropriate state and Federal partners, the development of mitigation banking programs. 	<ul style="list-style-type: none"> • Work in partnership with Florida seaports and other stakeholders to support environmental protection – including facilitation of saltwater mitigation opportunities, as well as development of shore power infrastructure, reductions in truck idling queues, and maximized use of rail.

Table 6.1 Summary of Implementation Plan (continued)

FTP Goal	Key Implementation Strategies	FDOT Implementation Actions
<p>Make transportation decisions to promote responsible environmental stewardship (continued).</p>	<ul style="list-style-type: none"> • Provide air quality benefits by reducing the reliance of Florida freight shippers, receivers, and customers on goods trucked to and from out-of-state ports. • Explore, and implement as feasible, emerging best practices to minimize vessel emissions (via shoreside electrification and other strategies), to minimize on-terminal operations (via low-emission equipment), and to minimize truck-related emissions (via advanced gate systems, off-peak operations where feasible, chassis pools, off-site equipment management, and use of rail and barge). • Explore additional regulatory and funding strategies necessary to support Port air quality efforts, and to identify next-generation transportation logistics strategies that could be used to improve the movement of goods. • Encourage seaport investments in green technologies – particularly those that complement state and national environmental programs and address climate change initiatives. 	
<p>Provide a safe and secure transportation system for all users.</p>	<ul style="list-style-type: none"> • Ensure Florida’s seaports are safe; port workers and visitors must be provided a safe environment that prevents or minimizes unintentional injury. • Ensure Florida’s seaports are secure; port property, port workers, and host communities must be protected from intentional harm. • Promote efficient Federal and state security protocols at Florida seaports to meet security needs without impeding mobility; this includes elimination of duplicate requirements. 	<ul style="list-style-type: none"> • Participate in ongoing master and capital planning activities which include provisions for a safe and secure seaport. • Support testing and deployment of technologies to streamline traffic flow and automate security clearance activities at main gate complexes. •
<p>Maintain and operate Florida’s transportation system proactively.</p>	<ul style="list-style-type: none"> • Ensure Florida’s seaport infrastructure (on- and off-port) is maintained at an adequate level to support current and future business opportunities and to serve strategic state interests: <ul style="list-style-type: none"> – Expand seaport operational capacity through densification, longer work hours and/or use of technology; and – Expand seaport capacity through maintenance and construction of new infrastructure to match individual seaport master plans and niche markets. 	<ul style="list-style-type: none"> • Implement Florida’s seaport system planning program through two principal components; FSTED primarily focuses on on-port infrastructure; other state seaport investments primarily focus on capacity improvements and intermodal and connector infrastructure.
<p>Improve mobility and connectivity for people and freight.</p>	<ul style="list-style-type: none"> • Participate in individual seaport planning activities to promote coordination between seaport and state investment decisions. • Consider impacts on the complete supply chain as part of seaport project evaluations to enhance seaport investment decisions. • Ensure the seaport system has efficient and reliable access to SIS corridors and hubs to facilitate competition and provide public benefits. • Explore and develop marine highway corridors to improve cargo flows to/from and through Florida. 	<ul style="list-style-type: none"> • Prioritize state seaport investments based on clear strategies and criteria within an established multimodal transportation system consistent with established FDOT and partner programs (e.g., SIS and FSTED). • Provide regional freight forums as part of modal system plan updates and other freight mobility initiatives to support ongoing freight system enhancements and improvements.

FDOT-Specific Programmatic Strategies and Actions

In addition to, and in support of the above implementation strategies, additional recommendations are provided at the programmatic level to help facilitate FDOT's implementation activities.

- **Actively participate in the FSTED program, providing a comprehensive review of on-port project applications.** FDOT is a member of the FSTED Council and has a defined consistency review process through which it ensures the projects meet FDOT statutory requirements.
 - **Develop and maintain database of seaport needs.** SeaCIP (as described in Section 5.0) has been transitioned from an application tool to a more robust data management tool. FDOT will work with the seaports to assist and encourage the use of this program as a comprehensive needs database. This will allow for tracking of project planning, implementation, and funding.
 - **Collect project information to support consistency review.** Through use of SeaCIP 4.0, FDOT collects the data necessary to evaluate the state benefits of each seaport project. These data become part of the project record as the project moves through the process.
 - **Conduct consistency review.** FDOT will use in-house analytical tools to evaluate each project application. The consistency review process contains qualitative and quantitative elements. Calculation of a benefit/cost ratio for each proposed project supports the quantitative piece. A check list that reviews key considerations relating to community support, project need, etc. balances out the review.
 - **Engage in port allocation discussions.** FDOT is a member of the FSTED Council and is an active participant. This involves joining in discussions related to distribution of funds across the seaports, identification and discussion of the impact of regional and statewide system needs and priorities, and coordination with off-port investment needs.
 - **Participate in port planning activities.** Seaports engage in master and capital planning activities to define their planned improvements. FDOT District offices will actively engage in these activities as a stakeholder. This could include attending public meetings, reviewing seaport generated plans, and at a minimum meeting with seaport planning staff to discuss key developments and needs.
 - **Continue to work to increase funding flexibility over time.** As the primary program for on-port investments in seaports, the current program should be flexible enough to support seaport needs from year to year. This flexibility should be accomplished through working closely with port staff. FDOT will continue to work to accommodate the ports need for flexibility in the programming of seaport projects.



- **Identify, prioritize, and recommend seaport-related off-port and intermodal projects.** FDOT is responsible for working with the seaports to identify, evaluate, and prioritize off-port and intermodal investments. These projects consist of roadway, rail, and water connectors as defined by the SIS. These projects represent FDOT's primary responsibility and often represent significant investments that challenge the seaports and the FSTED funding level.
 - **Develop and maintain database of seaport connector and intermodal needs.** FDOT develops and maintains an unfunded needs plan that feeds the development of its cost feasible work program. The FDOT Seaport Office, working with Systems Planning and district staff will identify the port connector projects and enter them into SeaCIP; this will ensure that a comprehensive list of seaport needs can be generated from this new data management tool.
 - **Collect project information to support evaluation and prioritization processes.** FDOT utilizes in-house analytical tools to support the evaluation of connector projects. While the Department maintains tools for highway and rail project evaluations, it is important that all seaport-related projects be evaluated consistently. FDOT works with the seaports to provide the project-specific impact data for the evaluation.
 - **Apply analytical tools.** Available tools will be used to analyze and evaluate each proposed project; the results will be used by FDOT to establish project priorities for seaport connector and on-port intermodal projects.
 - **Engage in internal funding allocation discussions.** The FDOT will engage in and lead discussions with all involved staff related to seaport connector and intermodal projects. Based on a review of the seaport-related projects, FDOT will ensure coordination takes place to recommend funding allocations and priorities as part of the work program development process.
 - **Participate in port planning activities.** Seaports engage in master and capital planning activities to define their planned improvements. FDOT District offices actively engage in these activities as a stakeholder. This can include attending public meetings, reviewing seaport generated plans, and meeting with seaport planning staff to discuss key developments and needs.
- **Develop and implement a program evaluation methodology.** In many cases, programs are considered successful if they identify, fund, and construct documented priorities within established schedules and budgets. However, it also is important to evaluate impacts the completed projects have on a seaport's operation. This tool can be used to help justify state funding to seaports.
 - **Develop performance measures for seaport program elements.** FDOT, in cooperation with its seaport partners, will define a set of performance measures to be used as part of the seaport system program to evaluate the level of success associated with specific improvement

- projects. There will be a distinction between on- and off-port capacity projects. Projects will be evaluated based on key factors such as schedule, budget, and increased throughput. Anticipated impacts will be measured to determine if anticipated results were realized.
- **Define protocols for implementing use of performance measures.** FDOT, in cooperation with its seaport partners, will establish protocols for how the performance measures program will be implemented as well as how the results will be used to impact future funding decisions. The data management element of SeaCIP will be considered in tracking information related to project performance. This would provide a historic trend of the impact of state investments in seaports.
 - **Coordinate with seaport partners to build consensus of the program.** As mentioned in the above steps, coordination with seaport partners will be critical to ensure there is agreement on the approach. This agreement is important because the seaports in many cases will be the ones providing the data.
 - **Evaluate performance of specific projects.** Once the measures are defined and the protocols are agreed upon, FDOT will evaluate past projects on an annual basis. This will be a quality assurance program that focuses on a sample of projects to spot check the program elements. Projects of most interest to the State will be selected. For example, a new berth that allows more or larger vessels to serve a port could be reviewed while repaving of a container terminal most likely would not be.
 - **Integrate seaport planning activities with a larger state freight planning program.** Florida's seaports represent a critical element in Florida's freight transportation system. This Plan represents Florida's seaports and their connections to the highway and rail networks. Seaports are dependent on these networks to move their product to market. As such, the overall condition of the freight system is of critical importance to the seaports, particularly as they compete in a global economy.
 - **Develop description of the integration of Florida's seaports in the overall freight system.** FDOT has a very strong multimodal system planning process through the SIS, including the SIS Plan, the Multimodal Needs Plan, the Cost Feasible Plan, and interactions with MPOs and regional planning efforts. Seaports are part of this process. With the completion of the Seaport System Plan, the Department will have a modal plan in place to provide both policy direction and project priorities to the Department's transportation planning processes. This plan is an opportunity to further illustrate the role of Florida's seaports in the overall freight program.
 - **Identify next steps in freight planning process and refinements.** The ongoing Florida Transportation Plan update and Federal legislation will be monitored and appropriate steps will be implemented to ensure modal planning continues to be integrated into the overall multimodal systems planning process.



- **Develop and implement an effective seaport-specific outreach program.** One of the key benefits of the seaport system plan should be to help elevate and promote Florida’s seaports to create new opportunities.
 - **Develop public information material.** Highlights from the Plan will be used to develop a brochure and presentation material. This material will be available on the Seaport Office web site. A variety of venues for dissemination will be identified. This will include seaport partners, internal FDOT leadership meetings, the project web site, presentations at key meetings, such as MPO Advisory Council or the Florida Transportation Commission.
 - **Conduct outreach.** Using the public information material, FDOT will conduct ongoing outreach on the Plan as opportunities arise. Over the first year, there should be a concerted effort to reach a diverse audience. Over time, outreach would be based on new developments or updates to the Plan.
 - **Provide ongoing support to the statewide seaport system.** The Plan provides FDOT with the documentation to support Florida’s seaports on an ongoing basis. The existence of this Plan will raise awareness and questions and provide opportunities for continued education and outreach activities.

6.3 Integration of Plan with Other Planning Efforts

The successful development and implementation of the Seaport System Plan is dependent upon effective integration with other key planning and programming initiatives within FDOT as well as by its seaport partners and local and regional planning partners. The Plan lays out the key objectives and strategies to guide FDOT’s seaport planning activities, which feed data and analysis into the State’s overall transportation program. The integration requirements are predicated upon the roles and responsibilities of the involved stakeholders, as well as the existing and adopted transportation policies and plans that guide the various elements of Florida’s transportation system. The key factors include:

- Roles and responsibilities;
- Adoption and incorporation into the FTP;
- Reflection in the SIS;
- Reflection in port plans;
- Reflection in local and regional planning;
- Reflection in other state planning; and
- Coordination of funding efforts.

Each of these is described in detail below.

- Roles and Responsibilities.** There are many key partners involved in maintaining, growing, and promoting Florida’s seaport system. As the Plan is implemented, it is important to understand the roles and responsibilities of these partners. Table 6.2 describes the roles of the key partners. The effective use and engagement of these partners is critical to ensure a robust and successful seaport system. The following subsections define the key actions and programs that are driven by these roles and responsibilities.
- Adoption and Incorporation into FTP.** The FTP guides the overall direction of Florida’s transportation program. The FTP is updated regularly and incorporates input from a diverse set of stakeholders. The 2060 FTP, adopted in December 2010, has a planning horizon of 50 years. Within this document, the overriding themes or goals have been defined that guide the development and preservation of Florida’s transportation system. The Seaport System Plan has adopted these guidelines by associating specific seaport system objectives with the established goals. As each of these plans goes through regular updates, it will be critical that they remain integrated.

Table 6.2 Partner Roles and Responsibilities

Agency/Organization	Roles and Responsibilities
FDOT Office of the Secretary	<ul style="list-style-type: none"> Responsible for a balanced, multimodal transportation system that serves Florida’s residents, businesses, and visitors. Voting member of FSTED Council responsible for consistency review of seaport projects related to transportation/traffic impacts.
FDOT Seaport Office	<ul style="list-style-type: none"> Responsible for coordination with the FPC. Responsible for developing the Seaport System Plan. Responsible for integrating seaport issues, including seaport freight mobility, into Department plans, such as the SIS Plan and the FTP. Lead on- and off-port project evaluations. Responsible for programming and monitoring state-funded seaport projects. Primary FDOT point of contact for seaport and maritime issues.
FDOT Systems Planning	<ul style="list-style-type: none"> FDOT lead for port connector projects.
FDOT Districts	<ul style="list-style-type: none"> FDOT lead for consistency reviews of FSTED projects. Responsible for allocating discretionary intermodal funds. Responsible for local participation in seaport planning and programming activities. SIS coordinators are responsible for working with modal staff to identify needs and work with the Seaport Office and the ports to prioritize SIS projects needs. Responsible for regional coordination among seaports and intermodal partners.



Table 6.2 Partner Roles and Responsibilities (continued)

Agency/Organization	Roles and Responsibilities
Florida Ports Council (FPC)	<ul style="list-style-type: none"> • Function as staff to FSTED Council. • Support 14 deep water seaports through educational and outreach initiatives. • Responsible for coordination with FDOT. • Lead industry research and the dissemination of information designed to promote Florida’s seaports. • Identify seaport needs and advocate for seaport funding.
FSTED Council	<ul style="list-style-type: none"> • Legislatively created to administer the Chapter 311 seaport funding program. • Responsible for allocation of 311 funds to 14 deepwater seaports. • Provide direction to FPC staff regarding research and legislative priorities. • Develop five-year mission plan on an annual basis.
Individual Seaports	<ul style="list-style-type: none"> • Voting members of FSTED Council. • Responsible for port-specific master planning, capital improvements, operations, and maintenance of Florida’s seaports.
Department of Community Affairs (DCA)	<ul style="list-style-type: none"> • Voting member of FSTED Council responsible for consistency review of seaport projects related to community development. • Reviews comprehensive plans and plan amendments that affect ports and port-related projects.
Office of Tourism, Trade, and Economic Development (OTTED)	<ul style="list-style-type: none"> • Voting member of FSTED Council responsible for consistency review of seaport projects related to economic development.
Business and Trade Organizations (Florida Chamber of Commerce, Enterprise Florida, etc.)	<ul style="list-style-type: none"> • Advocate for seaport-related business development. • Conduct outreach to business industry to promote seaport and seaport-related investments. • Conduct industry-related research to guide growth strategies. • Support implementation of Trade and Logistics Study. • Support implementation of Six Pillars.
Private Partners (Steamship Lines, Cruise Lines, Terminal Operators, Shippers, Distributors, Investors, etc.)	<ul style="list-style-type: none"> • Provide demands for seaport capacity. • Generate economic impacts. • Provide private funding.
Metropolitan Planning Organizations (MPO)	<ul style="list-style-type: none"> • Responsible for metropolitan planning and development of long-range transportation plans. • Responsible for development of transportation improvement programs – which identify all approved and funded transportation investments. • Responsible for regional freight and goods planning activities.
Counties and Municipalities	<ul style="list-style-type: none"> • Host communities for Florida’s seaports. • Responsible for preserving access and operations through land use and zoning decisions. • Develop, maintain and update local government comprehensive plans.

- **Reflection in SIS.** The SIS, created in 2003 by Florida’s legislature, identifies those elements of Florida’s transportation system that are strategic for the interregional, interstate, and international movements of passengers and freight. As international gateways, Florida’s ports are reflected in the SIS with 11 of the 14 deepwater seaports designated. This inclusion is critical to future investments in seaports given the goal of FDOT to program up to 75 percent of new capacity funding to SIS facilities. In addition, the maintenance and preservation of state-owned SIS facilities will remain a focus of FDOT; this specifically relates to roadway connectors serving seaports. The SIS goes through regular updates to accommodate shifts in the system, including growth and development of new facilities. The Seaport System Plan helps ensure that changes in Florida’s seaport system are included in and accommodated by the SIS. It is critical that updates to each of these programs remain coordinated and integrated. Port funding provided through SIS is focused on eligible projects, defined in 2010 as follows:¹
 - **Capacity Projects (Ground Transportation).** On-site roadways and railways that directly link passenger and freight terminals to SIS connectors or hubs; on- and near-dock railways and connecting sidings (e.g., track used for staging the loading and offloading of container cargo).
 - **Capacity Projects (Landside Connections).** Transfer cranes and conveyor belts; short-term container storage, warehouses, bulk storage facilities; and intermodal, on-site connections with other transportation systems (e.g., container on flat car infrastructure, roll-on/roll-off (RO/RO) ramps; container staging areas that enhance transfer to truck or rail).
 - **Capacity Projects (Waterside Connections).** Dredging of links to SIS waterway connectors that add capacity to the seaport; and new construction or major rehabilitation/reconstruction of berths, docks, quays, and wharves (including bulkheads) that add capacity to the seaport.
- **Reflection in Port Plans.** Each of Florida’s seaports develops and updates longer-term master plans as well as shorter-term capital improvement plans. These plans identify the needs and investment plans and strategies for each facility. In addition, they establish forecasts for anticipated growth in traffic. It is through coordination with these plans that FDOT builds an understanding of what ports need from the State – need from the perspective of funding requirements and need from the perspective of supporting infrastructure (waterway, rail, and roadway connectors). It also provides the State with an understanding of anticipated growth on regional and statewide transportation corridors resulting from port investments. Effective and ongoing coordination among seaports and FDOT is critical as port plans evolve and change.

¹ Capacity Funding Eligibility Matrix for Strategic Intermodal System (SIS) Facilities, FDOT Systems Planning Office, April 2010.



- Reflection in Local and Regional Planning.** While FDOT and its seaport partners work together to identify key infrastructure improvements, local and regional planning organizations are responsible for documenting comprehensive transportation programs through the development of long-range transportation plans (LRTP), transportation improvement programs (TIP), strategic regional policy plans (SRPP), and local government comprehensive plans; it is through these mechanisms that state and Federal funding flow to local projects. In addition, these organizations are involved with local development initiatives and lead community outreach programs to help establish public priorities as well as educate the public on key development opportunities. As such, seaport needs and investment strategies should be coordinated and included within these programs and documents. This requires both FDOT and seaports to work with these local and regional partners.
- Reflection in Other State Planning.** As illustrated above, significant state planning occurs outside of or in addition to the Seaport Office and the Seaport System Plan. While the FTP establishes the overall goals, and the SIS addresses investments in key strategic infrastructure elements, a series of modal plans ensure that the entire transportation system is covered. Modal system plans for each mode are maintained to establish policies, identify needs, and advise investment priorities. The development, update, and implementation activities of the modal plans are led by modal offices, with key support from District staff. Modal plans provide an opportunity to engage private partners in the planning process. It is important that these plans identify and acknowledge intermodal connectivity with their counterparts. For example, the Rail System Plan has identified rail needs specific to connections with seaports. At a more disaggregated level, FDOT's districts undertake regional planning initiatives that also feed into state modal system plans. For example, some districts have conducted feasibility studies for the development of new freight hubs like intermodal logistics centers. In order to ensure a comprehensive and integrated transportation system, all of these initiatives must be coordinated.
- Coordination of Funding Efforts.** Funding transportation improvements has become a more significant challenge in recent years, as needs increase and revenues decrease. As a result, the ability to leverage both public and private funds has become critical. Florida's seaport system has long been financed through public/private partnerships, with state matches varying by type of project. Seaports themselves engage in additional partnerships with tenants and steamship lines to expand terminal capacities. In addition, partnerships with Federal agencies, like the U.S. Army Corps of Engineers, drive major programs like maintenance and deepening dredging projects. Recently, Federal stimulus funding has provided additional opportunities. In all of these instances, coordination is critical as various funding programs are brought together to pay for major improvements. This coordination helps ensure needs are addressed in their entirety – that is, a particular bottleneck is not partially addressed due to funding shortfalls. Seaport partners must remain coordinated to ensure available funds are brought to the most strategic of projects.

6.4 Next Steps

The material presented in this section presents a comprehensive list of strategies designed to support Florida's seaport system. The next critical activity is to develop a short-term implementation/action plan. With adoption of the Seaport System Plan, FDOT will begin key short-term and identify long-term implementation activities and tool development/enhancement. This process will involve close coordination with the seaports, the FPC staff, and other partners.

