10. **OLD BUSINESS**

a Water Quality Issues

ii. Staff Reports

2. Report on Inland Port Proposal

**Julia K. Guernsey**

**From:** Pamela Smith
**Sent:** Wednesday, November 12, 2008 9:37 AM
**To:** Julia K. Guernsey
**Subject:** FW: Inland Port background info

Agenda packet

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**From:** Rob Loflin
**Sent:** Wed 11/12/2008 8:15 AM
**To:** Judie A. Zimomra; Jim Isom; Pamela Smith
**Subject:** Inland Port background info

These documents would be the best back-up for the Council's inland port discussion but are very large. Do you want them part of the agenda or just forwarded to Council for background reading?

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# Hendry, rancher pitch 6,000-acre site for 'inland port'

By PAUL QUINLAN
*Palm Beach Post Staff Writer*

Friday, September 12, 2008

As the state negotiates its $1.75 billion U.S. Sugar buyout, Palm Beach County and sugar giant Florida Crystals hope to build a major industrial complex in the Glades area that would more than fill the expected economic void by creating thousands of jobs and generating millions in taxes.

But not if Hendry County and rancher Joe Marlin Hilliard have anything to say about it.

**Map:** Proposed sites for inland port
U.S. Sugar deal

Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.
U.S. Sugar

**Browse all the news,** see photos and video, get facts about the company and the agreement plus more.

**Gallery:** U.S. Sugar photos

Right-click here to download pictures.

Post your comments on this story below

Hendry County leaders have joined with Hilliard, of Hilliard Brothers of Florida, in pitching a 6,000-acre site Hilliard owns for the so-called "inland port," a planned warehousing and distribution center that would serve as a landlocked extension of South Florida's seaside ports, linked by road and rail and helping speed off-loading of large freighters.

The project, started by the Port of Palm Beach, could generate as many as 32,000 jobs and $164 million in tax revenue by 2015, studies show.

Among the counties affected by the loss of U.S. Sugar, Hendry leaders said they will suffer most.

"Were going to have a huge economic loss," Hendry County Commissioner Kevin McCarthy said.

On Tuesday, Palm Beach County commissioners endorsed a plan to put the inland port on roughly 3,500 acres south of South Bay that belong to Florida Crystals. But environmentalists have panned that location, saying it's too close to land the state hopes to use for Everglades restoration. What is more, a state study anticipated "significant preparation costs" to de-muck the land.

Hilliard's site is about 16 miles west and sits on solid ground well out of the way of restoration plans, proponents said.

"We don't want to be nutty about this thing, but we've got a lot of good friends in the political world and it's time to start talking," Hilliard said. "We've got a unified base in Hendry County. We're all singing the same song."

A June 2007, a Florida Department of Transportation study identified Florida Crystals' property as the best of the five sites under consideration at the time, praising its location and access to road, airstrip and rail spur. Hilliard's site is about 20 miles west of that and includes all the same amenities.

No site has been selected for the inland port and anyone interested will have a chance to pitch their land, said Manny Almira, director of the Port of Palm Beach. Almira a decision is expected by this time next year.

# *Appendix A*

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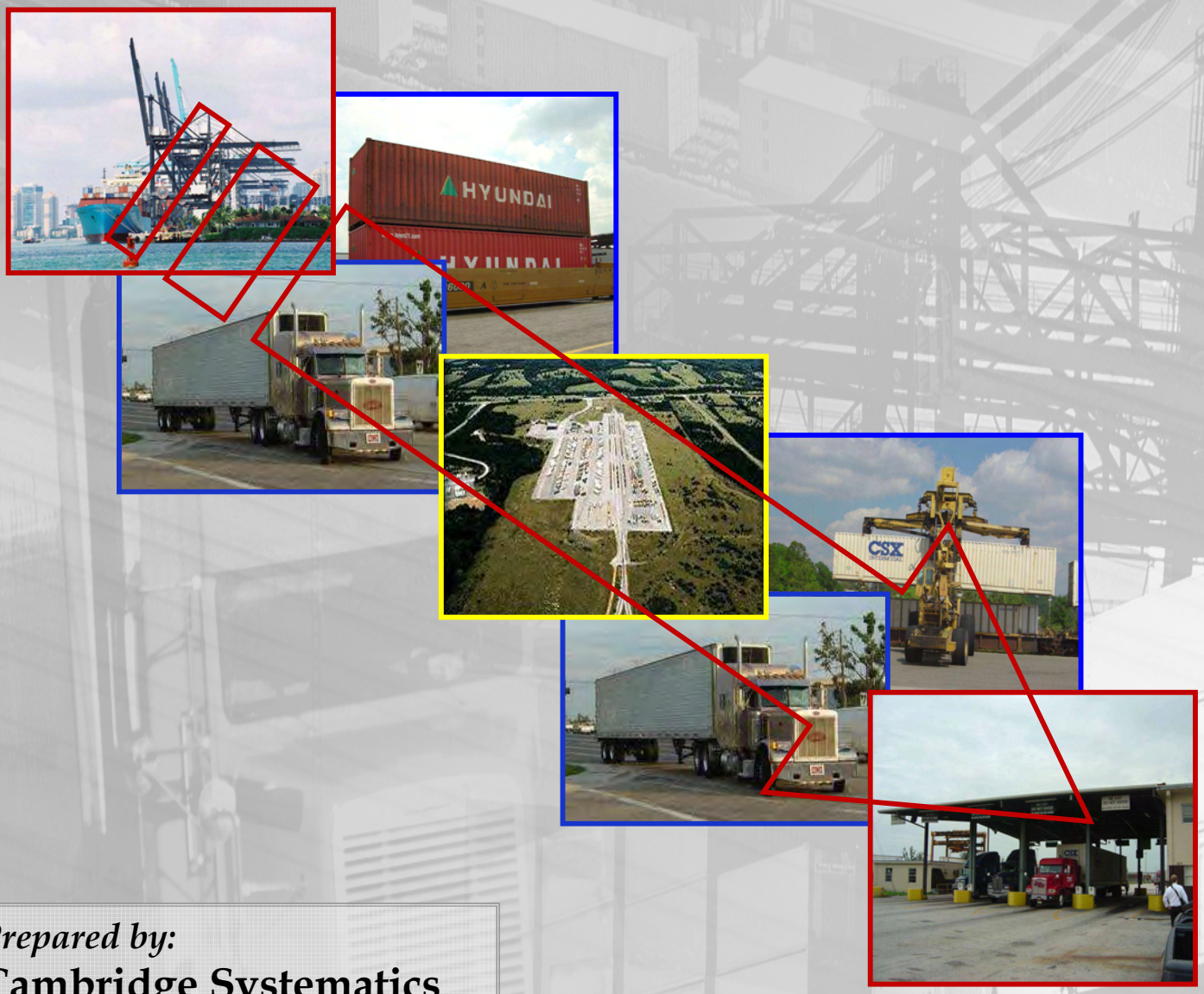
# South Florida Inland Port Study




*Prepared by:*
**Cambridge Systematics**

*Prepared for:*
**FDOT Seaport Office**

## *Project Purpose*
## Study Goals

- Define the necessary characteristics required for an inland port
- Identify potential locations for developing an inland port
- Determine if an inland port can effectively serve the port network in South Florida
- Develop recommendations for next steps

## *Project Purpose*
## Why an Inland Port?

- Expand existing seaport capacity
- Increase freight system reliability
- Improve intermodal connectivity
- Improve congestion management activities
- Improve/modify local and regional distribution patterns
- Create new market opportunities

## *Project Purpose*
## Overview of Florida's Transportation System

- Florida is impacted by national and international trends
  - Global trade is increasing and resiliency is being added to key supply chains
  - Steamship lines continue to operate larger vessels
  - Panama Canal capacity will be increased
  - Rail intermodal service continues to face capacity constraints
- Florida continues to improve transportation investment strategies
  - Strategic Intermodal System
  - Transportation Regional Incentive Program
  - MPO-driven freight transportation programs
- Florida's geography has created a unique seaport infrastructure
  - Florida has developed and maintained a network of deepwater seaports
  - Florida's seaports typically serve niche and regional markets
  - Gateway to Latin America and the Caribbean market
  - Large, high growth consuming population base
- However, South Florida is geographically challenged
  - Natural resources create transportation bottlenecks
  - Shippers/receivers are located at the "end" of our national transportation system
- Limited capacities and increasing congestion continue to degrade freight mobility

# *Key Inland Port Concepts*

## DEFINITION:

An Off-Port facility that typically is "a combination of assets which make a region an attractive distribution hub, consolidation point, or destination for imported and exported goods"

## CHARACTERISTICS OF ESTABLISHED INLAND PORTS:

- Tend to be larger regional centers/serve larger markets
- Provide means for facilitating international trade and expediting shipments in and out of the U.S.
- Multi-modal capabilities/opportunities and have ample access to the Interstate System
- Foreign Trade Zone status
- Serve certain niche markets
- Access to sufficient labor

## SITING CONSIDERATIONS:

- Existing transportation infrastructure
- Demographic advantage
- Geographic advantage
- Presence of large shippers
- Public/private partnerships to promote development
- Industry commitment to aggressively market the inland port

## TYPES OF INLAND PORT FACILITIES:

- Integrated Logistics Centers/ Multimodal Logistics Center
- Inland waterway port
- Shuttle Services
- Trade Processing Center
- Intermodal Parks (Rail, Air)/Air or Rail Cargo Centers
- Facility Networks & Corridors
- Satellite Marine Terminal/Maritime Feeder Facility

## SATELLITE MARINE TERMINAL/MARITIME FEEDER FACILITY

- Off-Port facilities for processing, consolidating, distribution
- FTZ status a plus
- Designed to relieve congestion and increase efficiency of the affiliated seaport

## INLAND PORT FUNDING STRUCTURES

### PRIVATE
Alliance Texas

Privately funded 15k acre master planned development with multiple logistics components

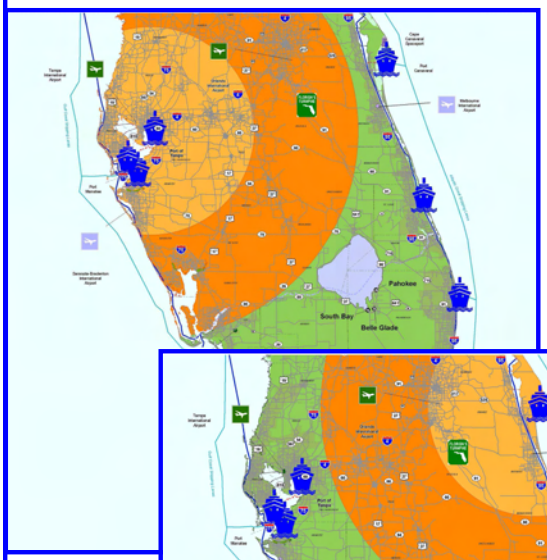
### PUBLIC
Virginia Inland Port

Publicly funded through Transportation Trust Fund, provides variety of intermodal services in coordination with NS and the VPA

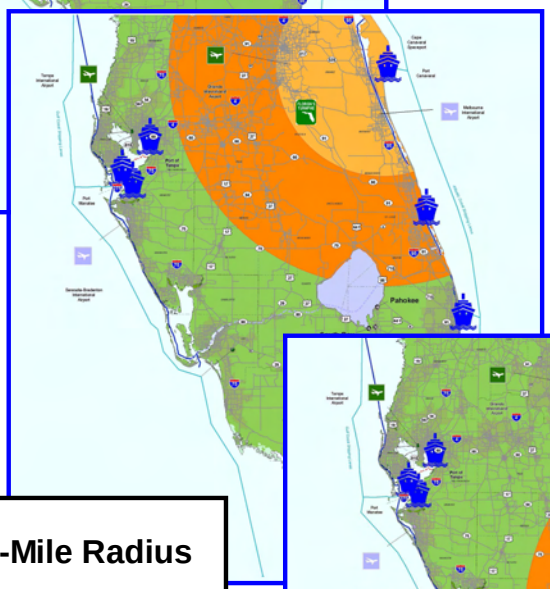
### PUBLIC/PRIVATE PARTNERSHIP
Metroport

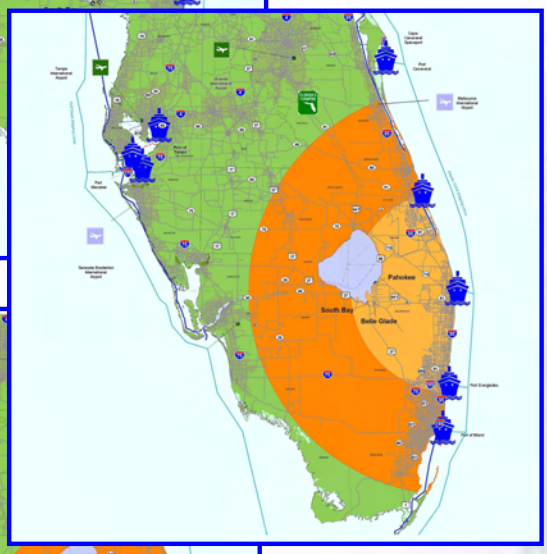
Joint partnership between Tranz Rail (land provider) and Port of Tauranga (land development and technology provider)

# *Is there Common Ground for an Inland Port?*



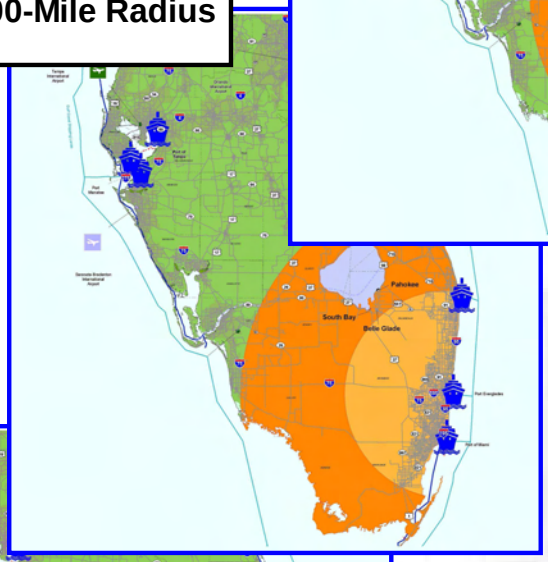

- Expand existing seaport capacity?
- Increase freight system reliability?
- Improve intermodal connectivity?
- Improve congestion management?
- Improve local and regional distribution patterns?
- Create new market opportunities?

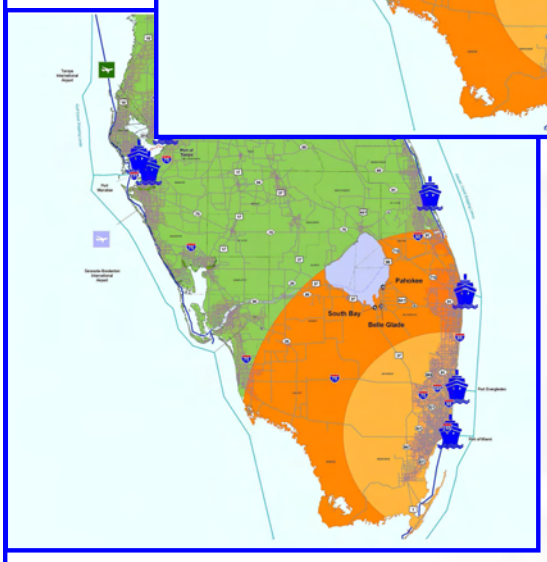


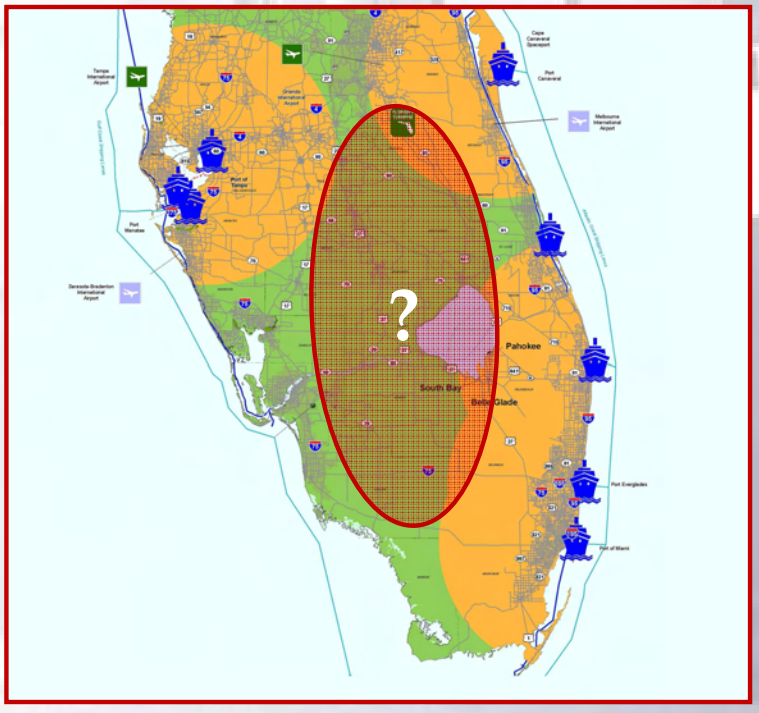



50-Mile Radius

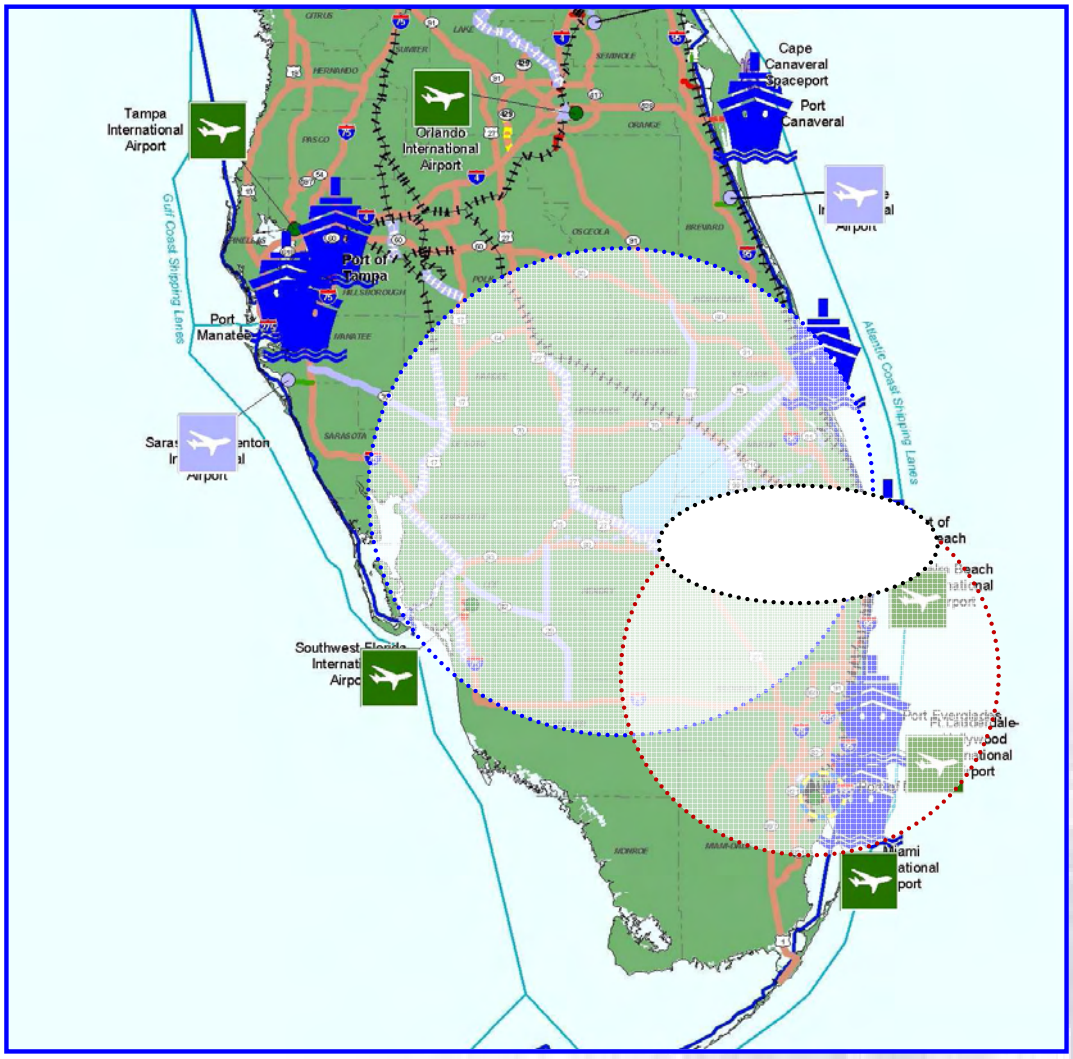
100-Mile Radius



# *Identifying Region Specific Solutions*




**Site location dictates local, regional, and state impacts**

**Port of Palm Beach**

**Southeast Florida**

**South Florida**

- *Who are the key stakeholders?*
- *Who will benefit at each potential site?*
- *What will the market support?*
- *What type of inland port will be developed?*
- *How will capacity expansion/improved market access stimulate economic development opportunities?*

# *Understanding Florida's Freight Transportation System*

## *Northwest Florida*

- **Rural region served by niche ports, with rail and Interstate connections**

## Northeast Florida

- **High growth region, growing international gateway and intermodal hub**

## Central Florida

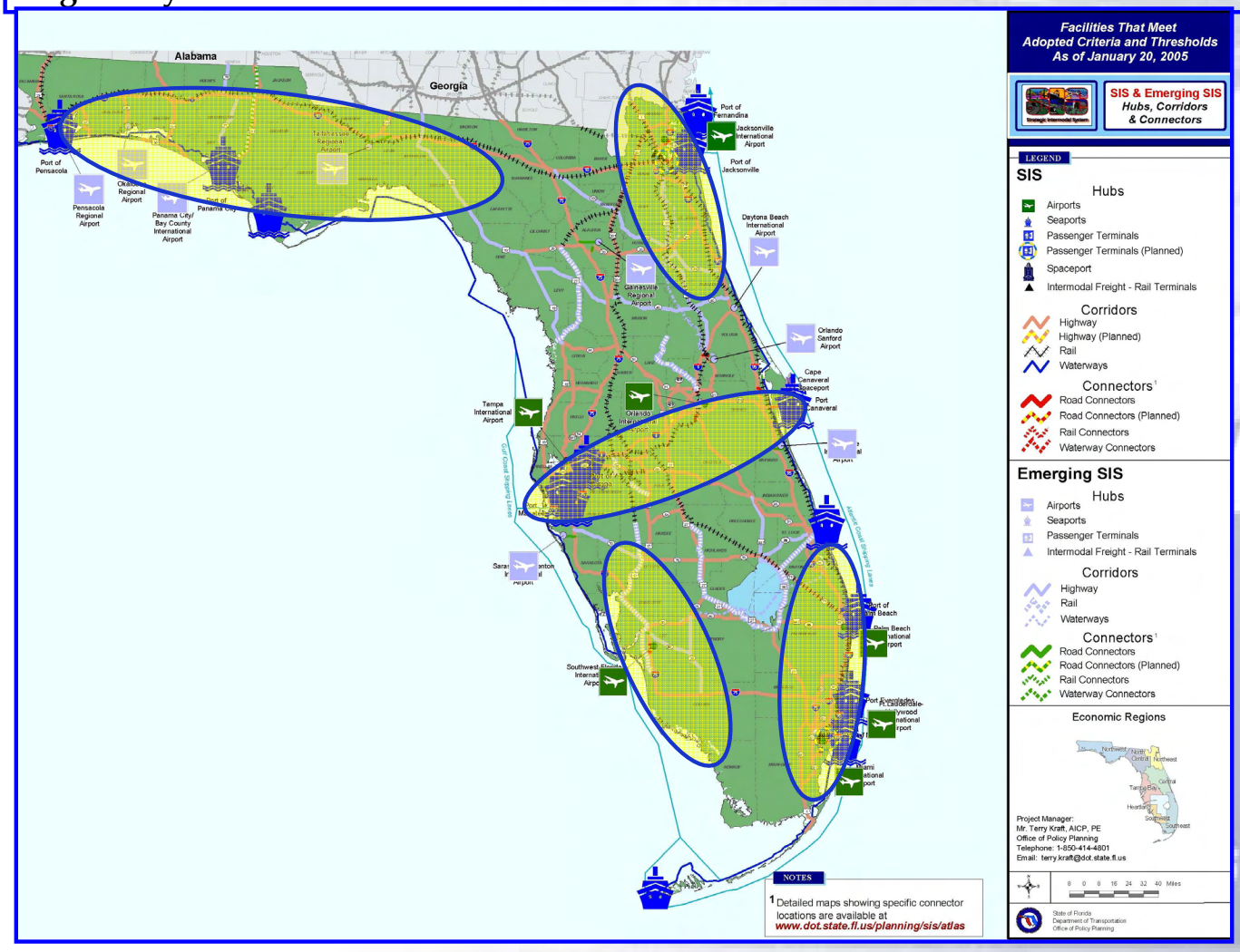
- **High growth region, largest bulk port, major rail development**

## Southwest Florida

- **High growth region, limited freight infrastructure**

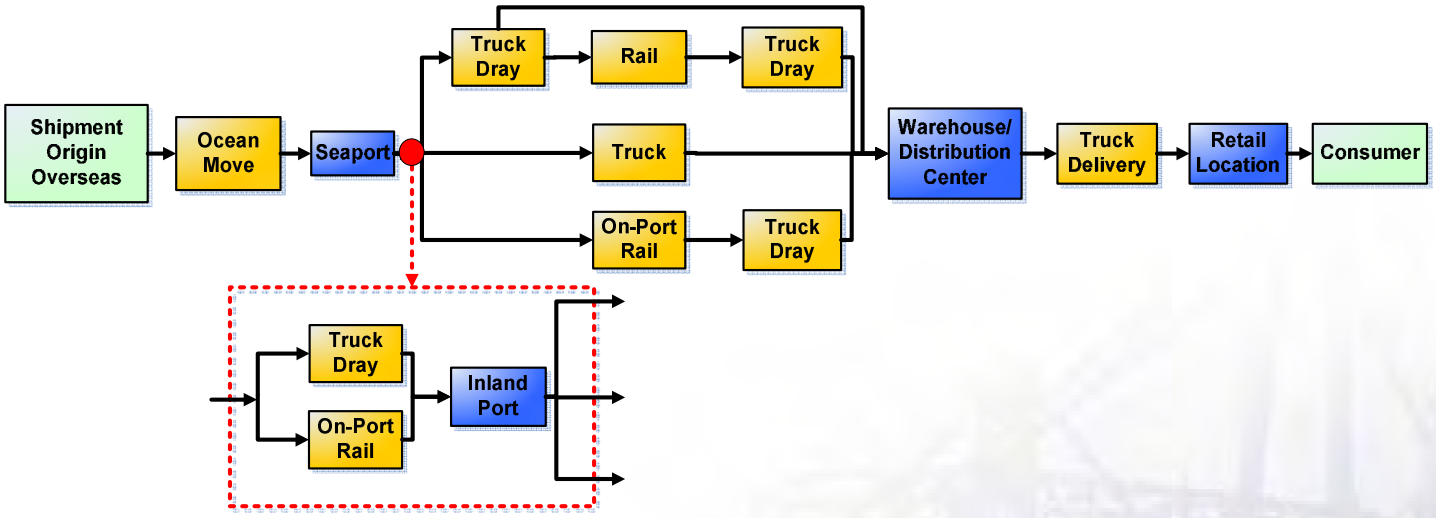
## Southeast Florida

- **High growth region, cruise capital, largest container port, major petroleum gateway**



# *What is the Impact on Existing Supply Chains?*

***Basic Supply Chain Showing Impact of an Inland Port for an Import Shipment…***



# *What are the Key Factors that Drive Our Analysis?*

1. How will an inland port serve South Florida's seaports?
2. How will an inland port serve the South Florida community?
3. Where are the available sites?
4. What are the available funding sources for an inland port in South Florida?
5. Who would operate the facility?
6. What transportation services will be required?
7. What are the potential added handling costs and service penalties?
8. How will security be addressed?
9. Do we have public support?
10. Do we have industry support?
11. What transportation corridor improvements will be required?
12. How will an inland port complement the Winter Haven integrated logistics center and other key developments?
13. How will an inland port result in primary and secondary business development opportunities?
14. What are the market opportunities?
15. What should the State's role be in developing an inland port?

**Landowners**

**Company Name:**
**Contact:**
**Title/Position:**
**Address:**
**Phone/Fax:**
**Email:**

**Intro/Overview**

South Florida is home to a fast growing and diverse population. The Everglades creates a natural barrier between the East and West Coast communities, connected by a small number of highway corridors. Both eastern and western communities can be characterized as large consuming populations, and service and tourism oriented economies, supported by significant but declining agricultural and mining industries. The last decade has shown a significant increase in congestion throughout the transportation system. Bottlenecks exist within and between highways, seaports, airports, and railroads for passenger and cargo operations.

The Port of Palm Beach presented a concept of a new transportation facility to FDOT for consideration. The proposal describes an inland port facility that would be located at a centralized location in South Florida, providing a hub of freight services with truck and rail connections to the region's seaports, with truck access to regional markets. At the Port's request, the Department is conducting a feasibility study to explore this proposal.

The purpose of this study is to examine the possibility of developing a new approach to freight movement patterns in South Florida through the development of a new freight transportation/distribution hub that could serve the region. Specifically, the concept of an inland port complex, with supporting industrial development and transportation connections, will be considered. The inland port concept could serve as a means of increasing seaport capacity, promoting industrial development, and diverting freight traffic from highly congested transportation corridors. It will be critical to define the market area, define the necessary modal service bundles, identify truck and rail connectors to each of the seaports, document environmental and land use implications and impacts, estimate the economic impact (benefit/costs), and develop recommendations based on the analysis.

Throughout the world, the term ***inland port*** evokes many different definitions, as facilities vary substantially in terms of operations, facilities, and magnitude. For the purposes of this study, an inland port can be generally understood to be an inland facility that is affiliated with one or more seaports and serves as an extension of the services that are typically provided on the port. Since a facility of this type would likely impact a variety of landowners and transportation entities within the region, we are currently interviewing a wide spectrum of stakeholders in order to determine the feasibility of an inland port in South Florida. The following set of questions are intended to give you an opportunity to identify key issues that arise when you think about how an inland port might possibly impact your firm/organization/agency.

| Type of Organization (Check all that apply): | | | | | | |
|---|---|---|---|---|---|---|
| Public Agency | Port | Airport | Rail Carrier | Truck Carrier | Steamship Carrier | Landowner/ Private Company |
| | | | | | | |

**Organization**

- What does your organization do? Daily Operations? Products/Services?
- How is your organization involved in the South Florida freight community?

**Operation**

- What do you see as critical transportation service requirements ?
- What attributes of an inland port facility would be the most attractive to your organization?

**Infrastructure**

- What location would be the most beneficial to your organization?

**Market**

- What services are necessary to benefit your organization?
- What would be the "best use" for an inland port facility?

**Implementation**

- What should the state's role be in the development process (planning, construction, operation)?

**General Questions**

- Identify the transportation infrastructure you use or rely on. What seaports, airports, and rail yards/facilities do you use? What are the key highways you rely on (please identify specific highways, arterials, local terminal access roads, etc. that you use regularly)?
- Describe the condition of these facilities. Are there significant operational or structural limitations (bottlenecks, poor reliability, size/weight constraints, etc.?
- What are the strengths of the region's transportation infrastructure?
- What are the weaknesses of the region's transportation infrastructure?
- How could the existing infrastructure be operated differently to improve your operations?
- How could the existing infrastructure physically be changed to improve your operations?
- Are you aware of any planned improvements?
- How might you benefit from an inland port/ILC?
- How might you be negatively impacted by an inland port /ILC?
- What potential sites are available?

**Customers/Shippers**

**Company Name:**
**Contact:**
**Title/Position:**
**Address:**
**Phone/Fax:**
**Email:**

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- What do you see as critical transportation service requirements ?
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- What location would be the most beneficial to your organization?

**Market**

- What services are necessary to benefit your organization?
- What would be the "best use" for an inland port facility?

**Implementation**

- What should the state's role be in the development process (planning, construction, operation)?

**Inbound Flows**

- What are the primary raw materials brought in for production?
- Where are your suppliers located, geographically? Does your selection of suppliers depend on their business location?
- What modes are used for delivery of these materials? Why do you use these modes? Or, why don't you use other modes?
- Are your materials mode specific/dependent?
- If you use rail, do you have a rail siding? How many cars does it hold?
- What volume of freight do you receive weekly or monthly (by mode)?
- What service requirements do you have for these shipments? Do you have any penalties for late or missed shipments?

**Outbound Flows**

- What are the primary products manufactured/distributed?
- What modes are used for delivery of these products?
- Are your products mode specific/dependent?
- For truck deliveries, how many loading/unloading docks so you have?
- If you use rail, do you have a rail siding? How many cars does it hold?
- What volume of freight do you send out weekly or monthly (by mode)?
- What service requirements do you have for these shipments? Do you have any penalties for late or missed shipments?

**General Questions**

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- What are the strengths of the region's transportation infrastructure?
- What are the weaknesses of the region's transportation infrastructure?

- How could the existing infrastructure be operated differently to improve your operations?
- How could the existing infrastructure physically be changed to improve your operations?
- Are you aware of any planned improvements?
- Do you have your own warehouse space? If so, how much warehouse space do you have (in square feet) for raw materials and then for finished products? If not, do you use a public warehouse? Please describe.
- What type of turnaround time do you have for port-related freight?
- How could an inland port/ILC benefit your company?
- How might an inland port /ILC negatively impact your company?
- What general location of an inland port/ILC would be the most beneficial to your operation?
- List potential positive impacts of an inland port facility to your organization:
- List potential negative impacts of an inland port facility to your organization:
- What in your opinion, would be transportation service preferences?
- How should operations responsibilities be allocated at an inland port facility?
- How much land and/or capacity would be necessary?
- What are your system requirements?
- How could an inland port facility be incorporated with existing/planned facilities?
- What handling costs would be added as a result of an inland port facility?
- What are the key issues in terms of sustainability & mobility?
    - What cargo volume levels would be necessary to affect positive change?
- From your perspective, how could an inland facility benefit South Florida?
- What are the potential sources of funding?

- What opportunities for ancillary/secondary development are available?
- Is a public-private partnership the most logical approach to development of an inland port facility in South Florida?

**Municipal Representatives, Relevant Agencies & Relevant Consultants**

**Company Name:**
**Contact:**
**Title/Position:**
**Address:**
**Phone/Fax:**
**Email:**

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South Florida is home to a fast growing and diverse population. The Everglades creates a natural barrier between the East and West Coast communities, connected by a small number of highway corridors. Both eastern and western communities can be characterized as large consuming populations, and service and tourism oriented economies, supported by significant but declining agricultural and mining industries. The last decade has shown a significant increase in congestion throughout the transportation system. Bottlenecks exist within and between highways, seaports, airports, and railroads for passenger and cargo operations.

The Port of Palm Beach presented a concept of a new transportation facility to FDOT for consideration. The proposal describes an inland port facility that would be located at a centralized location in South Florida, providing a hub of freight services with truck and rail connections to the region's seaports, with truck access to regional markets. At the Port's request, the Department is conducting a feasibility study to explore this proposal.

The purpose of this study is to examine the possibility of developing a new approach to freight movement patterns in South Florida through the development of a new freight transportation/distribution hub that could serve the region. Specifically, the concept of an inland port complex, with supporting industrial development and transportation connections, will be considered. The inland port concept could serve as a means of increasing seaport capacity, promoting industrial development, and diverting freight traffic from highly congested transportation corridors. It will be critical to define the market area, define the necessary modal service bundles, identify truck and rail connectors to each of the seaports, document environmental and land use implications and impacts, estimate the economic impact (benefit/costs), and develop recommendations based on the analysis.

Throughout the world, the term ***inland port*** evokes many different definitions, as facilities vary substantially in terms of operations, facilities, and magnitude. For the purposes of this study, an inland port can be generally understood to be an inland facility that is affiliated with one or more seaports and serves as an extension of the services that are typically provided on the port. Since a facility of this type would likely impact a variety of landowners and transportation entities within the region, we are currently interviewing a wide spectrum of stakeholders in order to determine the feasibility of an inland port in South Florida. The following set of questions are intended to give you an opportunity to identify key issues that arise when you think about how an inland port might possibly impact your firm/organization/agency.

| Type of Organization (Check all that apply): | | | | | | |
|---|---|---|---|---|---|---|
| Public Agency | Port | Airport | Rail Carrier | Truck Carrier | Steamship Carrier | Landowner/ Private Company |
| | | | | | | |

**Organization**

- What does your organization do? Daily Operations? Products/Services?
- How is your organization involved in the South Florida freight community?

**Operation**

- What do you see as critical transportation service requirements ?
- What attributes of an inland port facility would be the most attractive to your organization?

**Infrastructure**

- What location would be the most beneficial to your organization?

**Market**

- What services are necessary to benefit your organization?
- What would be the "best use" for an inland port facility?

**Implementation**

- What should the state's role be in the development process (planning, construction, operation)?

**General Questions**

- Please describe what your office/job does/entails relating to transportation planning and specifically to freight transportation planning.
    - Land use
    - Economic development
    - Safety
    - Enforcement
    - Capacity
    - Operations
    - Environment
- Were you aware of this study prior to our contact with you? If so, how?
- Please identify any data/resources/studies you believe we should be collecting and reviewing as part of this study.
- Are there any individuals in the public or private sectors that you believe we should make sure and speak with? If so, please provide contact information.
- What are your expectations for this study? What benefits can your agency derive from this study?
- What are the strengths of the region's transportation infrastructure?
- What are the weaknesses of the region's transportation infrastructure?
- Are you aware of specific bottlenecks for each mode (seaports, airports, highways, railroads, pipelines)? Please identify specific locations, as appropriate, for each type of constraint.
- Describe the condition of these facilities. Are there significant operational or structural limitations (bottlenecks, poor reliability, size/weight constraints, etc.?
- How could the existing infrastructure physically be changed to accommodate an inland port?
- Do you have any other comments or issues that you would like to discuss?

**Targeted questions**:

Economic Agencies:

- Funding mechanisms?
- Potential for partnerships?

Environmental Agencies:

- Impacts?
- Remediation?
- Relevant geotechnical information?

Land Use Agencies:

- Available/potential sites?
- Potential zoning or jurisdictional complications?

Transportation entities:

- Existing infrastructure – potential for integration?
- Other relevant studies or projects?
- Miscellaneous relevant information?

# *Appendix B*

**Port of Miami**
1015 North America Way, 2nd Floor
Miami, Florida 33132-2081
T 305-371-7678 F 305-347-4843
www.miamidade.gov/portofmiami

**miamidade.gov**

July 3, 2007

Ms. Stephanie Kopelousos
Secretary
Florida Department of Transportation
605 Suwanee Street – MS68
Tallahassee, FL 32399-0450

Dear Ms. Kopelousos:

First, I want to congratulate you on your appointment as State Transportation Secretary. We appreciate all that you and District Six do for our community; and, in particular, for the Port of Miami. I look forward to a future opportunity to meet you, and want to offer the services of our Port to you if we can be of assistance.

The purpose of my letter is to clarify the Port's position on the South Florida Inland Port project. While we are not in a position to say definitively that we would support this project, we have not taken a position to oppose. From a regional standpoint, we are in favor of any project that adds to the overall cargo and freight handling capacity of the State of Florida.

At present, five locations are being considered for the inland port. Of those, the South Bay Area site appears to offer the best benefit for the Port of Miami. That location sits astride U.S. highway 27, which runs to the southeast toward Broward and Miami-Dade counties. In our opinion, the other four sites do not provide for easy rail or highway access to our Port.

If the South Bay site is selected, we would be interested in participating throughout the project's planning stages to maximize the facility's benefit for all of the southeast Florida ports. In closing, the Port of Miami supports the continuation of the Inland Port Study and will continue to be engaged and provide assistance as needed.

Sincerely,

Bill Johnson
Port Director

c: Meredith Dahlrose, Florida Department of Transportation

BROWARD COUNTY
FLORIDA

**PORT EVERGLADES DEPARTMENT - Port Director's Office**
1850 Eller Drive - Fort Lauderdale, Florida 33316
954 523-3404 • FAX 954-523-8713

July 2, 2007

Ms. Meredith Dahlrose
Florida Department of Transportation
605 Suwannee Street – MS68
Tallahassee, FL 32399-0450

Dear Meredith:

**RE: South Florida Inland Port**

Since the last stakeholders meeting of June 7, 2007, there has arisen some level of concern as to the position of Port Everglades regarding this study effort.

As you know, we are currently completing a twenty year vision and master planning effort. As part of this study effort, we are continuing to look forward to the development of an Intermodal Container Transfer Facility (ICTF) which would be located within the existing land area of the Port. FDOT has been actively involved in this process, including the provision of an elevated Eller Drive access road which would assist in the development of the ICTF by providing grade separation of rail and highway users. The proposed Inland Port could incorporate additional rail and over the road connections along with the potential development of warehousing and distribution facilities within the region.

Currently, a great deal of the South Florida warehousing and distribution facilities are located in ever more congested western Miami-Dade County. As traffic pressures increase over the years as South Florida continues to become more densely populated, existing facilities may become more expensive to operate; land value will increase; and we must look to potential ways to overcome freight movement inefficiencies.

We do not foresee a current conflict in planning efforts geared toward long range alternative analysis. The continued development of freight alternatives must be pursued before we reach a point of breakdown in our distribution systems. Port Everglades supports the continuation of the Inland Port study and would urge FDOT to likewise support continued analysis of the alternatives.

Sincerely yours,

Phillip C. Allen
Port Director

PCA:rm

Broward County Board of County Commissioners
Josephus Eggelletion, Jr. • Sue Gunzburger • Kristin D. Jacobs • Ken Keechl • Ilene Lieberman • Stacy Ritter • John E. Rodstrom, Jr. • Diana Wasserman-Rubin • Lois Wexle
www.broward.org

TO: Lori

**Board of Commissioners**
Blair J. Ciklin
Jean L. Enright
George E. Mastics
Edward R. Oppel
Wayne M. Richards

**Executive Director**
Lori A. Baer

July 6, 2007

Ms. Meredith Dahlrose
Intermodal Systems Specialist
Central Office
Florida Department of Transportation
605 Suwannee St., M.S. 68
Tallahassee, FL 32399

Dear Ms. Dahlrose:

The Port of Palm Beach is pleased that the draft South Florida Inland Port Feasibility Study (prepared by Cambridge Systematics) has been completed, and appreciates the opportunity to participate in the effort to advance the draft document towards final study form.

The Florida Department of Transportation has shown great leadership in its willingness to perform this study, and to support future studies to better understand the market and economic components of the project. We are deeply appreciative of this effort and the FDOT's commitment to the project's future.

The Port of Palm Beach believes that the project has the potential to serve large, regional markets and other South Florida ports. We understand that both the Port of Miami and Port Everglades are interested in the facility and hope that the study conclusions reflect that further analysis in future phases continue to address the regional potential of the facility.

In addition, the Port of Palm Beach is sensitive to the environment and sustainability of small communities around Lake Okeechobee. We recommend that the study include a more thorough discussion of environmental and growth management issues. Without a full understanding of these issues (which is well beyond the scope of this feasibility analysis), some conclusions in the study, such as the recommendation against new and expanded corridors, may be premature and need to be considered as part of the larger framework of facility location within the South Florida environment. The Port of Palm Beach is strongly in favor of an inclusive, collaborative process to address master planning and site selection efforts as a means to understand how the facility can support local, regional and statewide plans.

PO Box 9935. Riviera Beach, FL 33419 • Ph. (561) 842-4201 • Fax. (561) 842-4240 www.portofpalmbeach.com

Thank you in advance for your consideration of these comments and your continuing dedication to regional intermodal freight mobility, and to FDOT's demonstrated support of Florida's ports.

Most sincerely,

Lori A. Baer
Executive Director
Port of Palm Beach

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# MEMORANDUM

**TO:** **Kevin Thibault**
**Marion Hart**
**Lorenzo Alexander**

**FROM:** **John LaCapra**

**DATE:** **July 6, 2007**

**SUBJECT:** **Review of South Florida Inland Port Feasibility Study**

The Department of Transportation participated with Florida Seaports and their stakeholders in the Florida Seaport Strategic Visioning Process last summer which reaffirmed the value of our collective trade and cruise operations to respective regions and the state. Some of the key premises emerging from the process and critical to our statewide seaport system were the synergies recognized among ports, modal partners, communities and industries for economic development and the regional and statewide cooperation that enable the optimization of port assets.

The South Florida Inland Port Feasibility Study gives us the opportunity to exemplify these premises in an extraordinary way. We encourage the Department to envision the inland port in the context of regional and statewide freight mobility and to recognize its potential in the interrelated logistics and efficiencies of a global transportation environment.

We appreciate the opportunity to comment on the South Florida Inland Port Feasibility Study and look forward to working with you in the future.

T:\MyFiles\PALMBEACH\responsetoDOT.wpd

# Florida Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary


June 25, 2007

Ms. Stephanie C. Kopelousos, Secretary
Florida Department of Transportation
605 Suwannee Street
Tallahassee, FL 32399-0450

Dear Secretary Kopelousos:

The Department has reviewed the June 2007 Draft Final Report of the South Florida Inland Port Feasibility Study, prepared by Cambridge Systematics, Inc. Funded by FDOT, the study examined the feasibility of a centrally located inland port that would provide a hub of port-related operations and storage facilities, with truck and rail connections to regional markets and South Florida seaports. The consultant intends to submit the final report by June 29, 2007.

The draft report identifies five potential sites, two of which are in the Everglades Agricultural Area, and states that "a location along US 27 south of South Bay would serve the largest set of needs." All five sites have environmental issues, ranging from impacts on the Comprehensive Everglades Restoration Plan (CERP) and sensitive public lands, to the indirect and secondary effects resulting from development necessary to support the facility (*e.g.*, work-force housing and infrastructure requirements).

Although Department staff met briefly with the study consultants, Section 5.7 of the draft report ("Environmental Factors") provides no details or analysis of the environmental consequences that would result from development of the proposed inland port. The Department is particularly concerned about the following italicized statements on page 5-19, which are not supported by information in the report:

> South Florida's interior is dominated by natural areas and agricultural lands with relatively few well developed transportation corridors. Developing a new freight transportation hub in the interior will be challenged by these preservation activities. *Development of an inland port and related support industries can be achieved consistent with environment goals while also improving the overall transportation system in South Florida and maximizing mobility. This, by definition, should reduce congestion and therefore benefit both the economy and the environment.*

Because the draft report contains no detailed information on environmental features in and around the proposed sites and did not describe the manner in which environmental concerns would be addressed, the Department recommends that the last two sentences of the foregoing paragraph be stricken or modified to accurately document the data and analysis upon which the statements were based.

With regard to the proposed recommendations, the Department also suggests the following modification of the introductory sentence of Section 6.2 (Recommendations):

> The state should work with local and regional partners to further investigate the viability ~~promote consideration~~ of a mixed use freight hub that directly serves Port of Palm Beach, maximizes use of existing transportation corridors, provides a variety of transportation, distribution, and warehousing facilities, promotes regional economic development, protects public investment in sensitive lands and resources, and is dependent on public and private investments.

Finally, the Department wishes to be an active participant in the advisory/stakeholder committee recommended in the draft report, particularly with regard to potential site selection. As partners in restoration of America's Everglades, the Department, South Florida Water Management District and U. S. Army Corps of Engineers can provide extensive detail on environmental features and CERP-related projects in and around the proposed sites. In addition, due to the secondary development and growth potential resulting from development of an inland port, the Florida Department of Community Affairs should also have a seat at the advisory/stakeholder table.

We look forward to working with FDOT and its consultants during the Phase II study of the proposed project.

Sincerely,

Michael W. Sole
Secretary

MWS/sbm

cc: Carol Ann Wehle, Executive Director, SFWMD
Dennis R. Duke, Program Manager, USACE
Mr. Jim Wolfe, Secretary – FDOT District 4

**1000 Friends of Florida • Loxahatchee River Coalition • Sierra Club, Loxahatchee Group**
**Audubon Society of the Everglades**

FDOT Seaport Office
605 Suwannee Street
M S 68
Seaport Office
Tallahassee, FL 32399

June 25, 2007

Re: Palm Beach Inland Port

Dear Ms. Dahlrose,

Having reviewed the draft inland port report study done by Cambridge Systematics, Inc., we are concerned about a number of issues that were raised at the meeting held on June 7, 2007 that we believe will be detrimental to the state of Florida and this region.

First, there was no indication that any ports other than the Port of Palm Beach are even interested in an inland port. It is clear from newspaper articles and the consultant's report that none of the other ports are remotely interested in this program, and in fact it may cause unnecessary conflicts and competition that may work to the detriment of other economies statewide.

Second, the locations that were mentioned as possible sites each have a set of problems that would cause serious negative impacts to wetlands and valuable habitat, interfere with the goals and implementation of South Florida Ecosystem Restoration, including the Comprehensive Everglades Restoration Plan. In addition, all sites appear likely to cause infrastructure to be placed where there is no need, resulting in opening up areas in Florida to development pressures that were never intended.

The study did not address some very fundamental questions that must be answered before any site can be considered. Water supply needs, transportation improvements, funding sources, and CERP implementation must be addressed before decisions are made, not after. Impacts to roadways and increased traffic data also must be known. Costs of all aspects of the project and who is paying for it must be known. How rural towns will handle the impacts from various sites is critical. Potential benefits that might make the project justifiable are not known. None of these important questions have been addressed.

One concern that was mentioned at the meeting that the project would put a large volume of trucks on the rural state highway system drew the following response:

> *The majority of these roadways are already carrying significant volumes (and percentages) of trucks. The railroads are underutilized and need to be upgraded; this will involve dealing with the private sector.*

The impact of this volume is a real concern that is likely to cause the state and local governments to spend a lot of the money to properly resolve.

There was emphasis on jobs that would help the local economies, but no number or description of these jobs was provided. What kinds of salary ranges are anticipated? Are the jobs for residents or "new" employees that will come from elsewhere? What about community needs for the new employees? It is not reasonable to assume that the kind of facility being proposed in a rural area can exist in isolation. Consideration must be given to basic infrastructure such as schools, water, sewer, commercial and other institutional uses.

Given the lack of background research on numerous critical issues, lack of funding options or commitments by private industry, and serious predictable impacts to rural communities we believe this discussion is premature and needs an honest and detailed look at its implications, both good and bad, before any firm decisions to proceed are made.

Sincerely,
Joanne Davis, Community Planner
1000 Friends of Florida

Cynthia Plockelman, 1st Vice President
Audubon Society of the Everglades

John Koch, Chair
Sierra Club, Loxahatchee Group

Susan Kennedy, Chair
Loxahatchee River Coalition

\Signatures waived to expedite delivery

cc: Michael Williamson, Cambridge Systematics

CAMBRIDGE SYSTEMATICS

# South Florida Inland Port Feasibility Study

draft final

# report

*prepared for*

**Florida Department of Transportation, Seaport Office**

*prepared by*

**Cambridge Systematics, Inc.**

*June 2007*

www.camsys.com

*draft final report*

# South Florida Inland Port Feasibility Study

*prepared for*

Florida Department of Transportation, Seaport Office

*prepared by*

Cambridge Systematics, Inc.
110 East Broward Boulevard, Suite 1700
Fort Lauderdale, Florida 33301

*June 2007*

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# 1.0 Introduction

The Port of Palm Beach, located in Riviera Beach, has taken a comprehensive look at its long term growth potential. Currently, it is a landlocked facility without adequate physical expansion opportunities. Terminal size constraints are impacting its ability to attract new business. In an attempt to address this situation, port staff developed a concept for an inland port facility in western Palm Beach County. This facility would serve the Port as a direct extension of its waterside terminal. It would require improved highway and rail connections. At the Port's request, the Florida Department of Transportation agreed to conduct a study to explore the feasibility of an inland port facility that would be located at a centralized location in South Florida, providing a hub of port-related operations and storage facilities, with truck and rail connections to the region's seaports, with truck access to regional markets.

## 1.1 Background

South Florida is facing recurring congestion, limited capacity expansion opportunities, and high levels of growth. Both Atlantic and Gulf Coast communities have experienced extensive development over the last decade, resulting in significant growth in congestion levels throughout the region. The Everglades creates a natural barrier between Florida's Atlantic and Gulf Coast communities which are connected by a limited number of transportation corridors. Transportation professionals have struggled to increase system capacity to match the growth in demand. From 2004 to 2005, vehicle-miles traveled (VMT) increased over 3.5 percent while lane miles increased by 1.5 percent.[1] Construction related activities, combined with a services dominated economy creates a strong demand for additional transportation services. Future mobility, economic prosperity, and quality of life will be challenged without well thought out land use, development, and transportation investment decisions. These conditions have created a demand for new and innovative additions to the regional freight transportation system.

In 2002, the South Florida Regional Transportation Summit was organized to stimulate discussions among partners about the importance of and need for a regional approach. In addition, the Atlantic Commerce Corridor Study was undertaken to document conditions along the eastern corridor in Miami-Dade, Broward, and Palm Beach counties. This included development of a project list and other recommendations for the three seaports, three airports, rail service, and highway connectors. Over the last few years, the southeast

[1] Florida Department of Transportation. Florida Transportation Trends and Conditions, 2006 edition.

region has dramatically enhanced its regional and multi-modal transportation programs to ensure continued and improved regional mobility. The southwest region also has expanded it transportation planning activities. Currently, both Collier and Lee County MPOs are undertaking freight studies designed to quantify needs and better integrate freight considerations into their established transportation programs. Efficient freight movement has received new emphasis by each metropolitan planning organization (MPO), the Strategic Intermodal System (SIS), and the FDOT District Offices.

With the ongoing SIS and Transportation Regional Incentive Program (TRIP) implementation, the development of the statewide Freight Plan, the designation of the Atlantic Commerce Corridor as a High Priority Corridor, Florida's future corridors initiative, and other major infrastructure projects under study and development throughout the region, now is an appropriate time to take a comprehensive look at regional freight needs and opportunities.

## 1.2 Study Purpose

The purpose of this study was to examine the possibility of developing a new approach to freight movement patterns in South Florida through the development of a new freight transportation/distribution hub that could serve the region. Specifically, the concept of an inland port complex, with supporting industrial development and transportation connections, were considered. The goal was to explore the ability to increase seaport capacity, promote industrial development, and divert freight traffic from highly congested transportation corridors. Critical elements included: potential market; definition of modal service bundles, including identification of truck and rail corridors and connectors linking the facility to regional seaports, key transportation corridors; identification of potential environmental and land use implications; and development of recommendations to guide next steps of this initiative.

The specific study goals included:

- To define what attributes an inland port should possess, including transportation and industrial support features;
- To determine if an inland port could effectively serve the port network in the southern half of Florida and complement other system investments in the state;
- To identify potential locations for developing an inland port, including but not limited to locations previously identified as potentially suitable by other studies; and
- To determine if an inland port concept is feasible and beneficial for South Florida.

## 1.3 Approach

In order to accomplish the objectives of this study, the following tasks were completed:

- **Task 1. Review Florida's Freight Transportation System.** This task briefly defined the state's freight transportation system; the purpose was to set the framework for how South Florida fits into the state, national, and international transportation networks.
- **Task 2. Define and Evaluate the South Florida Region.** This task defined the geography of South Florida and described the freight transportation network. This built off of the state profile and local freight studies, and was used to explain in more detail exactly how freight moves in South Florida. In addition, it identified key projects underway or planned, as well as the needs and bottlenecks facing the region.
- **Task 3. Identify Inland Port Parameters/Requirements.** This task defined the key characteristics of an inland port. This included a best practices review of a few successful inland ports in the U.S. to identify the "footprint" requirements and key success factors. In addition, the specific needs of South Florida were used to further refine the requirements.
- **Task 4. Identify and Evaluate South Florida Opportunities for an Inland Port.** This task focused on specific opportunities in South Florida. This included identification of possible site locations, evaluation of infrastructure connections, definition of public and private roles and responsibilities, etc. The primary purpose of this task was to develop a recommended action plan, as appropriate.
- **Task 5. Document Findings, Conclusions, and Recommendations.** This task summarized the work completed in Tasks 1 through 4 to provide a clear description of the work completed as well as specific recommended actions for consideration.

## 1.4 Report Organization

**Section 2, Florida's Freight Transportation System.** This section describes regional, state, and national trends in freight transportation. It provides a background for understanding South Florida's freight transportation needs.

**Section 3, Inland Port Characteristics.** This section discusses the range of characteristics associated with different types of inland ports and presents examples of successful facilities throughout the U.S.

**Section 4, Stakeholder Input.** This section summarizes the key findings of stakeholder input. A significant component of this study was to accumulate input from a broad range of local and regional freight stakeholders in the South Florida area.

**Section 5. Analysis of South Florida Opportunities.** This section summarizes the identification and analysis of potential sites for an inland port in South Florida. It includes land availability, environmental impacts, transportation access, markets served, etc.

**Section 6. Findings, Conclusions, and Recommendations.** This section provides study conclusions and recommendations.

# 2.0 Freight Transportation System Hierarchy

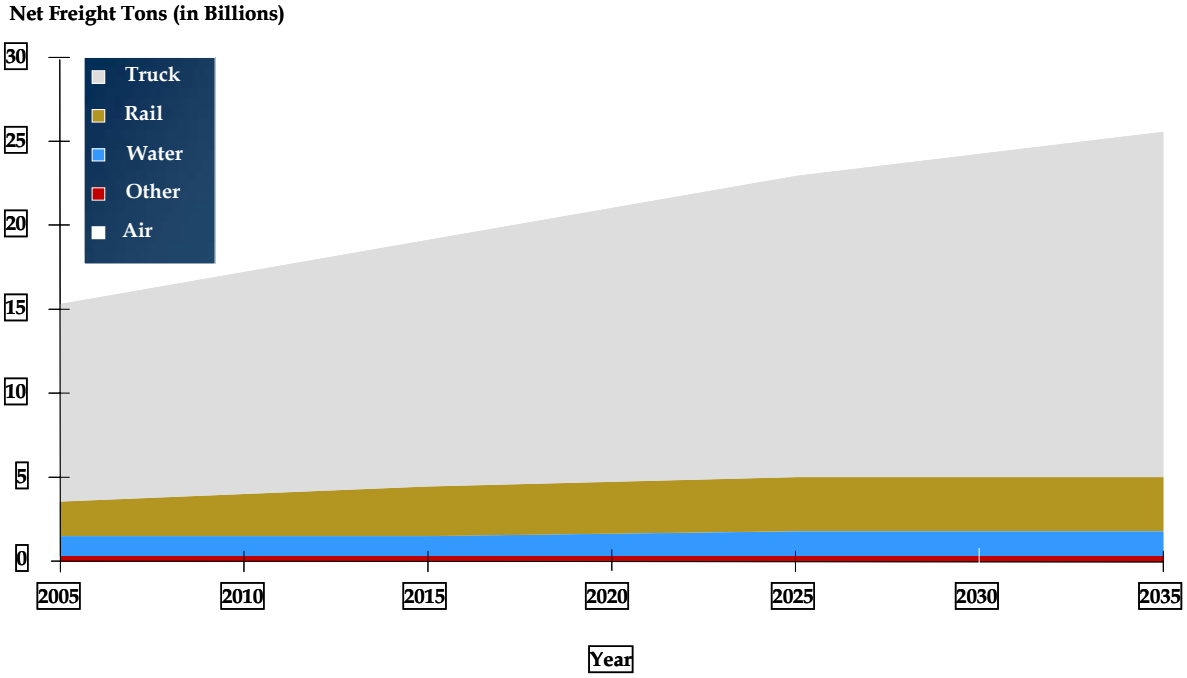
In determining the feasibility of an inland port in South Florida, it is necessary to understand the trends in logistics practices at the regional, state, national, and global levels. Florida's economy is increasingly driven by a global transportation network. This in large part dictates the transportation needs of today and tomorrow. Florida is home to fourteen deepwater seaports; these seaports connect Florida to domestic and international markets. Changes on the global and national scale provide Florida with significant opportunities and challenges today and in the years to come. Determining new and innovative approaches to improving freight service will play an important role in global and national market adaptations, which is precisely why the concept of an inland port in South Florida has emerged. The purpose of this section is to describe key trends at the regional, state, and national levels to help identify the types of services South Florida should be positioning itself to provide; specific attention is given to the roles played by seaports.

## 2.1 National Freight System

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 – all of which impact the movement of freight throughout the U.S. All modes of transportation are impacted, with seaports and airports functioning as the primary international gateways, and all modes playing critical roles in the domestic movement and distribution of freight. Identifying historical trends and future projections assists in providing critical indicators as to how the role of the ports have changed and likely will be changing in the coming years.

In order to help position the U.S. for future freight transportation demands, the American Association of State Highway and Transportation Officials (AASHTO) has developed a series of "Bottom Line" reports to document and evaluate freight transportation at the national level. These consist of: Freight Demand and Logistics Bottom Line Report; Highway Freight Bottom Line Report; Rail Freight Bottom Line Report; and Waterborne Freight Bottom Line Report. Each of these reports is designed to document trends and anticipated growth, identify demand and system capacity, and identify bottlenecks. Work to date suggests that total freight tons will grow from 15 billion tons in 2005 to 26 billion tons by 2035 (see Figure 2.1). While truck freight will remain dominant, all modes are expected to grow and challenge their current system capacities.

## Figure 2.1 US Freight Trends by Mode [1]




In addition to the growth in freight flows, other freight specific trends will impact system operations. For example, average size of container vessels at U.S. ports is gradually increasing as a result of larger, post-Panamax container ships. From 2000 to 2005, average deadweight tons increased from 38,000 to 45,000.[2] Seaports continue to make waterside and landside improvements to accommodate these larger vessels. In addition, changes in trading partners and shifts in shipping lanes create new opportunities. The Panama Canal widening project will increase competitiveness of East Coast ports pursuing Asian carriers. New trade agreements, such as CAFTA-DR, or the anticipated opening up of Cuba, also create shifts in business as usual.

Forecasts in seaport traffic have been developed based on the ongoing effects of globalization and intermodalism on the business of trade, and on projected growth in US and world economies. According to forecasts developed by Global Insight Inc. and presented in the AASHTO Freight Bottom Line Report on Waterborne Transportation:

- The fastest growth will be in higher-value goods that generally move via container. U.S. international container traffic is forecast to grow from around 24 million loaded containers in 2004 to around 72 million loaded containers by 2025. In other words, U.S. international container traffic will triple over the next 20 years. The imbalance between loaded import containers and loaded export containers is also forecast to grow. If we estimate total international container moves at twice the number of

[1] Global Insight, Inc., TRANSEARCH, 2004

[2] US DOT. "America's Container Ports: Delivering the Goods." March 2007

imports, which allows for export loads plus the return of the import container as an empty box – the total number of international TEUs would be 110 million in the year 2025. This is versus the current figure of around 42 million TEUs in 2005, which includes all types of moves – international, domestic, loaded, and empty (see Figure 2.2).

- Overall international waterborne tonnage is forecast to increase from more than 1.5 billion tons in 2004 to almost 2.5 billion tons in 2025. Roughly half of this increase will be associated with containerized commodities, and around half with non-containerized commodities. In total, the Marine Transportation System (MTS) will need to add around half a billion tons of capacity in both the container and non-container trades to accommodate international demand (see Figure 2.3).

**Figure 2.2. Forecasted Growth in U.S. International Container Trade** ***(Millions of loaded TEUs)***

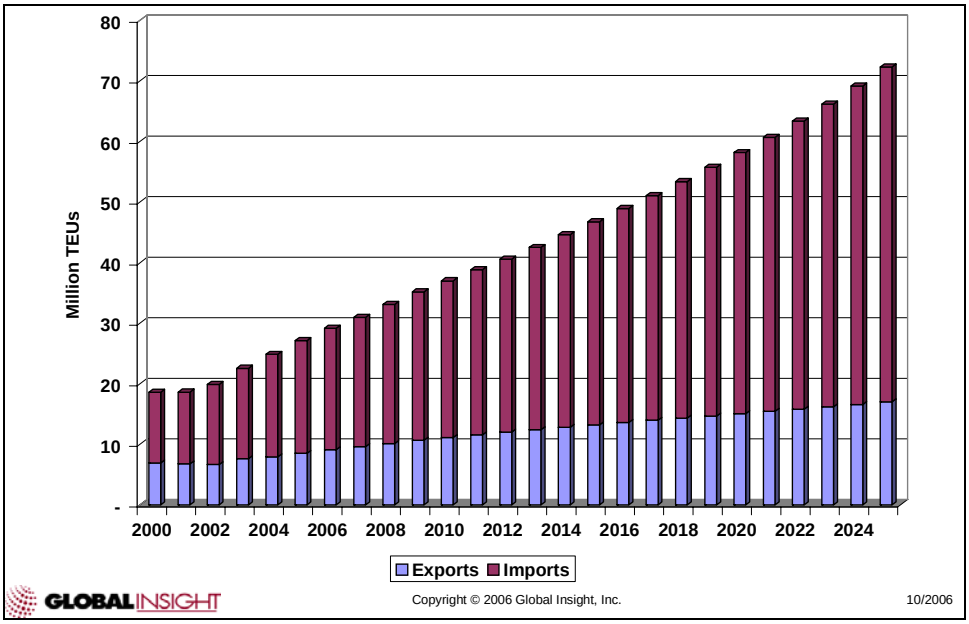
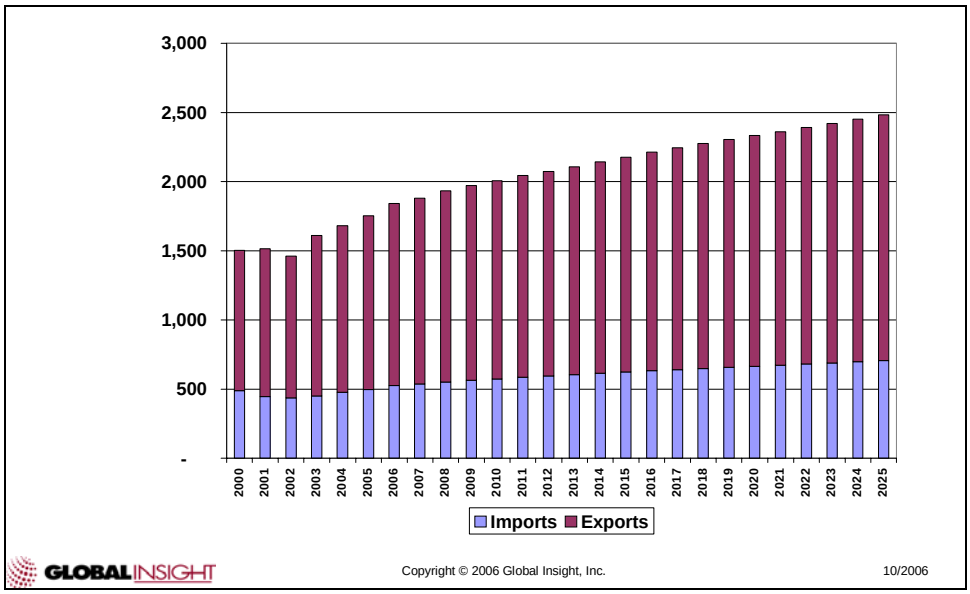


**Figure 2.3. Forecasted Growth in U.S. International Waterborne Tonnage** ***(Millions of Metric Tons)***




## 2.2 Florida Freight System

Florida continues to experience significant growth in freight. This is driven by increases in the state's population which drives consumption of consumer goods, and stimulates construction activities. Agriculture and mining activities remain a strong but declining contributor. Traffic is stable or up across all modes. Table 2.1 summarizes the current and future commodity flows in Florida, by mode, as reported by FHWA's Freight Analysis Framework (FAF). Total tons are expected to increase from 787 million in 1998 to 1.4 billion in 2020. This accounts for all freight moving into, out of, and within the state. Of this total, trucks handle over 70 percent. In addition, Florida is home to an integrated intermodal transportation system that can be categorized by freight regions, as illustrated in Figure 2.4.

Over the last few years, the Florida DOT has undertaken a major overhaul of its transportation program through the creation of the Strategic Intermodal System (SIS). The SIS has dramatically changed the way in which transportation funds are allocated. One of the critical changes has been a shift towards modes other than highway. As a result, Florida's seaports, airports, and railroads have benefited through this partnership from a significant increase in funding.

Each modal office develops a system plan and updates it regularly.

## Table 2.1 Growth in Freight Flows By Mode[3]

| FLORIDA | Tons (millions) | | | Value (billions $) | | |
|---|---|---|---|---|---|---|
| | 1998 | 2010 | 2020 | 1998 | 2010 | 2020 |
| **State Total** | 787 | 1,141 | 1,422 | 567 | 1,159 | 1,960 |
| | | | | | | |
| **By Mode** | | | | | | |
| Air | 2 | 4 | 6 | 120 | 269 | 492 |
| Highway | 562 | 834 | 1,052 | 395 | 795 | 1,319 |
| Other[a] | 6 | 14 | 22 | <1 | 3 | 7 |
| Rail | 143 | 193 | 235 | 42 | 73 | 114 |
| Water | 73 | 96 | 107 | 9 | 19 | 28 |
| | | | | | | |
| **By Destination/Market** | | | | | | |
| Domestic | 723 | 1,033 | 1,258 | 438 | 886 | 1.449 |
| International | 65 | 108 | 163 | 129 | 272 | 511 |

Note: Modal numbers may not add to totals due to rounding.

[a] The "Other" category includes international shipments that moved via pipeline or by an unspecified mode.

- **Rail Freight.** The 2006 Florida Freight and Passenger Rail Plan[4], released in February 2007 by FDOT's Rail Office provides a snapshot of the current freight and passenger rail system, analyzes the drivers of future rail demand, outlines the impact of freight rail issues from a public policy standpoint, and develops policy options and recommendations based on this information. It included identification of seven specific industries that are and will be especially sensitive to Florida's rail system performance, including: phosphates and fertilizers, distribution and retail, food and agriculture, paper and fiber, automotive distribution, energy, and construction.
- **Air Cargo.** The Florida Air Cargo System Plan, recently released by FDOT's Aviation Office, summarizes air cargo trends in Florida. Goods that are time-sensitive, higher value, and lower volume tend to be shipped via air. While eighteen airports in Florida have scheduled air cargo service, only 16 are SIS-designated (7 SIS, 9 emerging SIS). Of these, Miami International Airport (MIA) handles 74% of the state's air cargo, followed by Orlando International (MCO), Fort Lauderdale-Hollywood International (FLL), Tampa International (TPA), and Palm Beach International (PBI); which process modest amounts of air cargo (tonnage and value), as shown in Table 2.2. Key commodities include: live trees and plants, fish and other seafood, and edible vegetables dominate the imports.[5] Integrated express carriers such as FedEx, UPS, and DHL also comprise a notable amount of air cargo traffic in the state.

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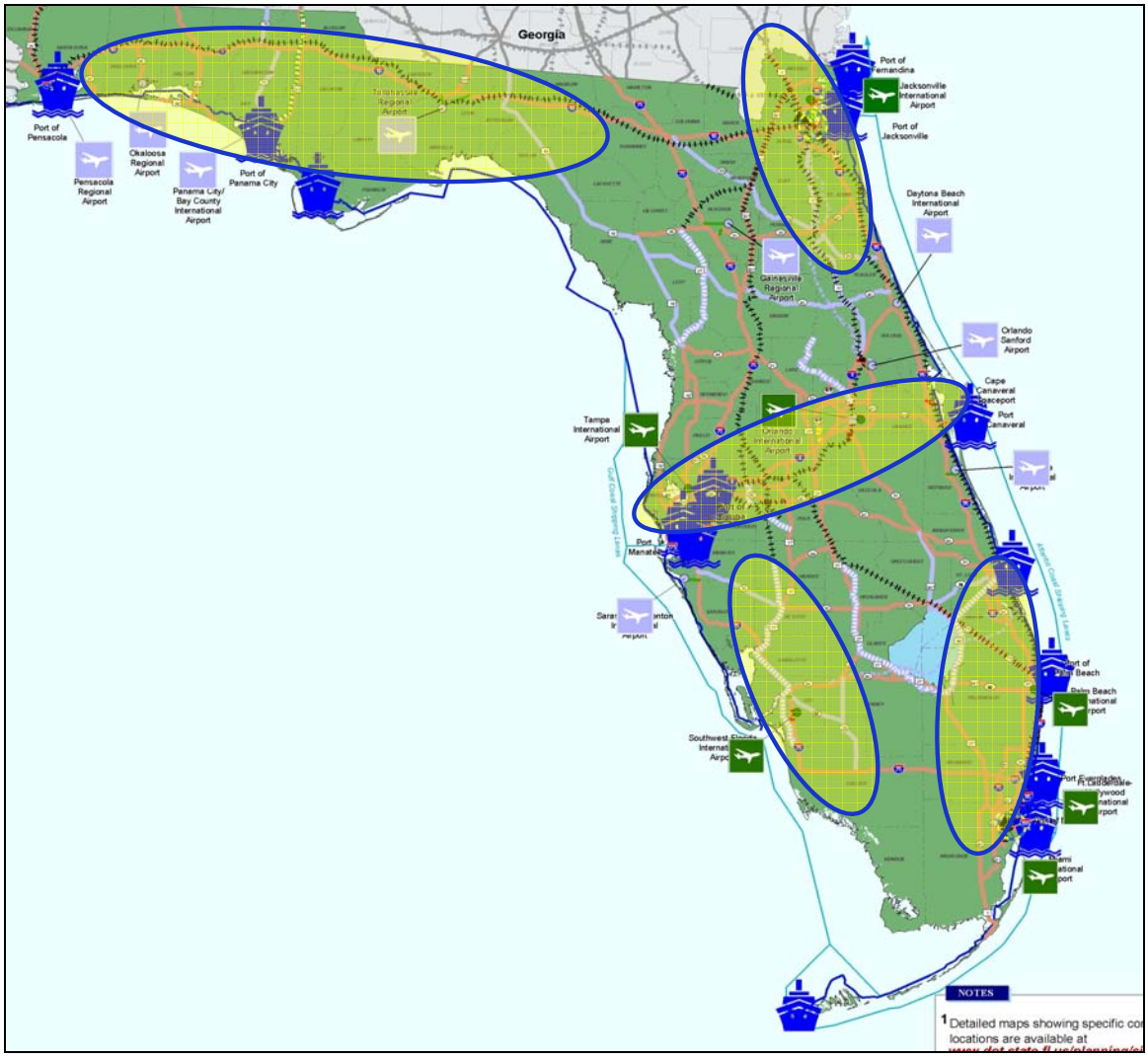
[3] US FHWA. Office of Freight Management and Operations. "Freight News: Freight Transportation Profile—Florida Freight Analysis Framework". November 2002 Available at: http://ops.fhwa.dot.gov/freight/freight_analysis/state_info/florida/fl2.pdf

[4] Florida Department of Transportation. "2006 Florida Freight & Passenger Rail Plan Final Report". Prepared by Cambridge Systematics, February 2007

[5] Florida DOT. "Aviation Office, Florida Air Cargo System Plan" Prepared by Wilbur Smith Associates, September 2006

## Figure 2.4 Florida Freight Service Regions




- **Seaports**. Over the last year, significant work has been undertaken by the Florida DOT's Seaport Office to lay the groundwork for a more comprehensive seaport program. Work has focused on documenting current seaport conditions, measuring state benefits in seaport investments, and exploring the implications of changing trends in global trade. Over the past few years, Florida seaport growth has mirrored that of global increases of waterborne cargo and cruise statistics. Florida seaports, particularly Jacksonville, Miami, Everglades and Tampa have consistently ranked in the top 20 nationally in categories such as ports of call (all vessel types), container ports of call, and annual tonnage.[6] Florida's international trade is expected to reach $97.6 billion by 2008.[7]

[6] US DOT Maritime Administration (MARAD)

[7] Florida Ports Council. "A Forecast of Florida International Trade Flows" The Washington Economics Group, November 2003

Statewide, Florida's combination of airborne and waterborne international trade totaled $95.3 billion in 2005; an increase of 17% over 2004. Of this total , nearly $63 billion moved through the 14 seaports of the state[8]. Ports in Florida tend to serve their respective regions, while deepwater ports in other areas of the South, such as in Texas, Louisiana, and Georgia tend to serve as international gateways to U.S. hinterland markets. At the state level, Florida's ports could be asked to handle between 7.24 million and 8.46 million TEUs by the year 2025, up from 2.97 million TEUs in 2005. In addition, Florida's ports could be asked to handle between 155 million and 207 million tons by the year 2025, up from 127 million tons in 2005.[9] (See Table 2.3).

In order to handle these increases in traffic, Florida's seaports need to expand and improve the four key elements of their operations: waterside access, terminal capacity, landside access, and market access. Figure 2.5 illustrates both volume measured by tonnage as well as import export balances per each seaport (2005). Port of Tampa processes the highest volume by tons by a large margin, followed by Port Everglades and the Port of Jacksonville. The Ports of Jacksonville, Tampa, and Palm Beach are comprised of more than fifty percent domestic freight while the Ports of Canaveral, Manatee, and Miami are almost exclusively international - majority being imports. Figure 2.6 illustrates the TEUs being handled by Florida's ports. Southeast Florida, and the Atlantic Coast in general, dominates the container market in Florida, although most of the deep water ports in Florida are experiencing growth in this market segment.

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[8] Florida Seaport Transportation and Economic Development Council (FSTED). "A Five-Year Plan to Achieve the Mission of Florida's Seaports: 2005/2006-2009/2010". February 2006.

[9] Although Florida's seaports provide an aggregate 5-year forecast, longer term statewide forecasts for cargo demand through Florida's seaports are not currently available. However, useful projections can be developed from three sources: (1) trendline analysis of historic Florida port growth; (2) application of South Atlantic and Gulf Coast "port range" forecasts (source: Global Insight Inc.) to current Florida traffic; and (3) application of national average forecasts (source: Global Insight Inc.) to current Florida traffic. All of these methods are approximations and should be supported by more detailed study in the future, particularly with respect to different commodity classes and handling type.

## Table 2.2 Total Tonnage at Florida Airports[10]

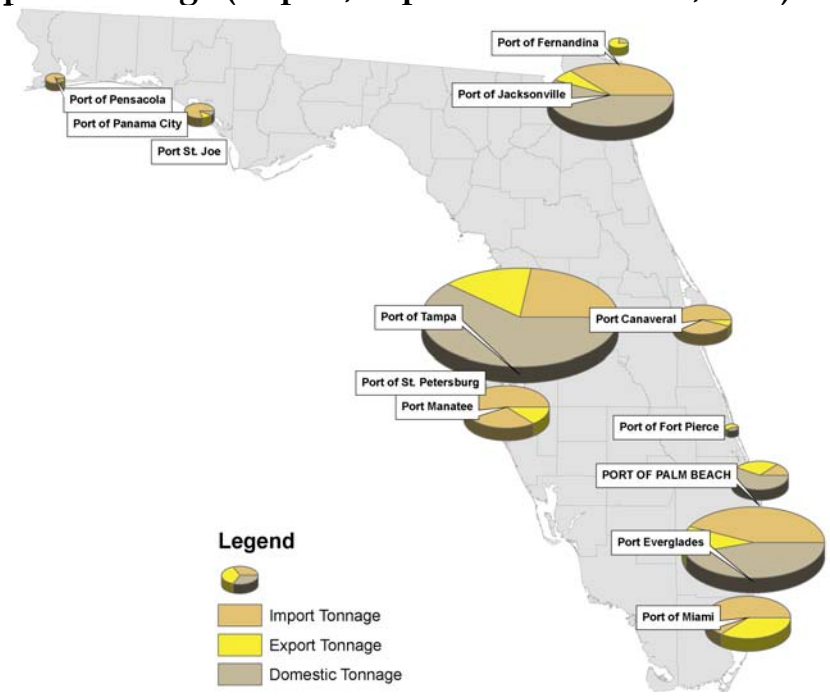
| Florida Tier 1 Airports (SIS) | 2005 Total Tonnage (Short Tons) | Percent of Total |
|---|---|---|
| Miami International (MIA) | 1,934,545 | 74.1 |
| Orlando International (MCO) | 225,928 | 8.7 |
| Fort Lauderdale/Hollywood International (FLL) | 175,533 | 6.7 |
| Tampa International (TPA) | 100,228 | 3.8 |
| Jacksonville International (JAX) | 83,975 | 3.2 |
| Southwest Florida International (RSW) | 21,148 | 0.8 |
| Palm Beach International (PBI) | 19,315 | 0.7 |
| All Others | 50,198 | 2.0 |

## Table 2.3 Projected Traffic Through Florida Ports

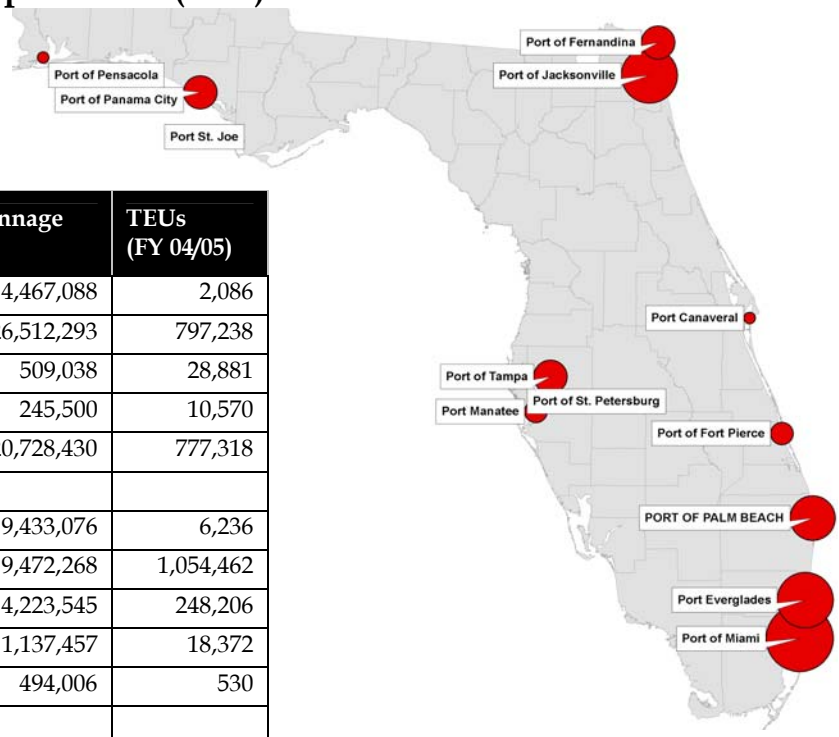
| State | 1994 | 2005 | 2025 | Annual Growth Rate |
|---|---|---|---|---|
| FL Containers (TEUs) | 1,709,499 | 2,970,545 | | |
| (1) Projection from 10-Year Trendline | | | 8,112,231 | 5.2% |
| (2) Projections from "Port Range" forecasts | | | 7,244,809 | 4.6% |
| (3) Projections from National Avg forecasts | | | 8,457,409 | 5.4% |
| FL Tonnage (all commodities) | 109,267,000 | 127,418,253 | | |
| (1) Projection from 10-Year Trendline | | | 168,493,005 | 1.4% |
| (2) Projections from "Port Range" forecasts | | | 154,744,954 | 1.0% |
| (3) Projections from National Avg forecasts | | | 207,260,323 | 2.5% |

[10] *Ibid*. at 9

## Figure 2.5 Florida Seaport Tonnage (Import, Export and Domestic, 2005)




## Figure 2.6 Florida Seaport TEUs (2005)[11]




| Seaport Name | Total Tonnage (2005) | TEUs (FY 04/05) |
|---|---|---|
| Canaveral | 4,467,088 | 2,086 |
| Everglades | 26,512,293 | 797,238 |
| Fernandina | 509,038 | 28,881 |
| Fort Pierce | 245,500 | 10,570 |
| Jacksonville | 20,728,430 | 777,318 |
| Key West | | |
| Manatee | 9,433,076 | 6,236 |
| Miami | 9,472,268 | 1,054,462 |
| Palm Beach | 4,223,545 | 248,206 |
| Panama City | 1,137,457 | 18,372 |
| Pensacola | 494,006 | 530 |
| St. Petersburg | | |
| Tampa | 50,194,552 | 26,646 |

[11] Florida Seaport Transportation and Economic Development Council (FSTED). "A Five-Year Plan to Achieve the Mission of Florida's Seaports (2005/2006 – 2009/2010)".

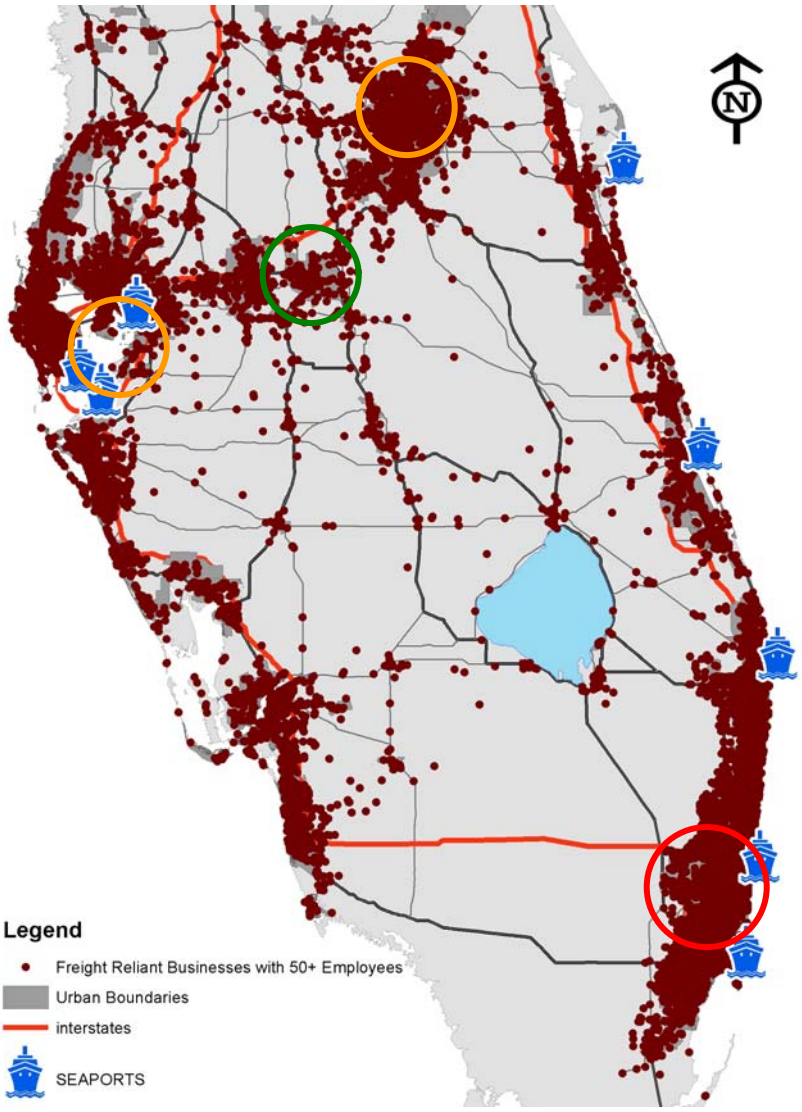
## Major Freight Distribution Hubs

Florida relies on a network of major distribution hubs. These hubs primarily developed within or in close proximity to major metropolitan areas and are characterized by rail and highway access, and often are in close proximity to seaports and airports. These hubs consist of the following:

- **Greater Orlando Area.** Orlando is home to a significant intermodal distribution network consisting of rail, highway, and air. CSX currently operates facilities in the region; the Orlando International Airport is the second largest air cargo airport in Florida; and the region is served by I-4, which connects travelers to I-75 and I-95. It will be served/impacted by the CSX ILC in Winter Haven.
- **Winter Haven/Lakeland.** Lakeland has long been the home of a significant number of distribution centers. These centers serve a variety of communities. For example, Publix Supermarket serves the majority of Florida for some product lines from its Lakeland facility, while maintaining a network of smaller DCs throughout the state. Winter Haven, which is adjacent to Lakeland, is slated to be the home of CSX's Integrated Logistics Center, which will serve central Florida.
- **Jacksonville.** Jacksonville is positioned to serve as one of Florida's only international gateways for distribution activities. It is home to Port of Jacksonville, Jacksonville International Airport, and is served by NS, CSX, and FEC railroads. In addition, there is an established and growing network of distribution centers along the I-10 corridor. Finally, it is served by I-95 and I-10. The CSX ILC in Winter Haven should alleviate rail service in Jacksonville.
- **Greater Tampa Bay Area**. The greater Tampa Bay region is served by the Ports of Tampa and Manatee, the Tampa International Airport, CSX, and I-75 and I-4. The Port of Tampa relies heavily on direct rail service for bulk commodities. It will be impacted by the CSX ILC in Winter Haven, primarily by shifts in rail service.
- **Miami/Fort Lauderdale Area.** The Miami/Fort Lauderdale area is served by the Ports of Miami and Everglades, Fort Lauderdale-Hollywood International Airport, Miami International Airport, CSX and FEC railroads, and I-95, I-75, and Florida's Turnpike. Major distribution and consolidation activities are focused in western Miami-Dade County in the Doral/Medley/Hialeah area.

Figure 2.7 illustrates the location of the major distribution areas in South Florida. It also shows the location of freight-related businesses with more than 50 employees. The circles are color coded to illustrate available capacities. South Florida is shown as red as there is limited opportunity for expansion. The communities are significantly built out and expansion off of existing hub properties is constrained. Orlando and Tampa areas are shown as orange as they have some ability to expand, but are facing encroachment by residential developments and will be impacted by the consolidation of rail activity in Winter Haven. The Winter Haven/Lakeland area is shown as green as significant investment is underway today to bring 1,250 acres of new industrial/transportation capacity online with the new ILC.

## Figure 2.7 Major Distribution Hubs in South Florida



# 2.3 South Florida Freight System

## Overview of Region

Over the last several decades, south Florida has sustained significant population growth and forecasts call for more. The region is home to a network of major freight facilities that work as a system to serve a significant consuming population. This makes the interconnectivity of the counties' transportation systems critical to economic prosperity and mobility. For the purposes of this study, south Florida refers to the general area south of Orlando. This region is home to 61% of the state's current 17.8 million population base.[12] Including the Orlando area in this figure the percentage rises to over 71%.

Results from the most recent Demographic Estimating Conference, hosted by the Florida State Office of Economic and Demographic Research indicate that the forecasted population for the 2030 census is more than 26 million residents, which is an increase of 60% from the most recent census in 2000. 1000 Friends of Florida also recently released the results of an extensive study which analyzed population trends and produced more aggressive projected growth trends into the 2060. Figure 2.8 depicts current and future developed land estimates if the projected population increase holds true. If projections for the year 2060 are accurate, it can be seen that the availability of developable land in the state—especially in the focal point of this study, South Florida—will be a distant memory. In order for freight to serve the estimated 2060 population of nearly 36 million, significant transportation improvements must be planned and initiated in the present while land is still available.

Over the last few years, other changes have occurred at the state level that have dramatically impacted transportation planning and programming activities at the local and regional level. FDOT developed the Strategic Intermodal System and the Transportation Regional Incentive Program (TRIP) to guide investment decisions for facilities of regional and state importance. Implementation of these two programs will continue to encourage a strong regional transportation program, as it will help local communities speak with a one voice. A network of regionally significant transportation corridors have been developed throughout south Florida. All major MPOs have completed freight studies for have one underway. The integration of freight transportation into regional planning programs has been promoted and supported by FDOT and other regional freight partners. Freight mobility was identified and held up as a critical factor to effective transportation in Southeast Florida by a variety of entities.

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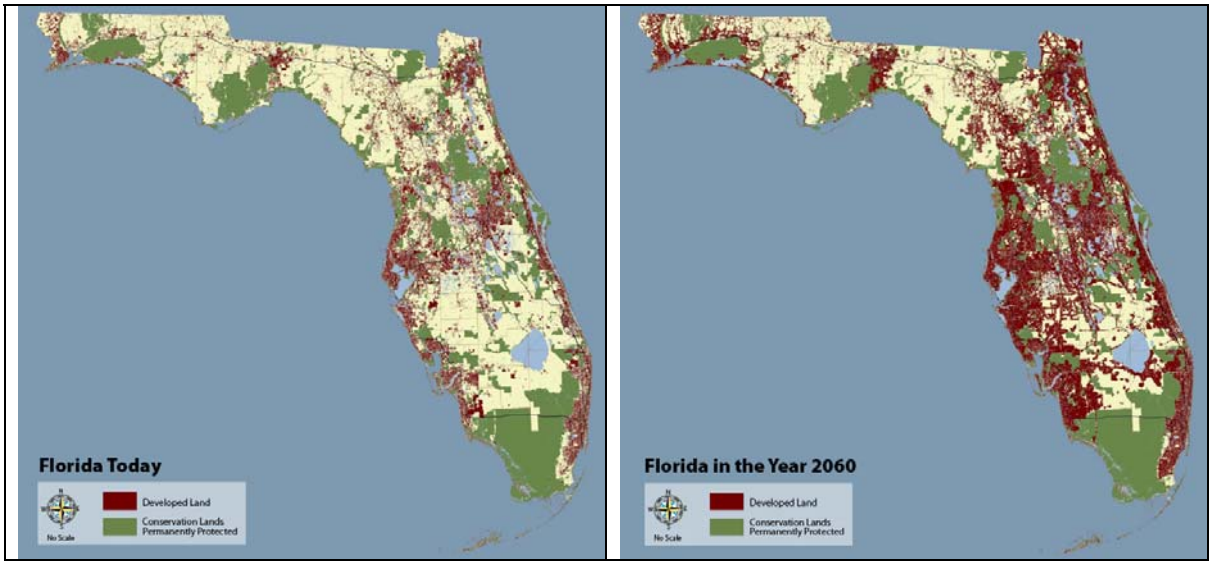
[12] US Census Bureau, July 2005 Annual Population Estimate of Metropolitan and Micropolitan Statistical Areas. Available at: http://www.census.gov

## Figure 2.8 Current and Projected 2060 Developed Land[13]




Increasing levels of consumption is a particularly important concept for seaports situated in the southern area of the state. Given their location and access constraints presented by operating on a peninsula, the seaports in South Florida play a critical role in serving south Florida residents and businesses. Most of the seaports in South Florida are largely regional in nature, serving a relatively close proximity of communities surrounding them. An example is the Port of Miami, which has 65% of its cargo destined for locations within 50 miles of its terminals.[14]

*Logistics Today*, in its annual ranking of logistics infrastructure, most recently ranked the Miami metro area (Palm Beach-Fort Lauderdale-Miami) 16th on its list of 362 "logistics friendly" metropolitan regions—based on scores in 10 major categories.[15] Table 2.3 shows the scores for each category for Miami and six other south Florida cities. Only one city in Florida out ranked Miami (Jacksonville finished 10th). Strengths of Miami's system are in the areas of transportation/warehousing/distribution industry (5th), work force labor cost (4th) and air cargo (5th), while notable weaknesses came in road density/congestion/safety (355th) and taxes and fees (251st). Tampa had the next highest rank (45th).

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[13] Source: 1000 Friends of Florida, "Florida 2060", December 2006

[14] Four Gates Company, Economic Impact of Dante B. Fascell Port, Prepared for Miami-Dade County, 2006

[15] King, Bill and Michael Keating. "The Top 50 Logistics-Friendly Cities in the U.S., 2005". October 2006. Full list available at: http://logisticstoday.com/siteselection/SiteSelector-top362cities.pdf

## Table 2.4 Logistics "Friendly" Ranking for Key Florida Cities (2005)

| | Miami | Tampa | Orlando | Lakeland | Port St. Lucie | Fort Myers | Naples |
|---|---|---|---|---|---|---|---|
| **T&D Industry Metro Rank** | 5 | 31 | 36 | 84 | 188 | 151 | 230 |
| **Work Force Labor Metro Rank** | 4 | 16 | 135 | 82 | 265 | 182 | 336 |
| **Road Infrastructure Metro Rank** | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| **Road Congestion Metro Rank** | 355 | 362 | 352 | 193 | 278 | 361 | 280 |
| **Road Condition State Rank** | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| **Interstate Highways Metro Rank** | 36 | 23 | 157 | 157 | 157 | 157 | 157 |
| **Taxes & Fees State Rank** | 251 | 251 | 251 | 251 | 251 | 251 | 251 |
| **Railroad Rank** | 151 | 310 | 151 | 225 | 151 | 310 | 310 |
| **Waterborne Commerce Metro Rank** | 19 | 12 | 178 | 178 | 80 | 178 | 178 |
| **Air Cargo Metro Rank** | 5 | 20 | 14 | 156 | 237 | 81 | 202 |
| **National Rank** | 16 | 45 | 80 | 113 | 160 | 186 | 281 |

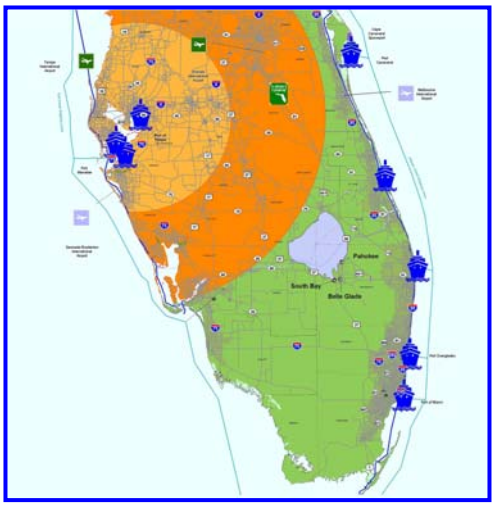
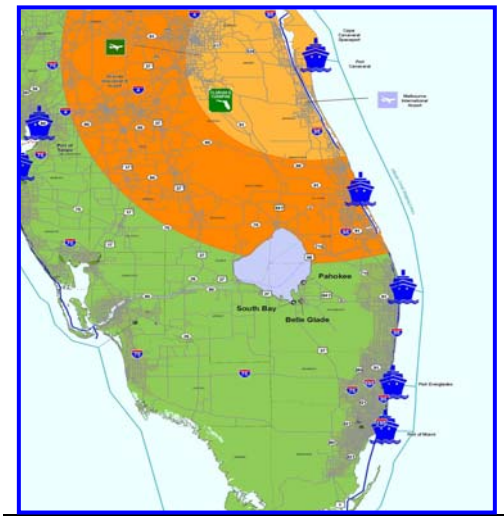
- **Transportation and Distribution Industry.** Depth and strength of the metrowide T&D industry including the number of companies in the metro area that are engaged in T&D industry sector, along with the annual revenue generated. Data from *U.S. DOC.*
- **Transportation and Distribution Work Force.** Depth and cost of the metrowide T&D work force including the total annual payroll, the total number of employees, the average salary and the T&D revenue per employee. Data from US DOC.
- **Interstate Highway Access.** Focuses on the interstate highway infrastructure and includes the number of interstate highways that pass through the metro area, as well as the number of interstate auxiliary routes. Information comes from FHWA.
- **Road Conditions.** Includes the average roughness of the metro area's roads, as well as the percentage of bridges that are obsolete or structurally deficient, including five-year trends, according to FHWA information.
- **Road Congestion.** Includes such things as roadway miles per capita, total miles of freeways, average daily freeway traffic and average daily traffic per freeway lane. Data from FHWA.
- **Road Infrastructure.** Attempts to look into the future in terms of keeping up with an adequate road infrastructure. It includes public roads mileage, capital outlay for roads and bridges, highway maintenance per mile and spending for highway law enforcement.
- **Vehicle Taxes and Fees.** Includes highway user taxes and fees, as well as motor fuel excise taxes. Data from *Wisconsin Motor Carriers Association*, and the *Federation of Tax Administrators*.
- **Railroad Access.** Includes the number of railroad carriers that service a metro. Data comes from *ALK Technologies Inc.*
- **Water Port Access.** Includes total tonnage for all ports located within the confines of the metro area. Data from USACE.
- **Air Cargo Access.** Includes the number of air courier companies, and total air cargo tonnage for the metro. Data from FAA and BTS.

Source: http://logisticstoday.com/siteselection/SiteSelector-top362cities.pdf

## Existing South Florida Port Facilities

Table 2.5 provides a detailed summary of the seven major south Florida ports, showing their influence areas defined by 50- and 100-mile radius areas. Also included are notes on other key characteristics, such as volume/value of freight, key commodities, and major improvement projects.

## Table 2.5 South Florida Seaport Locations

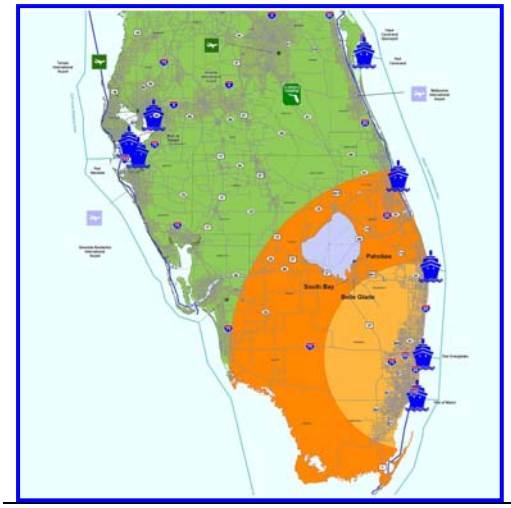
| | |
|---|---|
| **Ports of Tampa and Manatee**<br>  | **Port of Tampa:**<br>• Largest Florida port, by tonnage<br>• Currently has rail access and is situated in fairly close proximity to multiple, major distribution centers in the Lakeland area<br>• Pending CSX multi-modal center in nearby Winter Haven<br>• Rail access to Western Palm Beach County could facilitate use for certain markets, such as supplying aggregate for processing<br>**Port Manatee:**<br>• Significant trade in perishable products between U.S. and Caribbean<br>• A portion of the market is located in Southwest (Naples and Fort Myers) and Southeast Florida |
| **Port Canaveral**[16]<br>  | • Significant cruise ship ridership (4.5 million in 2006)<br>• Pending $120 million petroleum tank farm development<br>• $40 million cargo terminal upgrade<br>• Cement import a large market sector<br>• Serves East-Central Florida Counties |

[16] Information obtained from Port Canaveral Magazine, Annual Report Issue, January/February 2007, and Port Canaveral Website: http://www.portcanaveral.org

**Port of Palm Beach**

- Ranked 7th in tonnage and 4th in TEUs
- Unavailability of on-port land for seaport expansion
- Access to CSX and FEC rail
- Vocal proponent of multimodal development in Western Palm Beach County, of which, it would be the primary beneficiary
- Looking to expand bulk and break-bulk capacity

**Port Everglades**

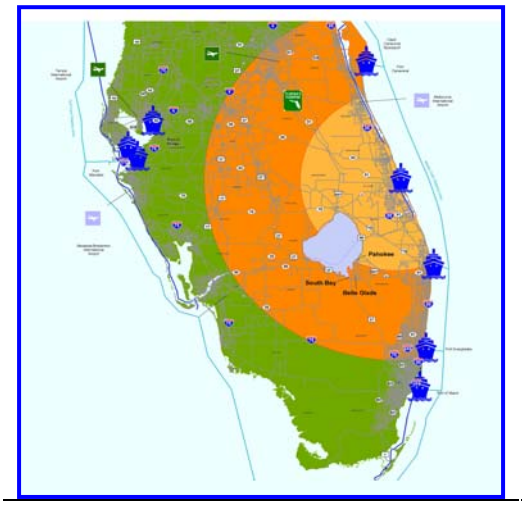


- Currently has land available for expansion
- Plans for intermodal connection to FEC Rail line on western area of property
- Supportive of South Florida transportation improvements for the benefit of public/roadway users, though would likely not utilize an inland facility

**Port of Miami**

- Largest Florida container port
- Geographically, physically constrained
- On-port capacity has potential to double with increased efficiencies
- Lack of sizeable tracts of land within a reasonable proximity to on-port facilities
- Regional distribution – 85%distributed within 100 miles of port

**Port of Fort Pierce**



- Relatively low cargo volume (TEUs and Tonnage)
- General focus on preserving and expanding marine commercial, industrial, and recreational uses
- History of recruiting mega-yacht companies for development at/near port facilities

## Freight System Enhancement Projects

There a several freight system improvements and policy discussions underway that could have significant impacts on freight mobility in South Florida. There are also various other transportation projects that are not necessarily freight-specific, but which have the potential to impact freight mobility and connectivity. Below are several examples of facility and policy improvements.

- **Atlantic Commerce Corridor Study/High Priority Corridor 49.** The Atlantic Commerce Corridor (ACC) Study was completed in 2003. This study was undertaken to address freight access and mobility issues in Southeast Florida, with specific emphasis on the I-95 corridor and the major hubs located in close proximity. Specific facilities identified within this Commerce Corridor included I-95, Florida's Turnpike, other regional highways, three seaports, three airports, two railroads, and the intermodal connectors that linked them all together. As a result of this initiative, I-95 was designated as High Priority Corridor 49
- **Port Everglades' Development of an On-Port ICTF.** Plans are in place for construction of an intermodal container transfer facility at Port Everglades. This facility will serve international containers; the previous dray move to the Andrews Avenue ICTF will be eliminated.
- **CSX's Integrated Logistics Center in Winter Haven.** CSX Railroad company has plans to develop a 1,250-acre intermodal facility in Winter Haven. This facility will become the center of CSX's Florida intermodal rail service; it is expected to have a significant impact on regional (and likely state) distribution patterns. Aside from transportation infrastructure, it is anticipated to generate significant amount of ancillary development such as transportation and warehousing businesses, various commercial and manufacturing facilities.

- **South Florida East Coast Corridor Study[17].** The Florida DOT is leading a regional analysis of the use of the FEC corridor for passenger/transit service. This initiative is investigating a variety of alternatives to integrate passenger service into established freight operations. The long term impact of this study could be development of a mixed use corridor, which would likely impact freight service in some way.
- **Port of Miami Tunnel Project[18].** The Port of Miami currently has plans to build a new highway connector between Dodge Island and I-395 on Watson Island. This project is being led by FDOT. The project carries a significant price tag (in excess of $1 billion). The tunnel will improve truck access and alleviate congestion on city streets.
- **Florida's Future Corridors Program[19].** This program is designed as a systematic approach used to "identify, plan, and develop improvements to statewide corridors to meet Florida's transportation and other needs over the next 50 years.
- **Regional LRTPs.** South Florida's MPOs currently are entering a long range transportation plan (LRTP) update cycle. In addition to their traditional work, regional elements are being integrated either within their LRTPs or as stand alone documents. This is important because it includes the identification of regionally significant infrastructure elements and needs, and provides eligibility under the new TRIP program.

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[17] Florida DOT. "South Florida East Coast Corridor Study". Website available at: http://www.sfeccstudy.com

[18] Florida DOT. "The Port of Miami Tunnel Project". Website available at: http://www.portofmiamitunnel.com

[19] Florida DOT and partners. "Florida's Future Corridors Program". Website available at: http://www.dot.state.fl.us/Planning/corridor/plan.htm

# 3.0 Overview of Inland Port Characteristics

The concept of an ***inland port*** has been utilized in a variety of applications worldwide and evokes an array of definitions. Facilities can vary substantially in terms of physical components, operations, and magnitude based upon the specific market requirements. For the purposes of this study, an inland port can be generally understood to be an inland facility that is affiliated with one or more seaports and serves as an extension of the services that are typically provided by a port at its seaside terminal. An inland port facility has been suggested as a remedy for multiple issues surrounding South Florida's freight and transportation system. Expected benefits from an inland port include:

- Expand existing seaport capacity;
- Enhance freight system reliability;
- Improve intermodal connectivity;
- Improve congestion management activities;
- Enhance local and regional distribution patterns;
- Create new market opportunities; and
- Reinforce regional economic development.

This section describes different definitions of inland ports, identifies key characteristics of successful inland ports, discusses funding structures, and presents three case studies of successful operations inland ports.

## 3.1 Types of Inland Port Facilities[1]

In the past, the expression "inland port" has been used to describe facilities with physical locations literally situated in-*land* with river access, such as facilities located in the central U.S.; facilities that are affiliated with a seaport and positioned within a reasonable proximity to that seaport; logistics facilities; multi-modal parks; air cargo facilities; and transportation corridors. The following list outlines common examples of inland cargo facilities and provides brief descriptions of the defining characteristics of each.

[1] Southern California Association of Governments. "Inland Port Feasibility Study." Prepared by The Tioga Group, June 30, 2006

- **Satellite Marine Terminal/ Maritime Feeder Inland Port.** These facilities are designed to relieve congestion from one or more seaports by relocating multiple services to an inland location. The primary benefits of this type of inland port are maintaining access to international markets where there is typically a Free Trade Zone and Customs processing, increasing overall seaport capacity, and improving or enhancing market access. The success of this type of inland port is contingent upon having efficient and reliable access to the affiliated coastal port(s) as well as the hinterland markets being served. Examples of a satellite marine terminal/maritime feeder inland port include the Virginia Inland Port (profiled below) and Metroport (Auckland, New Zealand).
- **Multimodal Logistics Parks.** Multimodal logistics parks are developments focused on enhancing transportation infrastructure. They have traditionally been sited at or near junctions of existing major rail, highway/interstate, or airport facilities with access to large markets. Examples of multimodal logistics parks include: Alliance Texas (profiled below); and Rickenbacker/ Columbus Inland Port (Columbus, Ohio). While many of the siting considerations and services offered are similar to the satellite marine terminal described above, the primary distinction is there is not necessarily an affiliation with a seaport.
- **Economic Development Initiative / Virtual Inland Port.** Some regions have been successful in marketing the entire community as a "virtual inland port". This is a strategy used by economic development organizations to market the strengths of their region without developing a specific centralized facility. This in large part involves an effective marketing campaign and a regional champion functioning as a broker. The leading example of utilizing inland cargo facilities as an economic development initiative is KC SmartPort. KC SmartPort has created a system of multimodal consolidated cargo services throughout the Kansas City area. KC SmartPort also affords the opportunity to serve as a port of entry for freight originating in Mexico; a service which expedites and/or eliminates potential border-crossing delays. The example of KC Smartport is profiled below.
- **Shuttle Services.** In some instances, an inland port consists simply of a shuttle mechanism to bypass congestion surrounding a port, making products available for pick up at a less congested site. The CRT Cargo Sprinter (in Melbourne, Australia) was designed for just that purpose. It provides a specialized shuttle service to efficiently transfer cargo from ship to train to inland location.
- **Inland Waterway Port.** The U.S. has an established network of genuine inland ports; that is, actual port facilities along inland waterways. In the U.S., inland ports are commonly located at non-coastal (inland) locations, but have access to navigable waterways via major rivers and the Great Lakes. Examples of an inland waterway port include the Port of Battle Creek (Michigan), the Port of St. Louis (Missouri), and the Port of Memphis (Tennessee).
- **Other Examples.** Other types of inland freight facilities include Rail Intermodal Yards (Rochelle, Il), Logistics Airports (Global Transpark, NC), Trade Networks and Trade Corridors (Heartland Corridor, North American Inland Ports Network), Trade Processing Centers/Trade and Transportation Centers (Port of Battle Creek, MI).

## 3.2 Characteristics of Established Inland Ports

Despite the fact that an inland port can take multiple physical and operational forms and provide a variety of services, there are common characteristics associated with successful facilities. The following list describes these characteristics.[2] [3]

- **Tend to be larger regional centers that serve and have access to larger markets.** Inland ports typically are positioned to serve multiple population centers; while some are located in rural areas, connectivity and proximity to markets is critical.
- **Provide a means for facilitating international trade and expediting shipments in and out of the U.S.** Connectivity to international gateways, international logistics services (brokers, forwarders, etc.), and import/export capabilities (e.g., US Customs) are key attributes of inland port facilities.
- **Have multi-modal capabilities/opportunities**. By definition, an inland port must be at the crossroads of an efficient, multimodal transportation infrastructure, including highways, railroads, and occasionally airports. Providing a choice is critical to the marketability of the facility.
- **Have Foreign Trade Zone status.** FTZ status is necessary to help stimulate secondary development around the facility. For example, light manufacturing operations linked to international labor markets will select an inland port based on this status.
- **Serve certain niche markets (higher valued commodities)** Many inland ports are developed as the result of a need to serve a particular niche market; traditional distribution services follow to serve larger markets.
- **Have access to sufficient labor or skills.** Many of the jobs provided by inland ports and related tenants are higher paying and require a certain skill-level.
- **Have the presence of an IT infrastructure.** It is critical that facilities of this type operate efficiently. Information Technology provides the ability to provide real time information as well as ensure a secure facility.
- **Formulation of councils to expand public/private participation.** Many inland port facilities rely on the formation of stakeholder or user groups designed to maximize appropriate levels of public and private participation and to help market the facility.
- **Willingness to aggressively market the inland port concept locally, nationally, and internationally.** Successful inland ports are dependent on significant and ongoing marketing campaigns, as it is necessary to establish the facility as a node in larger supply chain networks.

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[2] "Inland Ports: Planning Successful Developments". Center for Transportation Research, UT-Austin. October 2002

[3] "Desired Attributes of an Inland Port: Shipper vs. Carrier Perspectives", Transportation Journal, February 2003

- **Cooperation among public and private entities.** Inland port facilities bring together a variety of stakeholders; formation of partnerships helps develop and expand the facility as well as support growth opportunities.
- **Engages capable program management.** Whether publicly or privately run, effective program or facility management is necessary.

## 3.3 Funding Options for Inland Port Facilities

Similar to other large-scale construction projects (transportation and otherwise), there are three types of funding mechanisms for inland port construction and operations. They are private, public, and public/private partnerships.

- A **privately funded** facility is just that, made possible through private interests, requiring no public assistance for either capital or operating costs. A common example of a privately funded inland port facility is Alliance Texas, which began as a wholly owned and master-planned development made possible by private investment interests.
- **Public funding** for facility development and operation describes a facility that has been constructed and/or operated entirely from public funding sources. The Virginia Inland Port was made possible by funding available from the Transportation Trust Fund and other smaller public sources.
- **Public-private partnerships** refer to a network of partnerships between public and private entities to jointly develop and/or operate facilities. This option is often the most appealing to both public and private interests given the significant costs of designing and advancing substantial infrastructure improvements. There are numerous examples of inland ports that have been developed using public-private partnerships. One of the most successful is Metroport in Auckland, New Zealand. Tranz Rail provided the land and the Port of Tauranga in Auckland developed technological amenities.

## 3.4 Case Studies

One of the best sources of information is to learn from the successes and failures of others in similar situations. A critical component to this study was to select three successful inland ports in the U.S. and highlight their key attributes in the form of case studies. Phone interviews were conducted with experienced representatives from each of the selected established inland port facilities in the U.S. The selected facilities represent a range of facility types.

- **Virginia Inland Port.** This is publicly funded site designed to serve as an extension of the Port of Hampton Roads. It functions as a rail and trucking hub with frequent service to/from the Port of Hampton Roads.
- **Alliance Texas.** This is a privately funded multimodal transportation hub. It brings together shippers with truck, rail, and air service, providing access to a large market area.
- **KC SmartPort.** This is publicly funded virtual inland port designed to promote the transportation and distribution assets of a region.

Each of these facilities is discussed in detail below.

# Virginia Inland Port[4]

### *Overview*

The Virginia Inland Port (VIP) is operated as an intermodal container transfer facility. Figure 3.1 shows an aerial view of the footprint while Figure 3.2 shows a schematic of the layout. It is located just west of Washington, D.C. in Warren County, Virginia, is 220 miles inland and effectively brings the benefits of the Port of Virginia (VPA) 220 miles closer to U.S. markets.

**Figure 3.1 Aerial View of Virginia Inland Port**

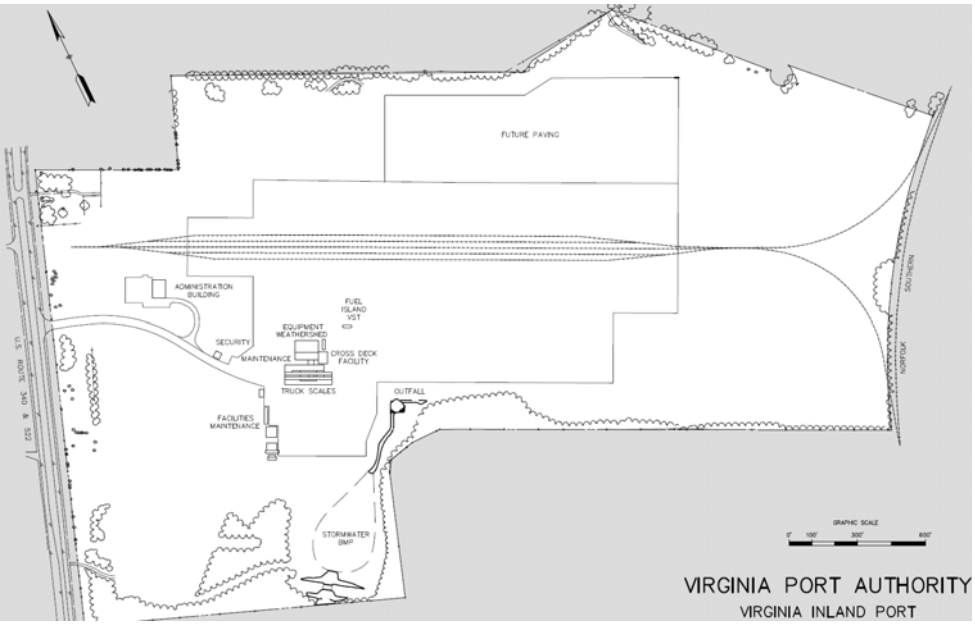
The VIP provides an interface between truck and rail for the transport of ocean-going containers to and from VPA. Containers are transported by truck to the VIP for immediate loading upon a rail car or for short-term storage prior to loading. Less time-sensitive containers and bulk products are transported on rail from the seaport to the

[4] Interview with Virginia Port staff, April 20, 2007

inland terminal. Containers arriving from the Hampton Roads terminals are unloaded from the train and dispatched by truck to inland destinations near the convergence of US 81 and US 64 which is 220 miles inland from the Port of Virginia. The inland terminal is served by dedicated rail service with connectivity into the Eastern U.S. and Midwest markets by Norfolk-Southern Railroad as well as multiple highway access options. Figure 3.3 shows the proximity of the VIP to the VPA.

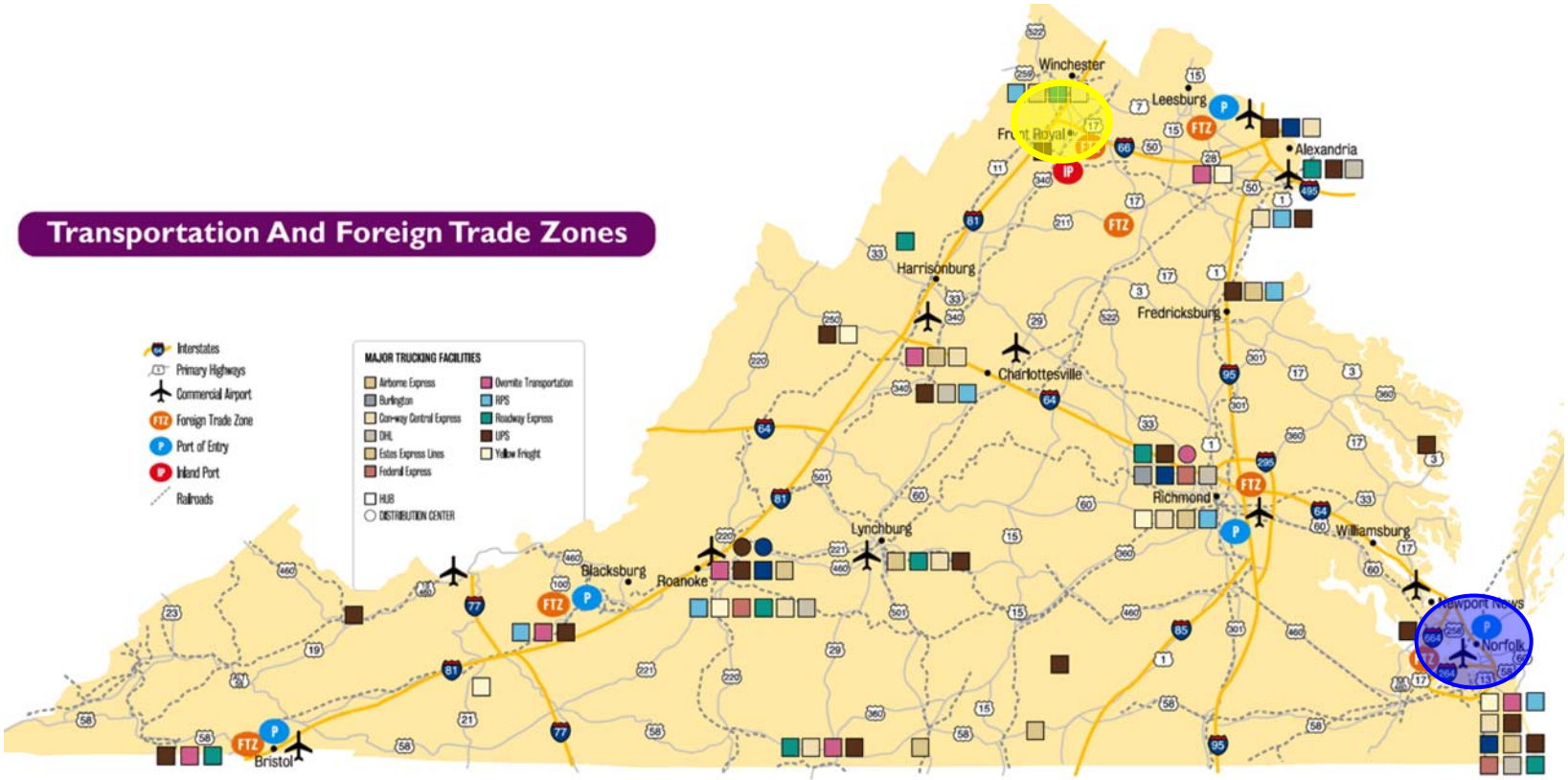
The facility processes primarily containers but has the ability to adapt for bulk and break-bulk commodities. In terms of on-site accommodations, land is available to steamship lines for container storage and ancillary service companies.[5] The inland terminal contains nearly 18,000 feet of on-site rail and is serviced by class 1 rail (Norfolk Southern). Initial funding and continued capital expenditures are provided through a transportation trust fund. The trust fund is supported entirely by a state-wide gas tax collection. The VIP is now operationally self-sufficient and uses annual trust fund allocations ($25-30 million) for select capital improvements.

## Figure 3.2 Layout View of Virginia Inland Port




[5] Summary and Images from Virginia Port Authority Website. Available at: http://www.vaports.com

## Figure 3.3 Virginia Transportation Infrastructure[6]




[6] Virginia Economic Development Partnership. Available at: http://www.yesvirginia.org/

### *Keys to Success*

The original concept of the VIP from the mid-1980's was notably different than the final product. Initially the inland terminal was sited as far North and West in the state as possible in order to provide an inland extension of the VPA with a 200-mile service radius and to potentially compete with the Port of Baltimore for the Mid-Atlantic container market. The facility had limited buy-in from the shipping community until 1996 when a partnership was formed, the Virginia Economic Development Partnership, to aggressively market the concept and purpose of an inland terminal facility and realize the potential of servicing the entire Midwest and East Coast markets. Shortly after, a major retail chain, Family Dollar, committed a 1 million square foot distribution facility, which served as an anchor for other major supply chain centers.

Over the last 10 years, the region as well as the state has been successful in recruiting similar businesses. Chief among the keys to success have been coalition-building with local, regional and state economic development agencies, the local real estate sector, and the various surrounding communities. Additionally, attracting anchor-type distribution facilities has been influential to success. Major obstacles include identifying and capturing a market base, selling the concept of an inland terminal, and convincing shippers of the benefit of essentially adding a node in the transportation network (bill of lading.)

# Alliance Texas[7] [8]

## *Overview*

In the late 1970's and early 1980's Ross Perot, Jr (Hillwood Properties) began acquiring large parcels of property in the Dallas and Fort Worth areas as an investment in future development potential. A recognized need for a "reliever airport" in the region designed to relieve projected congestion at nearby airports led to a public-private partnership between entities including Texas DOT, Federal Aviation Administration, local cities, and Hillwood Properties to produce an industrial airport. Since that time, Alliance Texas has become a master-planned 17,000-acre mixed-use community that caters to commercial, industrial, and residential demand in the north Fort Worth area.

Alliance Texas includes three distinctive developments, which together offer

> "world-class office, industrial, retail, educational, residential and recreational opportunities. Alliance Texas now houses more than 140 companies, which have in turn invested more than $5 billion to build 26 million square feet and create 25,000 full-time jobs. Over the past 17 years, Alliance Texas has generated a $28 billion economic impact to the North Texas region. The 11,600-acre Alliance project serves as the anchor for the 17,000-acre Alliance Texas community. Alliance began in December 1989 with a combined effort between the City of Fort Worth, the Federal Aviation Administration and Hillwood for the construction of Fort Worth Alliance Airport, the world's first purely industrial airport. Since then, acres of raw prairie land in north Fort Worth have been transformed into one of the nation's preeminent logistics and transportation hubs".[9]

From a freight perspective, Alliance serves as a port of entry, has Foreign Trade Zone status, and has customs officials and centralized examination station on-site. Alliance Texas has access to multiple state highways, as well as direct access to Interstate 35 which connects the facilities with Canada and Mexico. A Burlington Northern – Santa Fe intermodal yard has been constructed on the Northwest corner of the property, and subsequently become a logistics hub. FedEx's Southwest Regional Hub facilities located at Alliance comprise the air cargo element which processes 175,000 packages daily translating into 32 planes arriving and departing nightly.[10] Aside from providing multimodal freight options, significant portions of land are reserved for construction and expansion adjacent to all of the transportation facilities.

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[7] Interview with Hillwood Properties staff, April 20, 2007

[8] Ibid. at 1.

[9] Summary from information available on Alliance Texas' website. Available at: http://www.alliancetexas.com

[10] Alliance Texas Website

## Figure 3.4 Aerial View of Alliance Texas Facilities

Source: http://www.alliancetexas.com/AllianceTexas+Story/Image+Gallery

### *Keys to Success*

One of the most important keys to success, especially to attracting initial tenants, was its Central location in the U.S. with access to multiple modes of transportation. Significant rail facility investment from BNSF and highway improvements through the construction of State Highway 170 provides an east-west corridor through the development (Figure 3.5). Another important key to success is that the Alliance development has had the ability to adapt to changes in the economic market; in large part by being able to accommodate a wide range of tenants. Availability of large tracts of contiguous land has allowed the facility flexibility to plan and grow efficiently; there are currently 10,000 undeveloped acres (60%) available to expand as necessary.

Cooperation between the numerous public and private entities—both in initial stages and continued relationships with local, regional, and state economic development agencies—has been crucial to success. Another very important focus of Hillwood has been to deliver a high level of customer service, which is dedicated to providing for each tenants' transportation and real estate needs. This includes the formation of a property owner's association, property maintenance (high quality landscaping, constructing truck berms to minimize noise pollution, etc), measures to overlay multiple services to save customers money and increase efficiencies, and coordination between newer residential developments and commercial interests (constructing and maintaining workforce housing).

## Figure 3.5 Alliance, TX and the BNSF Rail System[11]

## Figure 3.6 Alliance, TX Highway Connectivity

[11] BNSF Railway Division Map. Available at: http://www.bnsf.com. Highway system available at Alliance website.

# KC SmartPort[12]

### *Overview*

KC SmartPort is a "Virtual Port" which is in place to coordinate and promote economic development through providing efficient freight and transportation services in the Greater Kansas City Area. Its mission plan includes two guiding principles: 1) to grow the area's transportation industry by attracting businesses with significant transportation and logistics elements, and 2) to make it cheaper, faster, more efficient, and more secure for companies to move goods into, from, and through the Kansas City area.[13] The organization is not tied to a physical location but contains 2 cargo airports, six intermodal facilities, and 10,000 acres of Free Trade Zone space. The success of this organization was initially heavily reliant on actively promoting the SmartPort concept, and now garners the majority of its inquiries by word-of-mouth and repeat customers. SmartPort began as a publicly funded joint venture of Kansas DOT and Missouri DOT funding after recognizing the freight potential and infrastructure already in place in the region.

The Kansas City region lies at an appealing crossroads for freight traveling to and from the rest of the U.S. Kansas City has access to the confluence of Interstates I-35, I-70, and I-29 and is served by BNSF Railway Company, Gateway Western, Kansas City Southern, Kansas City Terminal Railway, Missouri & Northern Arkansas, Norfolk Southern Intermodal, Roll On Transportation Company, and Union Pacific Railroads. Without a single, consolidated footprint, KC SmartPort maintains an active and regularly updated inventory database of transportation infrastructure and facilities; which represents a 70-mile radius of the Kansas City region. The Smartport is also situated on the Missouri and Mississippi Rivers. Figure 3.6 below displays major corridor access to the Kansas City region.[14]

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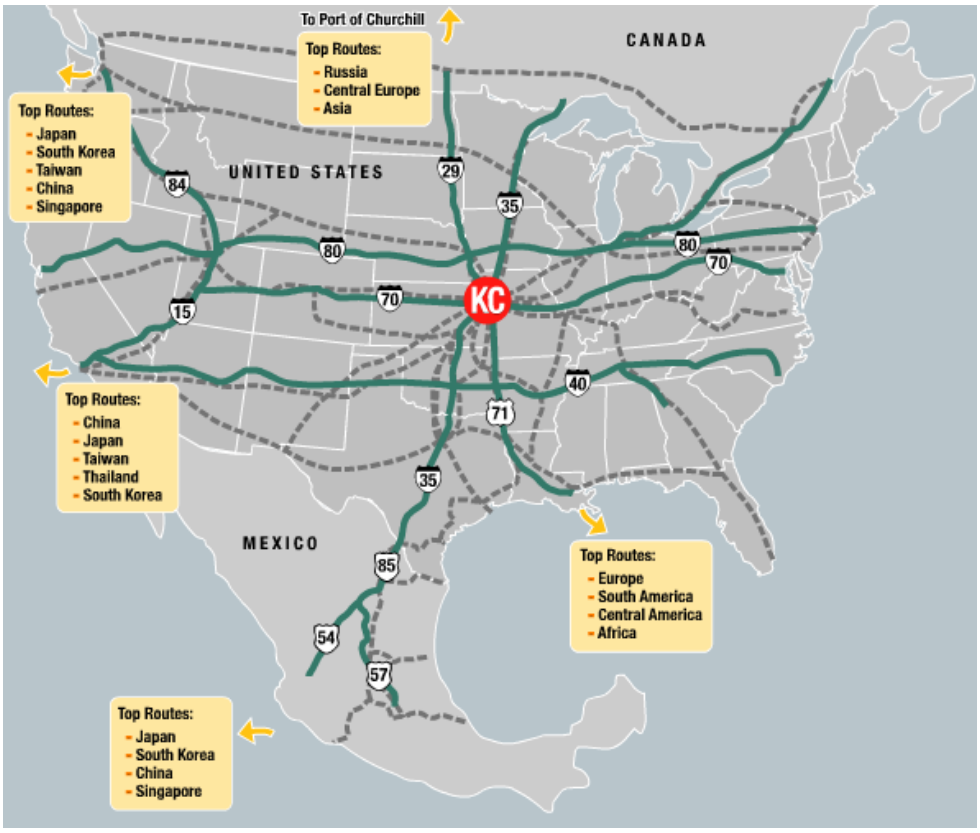
[12] Interview with KC Smartport staff, April 4, 2007

[13] Images and information: KC SmartPort Website. Available at: http://www.kcsmartport.com

[14] Image source: KC SmartPort website. Available at: http://www.kcsmartport.com

## Figure 3.7 KC SmartPort Transportation Infrastructure




### *Keys to Success*

KC SmartPort outlined multiple factors that have been critical to success thus far that include the development of an formal business plan with measurable performance metrics, an aggressive media campaign that promotes the entire 70-mile radius of the Kansas City, Missouri region as an integrated freight hub, and a comprehensive database of available freight facilities and sites to provide information for potential clients and customers. Additionally, the assembly of attractive financial packages for clients and a development-friendly environment for transportation facilities proved advantageous for the port. Business development and marketing as a result of repeat customers and word-of-mouth have also emerged recently as important strategies. Most recently, KC SmartPort has transitioned from a skeleton organization of part-time staff to employing two full-time staff.

Major obstacles include formally establishing the idea of Kansas City as a transportation center by obtaining buy-in from local and industry representatives, availability of skilled labor, identifying available land and facilities, and optimizing market access.

# 4.0 Stakeholder Input

An important component to determining the feasibility of an inland port in South Florida is gathering the comments and concerns of those that would be directly and indirectly impacted by a project such as this. In person as well as telephone interviews were conducted to obtain input from public agency and private industry representatives throughout South Florida. While the stakeholder interviews were not conducted using a statistical sampling, the qualitative information provided proved useful in further defining and interpreting data collected and included elsewhere in this report.

## 4.1 Summary of Interview Process

Over the course of the study numerous local and regional stakeholders were engaged in an interview process designed to capture input on a variety of topics. Stakeholders included local government staff, Florida DOT representatives, economic development staff, business development staff, port representatives, landowners, rail companies, and trucking companies. More than 50 individuals representing over 30 organizations participated in the process and were asked to comment on a variety of topics including freight and service requirements, possible markets, potential land availability, transportation access, and likely benefits of an inland port facility. A summary of salient feedback obtained from the interview process is included below. A list of participants and the materials used in the interviews are provided in Appendix A.

## 4.2 Key Interview Findings

The overall reaction from the public agency representatives was that the concept of an inland port would bring positive primary and secondary economic impacts to South Florida. Many voiced support for bringing an economic stimulus to the region and talked of the overall benefit this facility could have to the rural area of western Palm Beach County. The local governments in the area are continuously looking for opportunities to expand the employment base and to encourage economic expansion for their citizens. The economic development community is very excited about the prospect of opening up western Palm Beach County with an inland facility like this. FDOT district representatives stressed the importance of proper planning and involving the right groups of people in the process. The environmental representatives echoed ongoing concerns about keeping environmental impacts to a minimum.

The private companies were less optimistic about the idea of an inland port in South Florida, seeing limited benefits from such a facility, while raising concerns about the impact on existing business. Many expressed that while they did not fully support the idea they would be willing to work with officials on making it a success if it was shown to be a benefit to the region's business community. There were comments that this facility would add links to the supply chain that were not necessary and based on proposed siting may not be economical or competitive. Some cited congestion mitigation as a potential benefit of moving some of the freight flow inland as well as relieving the various seaports of some activities that could be handled at an inland facility.

This section highlights comments and concerns from the stakeholder input. These comments have been organized into five general areas including:

1. General impressions regarding the idea of an inland port
2. Transportation access considerations
3. Potential markets served by an inland port
4. Recommended services that could be provided by an inland port
5. Perceived benefits of an inland port

Each of these topic areas contains both support and opposition to the various aspects of an inland port facility in South Florida.

## General impressions

- **The facility should be located in Palm Beach County.** The availability of land and proximity to current transportation infrastructure make western Palm Beach County an ideal location for an inland port facility. Also, the lower cost of land in rural parts of the county is a key factor. Many interviewees voiced support for locating the facility in Palm Beach County.

- **Current sugar cane land could be used for an inland port facility**. All of the sugar companies in the South Florida area have shown interest in possibly providing land to be used for the location of the inland port. Many factors were discussed about potential sites like adjacent or nearby transportation infrastructure, condition of the land, and size of the parcels.

- **The size of the facility should be appropriate and allow for future growth.** There were varying opinions on the size of the facility ranging from 500 acres up to 5,000 acres but there was consensus that the facility should be large enough to handle the current market needs with room for future growth.

- **The availability of affordable housing should be considered.** The potential for new jobs is a welcomed benefit with an inland port but concerns were expressed about whether affordable housing would be available to those who would be employed by the facility.

- **The availability of an employable workforce base should be considered.** Additional workforce training facilities and/or related technical education opportunities will likely have to accompany a large-scale industrial/commercial development in Western Palm Beach County. In addition, accessibility for workers residing out of the area is a consideration.

- **The location of the facility should consider previously disturbed land instead of new land.** In an effort to minimize the environmental impact, previously disturbed land should be considered for the location site if at all possible.

- **An inland port should be cost competitive and provide value added services**. In order to determine its sustainability, this type of facility should be studied for its cost competitiveness and value adding characteristics in the region before location and partners are ultimately identified.

- **The facility should be in line with local and regional goals.** This type of development would be welcomed by local governments as long as it is compliant with local regulations and visions for the region.

- **An inland port in South Florida does not seem economically feasible**. There were some comments that adding an additional link or double-handling to shipments is inefficient and not a sound economic decision, from a private shipping perspective.

- **Public private partnerships should be considered for planning and funding**. Many expressed concern as to how the facility would be funded. The general opinion was that a successful inland facility will require privately driven funding with a small portion of funds from the public sector.

## Transportation Access Considerations

- **An inland port would put more trucks on the rural roads**. The small cities in western Palm Beach County support the idea on an inland port for the potential economic expansion but are concerned about the high volume of trucks that would be traveling through the area. Primary concerns include, safety, road condition, increased congestion, and impacts to aesthetics and noise levels.

- **New markets might lead to new transportation infrastructure.** Some pointed out that an inland port could open doors for new markets in the rural areas and lead to new transportation infrastructure. For example, a new rail line along U.S. 27 could open up markets to Miami.

- **Currently used truck routes and rail routes should be upgraded.** Some of the current transportation infrastructure is already in need of repair. Many articulated concerns that with more truck and rail traffic brought on by an inland port facility it would be important that these truck and rail corridors be upgraded accordingly.

- **Appropriate connectivity should be defined.** The ease of connectivity is an important factor in locating an inland port. Concerns were raised that connections to ports should be defined and appropriate. U.S. 27, SR 80, and SR 710 were corridors identified as possible connectors to the inland port.

- **Incompatibility with current transportation infrastructure**. From a freight distribution perspective, it does not appear that an inland facility would integrate well with current established routes. Construction of new rail infrastructure and a number of smaller-scale highway corridor improvements to improve north-south access would likely be necessary.

- **Consideration for types of commodities that would be handled at an inland facility**. There are different considerations for bulk, container, and car trailers so there needs to be careful consideration for the types of commodities that would be handled at an inland port as well as the compatibility of handling various commodity mixes. Associated rail switching costs and handling fees are also a concern.

- **New rail segment in northwestern Palm Beach County**. A proposed new segment of rail would bypass the need for a trip to Fort Pierce and would substantially decrease the per-car cost of rail access from Riviera Beach to Western Palm Beach County. This new segment would be a critical component to an inland facility in the county.

- **Competition for southbound freight traffic could become an issue**. South Florida ports are competing for southbound traffic, so there is potential with an inland facility for freight to get cut-off in Palm Beach or north of Palm Beach and decrease the flow to southern seaports.

## Potential Markets Served

- **There is potential to serve non-port activities.** While the inland port would serve as a direct connection to current port facilities it could also serve non port activities like distribution centers for major retailers not necessarily connected to port activities.

- **The inland port could serve industrial and/or light industrial markets**. Industrial and/or light industrial would be a probable use of an inland facility especially if it is marketed as an extension of the seaport.

- **An inland port could help diversify the market in rural areas.** Diversifying the markets served by an inland port facility could make such a facility more attractive to potential users. This would also encourage economic expansion in the rural areas near the facility.

- **The facility should cater to emerging markets**. To provide for future expansion, emerging markets should be studied and tapped for a facility like this to be successful.

## Recommended Services

- **The facility should be a full service multimodal center.** Economic development experts identified the need to offer a full service multimodal center from the start to attract businesses desiring to come to the area. They expressed the importance of planning ahead for the next 25 to 50 years for a project like this to be successful.

- **The facility should provide for warehousing, distribution, and cold storage**. Various types of services were recommended - mainly warehousing, storage, and distribution. For some, cold storage is important and should be considered as a service.

- **The facility should accommodate air cargo**. Many stakeholders expressed support for the facility to include space and accommodations for air cargo. They explained that in order to plan appropriately for the future, air cargo should be a part of the planning of the facility. This would likely mean the addition of an airport, with runways capable of handling large modern freight aircraft. Other stakeholders indicated that significant additional unused capacity exists at several major Florida airports besides Miami, and that this additional investment would be unlikely to be justified, especially when considering the markedly different attributes of air cargo.

- **The design of the facility should provide for a diverse mix of products**. Without a specific location and definite partners, many interviewees found it hard to say who might use the facility but there was agreement that the facility would be most successful if it was able to handle a variety of products (bulk, break bulk, containers).

- **The rail lines should be considered for commuter rail into the rural areas**. Another potential benefit expressed was the use of a new rail line for commuter rail to improve connectivity with eastern Palm Beach County. There was discussion that many people who live in the eastern part of Palm Beach County would benefit from a commuter rail that took them to a job site in the western portion of the county relieving traffic on the roadways.

- **There is ample demand for a full service truck stop facility sited in Western Palm Beach County.** It has been noted that there is a current lack of accommodations (and rest areas) for truck drivers in the region. A facility that included fuel, lube, parking, and related services could be incorporated as either part of an inland port facility or nearby the inland port, as an ancillary service to drivers in the area.

## Perceived Benefits

- **An inland port would provide a direct connection to the existing ports**. With the Port of Palm Beach's need for space, an inland port would provide a direct connection to that needed space at an inland location thereby allowing the port to continue to expand and be competitive.

- **An inland port would bring increased jobs, revenue, and tax base to rural areas**. The potential positive economic impact a facility such as this would have could be significant in this economically challenged rural area. If planned appropriately, the impact is far reaching to the region as well as the state.

- **The opportunity to attract new businesses.** A facility like this would attract other businesses in the adjacent areas and, in turn, could attract an additional employable population base.

- **The facility could be used for a staging area in times of large scale emergencies**. Many were quick to see this location as an important staging area for South Florida in times of emergency such as hurricane evacuations and recoveries or other natural disasters.

- **This facility would potentially bring an increase in rail security as well as overall security for freight**. It was mentioned that an inland port would have heightened security due to the nature of the facility. A secured facility could increase security on the rail line as well as overall security for freight in the area.

- **An inland port could enhance competition between the ports**. This facility could potentially enhance competition between the ports depending on the markets served and the growth strategies of each port.

- **Opportunity to redirect traffic from other congested roadways**. Freight traffic on heavily used corridors today could be redirected to the corridors that would serve the inland facility thereby reducing congestion on those roadways currently used the most.

- **There is potential to improve freight flow and cargo access to markets in Florida**. An inland facility could open the door for new markets to Florida especially South Florida. This would impact the current infrastructure and potentially bring improved freight flow and access to cargo from both the east and the west.

- **There is potential to move some activities off-port at current Port of Palm Beach facilities to allow additional space for current tenants**. This indirect benefit of moving bulk/break-bulk activities off-port would make additional space available for current tenants.

- **Flexibility to shift goods between multiple locations**. For some companies, there would be benefit in the ability to move materials between various plants and facilities in Florida from a more centralized location between the east and the west.

# 5.0 Analysis of South Florida Opportunities

The previous sections have laid out descriptions of the regional freight system in South Florida, how it ties in to and is impacted by larger systems, defines the concept of an inland port, and provided examples of successful operations. In addition, a summary was provided of the significant stakeholder input provided throughout the study. This section integrates all of this material to support a regional analysis of South Florida. Specifically, this section addresses:

- **Preliminary Market Assessment.** The market assessment completed as part of this study focused on discussions with economic development staff and transportation service providers.
- **Identification of Potential Sites.** Sites were identified based upon a review of transportation connectivity, market proximity, interested land owners, and environmental sensitivity.
- **Impact on Supply Chains.** The impact on logistics or supply chains was evaluated based upon established modal service characteristics, a distinction between new and existing demand, and discussions with transportation professionals.
- **Transportation Connectivity.** Transportation system connectivity and accessibility was reviewed based upon access to potential inland port sites, access to South Florida's seaports, and access to South Florida markets.
- **Potential Partnerships.** The identification of potential partners focused on stakeholder discussions. Potential partners included land owners, service providers, economic development staff, and transportation planners.
- **Economic Development Opportunities.** Economic development opportunities were based on several of the above areas, bringing together key partners. It addressed missed opportunities, regional economic distress, and more.
- **Environmental Factors.** Environmental factors were identified through a review of available data and in-depth discussions with multiple stakeholders.
- **Potential Funding.** Funding opportunities have been identified, however, as the project moves forward and takes shape, more specific work will be required based on funding program eligibility.
- **Stakeholder Support.** Documentation of public support has been ongoing. The project has been featured in many forms of media and appears to have wide spread general support.

The following sections provide a detailed discussion of each of the above topics.

## 5.1 Preliminary Market Assessment

The potential market of a new inland port facility is in large part dictated by the location, site characteristics, and transportation connectivity. The project began with a broad net cast over the southern half of Florida from Tampa and Canaveral south. While the Port of Palm Beach's original proposal focused on Palm Beach with lesser connections to Southeast Florida, this assessment attempted to identify a much larger regional market for a centrally located facility.

South Florida consists of well developed communities along the coastlines and rural communities in the interior. These rural communities are characterized by agricultural and mining operations, preserved lands, and recreational areas. The Everglades and Lake Okeechobee serve as significant obstacles to east/west connectivity. The state highway system provides access to the region, along with a short line rail operator – the South Central Florida Express.

Primary market elements were anticipated to be related to the region's seaports and their ability to grow their operations based on use of new freight hub. In addition, secondary distribution and warehousing developments, with other supporting industrial developments were expected to augment the inland port.

Discussions with a variety of stakeholders revealed three key observations.

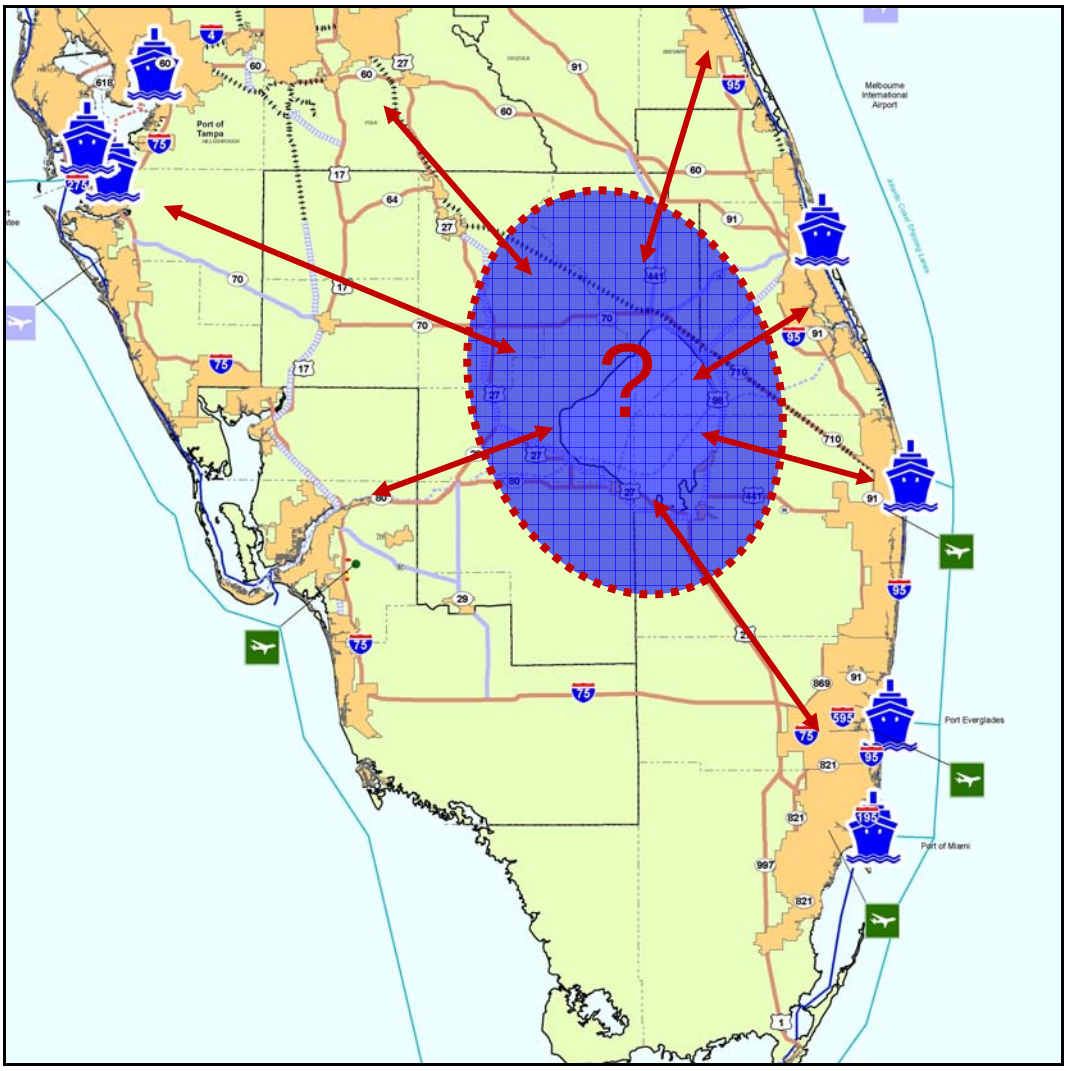
- **Existing traffic handled at seaports would be unlikely to use a new inland facility due to time and cost.** For example, intermodal traffic moving on the FEC to the Port of Palm Beach from Jacksonville for export to the Caribbean would likely lose a day in its supply chain if it used an interior hub versus its established, and finely tuned operation.
- **New companies relocating to the region may be more likely to use the facility.** The Port of Palm Beach and various economic development stakeholders described numerous growth opportunities through the attraction of new business. This new business would require increased seaport terminal capacity, industrial land for site development, or both. An inland port and/or developable industrial land may be a considerable attraction to new businesses.
- **Enhanced or expanded distribution capabilities are needed at Port of Palm Beach.** Apart from the Port of Palm Beach however, there was limited interest by other seaports in the development of an inland port - that is the development of inland seaport terminal capacity. However, most stakeholders acknowledged the need for improved freight mobility through the creation of additional freight transportation and distribution infrastructure. A centralized, inland location was considered an option for this type of service. In fact, this type of development would likely help expand individual port market areas through increased competitiveness. Florida's Gulf ports could better serve Southeast Florida markets, while southeast ports could better serve the I-4 corridor.

In addition to these observations, site location will likely play a significant role in actual market definition. As part of this study, five potential sites were identified. These are discussed in the next section. These sites are positioned around Lake Okeechobee, with the lake impacting Atlantic and Gulf Coast connectivity. Figure 5.1 illustrates the region and the desire to identify a location that serves the ring of urbanized areas. The site will impact the marketability of the services. For example, a facility on the east side of the lake will be less effective in serving Gulf Coast ports or the Lakeland/Winter Haven distribution network. Likewise, a facility sited on the northwest side of Lake Okeechobee would not effectively serve the Port of Palm Beach or the Southeast Florida market. Balancing these considerations was a critical element in the development of recommendations. It also is important to factor in other developments that impact the marketability of a new transportation hub.

- **Winter Haven.** Currently, CSX is restructuring its rail service in Florida with the creation of an integrated logistics center in Winter Haven. This will be a 1,250 acre transportation hub serving the Orlando and Tampa markets. This has significant implications for development of an inland port complex on the northwest side of the Lake.
- **Port Everglades ICTF.** In southeast Florida, development of an on-port Intermodal Container Transfer Facility at Port Everglades will impact intermodal cargo flows, decreasing the competitiveness of an inland port complex.
- **SR 710 Developments.** Other key developments include the redevelopment of the Pratt Whitney site along SR 710 (this has been identified as one potential site for the inland port) and the development of a 537 acre industrial complex by First Industrial Realty Trust, Inc., the nation's largest provider of diversified industrial real estate. This 537 acre land site is anticipated to consist of more than 6.2 million square feet of master-planned industrial product, all within a business park located off the Beeline Highway, in Palm Beach County, Florida.[1]

[1] First Industrial Realty Trust, Inc., Press Release, June 4, 2007.

## Figure 5.1 Identifying Inland Port Service Areas

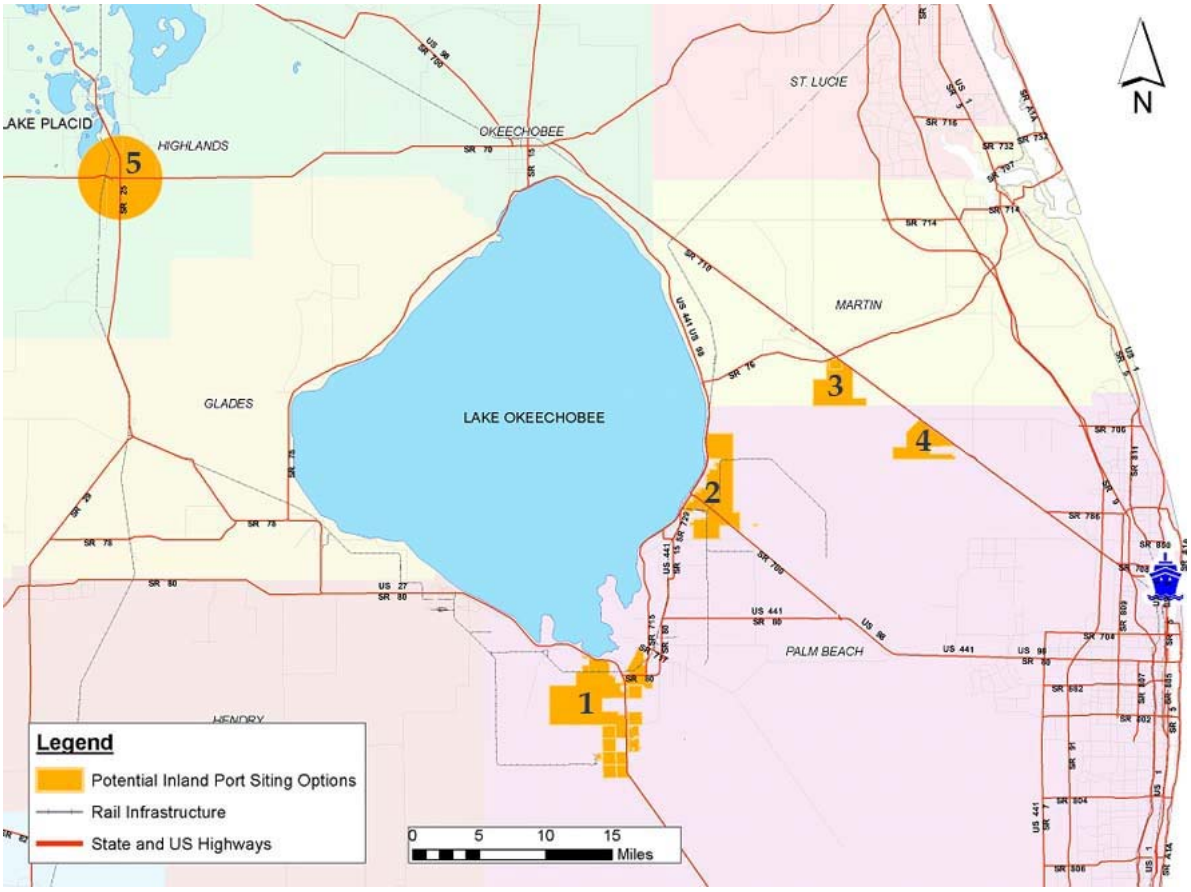


## 5.2 Identification of Potential Sites

The identification of potential sites was an important element in the analysis. Even on the smallest scale, the development of an inland port requires hundreds of acres of land. Original proposals by the Port of Palm Beach identified upwards of 3,500 acres, 1,500 or more of which would be specifically developed as an inland port, with the remainder serving secondary development activities. This need for a large foot print of land was one of the fundamental reasons driving consideration of an inland facility.

The identification of potential sites was driven by several characteristics including available land/willing or interested land owners, connection to key highway and rail corridors, proximity to markets, environmental considerations, and community support. Based on these considerations and stakeholder input, five potential sites have been identified, as seen in Figure 5.2. The following describes the characteristics of each.

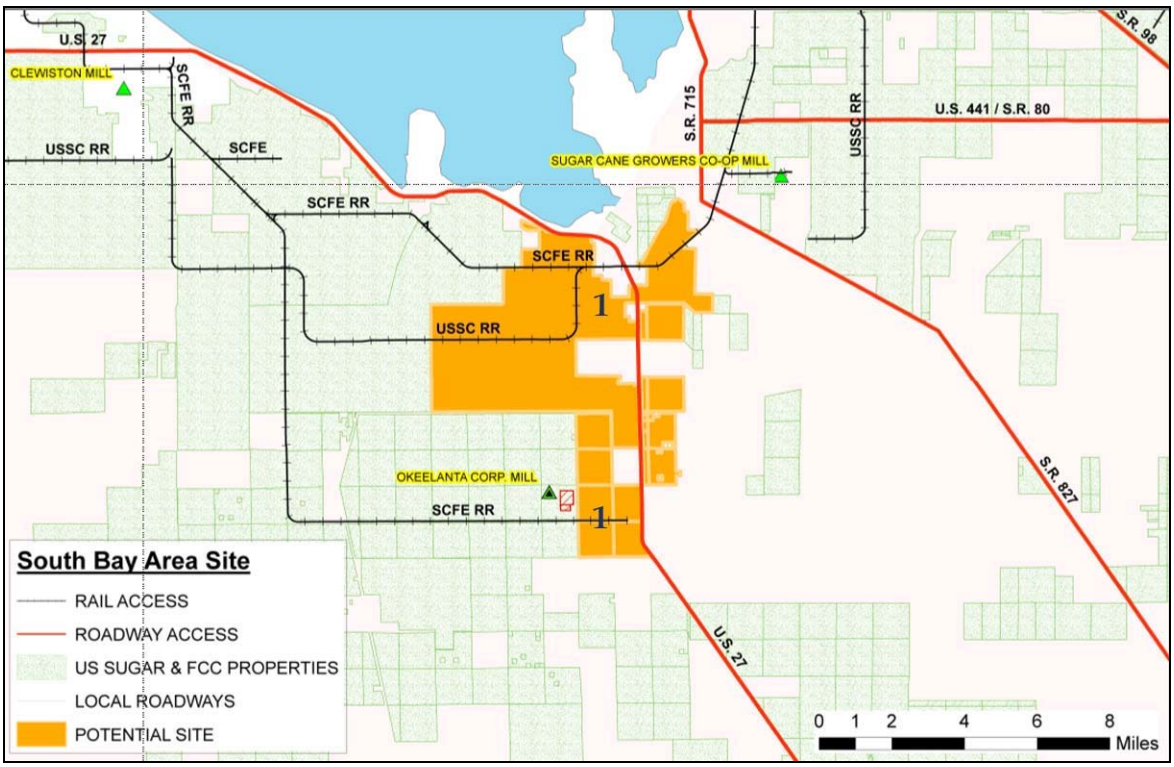
### Figure 5.2 Potential Inland Port Site Locations



The first site, shown in Figure 5.3, is located at the southern end of Lake Okeechobee along the US 27 corridor. Within this large site, there are two potential parcels of land, both of which are adjacent to US 27 and have direct rail service.

- **Land availability.** This site consists of agricultural land used for sugar cane. The land is owned by Florida Crystals and US Sugar. The southern most site is home to Florida Crystals' Okeelanta facility, including an on-site electricity generator (co-gen) facility. Both land owners have expressed an interest in discussing alternate land uses; Florida Crystals is prepared to begin site master planning efforts to lay out an industrial development in close proximity to its existing mill and co-gen facility. Significant acreage is available for discussion (upwards of the 3,500 acres originally proposed by the Port of Palm Beach). The majority of this land would require significant preparation costs for heavy industrial use (e.g. de-mucking).
- **Transportation Connectivity.** Both sites could be developed to provide direct access to US 27. SR 80 just to the north provides east/west service. Both of these corridors carry significant truck traffic and have been identified by FDOT for future corridor improvement studies. Rail service is provided by the South Central Florida Express short line which connects to CSX in Sebring and FEC in Fort Pierce. US Sugar also operates industrial rail lines which could be upgraded to short line status if necessary. While some rail improvements are planned, additional improvements would be required if any or all of the corridors were brought online to provide time sensitive intermodal and/or shuttle service.

## Figure 5.3 Site Option #1: South Bay Area Adjacent to US 27

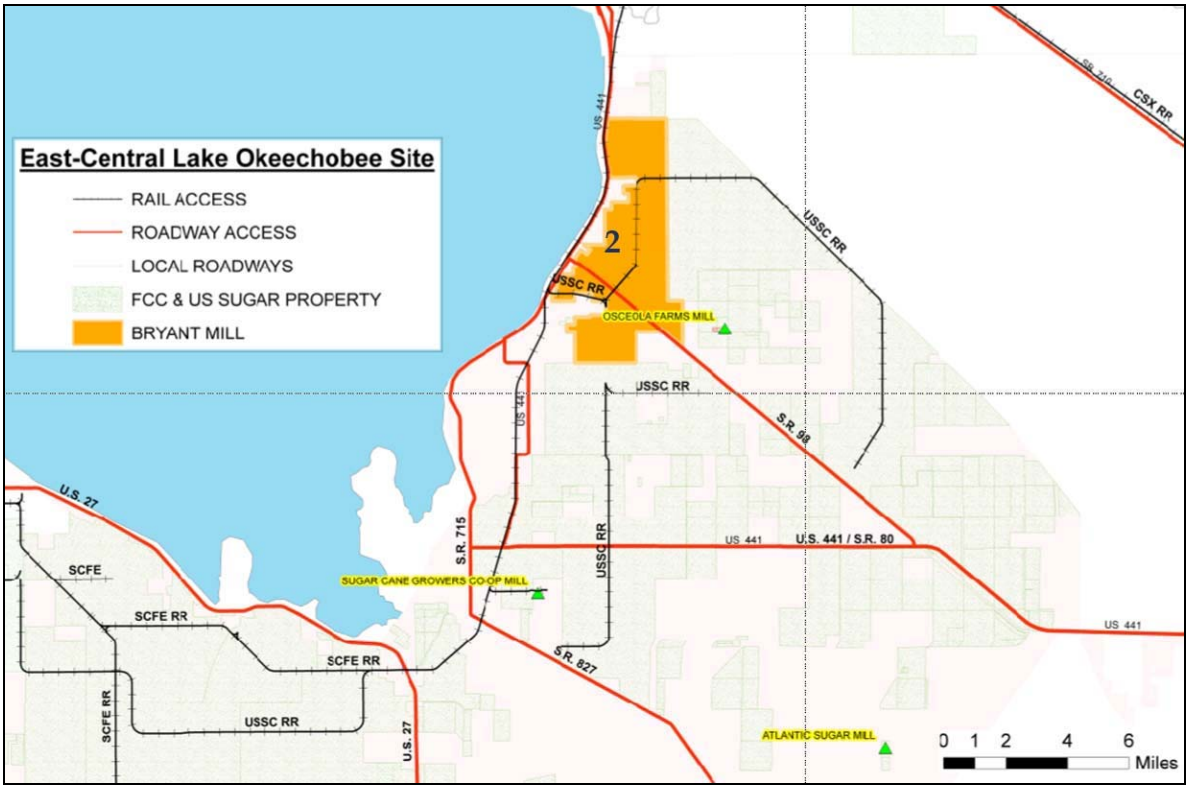


- **Proximity to Markets.** This location is likely the best option for multiple market access. There is north/south and east/west highway access and rail access that provides connects the region with Florida's two main rail providers (CSX and FEC).
- **Environmental Concerns.** This site falls with the Everglades Agricultural Area. In order to develop industrial facilities on either of these sites would require changes to land use and zoning through the local comprehensive plan; this will require coordination and partnership with land use agencies such as the regional planning council, and environmental groups.
- **Community Support.** The South Bay community is supportive of industrial development that would lead to new jobs for local residents. There will need to be coordination and partnership with new annexation plans and development of affordable housing.

The second site, shown in Figure 5.4, is located along the eastern coast of Lake Okeechobee in Pahokee along the US 441 corridor. This site is home to the now closed Bryant Sugar Mill.

- **Land availability.** This site consists of agricultural land used for sugar cane. The land is owned by US Sugar. The site is home to an industrial complex that was recently closed as part of US Sugar consolidation efforts. Significant acreage is available for discussion (upwards of the 3,500 acres originally proposed by the Port of Palm Beach). The majority of this land would require significant preparation costs for heavy industrial use (e.g. de-mucking).
- **Transportation Connectivity.** The site could be developed to provide direct access to US 441 and/or US 98. US 441 serves north/south traffic. Significant upgrades would be required to the corridor to promote it as a major truck route. It connects to SR 76 to the north, which provides access to SR 710, and to US 27 and SR 80 to the south. US 98 provides a direct connection to SR 80 for access to eastern Palm Beach County. FDOT recognizes the critical importance of these routes for truck use. This site is directly served by US Sugar's industrial rail line, which could be upgraded to short line status if necessary. South Central Florida Express provides service along the FEC mainline, which runs north/south along the Lake. Rail improvements would be required to provide time sensitive intermodal and/or shuttle service.
- **Proximity to Markets.** This location is best positioned to serve the eastern Palm Beach County and Martin County markets. US 98 to SR 80 is the most developed corridor. Rail service is best for points north/northeast; an improved rail junction would facilitate service to points south along FEC's Atlantic Seaboard route.
- **Environmental Concerns.** This site falls with the Everglades Agricultural Area. In order to develop industrial facilities on this site would require changes to land use and zoning; this will require coordination and partnership with environmental and land use groups.
- **Community Support.** The Pahokee community is supportive of industrial development that would lead to new jobs for local residents. There will need to be coordination and partnership with new annexation plans and development of affordable housing.

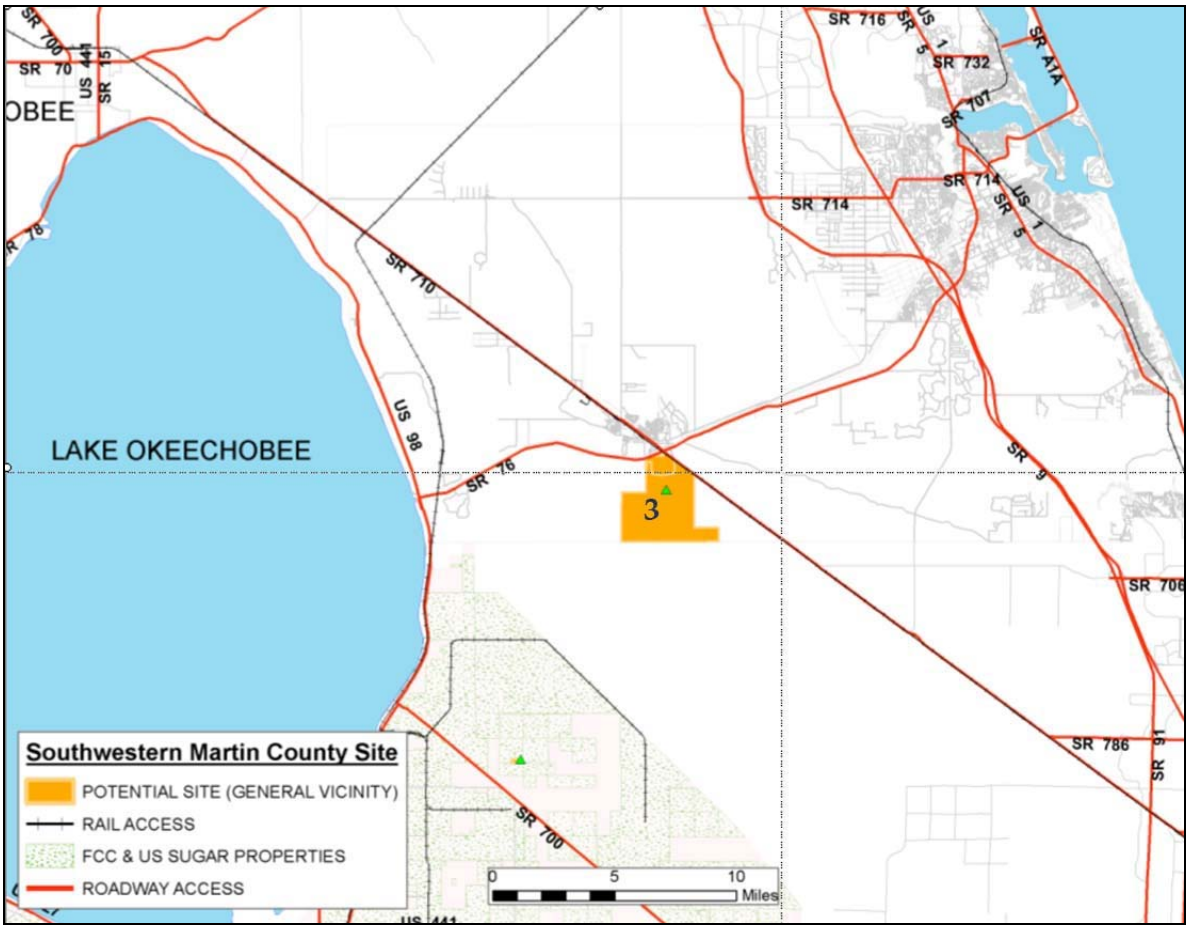
## Figure 5.4 Site Option #2: Pahokee Area Near Bryant Mill



The third site, shown in Figure 5.5, is located in southwestern Martin County along SR 710. This site consists of agricultural land owned by Florida Crystals.

- **Land availability.** This site consists of agricultural land. The land is owned by Florida Crystals. Significant acreage is available for discussion (upwards of the 3500 acres originally proposed by the Port of Palm Beach). The majority of this land would require significant preparation costs for heavy industrial use (e.g., de-mucking).
- **Transportation Connectivity.** The site could be developed to provide direct access to SR 710. This corridor is undergoing significant improvements to handle truck traffic. This corridor provides direct access the Central Florida to the north and to the major north/south corridors in southeast Florida (Florida's Turnpike and I-95). This corridor carries significant truck traffic and has been identified by FDOT for future corridor improvement studies. This site could be developed to directly connect to CSX. This is one of two sites with the potential for direct Class I rail service.

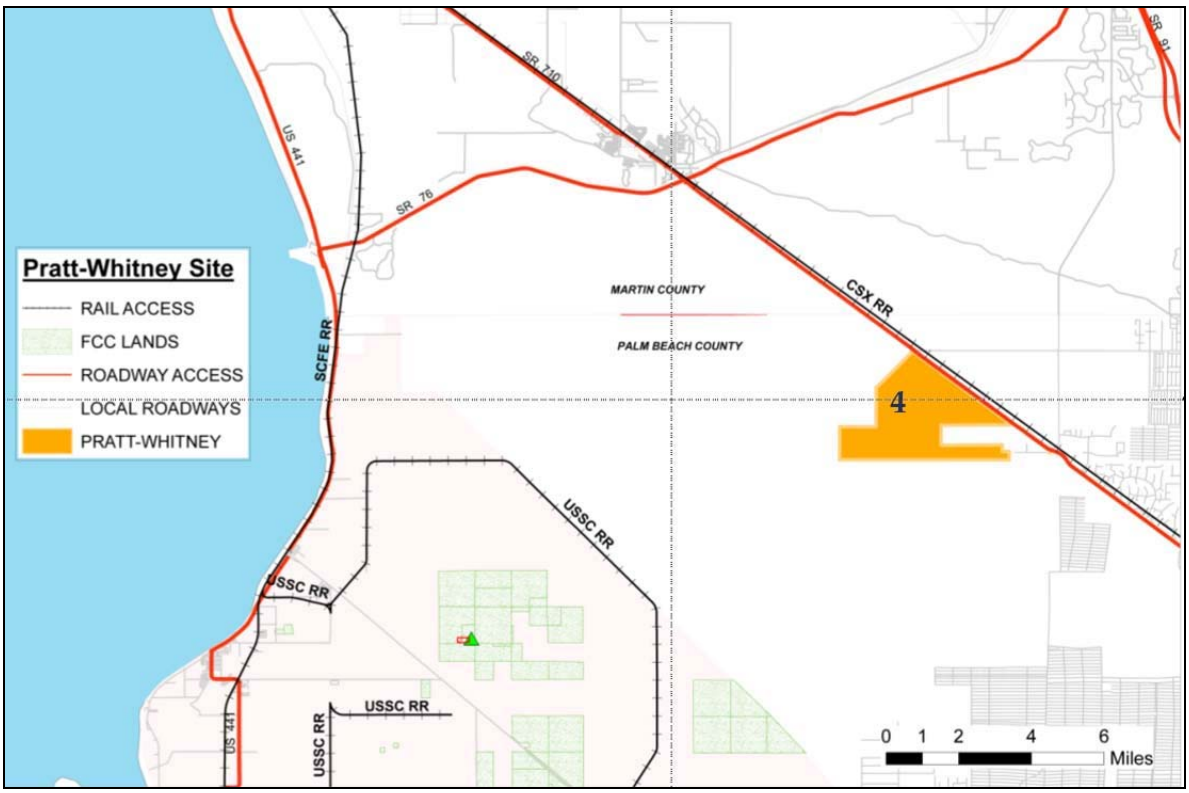
## Figure 5.5 Site Option #3: Southwestern Martin County on SR 710



- **Proximity to Markets.** This location is best positioned to serve the northeast quadrant of south Florida as well as Central Florida. SR 710 provides the most direct route to the Port of Palm Beach. It also links Palm Beach County with Central Florida. In addition, an effective partnership with CSX could provide marketable hinterland connections.
- **Environmental Concerns.** This site falls in close proximity to environmentally sensitive areas, including wildlife management areas, Florida Forever lands, and wetlands. In order to develop industrial facilities on either of these sites would require changes to land use and zoning through the local comprehensive plan; this will require coordination and partnership with land use agencies such as the regional planning council, and environmental groups.
- **Community Support.** This is rural area; the land owner supports discussions. Further discussions with Martin County representatives is required.

The fourth site, shown in Figure 5.6, is located in northern Palm Beach County along SR 710. This site consists of an established industrial complex, including an air field and research and development facilities owned and operated by Pratt Whitney.

## Figure 5.6 Site Option #4: Pratt-Whitney Property on SR 710



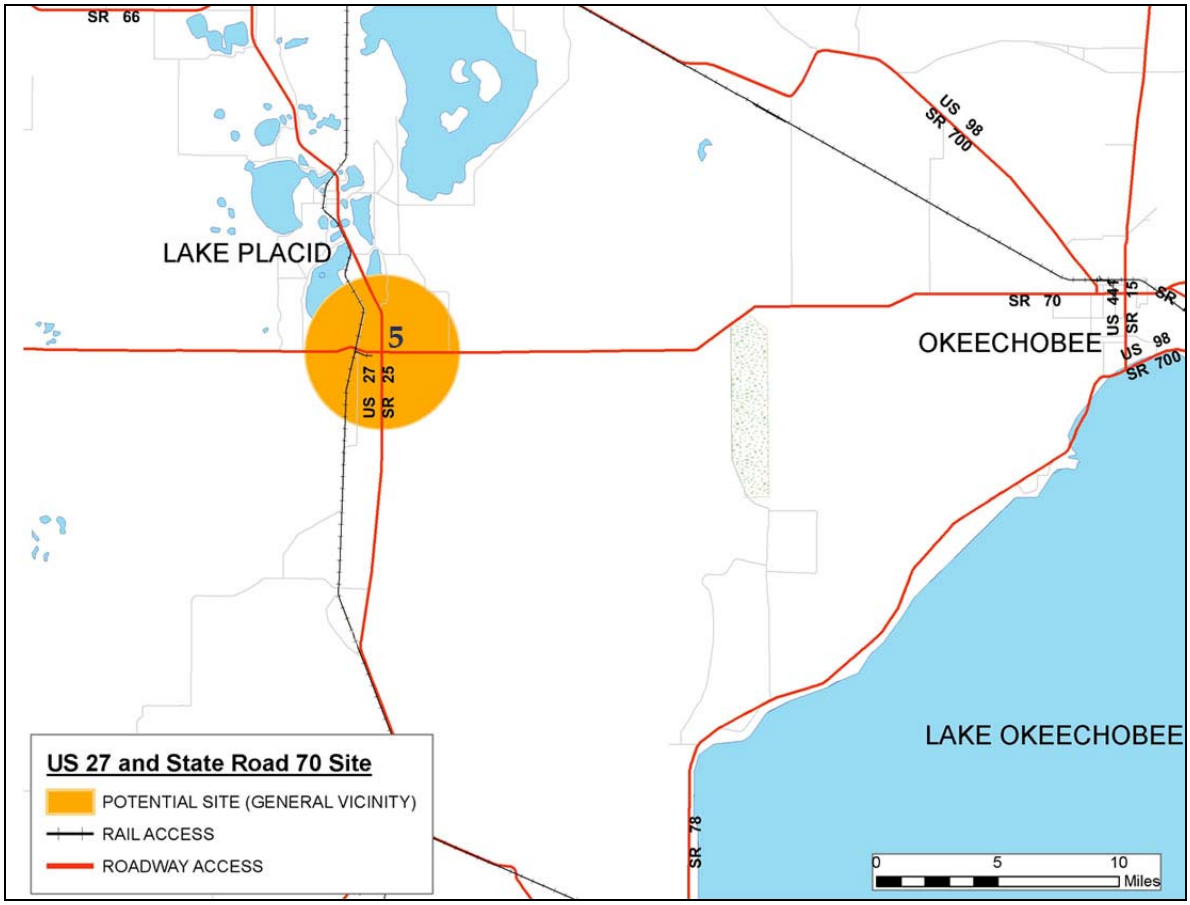
- **Land availability.** This site consists of an industrial complex, air field, and wet lands. The land is owned by Pratt Whitney. Although the site is upwards of 7,500 acres, only 300 to 500 acres are being considered for industrial redevelopment – a significant constraint. This development is being driven by the land owner; site size restrictions are being voluntarily enforced as part of environmental considerations and recommendations from interested parties.
- **Transportation Connectivity.** The site could be developed to provide direct access to SR 710. This corridor is undergoing significant improvements to handle truck traffic. This corridor provides direct access Central Florida to the north and to the major north/south corridors in southeast Florida (Florida's Turnpike and I-95). This corridor carries significant truck traffic and has been identified by FDOT for future corridor improvement studies. This site could be developed to directly connect to CSX. This is the second of two sites with the potential for direct Class I rail service.
- **Proximity to Markets.** Similar to site #3, this location is well positioned to serve the northeast quadrant of south Florida as well as Central Florida. SR 710 provides the most direct route to the Port of Palm Beach. It also links Palm Beach County with Central Florida. In addition, an effective partnership with CSX could provide marketable hinterland connections.
- **Environmental Concerns.** This site falls in close proximity to environmentally sensitive areas, including wildlife management areas, Florida Forever lands, and wetlands. In addition, the site itself contains significant wetlands. Current development plans have been scaled down significantly to address environmental concerns.
- **Community Support.** This is rural area; the land owner supports discussions. Further discussions with local representatives is required.

The fifth site, shown in Figure 5.7, is located in Highlands County on the northwest side of Lake Okeechobee at the intersection of US 27 and SR 70. This site consists of agricultural lands.

- **Land availability.** This site consists of agricultural lands. Specific ownership and available acreage has not yet been documented or evaluated.
- **Transportation Connectivity.** The site could be developed to provide direct access to US 27 and SR 70, providing north/south and east/west connectivity. In addition, direct access to the South Central Florida Express could be provided, with an interchange with CSX in Sebring to the north.
- **Proximity to Markets.** This location is best positioned to serve the northwest quadrant of south Florida as well as Central Florida, Port Manatee and the Port of Tampa. US 27 provides direct access to Winter Haven, the home of CSX's future integrated logistics center. SR 70 provides direct access to I-75 connecting to the Tampa Bay region. It also connects to I-95 in Fort Pierce.

- **Environmental Concerns.** This site appears to fall on the outskirts of environmentally sensitive areas, although there are wetlands in fairly close proximity. In order to develop industrial facilities on either of these sites would require changes to land use and zoning through the local comprehensive plan; this will require coordination and partnership with land use agencies such as the regional planning council, and environmental groups.
- **Community Support.** This is rural area; further discussions with local representatives is required.

## Figure 5.7 Site Option #5: Highlands County at Intersection of US 27/SR70



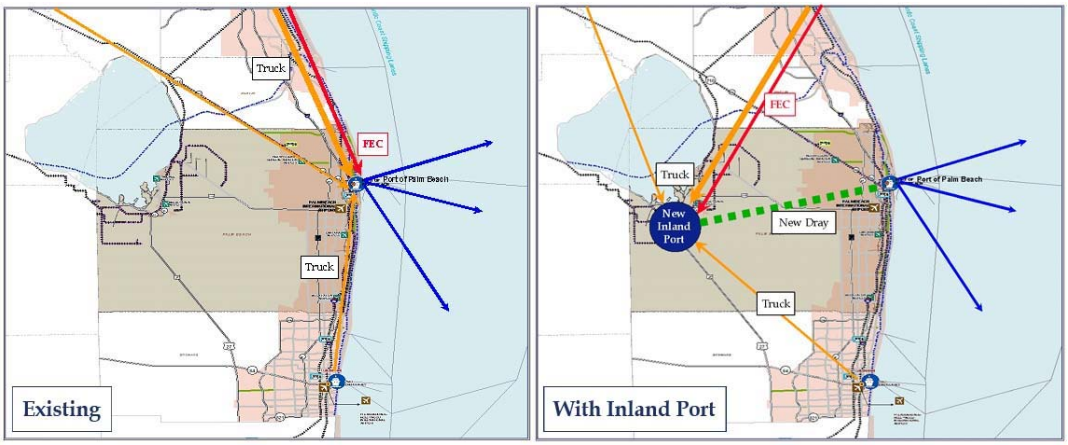
## 5.3 Impact on Supply Chains

The successful development of a new freight hub is dependent on its ability to enhance existing operations or create opportunities for new operations. As mentioned above in the market assessment, modifying or changing existing logistics patterns is difficult. While some shippers are willing to pay more for expedited service, others are willing to wait longer for low cost. However, reliability of pick up and delivery is critical under either scenario. In addition, for a carrier to make a profit, the move must be as efficient as possible. In order for an inland port to be successful, it is critical that it provide the right mix of services that are competitive with or superior to existing transportation services.

Figure 5.8 compares an existing supply chain to one with an inland port. Currently, products are brought into the Port of Palm Beach by truck and rail from a variety of domestic markets and then exported to the Caribbean. This is a finely tuned supply chain with tight delivery windows and sailing times. In fact, these characteristics are what make the service a success, giving it a competitive advantage over others. Introducing the inland port to the supply chain creates an additional node into the network. The key determinant as to whether this would work is in the definition of value added service at the inland port. This value added must overcome the additional time and drayage costs or it is not competitive. On the other hand, the inland port may be competitive for a new service that otherwise could not expand into the south Florida market. The Port of Palm Beach has limited terminal capacity; providing that capacity at a discounted rate at an interior location provides an opportunity to attract new business.

Most stakeholders found it difficult to imagine a scenario where existing supply chains would benefit from an inland port. In addition, new markets would need to be able to compete with established operations using existing distribution systems. In addition, many stakeholders acknowledged that a major distribution hub in the South Florida heartland could open up new opportunities for serving Florida's population centers.

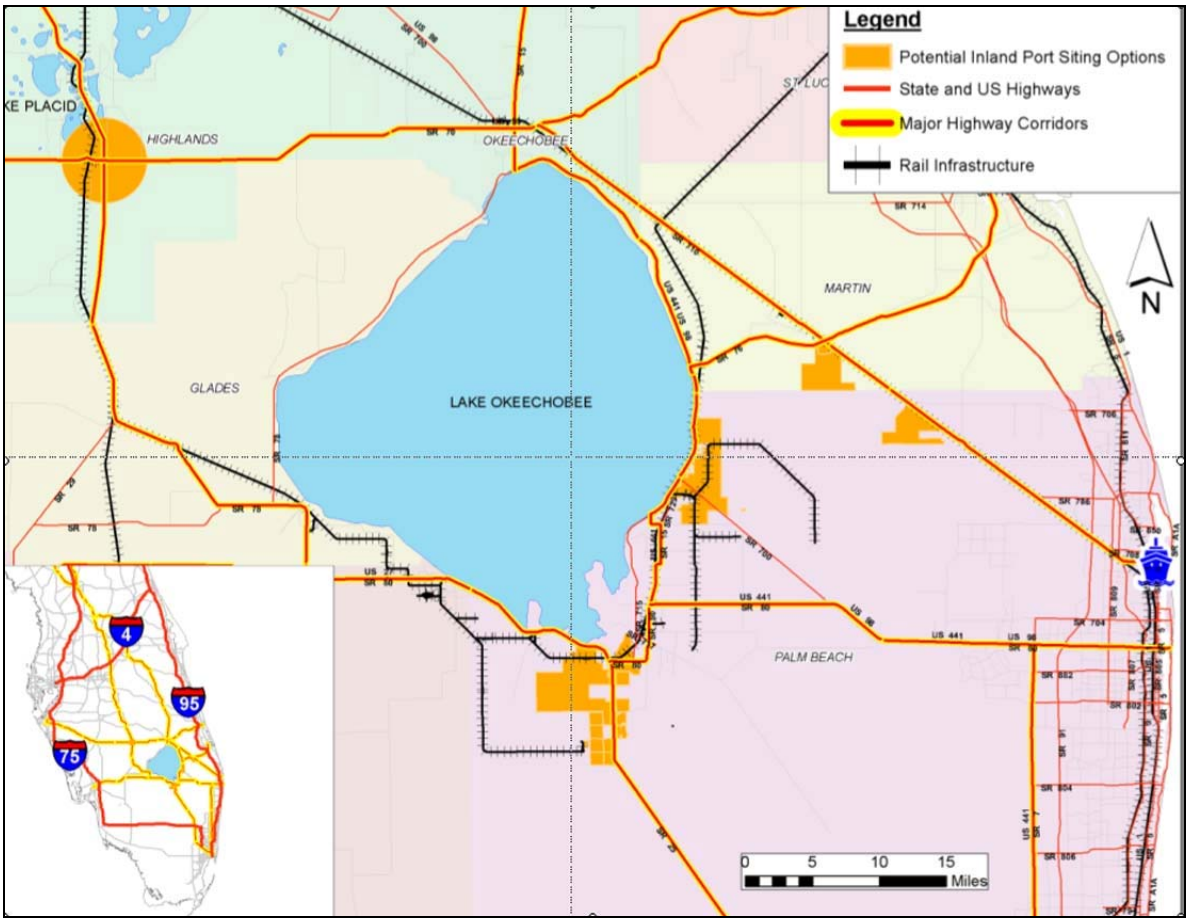
**Figure 5.8 Impact on Supply Chain**
***Port of Palm Beach Exports***



# 5.4 Transportation Connectivity

As discussed above under each potential site, transportation connectivity is one of the most critical elements in the development of a new transportation hub. The two key considerations consist of: 1) does the hub have adequate connections to the transportation system; and 2) do the connections link shippers to their chosen markets. Each identified site serves one market better than another due to proximity and transportation connectivity. Each of the proposed sites has access to the state highway system and the rail network. Figure 5.9 highlights the key highway and rail corridors serving the heartland of South Florida.

## Figure 5.9 Key Transportation Corridors



The majority of sites are located along transportation corridors (highway and rail) that are being studied for improvements, or have improvements scheduled or underway. However, there are not direct connections to all desired markets. This is most notable for rail service. For example, rail service from the South Bay location to southeast Florida requires a northbound move to Fort Pierce before traveling south on FEC. Further, there is no rail junction between FEC and CSX at the SR 710 interchange. Truck service requires use of the State Highway System to access coastal markets or north/south Interstates for more distant markets.

These conditions have led to the discussion of new corridors to provide more direct access. Florida's future corridors program began to address these concerns, however, current state leadership is re-visiting this approach given other state priorities in the light of limited state resources. In addition, the Port of Palm Beach proposed new highway and rail corridors in support of the inland port concept. For example, a new rail line along US 27 from South Bay to Hialeah was suggested. Again, these recommended improvements tend to be specific to key markets.

## 5.5 Potential Partnerships

An infrastructure development of this magnitude requires cooperation and coordination among numerous partners/stakeholders. A broad range of stakeholders were contacted to discuss the concept of an inland port and identify level of interest. To date, there is strong support from a solid cross section of representatives that there is a need for improved freight mobility in South Florida. Private sector partners are positioned to support customer demands; if the market is shown to exist, transportation service providers will be there to serve it. Public agencies are looking for new economic development and improvements to quality of life while protecting and preserving the Florida culture and environmentally sensitive areas. The following highlights opportunities for partnerships by segment:

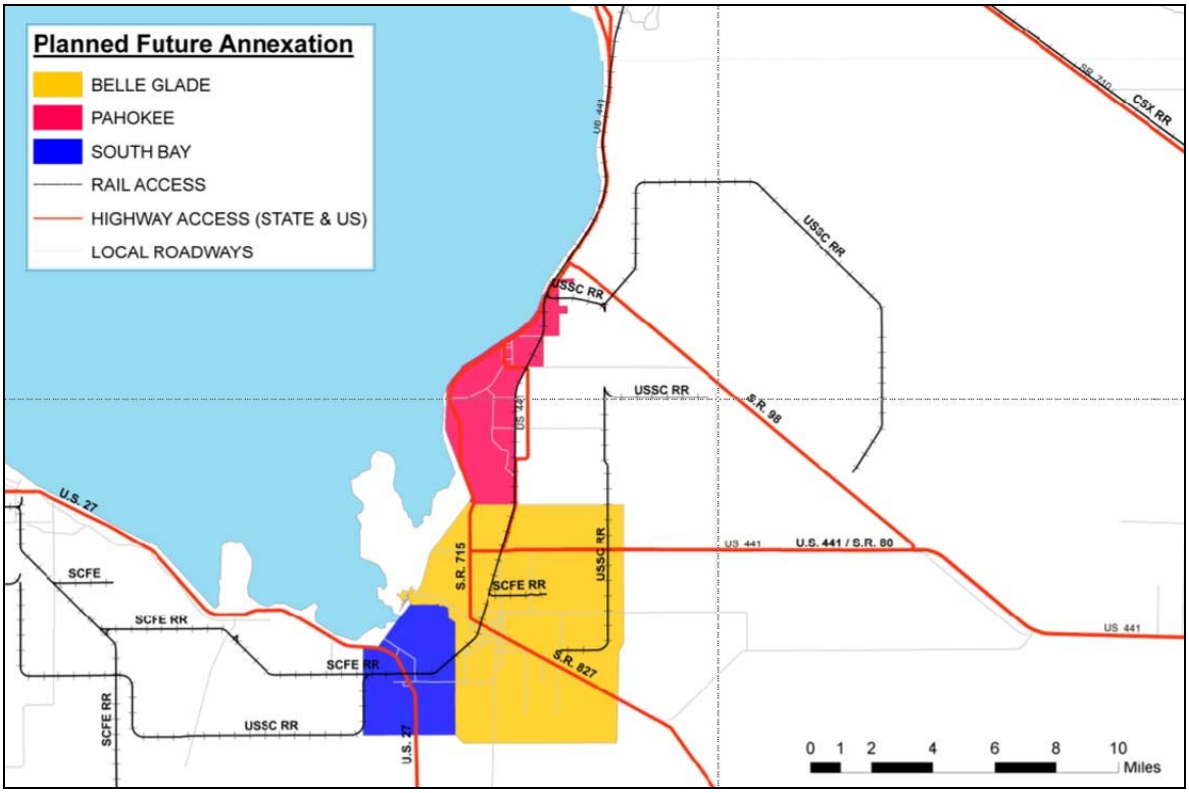
- **Seaports**. The region's seaports are supportive of new freight mobility investments; however, with the exception of the Port of Palm Beach, they tend to support private sector investments in distribution, warehouse, and freight service facilities in place of an inland port facility.
- **Marine industry**. Marine industry representatives echoed their seaport partners, specifically calling out nuances of the south Florida distribution environment, highlighting established infrastructure that is not easily moved; however, they acknowledged potential for becoming more competitive in more distant markets.
- **Railroads**. Each of the railroads serving the region had their own service plans; CSX is focusing in the short term on an integrated logistics center in Winter Haven, but would not preclude a hub further south in the longer term; FEC would rather focus service on its mainline, expanding capacity as necessary, but will serve a new facility if

it is developed; and the South Central Florida Express (and US Sugar Industrial Railroad) are interested in serving whatever facilities are developed.

- **Trucking industry**. Trucking industry representatives questioned the additional charges and fees that would be required to integrate an inland hub into a port supply chain, but felt there is an opportunity for a new distribution and warehousing hub. Particular interest was in a large scale truck stop with full amenities; if a competitive hub is built the trucking industry will serve its customers; and representatives were supportive of overall improvements in freight mobility in South Florida.
- **Land owners**. The owners of four of the five identified sites have expressed an interest in an inland port concept. Both sugar companies have significant land available and have varying levels of interest in identifying industrial development opportunities. In addition, the Pratt Whitney facility currently is engaged in industrial development discussions.
- **Community leaders**. Each of the tri-city communities of South Bay, Belle Glade, and Pahokee welcome new economic development, but are cautious of the negative impacts of a major industrial center. Each city has plans to, or is in the process of annexing parcels of adjacent land. Figure 5.10 illustrates the future footprints for each of the communities following planned annexation.[2] These annexations will be critical elements in site location issues, as they will provide new residential infrastructure, as well as create site neighbors. South Bay plans to annex one of the proposed sites. At the county level, Palm Beach County commissioners have taken a strong interest in the feasibility study and are anxious to move ahead.
- **Economic development leaders**. Area economic and business development agencies have been the most vocal proponents of a multimodal facility. They are hopeful that such a facility will create a significant new job base for the heartland area. One of their concerns is the employability of the work force, and as such they have also identified the need for expanded training and education.
- **Environmental interests**. Many of the environmental partners have been vocal on the discussion of new corridors (highway and rail), but have been silent on site impacts until a preferred site is selected. Obvious concerns exist about any development that would impact established land preservation or restoration projects, as well as those that would have a negative impact on the overall region. Environmentalists have provided little input on the potential positive impacts of such a new development on the rural communities.

[2] Palm Beach County GIS, Updated April 2004

**Figure 5.10 Planned Annexation in the Tri-City Region**




## 5.6 Economic Development Opportunities

Economic development partners support the development of a new transportation hub in the South Florida heartland region. They view this as an opportunity to create jobs, provide education, and address the significant unemployment rates throughout the region. In addition, agency staff reported a significant demand for large parcels of industrial land - a commodity in short demand throughout the region. In fact, one of the driving forces behind this feasibility study was the need for additional industrial land capacity. For the Port of Palm Beach, the lack of large parcels of developable land in close proximity to its terminal has restricted its ability to expand; this ultimately led to a desire to investigate inland locations. The port is not the only stakeholder looking for additional lands. The "Palm Beach County Industrial Land Use Needs" study completed in September 2005 identified a number of relevant areas for improvement in the county:[3]

[3] Palm Beach County Intergovernmental Plan Amendment Review Committee (IPARC). "Palm Beach County Industrial Land Use Needs". September 2005

- There is a current shortage of property available for industrial and light industrial development;
- There is a lack of land available for expansion for current industrial and light industrial tenants;
- Current and recent new business recruitment often hinges on availability of large parcels of land with access to efficient transportation infrastructure;
- The shortage of industrial space has resulted in increased sales prices, taxes and rents; and
- Industrial uses tend to provide higher-paying jobs than service and retail and usually generate fiscal surpluses for local governments.

Industrial and light industrial uses could include a number of transportation-related uses: warehousing, distribution, cargo and bulk processing, but could also provide space for light manufacturing or research and related industry; such as businesses that supply/complement the Scripps Research Institute.

In addition, stakeholder interviews have revealed that while there is a sizable labor pool in the tri-city area, a lack of applicable job skills may be a concern. It was recommended that any significant (industrial/light industrial) business development be accompanied by an equivalent amount of employment educational opportunities/facilities. It also should be assumed that a large number of workers will likely continue to commute from Miami, Fort Lauderdale, and Palm Beach, as is the case today. These travel patterns would add significantly to existing traffic, and may point to the need for additional transit services.

At a preliminary feasibility analysis phase it is difficult to determine specific economic and fiscal impact data. In order to accurately assess direct and indirect benefits of an inland port facility, detailed figures such as revenue, operating data, and employment information must first be determined. What has been established, however, is that the economic development community in Palm Beach County is willing and eager to embrace an inland port facility or any type of multimodal freight hub that will make positive contributions to the local and regional economies.

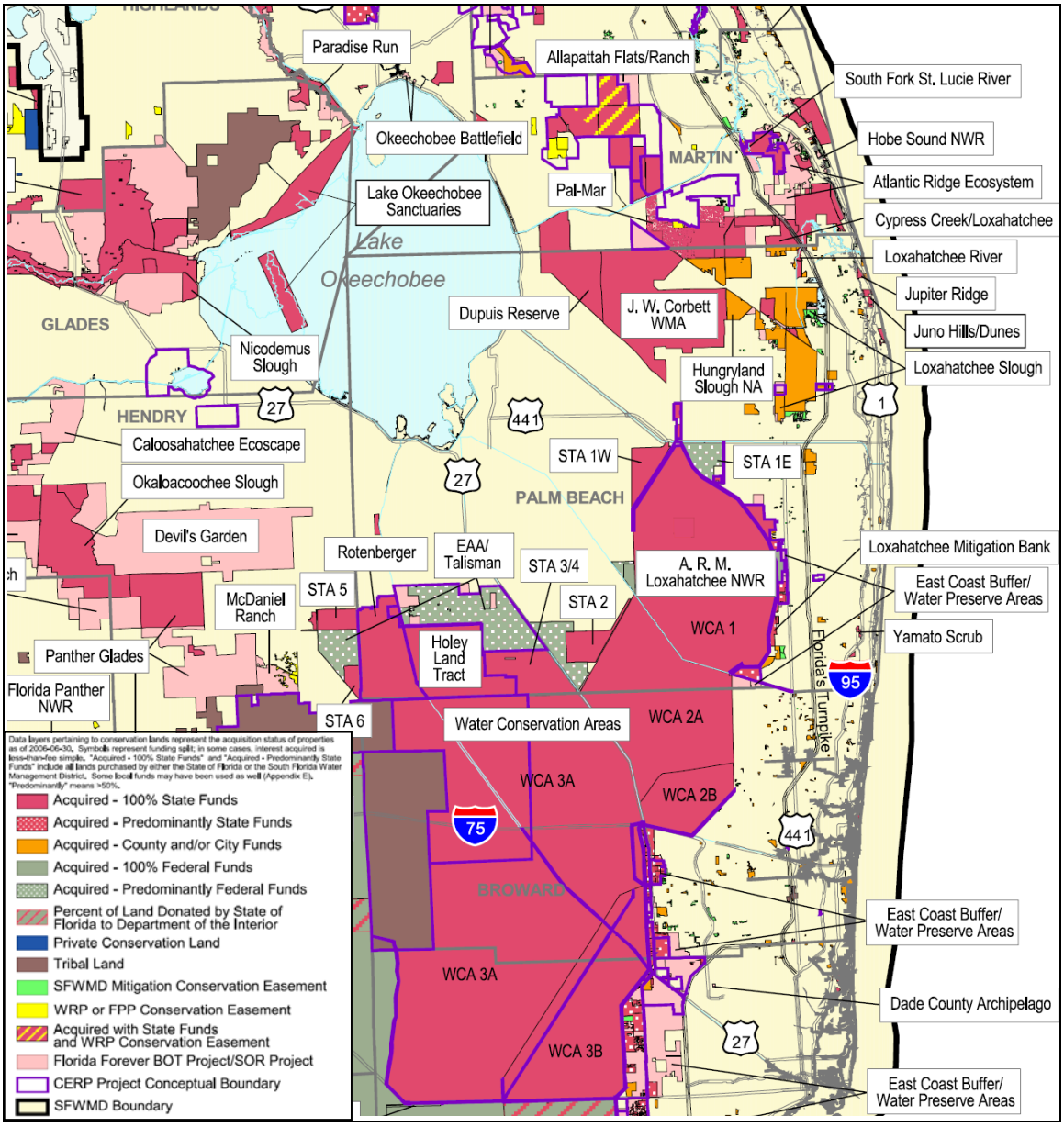
## 5.7 Environmental Factors

Construction of a sizeable facility of this nature, as well as any potential transportation infrastructure improvements, such as new rail construction, will be heavily influenced by environmental protection and preservation activities in South Florida. A large portion of land in South Florida currently falls under some level of environmental protection, either from a various not-for-profit conservation organization, Florida State Department of Environmental Protection (or an affiliated organization), South Florida Water Management District, or another related agency/organization. Figure 5.11 displays the most recent inventory of state-owned and/or protected environmental properties in the study area. Figure 5.12 further illustrates activities led by SFWMD.

These two figures illustrate the environmental sensitivity of South Florida, and further helps explain current development patterns along Florida's Gulf and Atlantic Coasts. South Florida's interior is dominated by natural areas and agricultural lands with relatively few well developed transportation corridors. Developing a new freight transportation hub in the interior will be challenged by these preservation activities. Development of an inland port and related support industries can be achieved consistent with environment goals while also improving the overall transportation system in South Florida and maximizing mobility. This, by definition, should reduce congestion and therefore benefit both the economy and the environment.

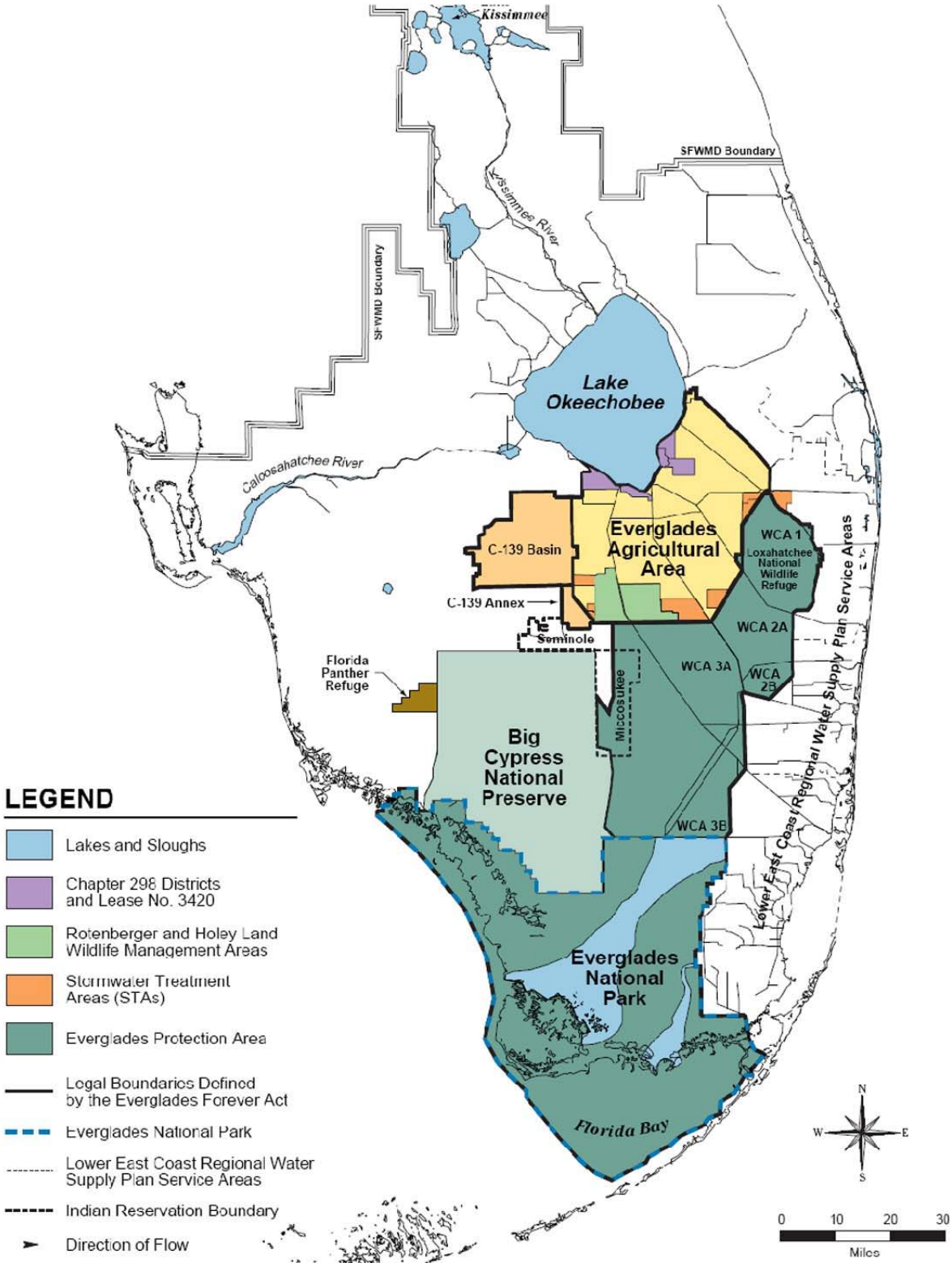
Any new freight or industrial facility developed in South Florida's heartland must adhere to strict environmental protocols and NEPA regulations. Preservation of our natural resources and the cultural diversity of the region should be a mandate given to developers. As such, siting decisions should focus on maximizing use of and improvements to existing transportation corridors in lieu of developing new infrastructure.

## Figure 5.11 Natural Areas in the Palm Beach County Area[4]




[4] Florida State Department of Environmental Protection, "Florida Natural Areas Inventory", November 2006

## Figure 5.12 South Florida Water Management District: Everglades Construction Project




Source: South Florida Water Management District: Everglades Construction Project

## 5.8 Potential Funding

The potential funding sources for a new transportation hub will be dependent on the type of facility identified. State funding is available for infrastructure elements of statewide significance that meet the criteria for designation as part of the Strategic Intermodal System (SIS). In addition, regionally significant infrastructure may be eligible under the Transportation Regional Incentive Program (TRIP). In addition to these programs, there are local FDOT district funds available for some types of projects. Local sources include the metropolitan planning organizations (MPOs) and local county and municipal governments. Seaports also have significant capital improvement programs funded by port revenues and local partner funds. In addition to these public and quasi-public sources, the private sector often funds its own facilities. Local business incentives are sometimes offered by economic development entities to encourage and support private sector investment.

The SIS offers the most significant funding opportunity, but it requires that specific eligibility criteria be met. To date, the concept of an inland port has been most widely supported by one seaport, while the majority of stakeholders have supported investment in distribution/warehouse/trucking facility infrastructure. These types of investments are more in the purview of the private sector. Public partners can participate through streamlining permitting processes, providing economic incentives, and in some instances assist with land acquisition or right of way needs. In addition, for large projects, there is potential to obtain a loan from the State Infrastructure Bank (SIB). Modal partners can also provide funding. Railroads and seaports, as mentioned, have capital improvement programs and invest in their facilities on an ongoing basis. These modal partners have the ability to pool their resources and work with land owners to create new private facilities.

The most appropriate funding structure for a facility in South Florida would likely be some combination of public and private sources. Further, if the private sector displayed initiative toward establishing an inland facility – including planning, land acquisition/availability and collaboration amongst business interests – it is far more likely that an inland freight facility could become a reality. A facility would be more likely to become a reality if it is driven by the private sector, seeking public funding assistance, rather than the opposite – waiting for public sector agencies to coordinate and advance the concept.

## 5.9 Stakeholder Support

At this point in the process, the stakeholders have expressed wide spread support for continued exploration of improved freight mobility in South Florida. Although there is not a clear consensus on exactly what the infrastructure improvements should be, there is general agreement that new freight services could increase the region's competitive position in the global economy and stimulate much needed economic development in the heartland.

# 6.0 Findings, Conclusions and Recommendations

This section summarizes the findings, conclusions, and recommendations developed from the analyses presented in Sections 1 through 5. Throughout the course of this feasibility study, the Port of Palm Beach has continued to support the merits of an inland port to a diverse set of stakeholders. In fact, a task force was created in an attempt to advance the project. Throughout this process, the project concept evolved from an inland port to an inland multimodal complex. This helped better communicate the intentions of project. In addition to this ongoing outreach, the Port of Palm Beach pursued additional funding from state leadership to conduct a second phase of the feasibility study. This subsequent effort will be designed to provide a more comprehensive and rigorous market analysis. As such, the final section of this report is designed to summarize the key findings of this study and provide a set of recommendations to guide the next phase of work.

## 6.1 Key Findings and Conclusions

The concept of an inland port can be used to describe a variety of facilities. The early stages of this study looked specifically at the Port of Palm Beach's proposal, which focused on the physical expansion of terminal capacity through the development of an inland facility; that is, duplication of waterside terminal infrastructure at a non-adjacent facility. This is the primary option for future expansion by the port given the lack of land available in Riviera Beach. This type of facility is well documented and equates to a particular foot print that varies primarily by size and specific commodity handling equipment. The Florida DOT agreed to assist the port in an analysis of this type of facility, however, it was made clear at the inception that for the project to achieve the status of statewide significance, it needed to serve multiple seaports in South Florida.

The study advanced with outreach to a variety of stakeholders, including seven deepwater seaports serving the greater south Florida region. Given proximity and individual conditions, it emerged that the Port of Palm Beach was the only port committed to the concept of developing a new inland port facility. While the other seaports saw the benefits of improved regional freight mobility, their terminal expansion needs would be handled in an alternate manner. In addition to this general finding, it also became evident that there was significant support for what had originally been considered the secondary development that would accompany an inland port facility; that is, distribution centers, warehouses, trucking facilities and amenities, and other light industrial uses.

Economic development professionals in the region saw the concept as one potential solution to the economic challenges that face the heartland of South Florida. As a result, this project has evolved to encompass: 1) the expansion needs of the Port of Palm Beach; 2) the economic recovery of the heartland of South Florida; and 3) an opportunity to dramatically improve and expand freight mobility in South Florida. The following presents a comprehensive list of findings and conclusions resulting from a detailed analysis of industry best practices, regional data collection and analysis, and significant stakeholder input.

- **An effective inland port must provide value added services.** Supply chain efficiencies or cost savings must be achieved to justify use of an inland port. Without some type of improvement of efficiency, it simply adds an additional node to the movements.
- **Successful inland ports create direct and indirect benefits to the region.** Direct benefits include jobs, tax revenues, and increases in property value. Indirect benefits include a variety of items such as private sector investment in distribution centers and warehouses, truck services, and more.
- **An efficient inland port creates regional transportation benefits.** Improved mobility and/or modal diversion often result in reduced delay for trucks, reduced congestion on regional highways, lower shipping costs, and reduced highway maintenance costs.
- **A centrally located facility would not effectively serve multiple South Florida seaports.** The seven cargo handling ports in South Florida each have specific needs and improvement programs. Terminal expansion via an off-site shared facility was not an effective answer for most ports. It should be noted that most inland ports are developed to serve a particular port authority, not a network of competing ports.
- **Inland port would provide the Port of Palm Beach with the ability to expand bulk and break-bulk services.** Bulk and break bulk products are characterized as heavy, large volume shipments with significant storage requirements. Current terminal capacity does not allow the port to market these types of customers.
- **Direct rail connection between the inland port and the Port of Palm Beach is required.** The economics of moving bulk/break bulk products by truck are constrained; an efficient ship-to-rail connection on port with consistent and reliable connection to and inland facility for off-loading and processing is preferable.
- **New industrial land would allow South Florida to better compete for and attract new business.** Economic development specialists do not have adequate industrial lands or industrial parks available in South Florida to meet the needs of companies looking for expansion opportunities.
- **Port of Palm Beach has limited growth potential without an inland facility.** With just over 150 acres of land, and a booming residential community outside its gate, the Port is landlocked with limited opportunities for growth. It is already home to one of if not the most efficient container operation in the U.S. so additional improved efficiencies are also limited.

- **Region has strong demand and general support from industry and community for freight mobility improvements.** A significant number of stakeholders contributed to this study; there was universal support for the need for improved freight mobility in South Florida.
- **Heartland communities support potential economic development opportunities, provided they are planned and constructed responsibly.** The heartland is a rural area of critical economic concern and has been working regionally to define key target industries. Many community leaders see a major transportation hub as an excellent opportunity for the region.
- **Multiple land owners looking for industrial opportunities – multiple sites have been identified.** Often the chief opposition to a major new industrial facility, especially one of hundreds or even thousands of acres, is finding adequate land. Major land owners have expressed a strong interest in exploring opportunities for industrial diversification.
- **New services more likely to benefit new freight operations – limited benefits for existing customers.** Creating a new transportation hub can have a negative impact on existing supply chains; new business, that otherwise could not become established in the region, has a better chance of making it work.
- **Established distribution networks in South Florida are not easily re-located or duplicated.** South Florida, particularly in Miami/Dade County, has an established network of value-added consolidation and distribution businesses. Many of these are "mom and pop" businesses that provide more than merely load consolidation. Competing with this infrastructure is difficult.
- **Distribution facility could enhance competitiveness of Florida's ports with each other as well as other states/countries.** A central distribution hub in South Florida may provide new opportunities or better opportunities for South Florida ports to compete in existing or new markets. For example, established distribution activities along the I-4 corridor in the Tampa Bay/Orlando region can be served by the Port of Miami or the Port of Savannah. A shift to South Bay would give the Port of Miami an advantage.
- **New or expanded corridor development creates significant environmental concern.** Discussion of new corridors (rail and highway) resulted in significant concern/opposition by environmental groups. The heartland region is home to a significant array of environmentally sensitive areas.
- **Uncertain if traditional rail operations can provide competitive service to an inland facility.** One element of the inland port concept is the use of rail for short haul moves, primarily from the inland location to the Port of Palm Beach. Although there is rail commitment to provide the necessary service, short haul service has not historically been competitive for railroads.
- **Variety of transportation related services – and a staggered or phased approach – should be considered.** Regional stakeholders support further exploration of a variety of transportation services and concur that starting small with room to grow and expand is a good approach.

- **Facility must provide cost competitive, value added, and marketable service bundles.** A new transportation hub has the potential to create additional moves to integrate it into established supply chains. This makes it critical that the new facility add value to the supply chain.
- **Economic development and business development entities have indicated an intent to aggressively market an inland port/multimodal facility.** Although specific markets have yet to be identified, local economic development leaders report there are numerous opportunities missed all the time due to lack of industrial land. With new facilities in place or under development, significant marketing could be completed.
- **Current transportation infrastructure in place has the potential to sufficiently serve an inland facility.** The heartland is home to a limited but connected network of highways and railroads; with ongoing improvements, and appropriate site selection and development, transportation connectivity will be adequate.
- **South Florida is at a geographic disadvantage to attract large-scale distribution operations.** Unlike some other areas that have developed inland ports or integrated logistics centers designed to serve multiple U.S. markets, South Florida is best positioned to serve its own set of regional markets. It is critical that these regional markets are served by seaports when possible to minimize landside transportation impacts.
- **South Florida has a significant demand/need for truck service facilities.** South Florida relies on trucks for the majority of it transportation services. There are little to no truck service facilities in the region. The South Bay vicinity along US 27 has been identified as an ideal location for a full service facility, with all the amenities.

## 6.2 Recommendations

The state should work with local and regional partners to promote consideration of a mixed use freight hub that directly serves Port of Palm Beach, maximizes use of existing transportation corridors, provides a variety of transportation, distribution, and warehousing facilities, promotes regional economic development, and is dependent on public and private investments. In order to accomplish this, the following actions should be considered for the next phase of the project:

- **Identify key partners.** As part of the second phase, it will be important to identify and define key partners. These partners should be part of an advisory or stakeholder committee that provide input throughout the project. The purpose of this group is to ensure project feasibility requirements are maintained and monitored. Modal partners, such as the railroads, will be major factors in the definition of service options. Land use and environmental interest groups will be a vital part of any discussions. Private sector investors will be necessary to promote new site developments. The core group should be established early to ensure there is ongoing support as phase II advances.

- **Identify a preferred site(s).** Five potential sites have been identified in this phase. Each has its advantages and disadvantages. The interested stakeholders should make recommendations for further analysis of the likely candidate sites. Work to date suggests a location along US 27 south of South Bay would serve the largest set of needs. However, a final determination should be made based on stakeholder input.
- **Refine the preliminary market analysis.** Based upon partner input, the preferred site, and addition analysis, as necessary, a detailed market analysis should be completed. This analysis should define the selected service bundles and then work to identify the potential market size based on available trend data, economic development staff input, and other stakeholder commitments. As part of this activity, it will be necessary to differentiate service from other large distribution centers, such as Winter Haven and Lakeland. In order to justify why a new hub is warranted, it is critical that the differences be identified and used to develop a marketing plan.
- **Identify and define potential business plan options.** The ownership, operation, and services offered are critical elements of a facility. Whether privately or publicly run, a facility must have an effective business plan. Further, public facilities may be eligible for additional funding programs. Likely, this will vary by element. That is, an inland port component may be led by the port, while warehousing infrastructure would like be led by a private company.
- **Develop a phased approach.** It is unlikely that a complete industrial complex will be able to be designed, funded, and constructed all at once. In fact, there likely will be many unanswered questions regarding service modules, realizing growth potential, and a range of markets. A phased approach will help show a planned development and integration of various service bundles.
- **Develop an environmental mitigation plan.** As mentioned above, South Florida is an environmentally sensitive area. The unique qualities provided in South Florida must be preserved and protected. As such, it is critical that any industrial development planned for the region be environmentally sound.
- **Identify and define potential funding structures.** Potential funding is based in large part on the way in which the project is defined. An inland port will likely require at least a quasi-public partner, like a port authority, and potentially other public funds. A private sector, market driven distribution center will be privately funded, although there may be an opportunity for the public sector to provide some type of incentive. As this concept advances, it will be important to more clearly define funding opportunities.
- **Develop work force training/development plan.** Work to date suggests that there are significant job-related training needs in the heartland region. If new services and infrastructure in the region are to provide localized economic impacts, it will be necessary to ensure jobs are accompanied by training programs. A work force training plan will help ensure this is accomplished.
- **Provide ongoing outreach public involvement to build consensus.** As this project is developed, defined, and implemented, it will be important to expand the outreach activities beyond the professional level to involve the general public.