



PORT OF FORT PIERCE CONSOLIDATED MASTER PLAN



2017

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Acknowledgements:



Port of Fort Pierce



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EXECUTIVE SUMMARY

2017 CONSOLIDATED MASTER PLAN

EXECUTIVE SUMMARY

Purpose: The following is a consolidation of the Port of Fort Pierce 2002 Port Master Plan, the 2012 update to the 2002 master plan and two studies recently performed for development of the Port's Fisherman's Wharf area in 2015 and 2016. This consolidated master plan for the Port of Fort Pierce has been undertaken by FDOT, District 4, Office of Modal Development at the request of the Port of Fort Pierce and St. Lucie County. This consolidated master plan is not an update to the master plan nor does it reflect any changes to the vision, goals, objectives or policies of the Port. It is intended as a first step to provide a consolidated planning document for the County (Port) to use as a basis for a master plan update or an entirely new master plan.

Background

2002 Port Master Plan: The previous vision, prior to the 2002 master plan for the Port of Fort Pierce, was a mix of recreational, commercial, and industrial uses proposed in the 1989 Port Master Plan. A subsequent Port master planning effort began in 1996 with a non-binding public referendum and charrette process. Through additional public workshops in 2001, the charrette vision was further refined to focus on marine industries, specifically, the mega-yacht industry, as the industrial component for the mixed-use Port. Mega-yachts were envisioned as the anchor tenant at the Port of Fort Pierce. The Port would also to continue to support existing cargo operations. The 2002 Port Master Plan more clearly defined the community vision, strengthened local control over the process, and provided flexibility to ensure intergovernmental coordination and the desired mix of uses. The community recognized the Port's role in serving the needs of marine industries, ecotourism and marine-related recreation.

A portion of the 2002 Master Plan was officially adopted into the Coastal Management Element of the St. Lucie County Comprehensive Plan - the Goals, Objectives and Policies component. At the time of the Fort Pierce 2002 Master Plan, the Port encompassed approximately 1,400 acres - approximately 300 acres of land and approximately 1,000 acres of water / wetlands. The Port of Fort Pierce contained two distinct sub-areas.

- Port Planning Area and the Port Operations Area. Figure D depicts the general limits of what was considered the Port Planning Area for the Port of Fort Pierce. The Port Planning Area is a larger area, which includes not only the Port Operations Area but also the entire harbor, the inlet, the channel, portions of Causeway Island, and portions of Taylor Creek.
- The Port Operations Area consists of the area west of the ICW, bounded on the north by North SR A1A, on the south by South A1A and on the west by North US 1.

In 2002 a majority of the Port Operations Area's 175 acres was privately owned. Only about 35 acres were publicly owned.

The 2002 Port Master Plan indicated that it was in the public interest to use the natural, existing advantage of deep-water ocean access to its highest and best use. The compromise reached among community stakeholders was to maintain the Port channel depth at its current 28 feet and channel width at its current dimensions. Supporting current channel dimensions would allow existing and projected navigational needs of the Port to be met. The Port would continue to rely on the U.S. Army Corps of Engineers to maintain the navigation channels. Cargo was to continue to be an element at the Port; however, expansion of Port activities would focus on marine industries, in particular, the mega-yacht industry, which was envisioned as the anchor tenant of the Port. Through such activities, the Port would serve to enhance the economic vitality of the community while protecting the environmental resources of the region.

2012 Master Plan Update: In 2012, the Florida Department of Transportation District Four (District) encouraged the City of Fort Pierce and St. Lucie County to update the Port of Fort Pierce Master Plan in conformance with Florida Statutes Sections: 163.3177(6)(b), 163.3177(6)(g)8, 163.3178(2)(k), and 163.3178(3) . The District informed them that typical Master Plans should be updated every five years and the current plan was adopted in 2002. Significant, new State resources had been allocated for seaports, and for projects to be eligible for FSTED funding, they needed to be documented in an adopted and current port master plan. The District contracted with a prime consultant and local sub consultants to engage in a multiphase endeavor to determine market potential and public desires in order to update the 2002 Port Master Plan.

The consultant's proposed revisions to the 2002 Port of Fort Pierce Master Plan were developed to stimulate economic development and jobs while identifying projects that could be submitted as Seaport/Intermodal funding requests to the State. The master plan update consists of two reports (dated 2012 and 2013). In the first report, the consultant determined that there is a market for new cargo activity at the Port of Fort Pierce. The second report looked at the economic benefits and increases in land value if the port were to be partially or fully developed. In addition, the report contained a detailed examination of prospects for development of a maritime training facility in the City of Fort Pierce/St. Lucie County.

A key component of the master plan updating process was a community public workshop, which attracted 157 participants, including 10 elected officials. Workshop participants represented a cross-section of residents, land owners, business and labor interests, and shipping and rail officials. The public workshop was an interactive, charrette-style public work session that provided input for conceptual planning and development of conceptual options in order to build stakeholder consensus.

The conclusions drawn and recommendations made by the consultant as an update to the 2002 Port of Fort Pierce Master Plan were accepted by the Port Advisory Council and the update was formally adopted in September 2013

Fisherman's Wharf Studies: In 2014, a consultant, under contract with District 4, FDOT, initiated a study of various property configurations for the Fisherman's Wharf Area at the southern end of the Port's Operating Area. Three property configurations or options were fully developed to include the identification of required infrastructure improvements and land acquisitions with the costs of construction, acquisition and annual maintenance. The options were comparatively evaluated by the consultant and representatives from the City and County. An optimal configuration was selected and presented in May 2015 to the County and City Commissioners.

At the Port's request, FDOT District 4 followed up with a second more specific land use study - plan for the selected property configuration at Fisherman's Wharf. Like the first study, the second was also developed in close collaboration with County staff. Specific commercial and recreational uses were identified and evaluated in order to identify and preliminarily plan and design the infrastructure that the Port, as a landlord, would be expected to provide potential port tenants. Cost estimates were developed and economic impacts were evaluated to support the Port's successful SeaCIP Grant applications for State funding. The conclusions of the Fisherman's Wharf property configuration study/evaluation and the more detailed land use plan are also incorporated in the consolidated Port Master Plan.

The consolidated master plan consists of six sections:

1. Section One is the introduction, explanation of the Port's Planning Area, brief history of the Port, the existing (as of 2012) uses of properties in the Port's Planning Area, the Florida port master planning requirements and process, a history of previous master plans for the Port of Fort Pierce, the 2002 Port Master Plan, the 2012 Port Master Plan Update, the Fisherman's Wharf studies and the process for development and execution of port projects from vision development to project completion.
2. Section Two is the identification and description of the Port's goals, objectives and policies from the 2002 Port Master Plan and as amended, in some cases, by the 2012 Master Plan Update
3. Section Three is data and analysis consisting of an overview of the Port of Fort Pierce a description of adjacent land uses, historical and cultural resources, an inventory of the Port's facilities, land use issues, public access and Port infrastructure.
4. Section Four is a discussion of environmental conditions including a natural resource inventory, a description of living marine resources, natural upland and shoreline communities, estuarine conditions, management of dredged materials and recent maintenance and management plans.
5. Section Five is a discussion of Port safety, security and emergency management to include natural

disaster planning, hazardous material handling and remediation, and the Port Security Plan

6. Section Six is a discussion of ongoing efforts, consisting of the Port's 5 Year Capital Improvement Plan (CIP), future demand for the Port of Fort Pierce and plans for Port maintenance and expansion.

The consolidated Port Master Plan represents the coordination and combination of the Port Master Plan that was prepared and adopted in 2002, the Master Plan Update of 2013 and the recent studies on the optimal configuration and infrastructure development of the Fisherman's Wharf area. The objective of the consolidation of these documents into a stand-alone, single document is to provide the County (Port) and State (FDOT) with a consolidation of previous port planning documents which will serve as a basis for a master plan update or an entirely new master plan that may be undertaken by the County (Port of Fort Pierce).

SECTION ONE

BACKGROUND AND SYNTHESIS

SECTION ONE - BACKGROUND AND SYNTHESIS

1.1 Introduction

The Port of Fort Pierce is one of 21 deepwater ports located along the South Atlantic Coast and the eastern half of the Gulf of Mexico (see Figure B). These ports include Wilmington, North Carolina; Charleston, South Carolina; Savannah, Georgia and all of Florida's 15 deepwater ports (Fla. Stat. Section 311.09). Situated between Port Canaveral (70 miles north) and the Port of Palm Beach (60 miles south) (see Figures B & C), the Port of Fort Pierce is located in the heart of Florida citrus country and once was the main exporter of grapefruit to Europe and the Far East.

Florida law mandates that all 15 of the recognized deepwater seaports in the state, prepare and regularly update a master plan for the particular port. The purpose of these master plans is to provide for coordination of port development activities with local comprehensive plans by integrating those master plans into the Coastal Management Element of the Local Government Comprehensive Plan [FAC, Section 9J-5.012 (5)(a)]. The Cantanes Center for Urban and Environmental Solutions at Florida Atlantic University (the Center) was contracted by St. Lucie County for the purpose of preparing the Port of Fort Pierce 2002 Master Plan. Concurrently, the City of Fort Pierce contracted with the Maritime Trust for the purpose of putting together a general plan of development for that part of the Port of Fort Pierce found within the city limits of Fort Pierce. In order to ensure consistency and avoid duplication in the development of this master plan, the Center closely coordinated with Maritime Trust in the development of this master plan. Services that the Center provided to the County included facilitating the preparation and adoption of a comprehensive plan amendment to address state laws, rules, and new statutory requirements. For example, the master plan incorporates a seaport security plan pursuant to state legislation (Section 311.13, Florida Statutes). This master plan was completed in the summer of 2002. Timing was critical as funding from the Florida Seaport Transportation and Economic Development (FSTED) program was and is still linked to analyses of up-to-date port plans. To ensure wise investment of state dollars, the FSTED Council reviews and approves applications from seaports for project funding and annually publishes a Five-Year Seaport Mission Plan.

1.2 Port of Ft. Pierce Planning Area

The Port of Fort Pierce encompasses approximately 1,400 acres of land and water. Generally, the Port of Fort Pierce includes all of the land area lying east of US 1 in Fort Pierce, bounded on the north and south by SR A1A. On Hutchinson Island, the Port of Fort Pierce includes mostly public property that is currently used either for public parks, conservation purposes, or utility and public safety purposes. The Port of Fort Pierce includes the entry navigation channel, turning basin, Intracoastal Waterway (ICW) within the Port area, Taylor Creek and the Fort Pierce Inlet area (including the jetties, both north and south).

For the purpose of this master plan, the Port of Fort Pierce will be referred to as two distinct areas: the Port Planning Area and the Port Operations Area. Figure D depicts the general limits of what is considered to be the "Port Planning Area" for the Port of Fort Pierce. Within the Port Planning Area is a sub-area that is referred to as the "Port Operations Area". Approximately 85% of the Port Planning Area lies within the City of Fort Pierce. The remaining 15% of the Port area lies in the unincorporated areas of St. Lucie County. Development activities that take place within the Port Planning Area must be consistent with the Future Land Use Maps of the respective jurisdiction in which the activity is taking place. Figures G & H identify the adopted future land use designation for the Port Planning Area of the Port of Fort Pierce.

Because a portion of the Port Planning Area lies in the unincorporated areas of the County, it is the responsibility of the Board of County Commissioners for St. Lucie County to include this portion of the Planning Area within its Local Comprehensive Plan the Master Plan for the Port of Fort Pierce as required under Section 9J-5.012 (5) (a) FAC (see Appendix D).

It should be recognized early in the review of this master plan that the Port of Fort Pierce is somewhat unique in the State of Florida in that, as the managing authority of the Port, the Board of County Commissioners,

currently controls very little land in the Port Planning Area, and what lands it does control are primarily dedicated for recreational uses. Aside from a portion of the North A-1-A causeway and the FPUA (Fort Pierce Utility Authority) wastewater treatment facility, the City of Fort Pierce does not own any land within the Port Planning Area. The majority of the land area in the Port Planning Area is currently privately owned. Because of this private ownership, a specific building/ facility footprint master plan for the Port has not been developed. This Master Plan is, in its most fundamental structure, a policy plan to be used to guide development activities in the Port Planning Area.

The Master Plan for the Port of Fort Pierce relies upon the land use identifications shown in the Future Land Use Element of the applicable, local government comprehensive plan. All development activities within the Port Planning Area are subject to compliance with applicable, local land use plans, including all local permitting requirements.

The development of a Master Plan for port development, as with any community development plan, begins with a vision. In the mid-1950's the Port Authority for the Port of Fort Pierce developed a master plan for the Port that, if built, would have created a "port" that would rival the ports of Miami and Fort Lauderdale, both in the area of occupancy and the types of commercial trade that would be taking place. The physical footprint of that plan would have resulted in the filling of substantial parts of the shallow water areas of the existing port planning area to create the necessary operations areas to meet this master plan.

Since then, a number of master plan revisions have taken place that essentially culminated in 1996, with the development of a revised community vision for the Port of Fort Pierce. This revised community vision shifted the primary and exclusive use of the Port from one of cargo pursuant to the 1989 Port Master Plan to a mix of recreational, commercial, and industrial uses.

The 2002 Port Master Plan was further refined to focus the industrial component identified as part of the 1996 community vision plan on marine industries, specifically the mega yacht industry. The 2002 Master Plan more clearly defined this vision and provided flexibility to enhance intergovernmental coordination and ensure the desired mix of uses. The plan provided for the orderly development, management, security, and use of the Port, while ensuring the restoration and enhancement of the coastal zone, including amenities and aesthetic values adjacent to the Port. Input from the Center project team included information from data collection and analysis; the drafting of goals, objectives, and policies; public and other stakeholder input; and direction from staff and elected officials.

1.3 Port Management Options

As of 2017, 15 of Florida's ports are classified as deepwater ports by Florida law (Section 311.09, Florida Statutes). Figure C identifies the location of the Port of Fort Pierce relative to the other Deepwater Ports in the State.

In Florida there are three prevailing types of port management: the County, the City, and an Independent Port Authority. Although there is no dominant management structure in Florida's deepwater ports, most management options result from the creation of a special district. Special districts are either dependent or independent. Dependent special districts can be created by the state legislature, the county, or a municipality. Characteristics of dependent special districts include at least one of the following:

Governing body:

- Members of governing body are appointed by single county's or municipality's governing body
- Members of governing body are subject to removal at will by the single county or municipality governing body during unexpired terms
- Budget approved through vote of the governing body of the single county or municipality

- Governing body of single county or municipality can veto the budget

The Florida Special District Handbook reported the following advantages of special districts:

- Focus costs only on the community those benefits from the special district's service
- Operate to serve a special, public purpose
- Provide essential services to residents of property and generate revenue each year
- Manage, own, operate, construct, and finance basic capital infrastructure, facilities, and services by private and public sectors in independent, special districts
- Provide capital infrastructure, facilities, and services for the preservation and enhancement of the quality of life in multi-county or multi-jurisdictional districts

Six port management options are outlined below:

- Board of County Commissioners, which is the current management option of the Port. The county commissioners are the policy-making body, and port staff would be a county department
- City Council - This would require transfer of management of the Port to the City. Appointed Port Authority - Either the City or the County would appoint governing board members. The budget would also be reviewed by either the City or the County
- Elected Port Authority - New agency would be created consisting of an elected board. Staffing would be established by the authority. The authority would be a dependent or independent special district
- Governor Appointed Port Authority - This would create a new agency. The Governor would appoint a governing board of five to seven members. The authority would be an independent special district and would establish its own staff
- Shared Appointment Port Authority - A new agency would be created. The Governor, County Commission, and City Commission, or the County Commission and the City Commission would share appointments to the five to seven member governing board. The authority would be an independent special district

1.4 Historical Background of the Port of Fort Pierce and Port Authority

Historically, the Fort Pierce Inlet, originally known as the Indian River Inlet, was a natural meandering passage from the Indian River Lagoon to the Atlantic Ocean. After 1892 and the opening of the St. Lucie Inlet, the passage became unusable because of shoaling.

On December 9, 1918, by Special Act of the Florida Legislature, the Fort Pierce Inlet District was established for the purpose of funding the construction and operation of a new inlet between the Atlantic Ocean and the Indian River in Fort Pierce. The present inlet was first modified by dredging in 1921, followed by the construction of two stone jetties in 1926. A channel was cut through Hutchinson Island, the barrier island that separates the Indian River Lagoon from the ocean, approximately 2.7 miles south of the location of the natural inlet. This natural inlet was subject to opening and closing depending on the drifting sands of the coastal environment. By constructing a new inlet, the residents of the Treasure Coast region were seeking to make available to the Fort Pierce area a safe and consistently navigable access to the ocean to provide for the movement of goods and people. In 1935, the harbor was authorized as a federal project under the US Army Corps of Engineers (USACE) and completed to its present dimensions in 1938.

The Florida Legislature abolished the Fort Pierce Inlet District on July 1, 1947, and replaced it with the Fort Pierce Port Authority, which retained essentially the same power but also had the legal right to acquire and lease real estate. On May 29, 1961, a Special Act of the Florida Legislature (Chapter 61-2754, Laws of Florida) replaced the Fort Pierce Port Authority with the Fort Pierce Port and Airport Authority, both of which operated under the auspices of St. Lucie County. In 1988, the "St. Lucie Port and Airport Authority Act," (Chapter 88-515), Laws of Florida abolished the special taxing district known as the Fort Pierce Port and Airport Authority and created the St. Lucie County Port and Airport Authority. In 1997, Chapter 97-377, Laws of Florida, provided reorganizing, updating, and clarifying provisions for the Authority. In 1998, the legislature enacted Chapter 98-496, Laws of Florida, which dissolved the St. Lucie County Port and Airport Authority and transferred its assets, liabilities, and responsibilities to the Board of County Commissioners of St. Lucie County.

At the request of local interests in the early 1980s, the Jacksonville District, U.S. Army Corps of Engineers (USACE) conducted a study of Fort Pierce Harbor. Entitled the "Feasibility Report and Environmental Impact Statement of Fort Pierce Harbor," the study was initiated due to the belief that deeper harbor depths would enable the port to be more competitive. The study, completed in March 1986, recommended that (1) the existing 27-foot by 300 foot entrance channel be deepened to 30 feet and widened to 400 feet; (2) the 25-foot by 200-foot interior channel be deepened to 28 feet by 1000 feet square; and (3) an access channel be cut 28 feet deep by 1250 feet long and 250 feet wide immediately north of the existing terminal area.

After receiving approval from the Board of Engineers for Rivers and Harbors, the recommendations of the District Engineer and reporting officers were forwarded to the Chief of Engineers, U.S. Army, who then forwarded the reports to the appropriate state and federal agencies for review and comment. The U.S. Congress had final authorization and funding authority. In August 1988, the Water Resources Development Act of 1988 (U.S. Senate Bill 2100) authorized implementation of roughly \$6.7 million for the Fort Pierce Harbor Project (with funding anticipated in early 1989). The federal share of the project was approximately \$4.3 million; the non-Federal share was \$2.4 million. Florida's Governor was supportive of the project and advocated careful planning to ensure that the economically distressed surrounding area would benefit from the proposed improvements.

The USACE requires a local sponsor, i.e., a public agency, to maintain the port channel. The local sponsor for the Port of Fort Pierce is the St. Lucie County Board of County Commissioners.

1.5 Port of Fort Pierce Existing Uses within the Port Planning Area

Documented history of the earliest shipping from the Port of Fort Pierce is very limited. Private facilities were constructed before World War II; however, during the war the federal government used the port as an amphibious training base. Since the war, the port has developed its own identity with all but 34.65 acres of the Port Operations Area in private ownership.

Of the Port Operations Area, 175 acres, approximately 90 acres adjacent to the ICW and Taylor Creek waterfronts, remain undeveloped. The 1989 Fort Pierce Master Port Plan was predicated on the assumption that the County would acquire the majority of the undeveloped lands lying east of South US 1, bounded on the north by Taylor Creek, Avenue H on the south and the lagoon on the east. Recommendations were made based on diverse marine-related activities for public purposes. Opportunities were reviewed for expanding cargo operations, initiating cruise operations, seeking port-related recreation, and commercial and industrial uses. In 1996 the voters of St. Lucie County approved a referendum authorizing the issuance of general obligation bonds to purchase the 20 acre "Cotton Parcel" now known as Harbour Pointe Park, for marine commercial, recreation and tourist purposes. Based on the referendum approval, the County acquired the 20-acre parcel. While much acreage continues to be privately owned, it is still subject to public planning and zoning decisions. Based on the October 2002 report, the County believes that the public acquisition of the remaining 70 acres(+/-), presently owned by Destin Beach Inc., in the Port Operations Area, would provide a needed positive economic development impact on the community, producing 768 additional new jobs and approximately \$32,000,000 annually in new business investment expenditures. This would be in addition to the approximately \$50,000,000 in new capital improvements to be made to the Port Operations Area

properties necessary to support the preferred port operations, the mega-yacht industry.

The largest privately owned property in the Port Operations Area (formerly known as the MacArthur Tract) comprises 67 acres of mostly undeveloped land and is located in the middle of the Port Operations Area. A part of this land is used by AES Inc., as a bulk materials handling facility, under a long-term lease that remains in effect until 2014. AES and its predecessors have been importing aragonite from the Bahamas into the Port of Fort Pierce, since 1967. Aragonite, a fine-grained, sandy component of limestone, is used in cement, glass, and steel production, and as an agricultural lime to sweeten the soil. Commonly stored in piles outdoors, aragonite is often used in smokestack scrubbing systems to clean power plant emissions before release into the atmosphere. AES does not operate plants in Florida; the material is shipped out-of-state by truck or train. Aragonite usage in Fort Pierce will depend on the demands of the citrus industry.

The King Maritime Group LLC owns about seven (7) acres of land in the southern one third of the Port Operations Area. King Maritime, which purchased the Indian River Terminal Company in October 2001, continues to export fresh citrus on a seasonal basis. It accommodates occasional general and refrigerated cargo and may consider other cargo ventures in the future. The remaining land uses in the Port Operations Area are a mix of general and marine commercial, light and heavy industrial (non-marine related) and citrus processing.

In 1996, the St. Lucie County Board of County Commissioners purchased 20 acres of waterfront property in the northeast corner of the port operations area. Known as Harbour Pointe, this largely undeveloped parcel will be restricted in use to tourism, recreational, or marine commercial uses.

In addition to the Harbour Pointe property, the St. Lucie County Board of County Commissioners has a public boat ramp (roughly 2.3 acres) in the southern part of the port operations area, just north of the South A1A Bridge. This area is one of three (3) boat launching facilities in the Port Planning Area for recreational boater use and will continue to be maintained by St. Lucie County.

Existing land uses within the remainder of the Port Planning Area are a more homogeneous mix of public property used for recreational purposes, community support services, and conservation. These uses include the South Causeway Park site, the North Causeway Boat Ramps, the Smithsonian Marine Science Station and a small chain of spoil islands and naturally deposited islands in the northeast corner of the Port Planning Area. Public service uses in this area include the Fort Pierce Wastewater Treatment Facility, the St. Lucie Fire Districts Station #2 and the Fort Pierce Station of the United States Coast Guard.

The Port Planning Area also includes both the north and south jetties at the entrance to the Port of Fort Pierce. These facilities have been included as part of the Port Planning process because they are considered to be an essential element in maintaining the functionality of the Port of Fort Pierce for both commercial and recreational boating use. The chart below provides a graphic description of the property ownership composition within the Port Planning Area at the Port of Fort Pierce.



1.6 The Port Master Plan Development Process

Section 9J-5.012 of the Florida Administrative Code See FAC, Section 9J-5.012 provides that each deepwater port in the State shall prepare a master plan to coordinate port activities with the plans of the “appropriate local government.” The master plan is to be incorporated into the Coastal Management Element of the Local Government Comprehensive Plan and is to be consistent with the goals, objectives, and policies of that element.

Inventories and analyses of all areas the port owns and administers are to be included. Plan goals, objectives, and policies are designed to: 1) restrict development activities that would damage or destroy coastal resources; 2) protect human life; and 3) limit public expenditures in areas subject to destruction by natural disaster [(FAC, Section 9J-5.012 (5)(c)]. An initial five-year plan for port expansion and, at the minimum, a ten year plan for in-water facility maintenance are also among the requirements [(FAC, Section 9J-5.012 (5)(d)].

Since the mid 1980s, all of Florida’s 14 (now 15) deepwater seaports, with the exception of Port Citrus, have developed port master plans for incorporation into the comprehensive plan of the appropriate local government. The need for long term planning for future infrastructure development and identifying other than traditional funding source was recognized by the late 1980s as a critical need for all Florida seaports. Most of the seaports’ ability to finance needed, internal development, solely from port revenues, was reaching or had reached capacity. In response, the Florida Legislature created the Florida Seaport Transportation and Economic Development (FSTED) program in 1990. This program joined the State of Florida with the, then, 14 publicly owned ports in a 50/50 state/local partnership to finance and build infrastructure projects essential for the efficient and cost effective movement of cargo and passengers. The clear message from the legislature was that transportation of cargo and passengers equates to statewide economic development.

To ensure wise investment of state dollars, the FSTED Council reviews and approves applications from seaports for project funding and annually publishes a Five Year Seaport Mission Plan. Florida statutes allocated a minimum of \$8 million annually to the 14 seaports, and the legislature authorized two bond programs to help finance port development in 1996 and 1999.

The statute creating FSTED had an \$8M minimum from the beginning – when the FSTED Program was created in 1990. The FDOT often provided more than \$8M, and was quite steadily providing \$15 million for years leading up to the statutory change to \$15M, effective in 2012. Today, FSTED Program funding is set in statute at a minimum of \$25M, which was passed in 2016 and programmed for the following year. A minimum of \$35M in Strategic Port Infrastructure Initiative funds were also put in statute beginning in 2014, which are really just SIS funds, but are now in statute for seaports.

1.7 Earlier Master Plans for the Port of Fort Pierce

In 1986, a master development plan was prepared for the Port of Fort Pierce with assistance from Continental Shelf, Inc. The plan was partially funded by the Florida Department of Community Affairs and Florida Department of Environmental Regulation pursuant to the Coastal Zone Management Act of 1972. It included examination of local and regional socioeconomic trends, forecasting of potential commodity flows through the improved port, estimated economic benefits of port development, and environmental effects of the recommended improvements. The conclusion was that the port could expect to accommodate about 600,000 tons of cargo by the late 1990s if the recommended development plan were implemented. Specific recommendations of the master development plan included acquisition of the remaining privately owned, undeveloped land within the port area and implementation of phased development to provide general cargo facilities, namely, marginal wharves, roll on/roll-off platforms, and backland storage areas.

1.8 Planning Processes - 1995 through 2002

A revised community vision for the Port of Fort Pierce was created in 1996 through a non-binding public referendum and local community design charrette which shifted the intended general uses in the Port Operations Area from exclusively cargo as per the 1989 Port Master Plan to a mix of recreational, commercial, and industrial uses. Since that time, through additional public workshops, this vision has been further refined to focus the industrial component of the mixed-use port on marine industries, specifically the mega-yacht industry, to serve as the anchor tenant at the Port of Fort Pierce.

The 2002 Port Master Plan more clearly defined this community vision, strengthened local control over the process, and provided flexibility to ensure intergovernmental coordination and the desired mix of uses. A framework for understanding port plans is shown in Figure A. The Port Master Plan was part of a much larger series of events and established a vision for land use, conservation, and coastal management. The 2002 Port Master Plan was considered to be the final phase of the vision component of the process. Upon completion of the vision phase, the process continued with Land Development Regulation followed by Implementation Actions (See Figure A).

The 2002 Port Master Plan provided for the orderly development, maintenance, management, and use of the Port, while insuring the maintenance, restoration, enhancement, and security of the overall quality of the coastal zone environment, including amenities and aesthetic values adjacent to the Port. Input from the Center project team included information from data collection; analysis of the data; the drafting of Goals, Objectives, and Policies; public and other stakeholder input; and direction from County staff and elected officials.

1.8.1 2002 Port Master Plan Community Input Process

The South Florida Office of the Florida Conflict Resolution Consortium, working as a member of the project team, conducted a number of public input activities to ensure input from a broad cross-section of the community into the 2002 plan. These activities included early interviews with stakeholders, workshops to solicit input on what should be in the plan, and workshops to help develop drafts of the goals, objectives, and policies. In addition, the project team conducted briefings with Commissioners of St. Lucie County and the City of Fort Pierce to review the public input, solicit additional input, and reconcile any differences between them. More than 100 citizens attended each of the four community workshops.

The following descriptions provide an overview of the public input activities conducted during the preparation of the 2002 Port Master Plan. Full reports of each workshop can be found in the Appendices to this report.

1.8.2 Initial Stakeholder Interviews July - September 2001

The Consortium conducted assessment interviews from July 18 to July 20, 2001, with representatives of interested stakeholders to determine their issues, concerns, and desire to participate in the Master Plan development process. This review included business and property owners, local government managers/planners, representatives from the minority community, and environmental interests.

On September 14, 2001, the project team provided a process overview and update to the Harbor Advisory Council and the Waterfront Council. On September 19, 2001, the Consortium met with representatives of the African-American community to explain the process and determine/solicit commitments to participate in the development workshops.

1.8.3 *Public Input Workshops - Workshop I - October 30, 2001*

Participants in Workshop I engaged in the following activities. Comments were captured on flipcharts and compiled in a report.

- Future Exercise - From your perspective how would the port look in 2010? What activities would be taking place there, and what effect would the port have on the community?
- Issues Identification - What issues should the community address through the port plan process?
- Background Information - What information should the planning team review to prepare the plan?

1.8.4 *Workshop II - November 14, 2001*

At the beginning of Workshop II, participants were asked to react to assumptions that might be used to guide the further development of the plan. The project team had articulated these assumptions based on the results of Workshop I. The assumptions included provisions for multiple uses of the Port of Ft. Pierce:

- Some cargo, even if limited to existing operations;
- Recreation and commercial uses (i.e., walk areas, hotels, shops, restaurants, office, condominiums aesthetically consistent with City's redevelopment);
- Marine industries (i.e., mega yachts);
- Protection of the environment of the Indian River Lagoon.

There was unanimous agreement from participants on the assumptions guiding the development of the Plan. Participants were then provided input to be used in preparing an initial draft of the goals, objectives, and policies.

Seven key issues were discussed and feedback given. These areas are key components of the Outline provided in the FAC, Section 9J-5.012:

1. Activities
2. Environmental Issues
3. Public Access
4. Disaster Planning
5. Landside Infrastructure
6. Navigation Channels
7. Responsibility for the port
8. Other

Following the workshop, the project team compiled a preliminary set of goals, objectives, and policies for community review and discussion. The draft was based on community input received at Workshop II.

1.8.5 Workshop III - November 29, 2001

During the Workshop, participants first prioritized goals and objectives for discussion during the workshop and then offered comments and suggested refinements. Following the workshop, the team provided a window for receiving additional comments. After the comment period, the project team refined the draft of goals, objectives, and policies for the proposed Port of Ft. Pierce Master Plan.

1.8.6 Workshop IV - January 30, 2002

This workshop provided an additional opportunity to review and evaluate key substantive issues identified through public comment and by local officials prior to compiling the final draft of the Plan.

1.8.7 Joint Workshop for County and City Commissions - February 19, 2002

At this joint workshop, St. Lucie County and City of Ft. Pierce Commissioners reviewed a draft of the goals, objectives, and policies that had been revised in light of final public input and earlier comment from the Commissioners. They identified portions of the draft that still needed refinement and developed consensus on changes to those portions.

1.8.8 Port Master Plan Adoption

The 2002 Master Plan – Shaping the Seaport, was adopted by the Board of County Commissioners on March 12, 2002 and amended into the St. Lucie County Comprehensive Plan Coastal Management Element on November 12, 2002.

1.9 Port Master Plan Update 2012 and 2013

In 2011, the Florida Department of Transportation District Four (District) encouraged the City of Fort Pierce and St. Lucie County to update the Port of Fort Pierce Master Plan. The District informed the Port and County that typical Master Plans should be updated every five years and the current plan was adopted in 2002.

The first phase of the update produced a report in June 2012 (Port of Fort Pierce Master Plan Update Phase I) on the Port of Fort Pierce's market opportunities and stakeholder input. Phase two of the update process provided contextual data and information for the community to consider in updating their Port Master Plan. The document included data and information from input received at a community public workshop held Saturday, March 23, 2013. The resulting report (Compilation of Data and Recommendations for Port of Fort Pierce Master Plan Update) was released in September of 2013.

The 2012 and 2013 reports proposed revisions to the 2002 Port of Fort Pierce Master Plan for consideration by the St. Lucie County Board of County Commissioners and the Fort Pierce City Commission. The revisions aimed to stimulate economic development and jobs while identifying projects that could be submitted for Seaport/Intermodal funding requests to the State. It was determined that there is indeed a market for new cargo activity at the Port of Fort Pierce, so the second phase of the Master Plan update looked at the economic benefits and increases in land value if the port were to be partially or fully developed. In addition, the second phase of the update contained a detailed examination of the prospects for development of a maritime training facility in the City of Fort Pierce/St. Lucie County.

A key part or element of the 2013 update effort was a community public workshop, which attracted 157 participants, including 10 elected officials and a cross-section of residents, land owners, business and labor interests, and shipping and rail officials.

The March 23 community public workshop was an interactive, charrette-style public work session to provide input into conceptual planning to present and conceptualize options, and, finally, formulate consensus results. Four scenarios for future port use were presented, ranging from maintaining the site as is to using all

the public and willing landowner acreage to accommodate a mix of uses. Participants were encouraged to focus on infrastructure such as roads, drainage, seawalls, berths and then on uses including: cargo, passenger, recreational, commercial, education and any other use they desired.

This was an opportunity for participants to approach the planning exercise with expanded visions of new and enhanced uses at the Port of Fort Pierce. The process also gave planning work group members the opportunity to engage with others with vastly different opinions of how the Port of Fort Pierce should or could be developed.

1.10 Fisherman’s Wharf Planning Studies 2015 – 2016

Study I: Fisherman’s Wharf Development Study: This feasibility study and comparative evaluation was divided into two phases. The first phase was developed to provide preliminary design and an opinion of probable cost for paving and draining the site and providing new bulkhead from the northernmost boat ramp extending north and then turning east to the southeastern corner of the easternmost River Marina Inc. property at that point the bulkhead turns approximately 90 degrees to the north northwest. This new section of bulkhead would be placed along the Indian River (ICW) and run north to the north side of Fisherman’s Wharf Road, providing approximately 184’ of berth space on the ICW. A specific design and cost estimate was developed for each of the three property configurations or options (Appendix A).

Interviews with various stakeholders from the City and County were performed and potential use data collected, two comprehensive field investigations were performed and geotechnical information from several borings was collected to provide design data. Consideration was given to existing businesses in the area in order to maximize the feasibility and constructability of the site paving and drainage design. The most practicable and feasible uses of tile bulkhead were taken into account in determining the performance specifications of the designed bulkhead sections. The preliminary civil and structural designs for the three property options were presented in the report to District 4 and the Port of Fort Pierce.

The preliminary design for each property option was then used to prepare opinions of probable development cost and those estimates of cost were presented in the report as well. The overall, two-fold purpose of the first phase of this study is to prepare preliminary designs of what we considered to provide the most universally useful paving, drainage and bulkhead and prepare development cost estimates for each of the three property options.

The second phase of this study was to perform a comparative evaluation of the three options to determine relative usefulness in terms of meeting stakeholders’ expectations and the goals of the Port, City and County. A number of aspects were evaluated in the second phase, to include: cost of development including the probable costs of private property acquisition, market demand, potential revenue production and local employment opportunities, growth potential, permit-ability, and environmental and community impacts. The product of the second phase was the recommendation for selection of a course of action that would develop the Fisherman’s Wharf area of the Port of Fort Pierce in the highest and best manner for the region.

The evaluation methodology was the comparison of the three development options presented in the Phase 1 Report of the Port of Fort Pierce development study. Three property configurations were identified and a preliminary design for surfacing, draining and bulkheading was developed for each option or property configuration. Also submitted with the Phase 1 Report, were the opinions of probable development cost for each option. The property acquisition costs related to Options 2 and 3 were researched and included in the option evaluations in Phase 2.

In the second phase of the study, FDOT’s District 4, the Port of Fort Pierce, St. Lucie County and the City of Fort Pierce, finalized and prioritized the evaluation factors or criteria to be applied to and analyzed for each option in order to compare among the three and recommend a most viable or optimal development plan. The matrix evaluation of eight (8) evaluation criteria that were derived from the project goals and objectives, the Port of Fort Pierce Master Plan Update, and extensive interviews with various project stakeholders is contained in

Appendix A.

In collaboration with the District and the Port Director, the County and the City, the evaluation criteria have been weighted according to importance. Each of the three options was evaluated using the eight criteria and scored each on a scale of 1 to 9. A score of 1-3 corresponds to a poor evaluation, 4-6 indicates a midrange evaluation, and a score of 7-9 indicates a favorable evaluation. That score has been multiplied by the weight assigned to the criterion and a total score was compiled for each option. The option with the highest overall score, Option 2, was determined to be the optimal development plan.

Study II: Fisherman’s Wharf Development Study: The Purpose of the Second Study - Phase of the Port of Fort Pierce Development Study was to identify the facilities and infrastructure that should be Port-developed and maintained in the Fisherman’s Wharf Area in order to attract and sustain the business operations of long term port tenants. Once identified and validated with St. Lucie County, the City of Fort Pierce, FDOT and the Port of Fort Pierce, the infrastructure projects were vetted and confirmed as viable candidate port infrastructure projects for selection as FSTED grant funded port infrastructure development projects. The Fisherman’s Wharf Area is the southernmost portion of the Port’s Operating Area, and its use has been envisioned as a transition zone between the more residential, retail and recreational character of the property to the south and the commercial/industrial nature of the property to the north.

Specifically, the purpose of this second study - phase was to identify infrastructure projects on Port controlled property in the Fisherman’s Wharf Area that would be required to be provided by the Port of Fort Pierce to attract and sustain the business operations of long term port tenants and be eligible for FSTED grant funding under the provisions of FS 311.07. The first step of this process –project identification - was completed in a series of interviews with selected business owners, regional business leaders, port leadership and public officials. There is a significant range of opinions and views on the identification and relative feasibility of businesses that could become port tenants at Fisherman’s Wharf. Nevertheless, even with the range of potential uses suggested by the interviewees that fit the envisioned transition zone, the specific infrastructure that the Port should provide and maintain is relatively clear, and all identified projects would serve to attract and sustain virtually all of the port tenant land uses and business operations suggested.

An interim report was prepared to identify the specific infrastructure projects:

1. Required to be developed in order to attract and sustain long term port tenants who would engage in businesses appropriate to the specific location within the Port’s Operating Area, producing revenues for the Port and having a positive economic impact on the region, and
2. Would be considered the Port’s responsibility as opposed to capital infrastructure that would be considered of such a business-specific nature as to be the tenant’s responsibility.

The next steps were:

1. Having validated the accuracy of the project identification with Port leadership and FDOT District 4, we validated each project for FSTED funding eligibility, and
2. those infrastructure projects, that have been validated by the Port of Fort Pierce and the FDOT and determined to be eligible for FSTED funding, were fully documented (scope/ description of need, cost estimate and justification/positive economic impact) for FSTED grant applications.

1.11 Port Project Development Process from Vision Development to Project Completion

The process for development of viable port capital projects that enable the realization of the Port’s vision, goals, objectives and policies is a multi-step process that begins with the development of the Port’s vision and then moves on to the preparation and approval/adoption of a comprehensive port master plan that yields the Port’s goals, objectives and policies; the 5 year Capital Improvement Plan/Program (CIP); and identifies

the future demand and projected expansion of the Port. A critical product of the master planning process is development of the CIP which forms the basis of the final facet of the process – project development and implementation.

In essence, there are three major efforts with multiple internal steps that start with the Port’s Vision and end with a successful and effective capital project. They are:

- Identifying and Developing the Port Vision
- Preparation and Adoption of the Port’s Comprehensive Master Plan
- Execution of the Port’s Capital Improvement Plan

The three major efforts are open processes which absolutely depend upon public stakeholder participation and endorsement. In the 2002 Port Master Plan a diagram was prepared that was intended to visually present the various facets of the three efforts. The following is not a change in what was presented in the 2002 Master Plan; instead, the following is an explanation of the three highly interrelated processes. Figure A provides a graphic representation of the process outlined below.

1.11.1 Vision

The vision of the Port of Fort Pierce is a concise articulation of what the public, Port leadership, the County’s and the City’s appointed and elected leaders envision the Port becoming and providing to the region and its residents. Historically, the Port’s vision is a product of a charrette process and public workshops in which the fullest spectrum of port stakeholders participate in building a broad consensus description of the Port’s vision of itself in the future. Inclusion of the full range of stakeholders, their priorities, and needs is essential to the creation of a vision that is fully representative and considers all aspects of the Port’s future from protection and enhancement of the area’s environment and habitat to development of various lines of port-related business that will benefit the region economically.

The preliminary vision of the Port provides a characterization of the Port’s development into the future – how will the Port’s Operating and Planning Areas be developed and for what purposes. The envisioned development plans and property uses will then be evaluated for conformance with pertinent elements of the local Comprehensive Plans, local land use designations, zoning, state and federal environmental regulations and etc. This vetting process will produce a final, refined vision for the Port.

1.11.2 Comprehensive Master Plan

Florida Statute Sections: 163.3177(6) (b), 163.3177(6) (g) 8, 163.3178(2) (k), and 163.3178(3) all address the master planning requirements for Florida’s deep water ports. The Port’s comprehensive master plan is based upon the Port’s vision and is a detailed planning document that represents the Port’s road map for realizing its vision. The master plan is a living document that, in the course of its execution, can be expected to change as various conditions change and opportunities present themselves. Such changing conditions can include but are not limited to:

- Changing public priorities and mandates
- Availability of additional properties that can be acquired by the Port
- Availability of state and federal funding
- Changes in the Port’s financial capabilities
- New public-private enterprise interests and new laws

- Changes in zoning
- New state and federal regulatory and resource policies and guidelines.

The Port's comprehensive master plan produces three major elements – the Port's Goals, Objectives and Policies, the Port's 5 Year CIP, and an exhaustive description and evaluation of the Port's Future Demand and Expansion. Of the three elements, the first – Port Goals, Objectives and Policies - changes the least over five years. The Port's Future Demand and Expansion are highly influenced by the changing conditions highlighted previously. These inevitable changes will be reflected in corresponding changes to the Port's CIP, which is updated by the Port, reviewed and presented by the Port to the Florida Ports Council and Florida Seaport Transportation and Economic Development (FSTED) Council on an annual basis. It is through FSTED that eligible port capital improvement projects can receive state funding.

The 5 Year CIP lists capital projects the Port intends to undertake over a five year period to support the master plan and realize the Port vision. The degree of specificity and project definition is much greater for projects scheduled for execution within the first year or two of the CIP. Projects not scheduled within two years are often more notional or conceptual and while necessary, have not yet been fully defined. Thus, as they move forward in the CIP schedule, these projects gain much greater definition, especially if they will require state funding through FSTED.

1.11.3 *Project Development and Implementation*

The procedure for the development and implementation of capital projects at the Port can and does vary somewhat according to the nature of the project. However, the following eleven step procedure is almost universally applicable:

1. Validation of current need and project feasibility:
2. Preliminary facility or infrastructure planning and conceptualization:
3. Identification of funding sources:
4. Acquisition of required lands, easements and Rights of Way:
5. Preliminary design and permitting:
6. Conformance with NEPA requirements:
7. Final design, project specifications and permitting:
8. Preparation of bid documents:
9. Public advertisement and selection processes:
10. NTP
11. Beneficial Occupancy

Figure A: Port Project Development Process

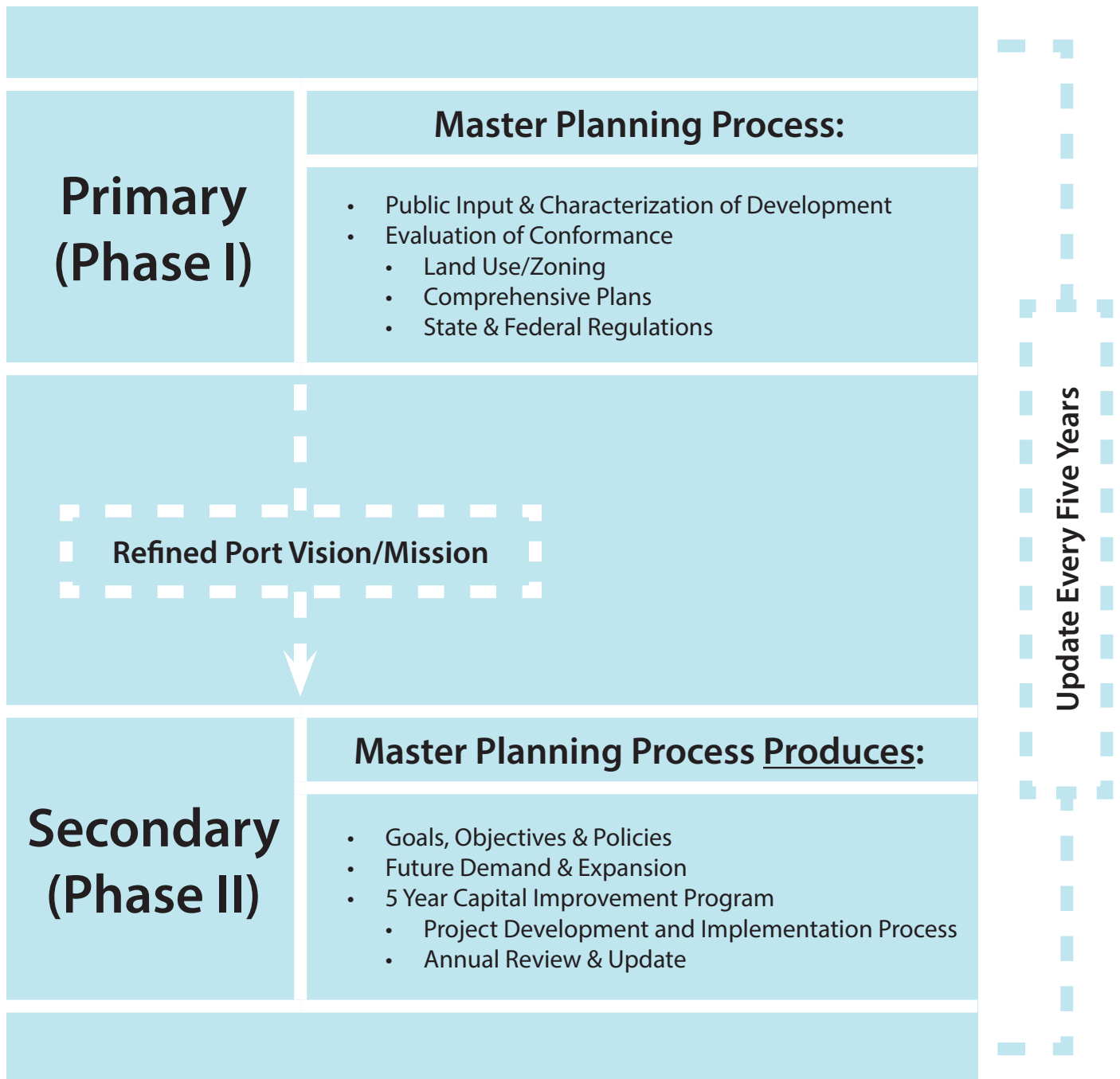
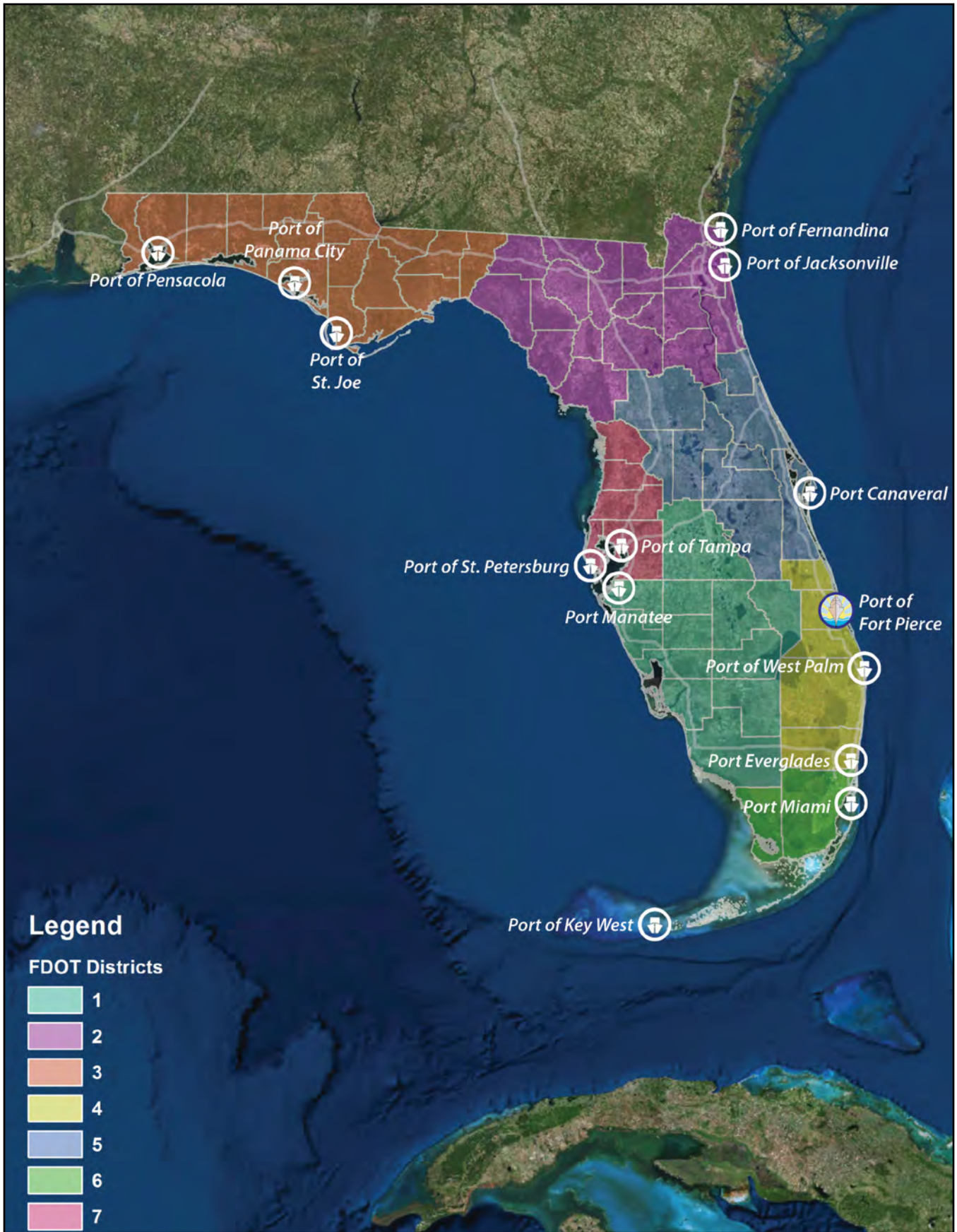


Figure B: Deepwater Ports of the Southeast



Figure C: Map of Florida's Deepwater Ports



SECTION TWO

GOALS, OBJECTIVES, AND POLICIES FOR THE PORT OF FORT PIERCE

SECTION TWO - GOALS, OBJECTIVES, AND POLICIES FOR THE PORT OF FORT PIERCE

A revised vision for the Port of Fort Pierce was established in 1996 through a non-binding public referendum and charrette process, which shifted the intended general uses from exclusively cargo as per the 1989 Port Master Plan to a mix of recreational, commercial, and industrial uses. Since that time and through additional public workshops, this vision has been further refined to focus the industrial component of the mixed-use port on marine industries, specifically the mega yacht industry, and for such uses to serve as the anchor tenant at the Port of Fort Pierce. The Port Master Plan more clearly defines this community vision, strengthens local control over the process, and provides flexibility to ensure intergovernmental coordination and the desired mix of uses. References to the "Port of Ft. Pierce" in the Goals, Objectives, and Policies shall be liberally interpreted to mean the appropriate local government entity charged with the responsibility for enforcing or completing the specific objective or policy statement.

GOAL 1: RESPONSIBILITY FOR THE PORT

The overall responsibility for the management of the Port of Ft. Pierce is vested by law with the St. Lucie County Commission and should be managed in the public interest of all the citizens of St. Lucie County.

Objective 1.1

St. Lucie County, working with the City of Ft. Pierce, interested agencies and private property owners and consistent with the port enabling laws and the constitutional and statutory protections for the rights of existing private property owners should ensure that the public interest and quality of life is protected when exercising public control of port property.

Policy 1.1.1

St. Lucie County shall explore and consider all options for the management and operations of the Port of Fort Pierce in cooperation with the municipalities and local officials. These discussions shall take place through either a task force or joint workshop of the elected officials.

Policy 1.1.2

St. Lucie County shall maintain the necessary oversight of the Port of Fort Pierce to ensure compliance with applicable state laws governing deepwater ports and to guarantee the financial feasibility of any publicly funded infrastructure within the Port.

Policy 1.1.3

St. Lucie County shall determine whether to initiate actions necessary to acquire public ownership of those areas in the Port determined to be in the public interest.

Policy 1.1.4

St. Lucie County shall coordinate with the City of Fort Pierce, other affected local governments, the Treasure Coast Regional Planning Council, and the Florida Seaport Transportation and Economic Development Council (FSTED).

Policy 1.1.5

St. Lucie County, operating through its existing and future legal authorities, shall initiate discussions with the City of Fort Pierce, with other public agencies, and with the private business sector to create the legal agreements, memoranda of understanding, and joint planning agreements necessary to implement the goals, objectives, and policies of the Master Plan for the Port of Ft. Pierce.

GOAL 1B: LAND USE MAP FOR THE PORT OF FORT PIERCE

The Port of Ft. Pierce shall establish a general master development map for the Port that establishes a general Port Planning Area boundary and a Port Operations Area boundary to provide elected officials, prospective investors, port facility developers, and the public a clear understanding of the physical location of the activities that could be accommodated in the Port of Ft. Pierce. The general master development map for the Port of Ft. Pierce is not to be used alone but rather in conjunction with the other development policies found in this plan and the applicable Local Comprehensive Plans for St. Lucie County and the City of Ft. Pierce.

Objective 1b.1

The general master development map for the Port of Ft. Pierce shall be as depicted in Figure E. The land use activities shown in this general plan of development shall comply with applicable State, County and Municipal laws including the applicable Local Comprehensive Plans for St. Lucie County and the City of Ft. Pierce, adopted pursuant to Chapter 163, Florida Statutes.

Policy 1b.1.1

The general land use classification is to be used to determine consistency between the General Master Development Map for the Port of Ft. Pierce and the applicable local government comprehensive plan. The Port of Ft. Pierce will coordinate with the City of Ft. Pierce and St. Lucie County to determine whether the Port General Master Development Plan is consistent with the City and the County Comprehensive Plan Future Land Use designations for the Port Planning Area. To the extent any inconsistencies between the General Master Development Plan for the Port and the City or County Comprehensive Plans are identified, the Port of Ft. Pierce will request that City or the County amend their Comprehensive Plans to ensure consistency.

Policy 1b.1.2

The Port of Ft. Pierce shall support/seek development activities such as mega yacht construction and maintenance, commercial uses, marine research facilities, maritime academic and vocational uses, potential Bahamas cruise/ferry uses, intermodal and/or expansion of tourist/recreational uses, depending on market conditions.

Policy 1b.1.3

The Port of Ft. Pierce shall support development of tourist, commercial and recreational uses primarily in the northern third of the undeveloped property in the Port Operations Area as shown in Figure E. This development shall be consistent with the adopted Local Comprehensive Plans for St. Lucie County and the City of Ft. Pierce, including but not limited to the Future Land Use, Transportation and Coastal Management Elements. The City and County shall collaborate on consistency of Land Use and Zoning designations that promote and encourage economic development within the Port Operations Area.

Policy 1b.1.4

All activities within the Port Planning Area shall comply with the applicable State and County laws

and the applicable plans and regulations of the City of Ft. Pierce or St. Lucie County including but not limited to, the adopted Future Land Use Maps of the Local Comprehensive Plans for St. Lucie County and the City of Ft. Pierce, as depicted in the attached Figures F & G.

Policy 1b.1.5

The Port of Ft Pierce shall continue to support limited cargo operations in the Port Operations Area, as described in Policy 2.1.2.

Policy 1b.1.6

By March 1st of each year, the Port of Ft. Pierce shall submit to the County Administrator or his designee an updated five (5) year capital budget/improvement plan for the Port. To the extent that local funds are required to address a capital improvement need, the Board of County Commissioners shall be requested to provide the necessary funding to meet those needs. Nothing in this policy shall be construed to prohibit the Board of County Commissioners from requesting that the City of Ft. Pierce, the Ft. Pierce Community Redevelopment Agency, or any other appropriate agency or entity assist in funding one or more capital improvement project(s) within the Port Area since the Port Planning Area within the City Limits of Ft. Pierce lies entirely within the Ft. Pierce Community Redevelopment Area.

Policy 1b.1.7

Recognizing that the majority of the lands, excluding water and roadways in the Port Planning Area, including the Port Operations Area, are not in public ownership, should the County acquire additional lands in the Port Operations Area, the Master Plan for the Port of Ft. Pierce will be amended to reflect a revised capital improvements plan and the Port of Ft. Pierce will request that the Board of County Commissioners make any necessary amendments to the St. Lucie County Comprehensive Plan and if necessary, that the Ft. Pierce City Commission make any necessary amendments to the Ft. Pierce Comprehensive Plan to address all identified capital needs. Nothing in this policy shall be construed as to prohibit the Board of County Commissioners from requesting that the City of Ft. Pierce, the Ft. Pierce Community Redevelopment Agency, or any other appropriate agency or entity assist in funding one or more capital improvement project(s) within the Port Area since the Port Planning Area within the City Limits of Ft. Pierce lies entirely within the Ft. Pierce Community Redevelopment Area.

GOAL 2 : PORT ACTIVITIES

The quality of life for St. Lucie County residents will be strengthened and maintained by enhancing the economic viability, attractiveness, environmental quality, and social benefits associated with activities at the Port of Ft. Pierce.

Objective 2.1

The Port of Ft. Pierce should strengthen the economic development activities in the Port Operations Area by working with federal, state and local government, the private sector, and other interested parties to develop and execute an economic development plans that will foster new jobs that exceed the County's average annual wage and enhance the community's prosperity.

Policy 2.1.1

The Port of Ft. Pierce shall encourage the development, renovation and improvement of port facilities to maximize current potential, including rehabilitation and modernization of existing buildings consistent with the goals of the City of Ft. Pierce downtown redevelopment plan. The City of Fort Pierce downtown redevelopment plan should identify buffer and transitional uses between cargo uses

and the downtown. Local plans should also reflect market absorption studies of hotel, commercial and recreational uses as multiple redevelopment plans ensuring that such uses do not exceed projected demand and thus not attracting development that would create a negative impact to existing uses.

Policy 2.1.2

The Port of Ft. Pierce will continue as a deepwater port accommodating cargo operations. New and reconstructed infrastructure will be constructed to attract development consistent with community goals, including berthing and seawalls, efficient intermodal connections, ship to rail transfer facilities, and roadway and drainage infrastructure.

Policy 2.1.3

Future public infrastructure improvements in the Port Planning Area will be made consistent with the Port Master Plan.

Policy 2.1.4

St. Lucie County, working with federal, state, and local governments, the private sector, and other interested parties, may provide incentives for jobs that exceed the County's average annual wage. St. Lucie County, the City of Fort Pierce, Indian River Terminal, and other local economic development groups should establish a proactive campaign to approach developers, potential Port tenants, and users of the Port of Fort Pierce. St. Lucie County, the City of Fort Pierce, and Indian River College shall identify a blue ribbon panel to develop a path to establishing a Maritime Academy at the Port of Fort Pierce.

Policy 2.1.5

The Port of Ft. Pierce, working with federal, state and local governments, the private sector, and other interested parties, will encourage port industries to develop job training programs and use the local workforce to the fullest extent possible.

Objective 2.2

The Port of Ft. Pierce in cooperation with the City of Ft. Pierce and other governmental bodies shall assist in the development of high quality design standards to ensure that port facilities in the Port Operations Area are compatible with the use of the surrounding area in the City of Ft. Pierce as downtown waterfront development.

Policy 2.2.1

The Port of Ft. Pierce, in cooperation with other governmental bodies, the private sector and other interested parties, should develop and maintain aesthetically pleasing public port facilities and landscaping to encourage new and expanded business development. Buffer zones could be identified and planned for significant landscaping that transition from industrial to local commercial uses.

Policy 2.2.2

The Port of Ft. Pierce, in cooperation with other governmental bodies, should ensure that port facilities are aesthetically compatible to the extent feasible with downtown Ft. Pierce and other adjacent neighborhood areas and in compliance with the City of Ft. Pierce regulations.

Policy 2.2.3

Existing activities within the Port of Ft. Pierce Operations Area that are determined to be inconsistent with future uses of the Port should be identified and removed through the negotiated purchase

of property or business, code enforcement activities, private/public partnerships, grants, other mechanisms by the appropriate unit of government or eminent domain.

Objective 2.3

The Port of Ft. Pierce, working with federal, state and local governments, the private sector, and other interested parties, shall maintain, increase, and promote marine industry and related scientific and commercial activities at the Port of Ft. Pierce so there is no net loss of marine industry.

Policy 2.3.1

The Port of Ft. Pierce, in cooperation with federal, state and local governmental bodies, the private sector, and other interested parties, shall protect, maintain, and promote marine industry activity from encroachment or displacement by incompatible land uses.

Policy 2.3.2

The Port of Ft. Pierce, working with federal, state and local governmental bodies, the private sector, and other interested parties, shall encourage the location of additional marine science facilities in the Port Planning Area that are compatible with the Smithsonian and the Harbor Branch Oceanographic Institution.

Objective 2.4

The Port of Ft. Pierce shall allow and support expansion of water-dependent recreational and ecotourism uses in the Port Planning Area.

Policy 2.4.1

The Port of Ft. Pierce working with federal, state and local governmental bodies, the private sector, and other interested parties, shall maintain a public education and information program for the commercial and recreational boating activities on and adjacent to the Port Planning Area to alert and advise those users of the environmentally sensitive resources in the area.

Objective 2.5

The Port of Ft. Pierce, in compliance with federal, state, and local laws, shall work with appropriate public safety entities to revise the port security management plan for the Port Operations Area.

Policy 2.5.1

The Port of Ft. Pierce shall use its best efforts to ensure that port security will protect port users and citizens from crime or terrorism concerns and prevent any increase in criminal activity or enterprises.

Policy 2.5.2

The Port of Ft. Pierce, working with federal, state and local governmental bodies, the private sector, and other interested parties shall develop a public education program for the port security management plan to ensure that the owners, users, other responsible parties, and members of the public understand port security.

GOAL 3: ENVIRONMENTAL PROTECTION

The Indian River Lagoon is recognized as the most biodiverse estuary in North America and as an important

component of the local economic base and the overall quality of life in the community. As such, the integrity of the Indian River Lagoon shall be protected by correcting any detrimental effects caused by current operations and ensuring long-term development and improvement activities are consistent with all local, state and federal environmental laws and regulations.

Objective 3.1

The Port of Ft. Pierce, working with federal, state and local governmental bodies the private sector, and other interested parties shall ensure the protection and restoration of the Indian River Lagoon and avoid future degradation of the Lagoon's ecological health due to port activities.

Policy 3.1.1

The Port of Fort Pierce, working with federal, state and local governmental bodies, the private sector, and other interested parties, will regulate discharges coming from port activities into the Indian River Lagoon to prevent air and water pollution in violation of any adopted federal, state, or local laws or regulations. Existing port businesses should be retrofitted to reduce pollution in the Indian River Lagoon.

Policy 3.1.2

The Port of Ft. Pierce, working through the Comprehensive Plans and Land Development Regulations of the appropriate local general purpose government, shall address excessive freshwater inflows originating from the Port Planning Area to minimize their impacts on estuarine salinity, consistent with guidelines being developed by the U.S. Army Corps of Engineers and the South Florida Water Management District in the Indian River Lagoon - South Feasibility Study Draft (2001).

Policy 3.1.3

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, shall limit inputs of suspended materials, nutrient inflows, and toxic substances from the Port Planning Area into the Indian River Lagoon to state and federally approved limits.

Policy 3.1.4

The Port of Ft. Pierce shall work with other governmental bodies, private interests, and other interested parties to enforce existing laws and prevent exotic invasive species from entering the Indian River Lagoon via ship's ballast bilge water, cargo, or any other method, including detrimental impacts of mega-yacht, marine industries, and recreational boating uses.

Policy 3.1.5

The Port of Ft. Pierce will develop a port area maintenance program to ensure environmental compliance by the Port and for any activities occurring within the Port Planning Area.

Objective 3.2

The Port of Ft. Pierce will work with other governmental bodies, the private sector, and other interested parties, to prevent detrimental effects on the Indian River Lagoon caused by port activities by supporting estuarine diversity and the protection, maintenance, and enhancement of the population of endangered and threatened species.

Policy 3.2.1

The Port of Ft. Pierce shall work with other governmental bodies, private interests, and other interested parties to preserve and restore seagrass beds and mitigate any permitted losses to existing seagrass

beds caused by port activities to the maximum extent possible.

Policy 3.2.2

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, shall protect endangered and threatened mammals, fish, reptiles, amphibians, and invertebrates from port activities in the Indian River Lagoon.

Policy 3.2.3

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, shall take appropriate actions to protect and conserve fin and shellfish resources in the Indian River Lagoon from damage due to port activities.

Objective 3.3

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, shall protect and maintain the existing natural coastal areas and resources within the Port Planning Area.

Policy 3.3.1

The Port of Ft. Pierce, working with the Comprehensive Plan and Land Development Regulations of the appropriate local general purpose government, shall address maintenance and reduction of existing air quality emissions from Port activities to ensure that new emissions from the Port meet applicable air quality standards.

Policy 3.3.2

The Port of Ft. Pierce, working with other governmental bodies and private interests, and other interested parties, shall create a scientific advisory committee, composed of researchers and managers from the Smithsonian Institute, Harbor Branch Oceanographic Institution, and other regional marine research institutions, to provide scientific advice on port operations and activities (commercial, industrial and recreational) that may impact the Indian River Lagoon.

Policy 3.3.3

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, will develop a list of best management practices for environmental protection that have been used successfully by other ports to ensure efficient and effective management of port operation activities while providing environmental protection.

Policy 3.3.4

The Port of Ft. Pierce, working with other governmental bodies and the private sector, and other interested parties, should encourage the use of an energy absorbing type system of bulkheading where possible to protect the natural coastline in the Port and surrounding area.

Policy 3.3.5

The Port of Ft. Pierce, working with other governmental bodies, and the private sector, and other interested parties, will identify, acquire (if necessary) and permit a permanent spoil disposal site for materials dredged from the Port Planning Area.

Objective 3.4

In keeping with the St. Lucie County Manatee Protection Plan (MPP), the Port of Ft. Pierce will work with other governmental agencies and private interests to improve protection of the manatees and enforce existing related laws within the Port Planning Area.

Policy 3.4.1

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, will adjust future and proposed dock design and construction to be consistent with manatee protection measures.

Policy 3.4.2

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, will conduct maintenance dredging in the Port Planning Area in a manner that is consistent with manatee protection measures.

Policy 3.4.3

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, will conduct activities involving expansion of ship berths and maintenance of channels in a manner that is consistent with manatee protection measures in the Port Planning Area.

Policy 3.4.4

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, will conduct activities involving explosives in a manner that is consistent with manatee protection measures in the Port Planning Area.

Policy 3.4.5

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, will conduct activities involving sediment removal and disposal in a manner that is consistent with manatee protection measures in the Port Planning Area.

Policy 3.4.6

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, will protect and/or mitigate seagrass beds and submerged aquatic vegetation that serve as manatee habitat in the Port Planning Area.

Policy 3.4.7

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, will help to develop guidelines and establish an education program for crew procedures regarding observing and avoiding manatees when arriving and departing from docks in the Port Planning Area.

GOAL 4: PUBLIC ACCESS

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, shall enhance public access to the Port Planning Area.

Objective 4.1

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, shall develop an integrated open space system to provide public access to portions of the Port Planning Area that are open to the public and the surrounding community.

Policy 4.1.1

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, shall facilitate public access to short-term parking.

Policy 4.1.2

The Port of Ft. Pierce shall encourage unobstructed public access to designated public fishing areas.

Policy 4.1.3

The Port of Ft. Pierce shall cooperate with and support efforts of other interested governmental bodies in providing access to unobstructed scenic views of the Indian River Lagoon.

Policy 4.1.4

The Port of Ft. Pierce shall encourage the City, County, and State to improve and maintain an orderly network of streets and entrances to access port facilities.

Policy 4.1.5

The Port of Ft. Pierce shall develop an integrated open space system along the waterfront of the Port Operations Area, with the exception of areas where such access would pose a safety or security concern, or where it would interfere with approved port activities.

Policy 4.1.6

The Port of Ft. Pierce shall encourage multi-use marine recreational activities, walkways, and multiuse paths within the open space system in the Port Planning Area and provide linkages with the network in Fort Pierce.

GOAL 5: EMERGENCY MANAGEMENT

The public will be protected in various emergency situations through cooperation between the Port of Ft. Pierce and other governmental bodies to achieve maximum levels of safety and to restrict or manage movement of hazardous materials in the Port of Ft. Pierce.

Objective 5.1

The Port of Ft. Pierce, working with regional and state emergency management agencies, private interests, and other interested parties, shall identify new and existing procedures to ensure public safety in the event of a hurricane or other natural disaster.

Policy 5.1.1

The Port of Ft. Pierce shall comply with the comprehensive emergency management plans of appropriate local general purpose government to ensure safe evacuation of the Port during times of hurricane or other disasters.

Policy 5.1.2

The Port of Ft. Pierce shall work with the City of Ft. Pierce and St. Lucie County to ensure that all development activities within the Port Planning Area, including the Port Operations Areas, are consistent with State of Florida's policies on development within areas identified as Coastal High Hazard Areas. New residential uses within areas designated as Coastal High Hazard as defined in Rule 9J-5, FAC., shall be discouraged.

Objective 5.2

The Port of Ft. Pierce, working with other governmental bodies, shall comply and cooperate to ensure that adequate procedures are in place to respond to a hazardous material spill.

Policy 5.2.1

The Port of Ft. Pierce shall comply with the processes of federal, state, and local governments for safe and expedient cleanup of hazardous spills.

Policy 5.2.2

The Port of Ft. Pierce shall cooperate with governmental bodies to provide complete and timely information to the public in the event of a hazardous materials accident.

GOAL 6: LANDSIDE INFRASTRUCTURE

Landside and waterside infrastructure serving the Port of Ft. Pierce should meet the Port's future requirements in a manner consistent with the abilities of the appropriate agencies to provide the services needed to support approved port activities.

Objective 6.1

The Port of Ft. Pierce shall work with other governmental agencies to improve linkages between the Port facilities and intermodal transportation routes.

Policy 6.1.1

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, should limit increased traffic congestion in the Port Planning Area and on roadways adjacent to the Port Planning Area consistent with the adopted levels of service in the Comprehensive Plan of the appropriate local general purpose government.

Policy 6.1.2

The Port of Ft. Pierce should enhance and expand activities that tie the Port to the St. Lucie County Airport and coordinate with the Florida Department of Economic Opportunity, Florida Department of Transportation (FDOT), and the Florida East Coast (FEC) Railroad, Tri-Rail, and other possible rail service, in order to encourage multimodal development, maximize intermodal transportation connections, and facilitate the continued economic growth, development, and vitality of St. Lucie County. Beginning in December 2003 and continuing annually thereafter, the Port of Ft. Pierce shall prepare a State of the Ports Report to demonstrate to the public how activities of both facilities are furthering the quality of life of St. Lucie County residents.

Policy 6.1.3

The Port of Ft. Pierce, working with other governmental bodies, should facilitate expansion of public transit to and from the Port Planning Area.

GOAL 7: NAVIGATION CHANNELS

Navigation channels serving the port's maritime and recreational activities shall meet existing and limited future needs as outlined in this plan.

Objective 7.1

The Port of Ft. Pierce shall maintain the maximum channel depth at 28 feet with its current width as identified on the most current Department of Commerce NOAA Coastal Survey for Fort Pierce Harbor.

Policy 7.1.1

The Port of Ft. Pierce shall coordinate with the U.S. Army Corps of Engineers and the Florida Inland Navigation District to provide for the maintenance of the navigation channels, including location and provision of spoil disposal sites.

Policy 7.1.2

The Port of Ft. Pierce shall coordinate with the U.S. Coast Guard in the placement and maintenance of the navigational aids within the port area.

Policy 7.1.3

The Port of Ft. Pierce, working with other governmental bodies, the private sector, and other interested parties, will identify, acquire (if necessary) and permit a permanent spoil disposal site for materials dredged from the Port Planning Area.

Objective 7.2

The Port of Ft. Pierce shall seek to improve the condition of Taylor Creek from the S-50 Spillway to the Intracoastal Waterway through maintenance dredging and water quality improvement projects.

Policy 7.2.1

The Port of Ft. Pierce shall request that St. Lucie County include as part of its Capital Improvements Programs funding for the restoration and improvement of Taylor Creek through maintenance dredging and water quality improvement projects to supplement funds received from other agencies.

SECTION THREE

DATA AND ANALYSIS

SECTION THREE - DATA AND ANALYSIS

3.1 Port of Fort Pierce Overview

This section consists of an inventory and analysis for the areas owned or administered by the port [FAC, Section 9J-5.012 (2)].

Historically the Fort Pierce Inlet, originally known as the Indian River Inlet, was a natural meandering passage from the Indian River Lagoon to the Atlantic Ocean. After 1892 and the opening of the St. Lucie Inlet, the passage became unusable because of shoaling. On December 9, 1918, by Special Act of the Florida Legislature, the Fort Pierce Inlet District was established for the purpose of funding the construction and operation of a new inlet between the Atlantic Ocean and the Indian River in Fort Pierce. By constructing a new inlet, the residents of the Treasure Coast region were seeking to make available to the Fort Pierce area a safe and consistently navigable access to the ocean in order to provide for the movement of goods and people.

Roughly 65 percent of St. Lucie County was situated in the Fort Pierce Inlet District. The District was empowered to sell bonds to finance the project and to satisfy bond obligations through real property tax revenues. The Port of Fort Pierce, as it is known today, came into existence in 1920 when the manmade opening between the Atlantic Ocean and the Indian River Lagoon, known as the new Fort Pierce Inlet, was completed.

Bond issues totaling approximately \$1.9 million were authorized and sold between 1921 and 1927, with additional funds provided by the City of Fort Pierce. Between 1920 and 1935, the inlet was opened, protective jetties were constructed, and the channel and turning basin were excavated. In 1935, the harbor was authorized as a federal project under the United States Army Corp of Engineers (USACE) and completed to its present dimensions in 1938.

On July 1, 1947, the Florida Legislature abolished the Fort Pierce Inlet District and replaced it with the Fort Pierce Port Authority, which retained essentially the same power but also had the legal right to acquire and lease real estate. On May 29, 1961, a Special Act of the Florida Legislature (Chapter 61-2754, Laws of Florida) replaced the Fort Pierce Port Authority with the Fort Pierce Port and Airport Authority, both of which operated under the auspices of St. Lucie County. In 1988, the "St. Lucie Port and Airport Authority Act," (Chapter 88-515), Laws of Florida abolished the special taxing district known as the Fort Pierce Port and Airport Authority and created the St. Lucie County Port and Airport Authority. In 1997, Chapter 97-377, Laws of Florida, provided reorganizing, updating, and clarifying provisions for the Authority. In 1998, the legislature enacted Chapter 98-496, Laws of Florida, which dissolved the St. Lucie County Port and Airport Authority and transferred its assets, liabilities, and responsibilities to the Board of County Commissioners of St. Lucie County.

Although the Port of Fort Pierce it is under the administrative jurisdiction of the St. Lucie County Board of County Commissioners, the Port of Fort Pierce cannot be considered independent of its location in the City of Fort Pierce.

For the purpose of this master plan, the Port of Fort Pierce will be referred to as two distinct sub areas within the context of the general term, Port of Fort Pierce. These sub-areas are to be known as the Port Planning Area and the Port Operations Area. Figure D depicts the general limits of what is to be considered the "Port Planning Area" for the Port of Fort Pierce. Within the Port Planning Area is a sub-area that is referred to as the "Port Operations Area".

3.2 Adjacent Land Uses [FAC, section 9J-5.012 (S)(b)]

3.2.1 Existing Land Uses

As noted above, the Port of Fort Pierce encompasses approximately 1,400 acres of land and water and has been divided into two general planning areas, the Port Planning Area and the Port Operations

Area, represented in this document at Figure D.

The Port Planning Area lies astride the Indian River Lagoon (IRL) Aquatic Preserve. The land uses for the areas fronting or close to the Indian River are mostly water-dependent or water related.

Land uses in the Port of Fort Pierce may be characterized into two broad classifications, industrial, commercial and residential conservation. The existing land uses in the Port Planning Area, east of the Intracoastal Waterway (ICW), are predominantly public use, recreational, conservation or limited commercial use. The only notable area of residential use within the entire Port Planning Area, the Causeway Mobile Home Park, is located on the south side of SR A-1-A, just east of the ICW. There are no other significant residential uses within the Port Planning Area.

Land uses in the Port Planning Area west of the Intracoastal Waterway (ICW), are a mix of industrial, heavy commercial, marine related commercial, general commercial and vacant lands. There is one small area of public ownership at the west end of the SR A-1-A (South Bridge) and the Indian River Lagoon known as the Black Pearl Boat Ramp.

The Port Operations Area is the area that would most commonly be characterized as the "Port of Fort Pierce." The Port Operations Area encompasses the existing marine terminals of the Port, the areas of proposed development by the Port of Fort Pierce, two commercial marinas, and an area of mixed industrial and commercial development east of US#1, adjacent to the marine industrial areas.

Major structures in the Port Operations Area include two citrus packing plants, the Taylor Creek Marina, a small fuel storage area and two large silos that were constructed in the early 1990's for the purpose of receiving imported fine aggregate materials, along with various other commercial properties. Several large parcels of property in the Port Operations Area remain undeveloped. The Port Operations Area also has properties, which could be redeveloped for more intensive use.

To the north of Taylor Creek, the land uses in the Port Operations Area include general commercial along US #1 and Old Dixie Highway; a small citrus packing facility along the east side of Old Dixie Highway and a small commercial fishery area along the north side of SR A1A. Many of the structures in this area are old and in disrepair. There are a few older residences in this area. With the exception of the newer commercial structures at the intersection of SR A1A and North US 1, this area will likely be redeveloped with new structures and uses as port activities expand.

To the south of Taylor Creek, along the west side of US #1 is the Riverview Memorial Park cemetery and a mixture of mostly strip retail and neighborhood commercial land uses. Land uses along the south side of SR A1A (Seaway Drive) are mixed commercial and residential. This area is part of the general redevelopment plan for the downtown area of Fort Pierce and is referred to as the Historic Edgartown area of the city.

The City of Fort Pierce defines inconsistent land uses as those that either do not contribute to carrying out the goals, objectives and policies of the comprehensive plan or are in conflict with future land use designations. Several inconsistent land uses exist adjacent to the port as indicated in the City of Fort Pierce Future Land Use Element (1990). These include:

- Part of an existing residential neighborhood abutting U.S. 1, between Avenue J and Avenue H, designated General Commercial (CG) in the City's Comprehensive Plan.
- An area of older wood frame single-family residences, which are located between the South Bridge (Seaway Drive) and Avenue H and designated CM (Commercial Marine) in the City's Comprehensive Plan.

In the Port Operations Area, there are also diverse port-related uses. These include the privately owned King Maritime Group LLC shipping facilities (previously known as the Indian River Terminal Company), several fruit-packing houses, industrial operations, a dry-slip marina, a boat yard, a

tank farm, and a few other small businesses. The Indian River Terminals are located in the southern third of the Port, consist of approximately seven acres of land, and constitute the only “deepwater” facility within the port. The land use designation of the Port, according to the City of Fort Pierce’s Comprehensive Plan, Future Land Use Element, is a mixture of Industrial (1) and Commercial Marine (CM). The City of Fort Pierce’s Land Use designations in the area east of the ICW area are a mix of commercial, residential and open space/ public use (recreation & conservation). Land use designations in the Port Planning Area under the County’s Comprehensive Plan are a mix of commercial and industrial. The sections below are intended to provide a brief summary of the major physical features/ uses in the Port Planning Area.

3.2.2 *Fort Pierce Inlet State Recreation Area*

The eastern and southern shorelines of the Fort Pierce Inlet State Recreation Area are within the Port Planning Area. North Hutchinson Island is on the north side of the Ft. Pierce Inlet and directly east of the Port. While not a part of the Port Planning Area, 2,015 of the 3,110 total acres on North Hutchinson Island are in public ownership, 75 acres have a conservation easement and another 68 acres are targeted for public purchase.

3.2.3 *Causeway Island Recreation Area*

Causeway Island Recreation Area is a 15 acre parcel, located along the south side of the Ft. Pierce Inlet. This tract is owned by and managed by St. Lucie County. Uses on Causeway Island include a small beach recreation area, boat launching facilities, the Smithsonian Marine Exhibit and the St. Lucie County Historical Museum.

3.2.4 *Fisherman's Wharf*

The area known as Fisherman's Wharf is located in the southern portion of the Port Operations Area. This area has been identified by city planners as having potential for redevelopment. The Fisherman's Wharf area contains both St. Lucie County and City of Fort Pierce property assets. Please see Table 2 for a list of a capital improvement projects planned for Fisherman's Wharf.

3.2.5 *City Fishing Pier/Catwalk*

The City Fishing Pier/Catwalk is located adjacent to the South Bridge (SR A1A) over the Indian River Lagoon. The City Fishing Pier/Catwalk consists of a 2,850 foot long structure that has access points on both the east and west ends of the bridge. The City Fishing Pier/Catwalk does not cross the ICW of pier (City of Fort Pierce, Coastal Management Element, 1990).

3.2.6 *Fort Pierce Inlet Marina*

Located on the south side of the Ft. Pierce Inlet, and just to the east of the Ft. Pierce United States Coast Guard Station, the Fort Pierce Inlet Marina is a condo/multifamily site that offers boat repair and 32 wet slips.

3.2.7 *Taylor Creek Marina*

The Taylor Creek Marina is located at the SE corner of the intersection of Old Dixie Highway and Taylor Creek. Of the 619 commercial dry docks in the City of Fort Pierce, 600 are located in the Taylor Creek Marina. This marina offers boat repair and fuel.

3.2.8 *Harbourtown Marina*

The Harbourtown Marina is located at the NE corner of the intersection of Old Dixie Highway and Taylor Creek. This is a commercial marina that offers boat repair, sewage pump out, and fuel. It consists of 412 wet slips.

3.3 Historical and Cultural Resources [FAC, section 9J-s.o12 (S) (b)]

Many of the known archaeological and historical resources of the City of Ft. Pierce do occur in the coastal area, but outside of the Port Planning area. Approximately seven structures on the National Register are in the City of Fort Pierce. The State Bureau of Historic Preservation does not identify archaeological resources other than by U.S.G.S. section in order to prevent destruction of these sites by looters. Three of the city's four National Historic Register sites are in the coastal area. The sites include the Old Fort Pierce Site, Cresthaven (Boston House), and the P.P. Cobb Building. The downtown McCrory's Building has the potential to be nominated on the National Register of Historic Places. There are no designated historic districts in Fort Pierce. Other historic sites include the Old City Hall, the Post Office, the Arcade Building, the Sunrise Theater, the Seven Gables House and Information Center, Second Street, and the Sunrise Theater. Ongoing port operations and future development are not anticipated to impact these historic resources.

3.4 Inventory of Port Facilities

3.4.1 Channels and Turning Basins

The Port of Fort Pierce lies approximately three (3) miles from the Atlantic Ocean shipping lanes, as measured from the outer sea buoy to the Indian River Terminal.

The Fort Pierce Inlet has two stone jetties designed to keep the inlet open for navigation. The jetties were constructed 900 feet apart; the existing southern jetty is about 1,200 feet long, the northern jetty is about 1,600 feet long. The stone jetties protect an entrance channel that is 300 feet wide. Upon reaching the Indian River, the channel narrows to 200 feet. Water depth in the entrance channel is 31 feet below mean low water from the ocean to a point of approximately 1,500 feet west of the inshore end of the inlet. From that point the depth of the channel and turning basin is 28 feet below mean low water. The turning basin is up to 900 feet wide and allows large vessels room to maneuvering for docking and undocking at the Indian River Terminal.

The channel and turning basin are intersected by the Intracoastal Waterway (ICW), which allows coastwise barge traffic direct access to the Port. Tidal surge in the harbor averages 2.5 feet with 3 feet occurring during spring tides.

3.4.2 Navigational Aids

Both the ICW adjacent to the Port and the Fort Pierce Inlet have standard navigational aids. Two tugs, 1200 hp and 500 hp, provide around-the-clock service. Additional assistance can also be provided by the Harbor Master pilot boat, which has a capacity of 400 hp. The Fort Pierce Harbor Master, the U.S. Coast Guard and the Indian River Terminal all maintain VHF channels for ship to shore communications.

3.4.3 Marine Structures

Commercial shipping has been conducted in the Port since the 1930s. The majority of the commercial cargo portion of the Port is currently in the southern portion and is known as the Indian River Terminal. This terminal was built in 1933 and was recently purchased by the King Maritime Group LLC. The terminal's three docks are 934 feet long. The terminal's warehousing includes 8000 square feet of dry storage and 64,000 square feet of refrigerated storage. The Indian River Terminal has berths of 454 feet, 330 feet, and 150 feet for vessels to 28 foot draft and the municipal pier has marginal wharfs of 330 feet and 195 feet for vessels up to 20 feet in draft on the seaward end. The municipal pier, primarily suitable for small cargo vessels servicing the island trades, also has a roll on, roll off (ro-ro) ramp, which

is presently used by a firm transporting fresh produce from the Bahamas. The Indian River Terminal with a pier-side refrigerated terminal can also accommodate landing ships and ro-ro vessels equipped with bow to stern ramps. AES, Inc. operates a terminal for bulk discharge and distribution. This terminal has a three dolphin mooring system, which can moor vessels to 28 feet in draft.

3.4.4 *Existing Buildings in the Port Operations Area*

Of the buildings found in the Port area, most are one to two stories in standard industrial heights. Among the types of buildings are port facility warehouses, packing plants for fresh fruit and vegetables and marine industry office space. The Port does not have cruise ship facilities. Within the Port Operations Area, approximately 87 acres remains vacant. Most of the land on the north side of the Port Operations Area is vacant. The southern third of the 87 acres is adjacent to the existing deep-water berths.

3.4.5 *Areas in Need of Redevelopment*

It has been suggested by the City of Fort Pierce Community Redevelopment Agency (2001) that a northern entrance to the Port Operations Area should be developed to be in keeping with the 1996 Port of Fort Pierce Charrette.

It was also suggested in the 1996 Port of Fort Pierce Charrette that a connected street system within the Port area should be built to allow access to undeveloped areas of the Port. To maximize the recreational potential of publicly owned lands, the charrette recommendations included renovating the park along the north side of Causeway Island.

3.5 Conflicts among Uses

According to the St. Lucie County Coastal Management Element Update (2001) the predominant land use along the North Fork of the St. Lucie River and Indian River Lagoon (south of Fort Pierce) is residential. The shoreline of the Indian River Lagoon on Hutchinson Island is primarily public conservation/recreation. The County's Future Land Use map recognizes the need for water-dependent and water-related uses by the commercial, industrial, and mixed-use designations on the mainland north of Fort Pierce and the Port Planning Area. Several existing or potential shoreline conflicts were identified by the County, including the following: conflicts in existing non-water dependent uses in the platted industrial area, and redevelopment focus on water-dependent uses; environmental sensitivity of these areas in regard to storm water management and handling, storage and use of hazardous materials; and potential conflict between mixed use designations and low density residential designations that must be offset through transitional gradients.

There are further identified conflicts with shoreline uses of the Port of Fort Pierce in regard to the various stakeholders, which were identified at the public workshops. Some of the stakeholders believe the Port should accommodate greater amounts of cargo and should deepen the Port in order to meet the needs of additional cargo. Other stakeholders would believe cargo should be virtually eliminated from the port in order to protect the environment. Four assumptions were agreed upon at the public stakeholder meetings:

1. The Port will continue to accommodate cargo through existing facilities
2. The Port should accommodate recreation and commercial uses, including marine industries supported by the community such as mega yachts
3. Protection of the Indian River Lagoon environment requires environmentally safe and friendly port activities and uses
4. Intergovernmental coordination is both desirable and necessary to develop activities consistent with the public interest

3.6 Public Access

Public access to the waterfront is outlined in the following subsections:

3.6.1 *Coastal Access Boat Ramps*

There are four points of public access boat ramps in the vicinity of Port of Fort Pierce. These consist of the following: the city marina has six public ramps, North Bridge on North A1A has two public ramps, North Bridge at Little Jim Bridge has two public ramps, South Bridge on Seaway Drive has two public ramps, and South Bridge on Causeway Island has two public ramps.

3.6.2 *Non-Boat Fishing Access*

Non-boat fishing access is available on North Bridge (1900') on A1A, the North Bridge Pier (200'), Little Jim Bridge A1A Causeway (50'), and South Bridge on A1A east end pier (200').

3.6.3 *Public Access via Roadways*

Current access to the Port Operations Area is from three locations, including the intersections of US Highway 1 & Second Street, Seaway Drive at Indian River Drive; and US Highway 1/Ave H and Seaway Drive/Indian River Drive.

In the past, requests were made to use the County-owned Harbour Pointe site for recreational use. The property has been closed for general public use due to lack of suitable public access, a lack of infrastructure improvements for public facilities, and a general lack of funding for landscaping and other recreational amenities. The City of Fort Pierce had requested that the county fully improve roadway access to the site. The Port and Airport Authority (1998) recommended that pursuit of grant funding be continued to enable funding for physical improvements to the Harbour Pointe site. At that time the short-term solution was to make interim improvements limited to proper maintenance and limiting use of the site.

3.7 Infrastructure Serving Port Facilities

This section summarizes the existing infrastructure systems presently in place to service port facilities including roadways, potable water and wastewater systems, drainage systems, solid waste facilities, as well as energy and communication systems.

3.7.1 *Transportation Network*

All Port operations are dependent on other components of the regional transportation system including roads, railroads, and airports. The Port of Fort Pierce is fortunate in that two components of this system, the regional road network and the railroad, are easily accessible. Airport access is currently limited. Due to the changing market, what were once mutually exclusive modal components of the shipping process (aviation, railroad, trucking, and water transport) are now mutually dependent elements.

Intermodal transportation consists of the use of more than one mode of transportation with transfer(s) between modes to make a trip or complete a freight movement. For intermodal transportation to be effective, the transfer has to be convenient and efficient. Two major pieces of Federal legislation have encouraged intermodalism (ISTEA in 1991 and TEA-21, in 1999). Florida fostered intermodalism through the Intermodal Development Program in 1990, created to provide funding for intermodal projects and promote intermodal development within the state. The Florida Seaport Transportation and Economic Development (FSTED) Program is another mainstay in the intermodal program funding. The Florida Freight Stakeholders Task Force was created in 1998 as a private/public sector partnership

to address freight issues and needs. The "Fast Track" was created to accelerate finance of statewide or major regional transportation needs that enhance economic development, which had been unfunded or under-funded in the past.

The most frequent transfers of freight occur at seaports with either rail and trucks, or air and trucks. The State of Florida aims to maintain freight mobility to achieve its economic objectives for employment, value-added services, and economic prosperity.

3.7.1.1 *Roadways*

The Port of Fort Pierce, Operations Area is bounded on the north and south by SR A1A, on the west by U.S. 1 or Florida East Coast (FEC) Railroad, and on the east by the Indian River. Vehicular access to the port from the north and south is via U.S. 1, a five-lane highway. An alternative north-south route is 25th Street.

Access in and out of the Port has always been difficult. Trucks carrying products from the west and south have to travel through the City of Fort Pierce to reach the Port. Current access to the Port is from three locations, including the intersections of: US Highway 1 and Second Street, Seaway Drive at Indian River Drive, US Highway 1/Avenue H and Seaway Drive/Indian River Drive. All of these "at grade" access routes include the necessity of crossing the FEC (Florida East Coast Railroad) mainline. In the event of a railroad obstruction, access from the Port Planning Area to US 1 is effectively cut off. An evaluation of the feasibility of a flyover bridge entrance in the north area of the port was conducted for St. Lucie County in November of 2000. The estimated cost of the proposed flyover is between \$1.25 million and \$3.53 million, excluding the corridor aesthetics. The County and City determined that the flyover would be economically viable and vital to the redevelopment of the City but was contingent on the plan for the Port of Ft. Pierce. The most recent development options for the Port Operations Area (Fall 2002) have raised a question over the need for a separate flyover structure accessing the Port Operations Area; however the need for some degree of improvement to the two existing port access routes has not been diminished.

In partnership with FDOT District 4, a feasibility study was conducted for the proposed flyover bridge. Upon completion of the study, FDOT concluded that they would not participate in regards to funding assistance to design and construct the flyover bridge, citing findings that the project was too land intensive and that traffic counts did not warrant moving forward with the project. Faced with the reality of high project costs and sole-source funding from local sources, St. Lucie County abandoned the flyover concept and refocused their efforts towards the improvement of the existing entrance road at grade. This sentiment was shared by the World Port Consortium (Lurssen and Berger), who also preferred an access road at grade level.

The Port of Ft. Pierce is served well by the regional roadway network. Both Florida's Turnpike and 1-95, the primary north-south expressways in the region, have interchanges that are a short drive from the Port. The major routes to 1-95 and Florida's Turnpike are SA 70 (Okeechobee Road/Delaware Avenue) and SR 68 (Orange Avenue (1-95 only)). An alternate route to 1-95 is U.S. 1 via Indrio Road to the north.

Truck related issues are location specific but typically fall within the following categories: inadequate roadway turning radii, lack of turning lanes, lack of traffic signals, or turn signals at intersections, inadequate lane widths, routes through residential neighborhoods, inadequate turn lane storage, vertical or horizontal clearances, grade crossing delays, lack of direct access, roadway congestion, especially during rush-hour peaks, and processing at terminal gates. Given the potential for continued significant population and economic growth in the near future, increased demand on the roadways is expected.

3.7.1.2 *Railroads*

The Florida East Coast (FEC) Railroad runs along the Atlantic Coastal Ridge through eastern St.

Lucie County. This Class II railroad serves the east coast of Florida from Jacksonville to Miami. Major commodities handled by the FEC are nonmetallic minerals and various commodities moved in containers and trailers (intermodal traffic). The FEC provides no passenger service at this time; however, efforts are underway to reinstate the AMTRAK passenger service along this route at some point in the near term future.

With the exception of SR A1A, no major roadways in the County are significantly affected by the FEC mainline operations. In order to cross over the heavily utilized FEC mainline, the City of Fort Pierce, in conjunction with FDOT, constructed the Citrus Avenue overpass in the 1970's. There is a second grade separated crossing at Avenue C. Both grade separated crossings permit vehicular movement from South Hutchinson Island to US 1 in the event of blockage of all at-grade crossings, but to height limitations and steep slope issues, these two routes are not viable for any large or high clearance vehicles. There is no grade separated crossing for the North Hutchinson Island area.

All of the Florida ports that depend on a singular rail service provider are subject to some degree of constraint. These and other physical and policy constraints, such as lack of on-dock rail facilities, grade crossing conflicts, and service and scheduling problems, severely hamper the ability of Florida's ports to compete without state of the art rail-oriented load centers.

International commerce is currently Florida's number one trade industry. Almost 70 percent of Florida's international commerce moves by water. Florida ranks fourth among the 50 states nationally, in terms of container movement. In 1997, Florida's deepwater seaports handled 2.37 million twenty-foot equivalent unit containers (TEUs). The 1997 volume represents a 60 percent increase in container traffic over 1993. Approximately 40 percent of these marine containers are handled by rail. Railroad intermodal facilities are dependent on connections with other modes; either water or most commonly trucks. As one of the two central Atlantic ports, the Port of Fort Pierce provides proximity to the citrus industry and direct rail connections that are significant assets.

The demand for rail transportation by Florida's ports and other rail users is expected to expand. At the time of the 2002 Port of Fort Pierce Master Plan, approximately two-thirds of Florida's international trade moved through its seaports. The seaports provide the distribution links for the north, south, east and west via the rail system and the roadway network. Domestic industry typically requires the same intermodal transportation system essential to the international trade. Rail transportation is expected to become more important than ever in determining Florida's competitiveness in global markets. Most of Florida's seaports rely on this system for the transport of cargo crossing their docks. The Port of Fort Pierce is rail served by FEC, but is currently focused on highway improvements to accommodate future expansion at the port. The FSTED Council continues to promote priority funding with respect to the essential development of an intermodal infrastructure to speed the landside movement of goods and passengers crossing Florida's docks. Although the Florida Department of Transportation has identified improvement needs of approximately \$85 million to the intermodal rail system throughout Florida, it has not made any contractual commitments in the area in regard to the Port of Fort Pierce.

The 1999 Florida Freight Stakeholders Task Force was organized as a public/private partnership to identify, prioritize, and recommend freight transportation projects for fast track funding and to develop recommendations for the 2020 Florida Statewide Intermodal Systems Plan. Projects were identified in a few major cities for the fast track funding. No projects were identified in the Fort Pierce area. It was recommended in reference to Florida's ports that the FDOT and FSTED Council prepare a strategic plan consisting of a multimodal strategy for handling international waterborne freight.

3.7.1.3 Air Transportation

The closest airport to the Port of Fort Pierce is the St. Lucie County International Airport; a general aviation airport approximately three miles northwest of the port. The primary roads connecting

the two are U.S. 1 and St. Lucie Boulevard.

The existing layout of the St. Lucie County International Airport consists of a north-south runway and a northeast-southwest runway that have been permanently closed. The remaining airfield consists of two runways: the primary east/west runway and crosswind runway. The airport currently occupies approximately 4,000 acres. St. Lucie County has recently scaled back long range development plans in response to environmental and community issues. The environmental issues primarily concern onsite wetlands in the eastern portion of the airport property: The community issues are related to noise and other potential adverse impacts on areas lying east of the airport. If community concerns are satisfactorily addressed, the most revised long term plans for the airport contemplate the addition of a 6,000 foot parallel runway to north of the east/west existing runway. There are no plans on the part of the County to expand airport operations beyond those of a general aviation airport.

3.7.1.4 *Water Transportation*

The ICW traverses the eastern edge of St. Lucie County via the IRL. The waterway is maintained by the U.S. Army Corps of Engineers and does not have a significant impact on the St. Lucie County transportation network except for one drawbridge crossing, at SR A1A access to North Hutchinson Island.

The ICW serves as a means of access to the Fort Pierce Inlet for both recreational and business uses. The nearest ocean inlets north and south of the Fort Pierce Inlet are the Sebastian Inlet to the north and the St. Lucie Inlet to the south. Of these three area inlets, the Fort Pierce Inlet is generally recognized as being the safest to navigate due to limited shoaling and predictable currents.

The Port lies on the IRL. Several municipal and private marinas, both inside and adjacent to the Port Planning Area share these waters with the Port. Harbortown Marina lies on the north side of Taylor Creek and is a 34-acre marina complex that opened in 1988. The marina has 27 employees and the Indian River Boat Yard has 30 employees. In 1989, it had approximately 165 slips, but expansion was permitted to 350 slips. It accommodates boats from 30 to 125 feet. The marina has a vessel population of 450 in the water and in storage and sells half a million gallons of fuel annually. The Fort Pierce City Marina is located a short distance to the south of the Port Planning Area. It accommodates boats from 25 to 60 feet. In 1988, it consisted of 234 wet slips. The Taylor Creek Marina and Cracker Bay Boat Works lie in the middle of the Port Operations Area. This marina has 600 dry docks and accommodates boats of up to 35 feet. The Pelican Yacht Club is across the South Causeway from the Port Operations Area. It has 104 wet slips and accommodates boats of up to 100 feet. Additionally there are smaller marinas in the area that provide slips for pleasure boaters.

When port activities increase, the pleasure boat traffic and the shipping traffic will have greater opportunities for in-water conflicts. At that time, a boat traffic management plan should be considered to supplement the existing U.S. Coast Guard regulations.

There are four broad categories of waterborne accidents: human factors, equipment failure, weather, and hazardous material. Human factors (ignoring hazard warnings, operating in adverse conditions, etc.) account for 75 percent of marine accidents. Fatalities, injuries, and accidents on the water mostly involve recreational boating. Water transportation workers suffer about four times the national average of fatalities for all workers. Crew member fatalities from tugboats and fishing vessels exceed the water transportation worker average. Recreational boating is second only to highway transportation related fatalities.

3.7.2 *Potable Water Facilities*

A potable water supply usually consists of a water supply source, a treatment plant, and a distribution

and storage network. Surface water (stored in natural lakes or man-made reservoirs), groundwater, or some combination of the two usually constitute the supply for a system. Before use for public consumption all water must be treated to remove impurities or render them harmless. After treatment, the water is supplied to individual users by way of a network of pipes and storage reservoirs. Water is delivered under pressure within the distribution system to ensure adequate flow to meet demands, which fluctuate during each day.

Potable water is provided by the Fort Pierce Utilities Authority (FPUA), which maintains a 20 million gallon per day (MGD) potable water treatment plant. Raw water is obtained from several municipal wellfields and is processed for potable water use at the Henry A. Gahn Treatment Plant located on 25th Street in Fort Pierce. The water distribution system currently contains over 206 miles of water mains. Potable water is distributed to the Port from the south starting from a 12 inch line that starts at Seaway Drive and continues north along N. Second Street. That line ends as a six inch pipe at the marinas on the north side of the Port. A six inch line proceeds from Second Street east along Port Avenue. The line proceeds at Harbor Street south to the Indian River Terminals and north to the adjacent properties.

In 1999 FPUA announced plans to complete a 4.0 MGD Reverse Osmosis (RO) expansion to the existing facility, bringing the total capacity to 25.2 MGD. An additional 2.0 MGD filter system in the future will increase the permitted treatment capacity to 27.2 MGD. The production capacity of this facility is presently permitted 17.9 MGD by the South Florida Water Management District water use permit. The first phase of expansion occurred in late 2000, with future expansion plans being adopted.

The current method of disinfection with chloramination requires continual operation of both lime softening units to achieve the 20 MGD design flow. Because this does not allow for maintenance down time, an effective maximum flow of 13 MGD is probably more realistic and consistent with the currently available raw water supply.

3.7.3 *Wastewater Facilities (Sanitary Sewer)*

The FPUA maintains a 9.0 MGD wastewater treatment plant on the southwest extremity of Causeway Island on the Indian River in Fort Pierce. This serves an estimated existing area population of over 40,000. As of the year 2000, the FPUA had a temporary operating permit from the FDEP, which rates the wastewater treatment plant at a flow of 9.0 MGD (maximum per day) to serve the City of Fort Pierce. At present, this plant has approximately 4 MGD of excess capacity with the highest maximum month average flow of 6.0 MGD. The long-range plans call for construction of a new wastewater treatment plant on the mainland. Planning for the mainland wastewater treatment plant has been put on hold. The FPUA has extended its wastewater service beyond the boundaries of the City of Fort Pierce and presently serves many areas in unincorporated St. Lucie County.

The Port of Fort Pierce is part of the City's sewer service area. Wastewater generated at the Port is collected and routed to the FPUA system for treatment at the existing wastewater treatment plant. Following secondary treatment, the effluent is discharged into the IRL and a private firm disposes of the sludge. An eight-inch wastewater line connected to the plant by means of a force main network provides service to the Port along Second Street.

According to Maritime Trust (2001), a sewer force main enters the property from the north and continues south along North Second Street, eventually becoming a gravity sewer line. Sewer collection lines continue along Port Avenue, Harbor Street and Fisherman's Wharf. A second line enters the property from the west at Seaway Drive and Second Street, which proceeds north on Second Street to Fisherman's Wharf. This line also continues east on Fisherman's Wharf to Indian River Drive to a lift station, which is located south of Fisherman's Wharf. At that point the wastewater is pumped south.

Given the potential for continued significant population and economic growth in the near future increased demand on the sewers is expected. The current sewer system for the Port could be expanded in some areas but further development would be required in other areas.

3.7.4 *Stormwater/Drainage Facilities*

According to the Indian River Lagoon CCMP Plan (1996), freshwater and stormwater discharges represent the largest nonpoint source of pollution to the IRL. Over the years these discharges have resulted in muck deposits and sedimentation in the lagoon and its tributaries. This deposition and sedimentation has caused the loss of seagrass beds with resulting impacts to fisheries and shellfish populations. Increased loadings of nutrients from freshwater discharges have been known to cause algae blooms resulting in fish kills. St. Lucie County has a stormwater management program to deal with these issues. The County is currently conducting a mapping survey. This study is to enhance the County's ability in directing water flow countywide to reduce flooding in flood prone areas, and to facilitate the placement of water control structures and water quality improvements. Large equipment requires maintenance and replacement on an ongoing basis.

The City of Fort Pierce Public Works Department is responsible for stormwater drainage. The City of Fort Pierce contains 12 drainage basins, two of which cover the Port area. The northern portion of the port includes part of the Taylor Creek drainage basin, and the southern portion is part of the South Bridge Drainage Basin). The Taylor Creek drainage basin uses storm sewers to convey drainage north to Taylor Creek. The South Bridge drainage basin uses storm sewers to convey drainage southeast to the Indian River.

Maritime Trust (2001) reported that the Port does not have an organized stormwater management system. Stormwater management that has occurred has been on a piecemeal basis because of the age of the Port and the pattern of development.

It will be necessary to set aside a portion of the Port for stormwater management. Stormwater management will help to prevent turbidity from run-off, which is the primary source of turbidity. Issues of water quality are not expected to be a limitation to Port development. In order to protect the water quality in the IRL retention and treatment of stormwater will have to occur on site before discharge into the lagoon.

3.7.5 *Solid Waste Facilities*

The County disposes of solid waste at the Glades Road site, which is the only solid waste disposal facility currently permitted in the County. The County expects to continue to operate a landfill for the entire County indefinitely since the 1988 Solid Waste Management Act discourages municipalities from operating such facilities. As of November of 1992, the City of Fort Pierce ceased to use the St. Lucie County Landfill as a disposal site for its solid waste. The City entered into a 30-year contract to dispose of the City's general solid waste in the Okeechobee Regional landfill operated by Chambers, Inc., in Okeechobee County.

Port operations generate only negligible amounts of solid waste. Port solid waste generally includes discarded boxes, packing and residue from cargo shipments, and litter from garbage receptacles located at port facilities. In 1989 existing Port users reported approximately six cubic yards of solid waste disposed of daily.

3.7.6 *Energy*

The Fort Pierce Utilities Authority (FPUA) provides electrical service to the port area via a three phase line on North Second Avenue, with a substation nearby. The H.D. King Generating Station located at N. Second Street and Avenue B in downtown Fort Pierce, generates the electrical power. FPUA has emergency ties with the City of Vero Beach and the Florida Power and Light Company (FP&L). In 1989, the service standard for electrical facilities was set at 52-kilowatt hours per capita per day. Port consumption of power is thought to be nominal at this time. Demand would be expected to increase as a result of port development.

3.7.7 *Communications*

Bell South provides the City of Fort Pierce with communications services. If an internal street system were developed there would be an opportunity to develop a telecommunication distribution system. Such a system could include empty conduits to allow for expansion or new technology in the future.

SECTION FOUR

ENVIRONMENTAL CONDITIONS

SECTION FOUR - ENVIRONMENTAL CONDITIONS

4.1 Natural Resources Inventory

The study area for the Port Master Plan includes both the Port Planning Area and the Port Operations Area. To enhance Port planning activities, the study area boundaries have been expanded slightly since the 1989 plan. The previous boundaries of the "Port Area" as defined by the 1989 Port Plan were as follows: bounded on the north and south by State Road (SR) A1A causeways, on the west by the Florida East Coast Railroad (FEC) and on the east by the Indian River Lagoon (IRL). The new boundaries have been redefined to include a greater portion of Taylor Creek.

The Port Planning Area now extends from the North Bridge (North SA A1A) to the South Bridge (South SR A1A) and from U.S. 1 east to the Indian River, including the entire harbor, channel, and Causeway Island from the city's wastewater plant and the county's historical museum to a geographical line approximately equal with The Pelican Yacht Club. It also includes a portion of Taylor Creek beginning at the harbor and extending to approximately North Sixteenth Street.

The Port Operations Area consists of the area between the northern causeway to the southern causeway and the adjacent harbor area. The land in question extends west to U.S. 1 between North Beach Causeway and Seaway Drive.

Natural resources that are affected by Port activities include the IRL, the Atlantic Ocean, Taylor Creek, and both the associated habitats and species. The undeveloped lands in the Port Planning Area are of particular importance due to the proximity of the Fort Pierce Inlet, which has provided an estuarine environment described as "one of the best remaining segments of the Lagoon."

4.1.1 *Ecological and Environmental Conditions*

This section reviews natural resources generally relevant to the Port Planning Area. The following text illustrates site specific natural resources for these facilities. The deepwater port facilities of the Port of Fort Pierce consist of shorelines and marine structures within the IRL and direct access to the Atlantic Ocean. Natural resources in this area include but are not limited to vegetative cover and wetlands, terrestrial and aquatic wildlife, beach and dune systems, and an estuarine system.

The landside areas of the Port Planning Area are in an urban setting and do not have noteworthy vegetation or fauna. The harbor area and its environs, however, provide habitats for various plants and animals, including species classified as endangered, threatened, or of special concern.

4.1.2 *Marine Communities*

The marine resources within and around the Port Planning Area are extensive. In the IRL complex over 600 species have been identified. There are several reasons for this diversity. The IRL spans several biogeographic provinces with both tropical and temperate influence. The IRL complex also contains highly diverse habitats including tidal inlets, sand bottoms, seagrass meadows, mangrove forests, tidal creeks, nearshore hardbottom reefs, saltwater marshes, and mud flats. All of these systems are considered Essential Fish Habitat by the National Marine Fisheries Service and all contribute to the diversity of the Port Planning Area and surrounding areas. In the southern portion of the IRL there is an even higher level of diversity due to a greater abundance of inlets, the presence of reef-like habitats that are not present in the north, and greater tropical representation. There is no other region of estuarine or continental shelf habitats that contains as many species or aquatic organisms as the ocean inlets of the IRL, particularly in the Fort Pierce Inlet, due to its size and stabilization, and habitat variability.

4.1.3 Seagrasses

Seagrasses are submerged flowering plants with true roots and stems and are distinctly different from marine algae. The documented importance of seagrasses and other submerged aquatic vegetation in the ecological stability and productivity of the estuarine ecosystem includes the stabilization of sediments, prevention of re-suspension of particulate matter, as well as cover and food for fish and wildlife marine invertebrates. Of the habitats entirely confined within the lagoon, seagrass beds support the richest fish community, in terms of both diversity of species and density. The seagrass habitat is also a critical resource for listed species (Florida manatee (*Trichechus manatus latirostris*) and loggerhead sea turtle (*Caretta caretta*)). This marine mammal depends on seagrasses as part of its food supply. Juvenile sea turtles have also been documented as foraging on turtle grass and other seagrasses in the IRL. Seagrass ecosystems are recognized as the primary food source and critical to the recovery of the Endangered West Indian Manatee. Seagrasses also provide habitat for the Green Sea Turtle.

A 2017 Seagrass survey of the Port shoreline by Taylor engineering ... In 1991, scientists at the Harbor Branch Oceanographic Institution (HBOI) conducted an extensive study of the shoreline in the Port. Four species of seagrass and 44 species of other Submerged Aquatic Vegetation were found. The seagrass beds along the undeveloped portion of the Port were found to be the most extensive and significant. The seagrass beds adjacent to the shoreline were healthy and patterns observed were consistent with previous seagrass studies. Approximately 4.7 acres of seagrasses were mapped, 77% of which were found off the undeveloped eastern shoreline, or in the area known as Harbour Pointe Park. The majority of these vegetative communities were found in waters adjacent to undeveloped port lands. The transect along the Port's Indian River Lagoon shoreline extended from the shore to the ICW, a distance of approximately 250 feet. The seagrass beds in this area the Port Planning Area are found were predominately found within a few meters of the shore due to physical conditions. The physical conditions along the project shoreline were reportedly favorable for seagrass growth, a gentle sloping shelf and water depths that provide an expansive area of potential habitat cover. According to Gilmore (1991) any alteration of the shoreline or adjacent substrate will negatively impact seagrasses and the conditions for submerged aquatic vegetation growth.

The IRL contains seven species of seagrasses: manatee grass, shoal grass, Johnson's seagrass, turtle grass, paddle grass, star grass, and widgeon grass. This diversity is far greater than seagrasses found in any other United States estuary. Johnson's seagrass (*Halophila johnsonii*) is a federally threatened species endemic only to the southern IRL region. Where conditions are appropriate, seagrasses may form an underwater meadow of dense cover. These meadows are generally found in water between 0.7 and 3.3 feet deep on sandy or muddy sand substrates. In deeper water, where there is less light, or in areas where substrate or water quality conditions are not ideal, seagrasses may not be present or may occur only as scatter clumps or as plants limited to a few inches in height.

Dense beds of seagrass are found around the shoals being formed at the mouth of the St. Lucie River, however, such seagrass beds have varied in density over time. Seagrass beds in the Fort Pierce area were moderately dense when mapped in 1986 and less dense when mapped in 1992. Historical seagrass coverage changes between the 1970s and 1992 were determined as part of the Indian River Lagoon National Estuary Program Final Report. Within St. Lucie County, the majority of the lagoon reported a zero to 25 percent increase in seagrass coverage. One exception is the area of the Fort Pierce Inlet, between Bear Point and Jack Island, which reported an increase of seagrass coverage that was greater than 25 percent.

The Florida Department of Environmental Protection (FDEP) (2000) cited more recent surveys. One such survey was conducted by FDEP Coastal and Aquatic Managed Areas (CAMA) staff in August of 1998. Slight changes of shape and area coverage in the beds in were found between 1992 and 1998. In April of 1999 aerial photography conducted by the South Florida Water Management District (SFWMD) revealed similar findings. FDEP CAMA staff surveyed the proposed Berths 1-5 in May of 2000 and showed a greatly reduced bed. The greatest change was found at berth 4-5, with a reduction in maximum bed width from roughly 100m to 5m.

A 3-8 inch layer of silt/clay/organics was found where formally had been sandy substrate in an area previously containing sand. Seagrass beds in Berths 2-3 were found to have grown since the 1998 survey after losses since 1991. The consistency of the muck found by CAMA staff was very similar to samples taken from offshore reefs in 1996. The muck appeared to be deposited prior to dredging efforts in April of 2000. It was speculated that the most likely source of the muck was Taylor Creek, perhaps due to downward movement from two recent hurricanes. However, it was noted that the hydrodynamic conditions of the port, ICW, Taylor Creek, inlet, and reefs are largely unknown.

Substantial research has indicated that the distribution and health of seagrass and other submerged vegetation is directly related to water quality and water clarity of estuaries and can thus be used as an estuarine health indicator. Factors influencing seagrass and other submerged aquatic vegetation growth and distribution include water depth, water clarity and availability of light, substrate, nutrient levels, salinity, temperature, and anthropogenic influences such as runoff and boating activities.

According to Maritime Trust (2001), four varieties of seagrasses are found in the Port vicinity: Cuban shoalgrass (*Halodule wrightii*), Cuban shoalgrass paddlegrass (*Halodule Halophila decipiens*), Johnson's seagrass (*Halophila johnsonii*), and manatee grass (*Syringodium filiforme*). Johnson's seagrass is generally uncommon in this area. In 2016, while constructing a subtidal oyster reef, the County's Coastal Resources Coordinator found turtle grass (*Thalassia testudinum*) was found recruiting next to the Port Planning Area. The largest area of seagrass in the Port vicinity is the Jim Island Seagrass Meadow, which is a 290 acre area located north of the interior channel. Seagrass beds are also found to the west and north of the turning basin.

According to the United States Fish and Wildlife Service (USFWS) Multispecies Recovery Plan for South Florida (Draft, 2000) physical destruction of seagrasses most commonly comes from boat propellers and is called prop scarring. Boat wakes also cause physical disturbance to seagrasses with increased turbidity. Small craft boating and larger commercial boats can both influence this condition.

4.1.4 Intertidal Coastal Wetlands

Two basic types of saltwater wetland or "intertidal" wetlands in the lagoon are mangrove forests and salt marshes. The distribution of these habitat types is primarily latitudinal, caused by temperature and particularly by the occurrences of freezes. Mangroves are sub-tropical and sensitive to low temperatures and freezes. The undeveloped shoreline of the Port Operations Area contains mangroves.

Mangrove communities, like other coastal wetlands, contribute to the removal of dissolved nutrients in runoff from adjacent upland areas. Nitrogen, phosphorus, and other essential nutrients are absorbed by mangrove root systems. Mangrove size and growth are proportional to the levels of nutrients received and this growth may be correlated to the amount of runoff received from adjacent terrestrial sources. The submerged root systems of mangroves form a protected nursery habitat for dozens of fish, such as the common snook, striped mullet, tarpon, and mangrove snapper. Many avifaunal species also use these systems for nesting and/or foraging, including herons, egrets, brown pelicans, roseate spoonbills, and white ibis. Intertidal areas in the Port Planning Area compose highly productive and ecologically important areas to the Indian River Lagoon. Vegetative communities including mangrove swamps and salt marshes provide 1) the basis for the detrital food web and 2) cover for many species of fish and wildlife. Like seagrasses, these plant communities also help cycle nutrients in the environment. Many acres of marsh and mangrove habitats have been preserved at St. Lucie County mosquito control impoundments with smaller quantities of these habitats existing in the port planning area (Wesley's Island, Fort Pierce Inlet State Park, unconsolidated shorelines along North and South Hutchinson Island).

As late as 1950, coastal saltwater wetlands, both forested swamp and salt marsh, covered approximately 6,000 acres of St. Lucie County's coastal shoreline area adjacent to the IRL. Salt marsh halophytes and black and white mangroves dominated these coastal areas. The federal government and the State of Florida sold the majority of the coastal wetlands to private developers. Human

development resulted in the filling of approximately 17 percent of the wetlands in the county.

Ongoing coastal wetland activities are directed at public acquisition, preservation, restoration, recreation, and public management of these environmentally sensitive ecosystems. Multi agency coordination is an integral component of this effort, which involves multiple management goals, adaptive management strategies, and ecosystem management principles focusing on protection of coastal biodiversity. Oyster reef restoration has occurred in 6 different locations in or near the Port Planning Area, mostly in intertidal locations due to high salinities that result from the Fort Pierce Inlet. Oysters have provided habitat for fish, aquatic invertebrates, and shorebirds in these areas; more oyster restoration sites within the Port Planning Area are scheduled in the future.

4.1.5 *Spoil Islands*

Spoil islands in the lagoon provide vegetative cover. There are 34 is one spoil islands within the county's portion of the IRL Wesley's Island is an approximately 2.6 hectare spoil island east of the turning basin that is designated a conservation island for bird habitat thereon. Birds observed on Wesley's Island in the last 3 years include see attached list, other bird species (i.e. white pelicans) have been photographs on Wesley's Island by the County's ERD. Wesley's Island and surrounding areas within the Port Planning Area are ideal areas for habitat restoration (terrestrial vegetation (in process by the St. Lucie County Environmental Resources Department (ERD)), oyster reef, salt marsh, juvenile fish hardbottoms). Another smaller spoil island, Shark Island, was washed away by the hurricanes of 2004 but is being envisioned as the future site of further oyster restoration. two small spoil islands just at the east of the turning basin (see Figure F).

Aside from the native canopy planted by ERD, Wesley's Island contains salt marsh and mangrove fringes which were left intact and continue to provide habitat and other ecological services. Exotic vegetation on the island has been mostly eradicated but continued maintenance is required to prevent further recruitment Most islands were create⁹ as a result of the depositing of spoil material during the creation of the ICW in the early 1900's, or its rebuilding between 1961 and 1995. A few were natural islands on which dredged spoil was placed. Although spoil islands are generally dominated by exotic vegetation, they also provide shallow water habitat in fringe areas for the growth of mangroves, seagrasses, and other native wetland vegetation. In 1990, Florida Department of Natural Resource (now known as the Florida Department of Environmental Protection) studies showed that a total of 467 plant and animal species ranging from fungi to marine mammals inhabited or used these islands. Uses include nesting sites for many wading and diving birds. The Florida Fish and Wildlife Conservation Commission consider County Line Spoil Islands and Bird Islands as major rookeries.

4.1.6 *Riverine/Freshwater Systems*

Numerous freshwater wetlands and streams tributaries are found adjacent to or within 200 yards of the Port Operations Area. Although not directly a part of the lagoon, adjacent wetland communities are a vital component for the biodiversity of the lagoon. They function in maintaining water quality and in filtering harmful substances from surface runoff waters before reaching the lagoon. The quality and quantity of freshwater discharges from the mainland is critical to the maintenance of a healthy estuary and the salinity gradient required by numerous estuarine-dependent fisheries. One of the two primary points of discharge into the IRL is the C-25 Canal, which discharges directly into the lagoon across from the Fort Pierce Inlet. This canal discharges into Taylor Creek that flows along the north side of the undeveloped Port lands. Taylor Creek is fed by the C-25 canal which is connected to western St. Lucie County basins via the C-23 and C-24 canals. Moore's Creek is a smaller, urban tributary which runs through downtown Fort Pierce, collecting stormwater runoff and the pollutants therein. Both tributaries empty into the Indian River Lagoon via spillways.

Maintenance dredging to create a sediment trap in Taylor Creek was completed in 200_. The sediment trap is now filled and needs to be dredged again. A program to create a muck bypass program is being explored. This bypass is necessary to reduce solids from washing into the Indian River Lagoon, improve water quality in the vicinity of the Port Operations Area, reduce maintenance dredging

requirements in said area, and protect seagrasses and oyster reefs. In the future the County hopes to partner with the City of Fort Pierce and the South Florida Water Management District to further improve water quality effluents entering into Taylor Creek.

St. Lucie County has already partnered with the City of Fort Pierce, the Florida Fish and Wildlife Conservation Commission, and several non-profits to improve water quality in Moore's Creek. The partnership has planted the Submerged Aquatic Vegetation, *Vallisneria americana*, to create fish habitat and filter nutrients from the creek bed while having quarterly trash cleanups to reduce the amount of garbage entering the Indian River Lagoon.

4.1.7 *Shoreline*

The undeveloped 87 acres of the Port Planning Area include approximately 2,500 linear feet of unconsolidated shoreline along the IRL and Taylor Creek. The emerging mangrove shoreline and adjacent aquatic estuarine resources may be affected by future uses of the Port. Much of this unconsolidated shoreline has eroded, affecting local seagrass beds and reducing uplands area. Some form of green/gray infrastructure (i.e. living shoreline) that is compatible with port operations is being sought to protect eroding shorelines.

4.2 **Living Marine Resources**

4.2.1 *Natural Reefs and Hardbottoms*

Hard bottom communities in the Port Operations Area include The IRL contains invertebrate communities on vertical seawalls and rocky substrate in the Fort Pierce Inlet, ledges formed by dredging the Intracoastal Waterway and shipping channel, and worm rock reefs on the north side of the inlet. A new type of juvenile fish habitat artificial reef module will be deployed in various spots along shorelines and under docks in the Port Planning Area to expand hardbottom communities which juvenile fishes use in their ontogenetic migration from the Indian River Lagoon to the Atlantic Ocean. Room exists within the Fort Pierce Inlet for creation of additional hardbottoms through deployment of estuarine artificial reef modules. which are formed by the cementing of sand grains by polychaete worms, and soft-bottom communities. Limestone natural reefs are found both near shore and offshore within the coastal area of St. Lucie County. The near shore reefs or hard bottom areas exist both north and south of the Fort Pierce Inlet. They are primarily coquinoid limestone, occurring in approximately 10 to 20 foot depths and extending from 150 feet out to 2000 feet offshore. Discontinuous pavements with ledges up to six feet in relief parallel the shoreline. The near shore reefs support a dense and diverse cover of flora and fauna. Algae, sponges, as well as soft and hard corals, are a few of the dominant species that, along with numerous other cover species, provide shelter and food for invertebrates and over 225 species of fish. Over 200 species of mollusks, 97 species of crustaceans, and 21 species of echinoderms have been found to be associated with the *Oculina* hard coral alone.

4.2.2 *Oyster Bars Reefs*

Oyster bars reefs are essentially an exposed sand-shell biotype where the shell component is dominant a hardbottom community where the dominant substrate is a form of calcium carbonate secreted by living oysters. The substrate itself provides habitat for numerous species of fish and is deemed Essential Fish Habitat by the National Marine Fisheries Service.

Anthropogenic influences (higher salinity around the Fort Pierce Inlet, sedimentation caused by Taylor Creek and Moore's Creek effluents) have restricted oyster growth in the Port Planning Area. Oyster bars are common in the IRL between the Sebastian Inlet and the Fort Pierce Inlet and historically contributed to the commercial fishing industry in Fort Pierce. However, there are no commercially

leased oyster beds and there is only a relatively small area north of Fort Pierce and east of the ICW that presently has approved open shellfish waters. Nevertheless oyster reef restoration is being practiced experimentally in the Fort Pierce Inlet Area in an attempt to see if oysters can survive, grow, and reproduce in suboptimum conditions. Restored oyster reefs in this area form a complex living community including crustaceans, tunicates and sponges, algae, oysters, mussels and echinoderms. Intertidal oyster reefs in the Fort Pierce Inlet Area have also provided forage for many species of birds, including American oystercatchers. Due to the complex biotic diversity of oyster reefs, this habitat encompasses many aspects of nutrient recycling. Five of the six restored oyster reefs in St. Lucie County have been accompanied by increase seagrass growth. The cause of this association is still being studied and oyster reefs will be used to promote seagrass growth in the Port Planning Area wherever appropriate.

The oyster bar performs a valuable function in the food web by converting plankton, detritus and possibly dissolved organics into animal protein, which is then available to higher predators. Attaching to dead shells or stony outcroppings, oyster communities are self-perpetuating once established, and provide attachment sites and protective cover for a large number of invertebrates, including tunicates, bryozoans, amphipods, decapods, and gastropods. This secondary community provides a forage base for opportunistic fish, which in-turn support roving carnivores such as crevalle jack, gray snapper, snook, and red drum.

4.2.3 Fish

The IRL has been reportedly described as having the "richest estuarine ichthyofauna in the continental United States" with the Port Planning Area, specifically the Fort Pierce Inlet, contributing to much of that diversity. The Fort Pierce Inlet plays a major role in ensuring the species diversity of the area by connecting the Atlantic Ocean with the Indian River Lagoon. Recent reports indicated a total of 788 species present in the IRL, many using a variety of habitats, particularly during different phases of their life histories and/or at different times of the year. St. Lucie County is located within the southern portion of the lagoon where twice as many fish species have been recorded compared with the northern portion. The higher diversity in the southern portion of the lagoon has been ascribed to the greater tropical climate, hard-bottom and reef-like habitats, and to the abundance of Atlantic inlets. The South Atlantic Fisheries Management Council's Snapper-Grouper Complex (SGC) is the management unit of fishes found predominantly on hardbottom communities. Of the 59 species in the SGC, 23 of these species have been documented on St. Lucie County offshore artificial reefs. 13 of these 23 SGC species found on the County's artificial reefs have life history stages that include the Indian River Lagoon. Juveniles from 5 of these species (red grouper (*Epinephelus morio*), mutton snapper (*Lutjanus analis*), yellowtail snapper (*Ocyurus chrysurus*), black seabass (*Centropomus striata*), and land snapper (*Lutjanus synagris*) have been monitored at subtidal oyster reefs and limerock islands adjacent to the Port Operations Area. Juvenile crustaceans, Florida lobster (*Panulirus argus*) and stone crab (*Menippe mercenaria*) have also been documented using these reefs. Other fish species documented on the County's offshore artificial reefs but not included in the SGC (i.e. snook (*Centropomus undecimalis*), red drum (*Sciaenops ocellatus*), pigfish (*Orthopristis chrysoptera*) are also dependent on the Fort Pierce Inlet to travel between the Indian River Lagoon and the Atlantic Ocean.

The status of fish resources is difficult to establish on a quantitative basis and much information comes from anecdotal sources and non-scientific reports. Such information indicates that populations of many fish have declined in the period ranging from about 1952 to 1989. Populations of some species such as the common snook and red drum appear to have increased in recent years, probably in response to catch limitation regulations, while others such as the spotted sea trout have continued to decline. Reconnection of thousands of acres of mosquito impoundments may have a beneficial effect on ichthyofaunal food chains and lead to increased populations of fish. Changes in seagrass abundance may also affect fish abundance. Sixty to seventy percent of the economically important Atlantic Ocean species are dependent upon estuaries during some phase of their life cycle (FDEP, 1998).

Recreational fishing and boating represent important drivers to the local economy, and economic and cultural assets for St. Lucie County. Both of these activities occur within the Port Planning Area. Maintaining the biological health and diversity of said area is important to the economic and social benefit of the community. In 1991, Gilmore and Hanisak identified 8 species of recreational fish, 26 commercial fish species, and 10 species of crustaceans in waters on or adjacent to the Port. Commercial fisheries have been part of the nautical heritage of St. Lucie County. A component of the Port Operations Area dedicated to preservation of commercial fisheries and the habitats upon which they depend may become an important component of future port development.

Commercial fisheries are an important component of the local economic base. Historical trends and analysis of fin fish and shellfish commercial landings for the period from 1958 through 1988 for counties in the Indian River Lagoon region indicates that the average total fisheries contribution of each county in 1988 was almost identical to the average contribution for the 30-year period, indicating that there has been no major shift in the overall distribution of total fisheries during this period. The study reported that St. Lucie County accounted for 20.1% of the total commercial fisheries landings in the five County Indian River Lagoon region for the thirty-year period. In 1998, St. Lucie County fisheries landings were lower, reporting 3,079,308 pounds with a value of \$4,039,294, with finfish accounting for over 97% of all landings.

The Indian River Lagoon draws a significant number of tourist and recreational users to the area. Estimates of recreational fisheries and the economic value of recreational fishing to the Indian River Lagoon Region are estimated to be as much as six times that of commercial fisheries. A 1995 study of the Indian River Lagoon estimated the economic value of this coastal estuary at over \$700 million per year. The economic value has been attributed to the following sources: recreational fishing and shell fishing accounted for 48%, boating approximately 10%, while commercial fishing accounted for less than 2%. These recreational uses are expected to experience a large increase, with the number of non-local, saltwater anglers expected to double by 2010.

4.2.4 *Shellfish and Crustaceans*

The major sources of consumable shellfish within the IRL are the blue crab, the southern and northern hard clams, and the American oyster. The Florida Department of Environmental Protection classifies and manages shellfish resources of the lagoon so that shellfish harvests are safe for consumption. Currently, the industry is vulnerable to bacterial contamination of the lagoon from wastewater treatment discharges and from storm water runoff. Harvesting in St. Lucie County is now virtually non-existent with only a small area of approved harvesting north of the Fort Pierce Inlet. Limited recreational harvest of shellfish and crustaceans occur in the Port Planning Area but the Florida Department of Agriculture and Consumer Services does not operate a water quality testing program in St. Lucie County necessary for commercial harvest.

4.2.5 *Marine Mammals*

Although a few studies on dolphins have been conducted, most other studies performed to-date on marine mammals, primarily focus on the endangered manatee.

4.2.6 *Manatees*

The Florida Manatee (*Trichechus manatus latirostris*) is found within the Port Operations Area and Port Planning Area. Mating pods of dozens of this listed species were seen as late as 2016 utilizing waters offshore Harbour Pointe Park in the Indian River Lagoon and in Taylor Creek. Speed restrictions have been established and continue to be enforced in the Port Planning Area. Port development and operations will continue to abide by U.S Fish and Wildlife laws and permit requirements for protection of this listed species [\[need rule references\]](#). Florida's state marine mammal. Manatees are in the

scientific order Sirena - large air-breathing aquatic mammals. They inhabit fresh and saltwater areas such as oceans, estuaries, rivers, canals and dredged channels. These animals are found primarily in Florida as they prefer warm waters. In the winter they migrate to south Florida and/or to either natural or artificial warm-water refuges. Manatee USACE of Taylor Creek is heavy. The waters of the Indian River Lagoon and Taylor Creek, which are adjacent to the Port, are protected under the Florida Manatee Sanctuary Act that recognizes these adjacent waters as being used by the West Indian Manatee.

The St. Lucie County Manatee Protection Plan (2002) reports manatee sightings over the years and identifies locations with the greatest relative abundance of manatees. The plan identifies the portion of the Indian River Lagoon adjacent to Taylor Creek as one of the areas with the greatest relative abundance of manatee throughout the year. Freshwater from Taylor Creek appears to be the main attraction for manatees. This area has extensive seagrass beds nearby, and is adjacent to the primary north-south corridor for manatees on the east coast of Florida.

The average adult manatee is 11.5 feet long and weighs 2,200 pounds. Their diet consists of aquatic and floating plants. Manatees consume 10 to 15 percent of their body weight in vegetation each day. Intervals between breaths vary but manatees typically surface in order to breathe every 3-5 minutes. This figure can range from every 30 seconds to as long as 20 minutes depending on the activity level. The manatee life expectancy is a maximum of 60 years.

Most manatee studies focus on their distribution and congregation around power plants, in the winter to avoid cold water. Manatees migrate north and disperse throughout the lagoon system, feeding extensively on seagrass during the summer. The Fort Pierce Power Plant is a point of congregation. Except for isolated congregations around power plants, manatees migrate south during the winter. There are a number of sources of manatee mortality including wintertime cold, boat-barge collisions, natural causes and entrapment in flood control gates, the second leading human factor in manatee deaths.

Manatees are still common in the IRL. Many manatees congregate at the Moores Creek Fort Pierce Utility Power Plant. Available data indicate that collisions with watercraft may be the single largest human-related cause of mortality within the lagoon. Manatee collisions with watercraft are positively correlated with the amount and density of boat traffic. It has been speculated that due to thermal effects, manatees may also tend to congregate in the following areas: the mouths of canals where fresh and salt waters mix, in the comparatively deeper water canals at HBOI, Queen's Cove, Big Mud Creek, and in dredged basins, such as the Port of Fort Pierce and the Fort Pierce Yacht Club.

The federal government and the State of Florida have designated the Florida manatee as an endangered species. The precise number of manatees in Florida is not known, however, aerial censuses have documented the population to be at least 3,276. The distribution of the manatee population in Florida is estimated to be as follows: 47 percent in the Atlantic region, 37 percent in the Southwest, 12 percent in the Northwest, and 4 percent in the St. Johns River region. St. Lucie County is part of the Atlantic Region, which includes the lower portion of the St. Johns River, Florida's east coast, and the Florida Keys. Research has indicated that the population in this region has remained fairly steady or decreased slightly in recent years.

Between 1974 and 2000 manatee deaths in St. Lucie County have ranged from 0 to 5 per year. The causes of manatee death in St. Lucie County are as follows: 37 percent undetermined, 27 percent watercraft, 11 percent perinatal, 16 percent natural, 5 percent cold stress, and 4 percent human-related. Because of the manatees' relatively low population, low reproductive rates, limited geographic range, and high rates of human-related mortality, this animal is particularly vulnerable to extinction. Several programs have been initiated to protect the manatee. An interagency group of manatee experts, the Florida Manatee Recovery Team, developed the Florida Manatee Recovery Plan, which was first approved by the U.S. Fish and Wildlife Service in 1980. This plan was revised in 1989, 1996, and 2000-01. Site-specific manatee plans were recommended in the plan to be developed at the local level. The purpose of the Manatee Protection Plan (MPP) of St. Lucie County is to meet state standards for manatee protection in the local waterways.

In and around St. Lucie County the water quality of the Atlantic Ocean is excellent; however the quality of the waterways in the inland manatee habitat is highly variable. Daily fluctuations occur due primarily to tidal cycles, and seasonal variations from the summertime wet season and the wintertime dry season. The greatest influence near the Fort Pierce Inlet is diurnal tides and to a lesser extent exchange through the St. Lucie Inlet in neighboring Martin County. As the distance from the inlet increases, the tidal effect decreases. As a whole, the water quality of the IRL in St. Lucie County is better than the tributaries and canals that flow into the lagoon. As a result seagrasses are mostly limited to the IRL.

The water quality in the vicinity of the Fort Pierce Inlet is excellent. Maintenance dredging of the Inlet has led to maintaining a significant tidal exchange between the Atlantic Ocean and the IRL. This allows pollutants that are generated or introduced to be discharged to sea and the water quality is generally sustained to be suitable for seagrasses and other SAV.

The water quality in the IRL has been degraded over the past several decades due to a number of drainage and development projects. In general, the water quality of the IRL is adequate to support the submerged aquatic vegetation that serves as a food source for the manatees. Alterations in the constituent drainage basins have negatively affected this body of water. It is likely that such changes have reduced the abundance and distribution of submerged aquatic vegetation in the upper regions of the St. Lucie Estuary. It is noted, however, that the main threat to manatees in canals and channels is due to encounters with watercraft rather than to poor water quality. It is unknown to what extent manatees use emergent shoreline vegetation for feeding. A number of programs, such as the IRL Restoration Feasibility Task Force and the St. Lucie River Initiative are in place or planned for improving the water quality in this region.

Education to the public is important for manatee protection. A number of public and private sources for education manatee information are currently available (Ecological Associates, 2002). Such sources include the Florida Department of Environmental Protection (FDEP), Florida Fish and Wildlife Conservation Commission (FWC), Manatee Observation and Education Center (MOEC), Harbor Branch Oceanographic Institution (HBOI), Florida Power and Light Company, Save the Manatee Club, Florida Oceanographic Society (FOS), and safe boating courses. Other regional, state, and federal organizations with information concerning manatees include: U.S. Fish and Wildlife Service (USFWS), U.S. Geological Survey (USGS), U.S. Army Corps of Engineers (USACE), South Florida Water Management District (SFWMD), Florida Inland Navigation District (FIND), Homosassa Springs State Wildlife Park, Sea World of Florida, Audubon of Florida, Miami Seaquarium, and Lowry Park.

4.2.7 Reptiles

Limited study has been conducted on salt marsh snakes and alligators. Most research has been directed to marine turtles, which may use the lagoon system during their developmental stage and the beach dune system for reproduction. Reptiles that could potentially use the Port Planning Area include: those that are threatened or endangered include the following: American alligator (*Alligator mississippiensis*), Atlantic loggerhead turtle (*Caretta caretta*), Atlantic green turtle (*Chelonia mydas*), leatherback turtle (*Dermochelys coriacea*), Atlantic hawksbill turtle (*Eretmochelys imbricata*), Diamondback terrapin (*Malaclemys terrapin*), Kemp's ridley turtle (*Lepidochelys kempii*), and the Atlantic salt marsh snake (*Nerodia clarkii taeniata*). Reptiles that have been seen using the Port Planning Area or habitats nearby include: American alligator (North Causeway Island), loggerhead turtle (Wesley's Island), diamondback terrapin (Wesley's Island).

In an ongoing study of marine turtles being conducted in the southern portion of the IRL, green turtles (*Chelonia mydas*) and loggerhead turtles (*Caretta caretta*) have been temporarily captured and studied. The current study site is located in the IRL east of the ICW and approximately 2 km south of an area of the Ft. Pierce Inlet known as Jennings' Cove. The researcher found that this area of the IRL supports a large aggregation of juvenile green turtles and provides an important developmental habitat for green turtles. The author cited a marine turtle study in a similar area and that found that the area is not only of regional importance as a developmental habitat, but also of importance for green

turtle populations in the western hemisphere.

Green turtles found in the IRL exhibit a 50 to 70 percent prevalence of a debilitating and sometimes deadly disease known as Fibropapillomatosis (FP). The disease is found worldwide in similar habitats, which include enclosed bays and lagoons near populated areas with poor water exchange and high nutrient levels due to agricultural and urban runoff. By comparison, the green turtles captured off the wormrock reefs just off the Atlantic coast of Hutchinson Island have a less than three percent incidence of the disease. A contributing factor to the high incidence of FP in green turtles the IRL could be the degraded condition of the lagoon. Poor water quality has been postulated as a causative factor in the reported high incidences of fibropapillomatosis in green turtles in the Indian River Lagoon.

4.3 Natural Upland and Shoreline Communities

4.3.1 Mammals In and Around the IRL

Atlantic bottle-nose dolphin (*Tursiops truncatus*), and Manatee, and river otter (*Lontra canadensis*) have all been seen in the vicinity of the Port Planning Area.

4.3.2 Birds in Indian River Lagoon Community

Common loon, horned grebe, brown pelican, double-crested cormorant, frigate bird, mintail, green-winged teal, blue-winged teal, American widgeon, northern shoveler, ruddy duck, red breasted merganser, osprey, American coot, herring gull, Forster's tern, least tern, Caspian tern, black skimmer, belted kingfisher.

For most of the last 34 years the Fort Pierce bird count recorded wintering birds and other species, which may breed or pass through the county. A total of 241 avian species were recorded in the county between 1957 and 1998. Between 1990 and 1998, 174 avian species have been observed during the count, including the following species which are listed as endangered, threatened, or species of special concern: little blue heron, tri-colored heron, brown pelican, wood stork, red-cockaded woodpecker, crested caracara, Florida scrub-jay, roseate spoonbill, limpkin, snail kite, southern bald eagle, southeaster American kestrel, Florida sandhill crane, reddish egret, snowy egret, white ibis, Arctic peregrine falcon, American oystercatcher, brown pelican, least tern and roseate tern.

One reason for the avifauna richness in the IRL is that it provides a wide array of habitats for wading birds and wetland-dependent avian species. These habitats include open water, mangroves, salt marshes, spoil islands, and mosquito impoundments, which attract and sustain numerous avian species. As a result, the lagoon provides habitats for resident and wintering species, as well as migratory species using the Eastern Flyway.

4.3.3 Reptiles in Indian River Lagoon Community

Diamondback terrapin, American alligator, Atlantic loggerhead turtle, Atlantic green turtle, leatherback turtle, Atlantic hawksbill turtle, Kemp's ridley, and the Atlantic salt marsh snake

4.3.4 Fish in Indian River Lagoon Community

Bullshark, ladyfish, silver stripe halfback, Irish pompano, school master, sailors choice, goby (2 species), tarpon, scaled sardine, striped anchovy, sea catfish, gafftopsail catfish, rainwater killifish, gulf killifish, sheepshead minnow, sailfin molly, gulf pipe fish, jack crevalle, snook, gray snapper, lane snapper, mutton snapper, yellowtail snapper, pig fish, spotfin mojarra, silver jenny, silver perch, spotted seatrout, spot, southern kingfish, red drum, sheepshead, pinfish, striped mullet, white mullet, tidewater silverside, lined sole, puffers (3 species), Atlantic spade fish, striped croaker. Fish that are threatened or endangered include the common snook and the mangrove rivulus

4.4 Other Areas of Special Concern

Endangered and threatened species are those plants and animals in danger of extinction or likely to become endangered, respectively, as designated by both the federal government and the State of Florida. The state also lists species whose survival potential is of special concern. The following is a description of listed species known or suspected to occur in St. Lucie County by reason of distribution and habitat. There are various causes for a species being listed; some species have never been common, while some species are vulnerable because they are restricted to a limiting resource or habitat. Lakela's mint and the red-cockaded woodpecker are representatives of this category in St. Lucie County. Johnson Seagrass is as an example of a species that has been identified in the Port Operations Area as being restricted to a limiting resource or habitat. According to the authors *Halophila johnsonii* (Johnson Seagrass) is known to occur only from the coastal lagoon system of eastern Florida, from Sebastian Inlet to Biscayne Bay. The most serious threat to the continued existence of many listed species is the alteration of their habitat by man. Even clearing and alteration of natural areas will encourage exotic plant species to invade native habitats, often resulting in shading out native plant species.

The identification and implementation of storm water treatment and shoreline restorations projects that reduce the quantity of suspended solids and nutrients that enter the IRL is critical to maintain and improve coastal waters and the many species with special protective status that inhabit the coastal planning area of the county. Two of the most endangered species within St. Lucie County, the West Indian Manatee and the Green sea turtle, are dependent on the health of the IRL. The adjacent Indian River Lagoon and Taylor Creek are protected under the Florida Manatee Sanctuary Act (2002) that recognizes the adjacent coastal waters as being used by the West Indian Manatee.

The 2.6-acre spoil island, Wesley's Island, and surrounding waters located in the Port Planning Area could be used to maintain the genetic diversity of terrestrial plants, seagrasses, corals, and birds in the area and act as a refuge to repopulate these species into other, impacted areas of the Indian River lagoon. Several beach and dune species, such as sea-lavender, beach creeper, and inkberry are subject to loss of habitat due to development. The beaches of East Central Florida, including St. Lucie County, are an important breeding ground for several species of sea turtle. The leatherback, green and loggerhead sea turtles have all been recorded. The nests of these turtles are highly vulnerable to natural predators and to disturbance on the beaches. Projects have been established in many sea turtle nesting areas to monitor and protect the nests of sea turtles. Another threat to the hatchlings is the increasing light pollution that accompanies the development along beaches, and causes disorientation as they attempt to find the ocean after birth. The County's sea turtle ordinance restricts the hours and months that artificial light can shine on the beach area; however, it is becoming apparent that interior lights cause hatchling disorientation.

4.5 Estuarine Conditions [FAC, section 9J-5.012 (S)(b)J

4.5.1 *General Estuarine Conditions: Anthropogenic influences of the Port Planning Area*

In the twentieth century the Indian River Lagoon ecosystem experience several alterations that enabled the area to become more suitable for human development:

1. Coastal wetlands were filled (i.e. Harbour Pointe Park, downtown Fort Pierce) to allow for construction.
2. Salt marshes were impounded to regulate water levels and to reduce breeding of salt marsh mosquitoes.
3. A permanent connection between the Indian River Lagoon and the Atlantic Ocean was dredged at the Fort Pierce Inlet allowing commerce and recreational vessels access to the ocean.

4. The Intracoastal Waterway was dredged allowing vessel movements throughout the Lagoon.
5. Taylor Creek was channelized to allow for expedited drainage of uplands areas.

All of these activities were of benefit to the development of St. Lucie County but had negative consequences on the Indian River Lagoon, specifically the Port Planning Area, including, but not limited to 1) reduction of filtration capacity, 2) lost productivity of coastal area (partially corrected by development of Rotational Impoundment Management techniques), 3) alteration of salinity regimes in the Indian River Lagoon, 4) destruction of seagrass beds and production of fill, and 5) increased delivery of organic materials and reduction of filtration via hydrologic water movements.

The challenge is to find future uses and best management practices at the Port which will maximize use of the Port while allowing continued human benefit and ameliorating past environmental disturbances.

The Indian River Lagoon (IRL) System is considered the most diverse estuary in North America due to its abundance and variety of fish, birds and mammals. The IRL, a 155-mile long estuary, is located on Florida's east coast, from the Ponce de Leon Inlet south of Daytona Beach to the Jupiter Inlet. It comprises more than a third of Florida's east coast. It is comprised of several bodies of water including the Indian River, the Banana River and the Mosquito Lagoon. An estuary is defined as a semi-enclosed body of water with free connections to the open sea that is measurably diluted by fresh water. The IRL is located in a zone where tropical and temperate climates meet. Therefore the flora and fauna contain tropical and subtropical species. As a result the lagoon has more species than any other in North America.

The IRL is a unique and diverse ecosystem. The ICW was created in this century for safe passage of water-based commerce from Maine to Key West. In the IAL, the construction of the ICW created a deep-water channel, which is maintained at a depth of 12 feet north of Fort Pierce and 10 feet south of Fort Pierce, in an otherwise shallow system of three feet on average. Disposal of dredged material from the ICW was often deposited onto the IRL bottoms creating islands called "dredged material disposal islands" but commonly referred to as "spoil" islands.

The spoil islands have evolved from barren deposits to ecological communities themselves. However, 90 percent of the vegetative colonization on the spoil islands consists of non-native species. Numerous species of fish invertebrates, reptiles, birds, and mammals inhabit the spoil islands. Seagrasses are often found in the shallow margins of spoil islands and enhance biological diversity by creating protective and foraging habitat for juvenile fish and other species. Submerged aquatic vegetation (SAV) located below the water's surface is another biologically rich community in the IRL. The SAV is comprised of algae and seagrasses. The variety of seagrasses in the IRL is greater than in any other estuary in the United States.

The U.S. Army Corps of Engineers (USACE) recently described the IRL and its associated ecosystem as a resource in peril. This decline in the ecosystem is due to the severe impact of human activities over the course of the last 100 years. Several problems have resulted from urban and agricultural development, including a decline in water quality, rapid discharge, pollutants, excessive nutrients, significant muck deposits in the estuary, a decline in native flora and fauna, endangered species, and flooding. A decline in estuarine health has occurred due to drainage systems that rapidly discharge runoff containing pollutants into the St. Lucie River and Estuary and the southern IRL. This has been the result of urban and agricultural development. Accumulation of flocculent ooze, massive oyster stress and die-offs, fish lesions, declining fish and invertebrate populations and a decline in sea grass production has resulted from excessive nutrients entering the IRL.

In the past, wetlands acted as natural filters and retention areas, but many of these areas were lost to drainage or development. Increases in the amount of freshwater entering the St. Lucie Estuary has led to an accumulation of muck that has occurred 2.5 times faster than historic or normal levels. Where

muck has accumulated, there has been loss of normal estuarine organisms and a decline in water quality due to resuspension. USACE has developed the Indian River Lagoon- South Plan to achieve restoration of the St. Lucie River, to remediate the significant muck deposits in the estuary, and to improve native flora, fauna, and threatened and endangered species. It was acknowledged in the USACE study that current efforts to reduce excessive nutrients should assist in the recovery of natural vegetation patterns in some parts of the system. The USACE plan would include capture of watershed flows, water treatment, water storage, and redistribution to agricultural areas and to rehydration/enhancement of historic wetlands. The plan also involves muck remediation and removal to allow a suitable substrate for bottom organisms to recolonize.

4.5.2 *Known Existing Point and Non-Point Source Pollution Problems Water Quality Concerns in the Port Planning Area*

The Surface Water Improvement and Management (SWIM) Act, enacted by the Florida Legislature in 1987 and revised in 1991, designated the IRL system as a priority body of water in Florida for restoration and special protection. Water quality in the Indian River Lagoon in general was addressed by the Surface Water Improvement and Management (SWIM) Acts of 1987 and 1991. Six concerns were addressed: 1) point and non-point pollution, 2) destruction of natural systems, 3) correction and prevention of surface water problems, 4) research for better management of surface waters and associated natural systems, 5) public awareness, and 6) improved interagency coordination and management.

4.5.2.1 *Water Pollution*

Water quality is a major concern of any aquatic system since without proper water quality biotic elements within the system cannot properly maintain a stable environment. Potential sources of water quality perturbations in the Port Planning Area include:

- a) Thermal – the Henry King municipal power plant was decommissioned and no longer discharges thermal effluents into Moore’s Creek
- b) Surface water (tributary discharges) – Taylor Creek and Moore’s Creek discharge into the Indian River Lagoon at or near the Port Planning Area releasing both point and non-point source pollutants into this area. These two tributaries’ basins include agricultural and urban areas potentially distributing a wide variety of pollutants to the Indian River Lagoon.
- c) Ground water (hydrologic flow) –
 - a) Prior contamination on 2nd Street
 - i) Taylor Creek Marina well
 - ii) Arsenic contamination
 - iii) Deep well injection at municipal sewage treatment plant
 - b) Septic systems
 - c) Superfund sites
 - i) Henry King power plant
 - ii) Fertilizer factory

4.5.2.2 *Destruction of Natural Systems*

Destruction of biological systems can affect water quality through different factors:

- a) Uncoupling of biogeochemical cycling
- b) Physical effects on water quality
 - a) Increase wave energy due to bulkhead construction
 - b) Increased turbidity due to dredging and seagrass loss

4.5.2.3 *Correction and Prevention of Surface Water Problems*

4.5.2.4 *Research for Better Management of Surface Waters and Associated Natural Systems*

4.5.2.5 *Public Awareness*

4.5.2.6 *Improved Interagency Coordination and Management*

The three major categories of concern were: water and sediment quality, habitat alteration and loss, and interagency management. Issues of water and sediment quality include undesirable salinity fluctuations; increased suspended matter loadings and sedimentation, increased nutrient loadings, increased input of toxic substances, and increased levels of pathogens. Issues around maintaining a functioning macrophyte-based ecosystem include loss of seagrass beds and stress on remaining beds and loss of emergent wetlands and their isolation from the lagoon.

The quality of sediment and water is directly related to activities in the watershed in any body of water. In estuaries, the ocean and the physical configuration of the water body and watershed affect the quality. Circulation and mixing, watershed drainage, and point source and non-point source pollution also affect quality. The IRL receives input of saltwater from the ocean, and freshwater from direct precipitation, ground water seepage, surface runoff, creeks, streams, drainage systems and point sources such as wastewater treatment plants. The long narrow shape and shallow waters result in sluggish circulation patterns in many places. The circulation that occurs is primarily wind-driven due to the limited tidal exchange occurring in only six widely separated inlets. Thus the IRL is sensitive to sudden influxes of pollutants or material resulting from increasing urbanization, industrialization and agriculture in the watershed. Some tidal flow appears to be present throughout the area between Fort Pierce and St. Lucie inlets. Tidal flushing and action is most pronounced within three to five miles of each inlet.

Mixing from boat traffic has not generally been considered a major component of the IRL hydrodynamics. However, a decrease of seagrasses might be expected in a restricted area with continual boat traffic due to the very localized mixing of lagoon waters and the resultant stirring that could mix density layers and re-suspend bottom sediments. This would be on a very localized, micro-scale.

Pollutant loadings enter surface waters from two primary pathways: point sources and non-point sources. Point sources of pollution are the discharges of wastes resulting from processes such as water or wastewater treatment, power generation, manufacturing, or similar activities. The discharge is located at an identifiable "point", such as a pipe or other structure and can often be controlled. On the other hand, the specific sources of non-point pollution are generally not identifiable and are more difficult to control or eliminate. Non-point sources include storm water runoff, septic tanks, atmospheric fallout or deposition (rainfall and dryfall), groundwater, and tributaries. Non-point source pollution comes from a wide area, not just a single source.

The IRL contains both point and non-point sources of pollution. Point sources are largely from domestic wastewater treatment plants. The Indian River Lagoon Act (Chapter 90-262, FAG) of 1990 required elimination of all discharges of domestic wastewater to the IRL by 1996. At the time of

that report most wastewater plants were in compliance with the act. The largest non point sources of pollution to the IRL are storm water and tributary discharges collectively. In the early 1990's, it was estimated that non-point sources represented 60 percent of the loading into the IRL.

There are multiple potential adverse effects of freshwater diversion into the IRL are many. The alteration to the saline system can extend beyond the ranges that resident species can tolerate. Storm water discharge has been implicated in the loss of seagrass acreage and shellfish mortality. Increased salinities from drought periods have negatively impacted other species. Additionally nutrients, metals, pesticides, suspended solids and organically stained, highly colored waters are carried by freshwater discharges from the extended watershed into the IRL.

Marinas and boats are also non-point sources of pollution. Marina operation and maintenance can result in discharge of metals, oils, greases, and other materials through surface water runoff. Discharges from boats may also contribute to pollution from discharge of untreated sewage and fuel from exhaust of outboard engines.

There are two ports in the Indian River Lagoon (IRL). Port Canaveral is isolated from the IRL by a lock system, and therefore it does not usually impact the water quality of the IRL. Due to its shallow depth the Port of Fort Pierce has very low cargo vessel traffic, and therefore the IRL has not been significantly impacted by vessel and port operations to date.

The IRL has seen a decline in water quality over the past 50 years resulting from freshwater runoff from development areas, carrying both point and non-point source pollutants this is due to population growth since the 1950s. Consequences of water quality deterioration include a decrease in seagrass coverage, which is a source of food, habitat and nursery area for fish in the lagoon, as well as fish from the sea. Seagrasses are important to the productivity of the IRL. Seagrasses are light-dependent and are negatively impacted by turbidity levels in the water column. Mechanical dredging and vessel motion both re-suspend sediments in the water column. The impact is less with short, strong perturbations than it is with medium, repetitively occurring perturbations.

Turbidity can result from naturally occurring events such as waves caused by wind. Port activities that cause turbidity include dredging, disposal of dredged material, propeller wash, and vessel-generated waves. At this time the major contributor of turbidity and sediment deposits is freshwater runoff, particularly from non-point sources of pollution.

As reported in USACE study in 1986, the tides and tidal currents control the salinity of the water in the Ft Pierce Harbor and Inlet: "During ebb flow and influence of Taylor Creek water on the surface salinities extends across the Intracoastal Waterway into the inlet. The water in the inlet itself is vertically well mixed by the turbulent flow. In the beginning stages of the ebb tide, water from Taylor Creek passes over the Jim Island flats; as the ebb progresses, the flow moves off the flats and through a channel at its southern edge. A flood tide forces the freshwater back, forming a distinct salt wedge at the mouth of Taylor Creek. Although this salt wedge is observed during both ebb and flood tide, it is most pronounced at the incoming tide. Vertical salinity differences up to 30 parts per thousand have been observed at the mouth of the creek. The thermal structure appears to be relatively constant; with the largest temperature variation encountered being slightly more than 4 degrees Fahrenheit."

Problems can also occur from jetties that are built to stabilize artificial inlets. The jetties built between the ocean and the IRL block the natural flow of sand from north to south. One solution is to convey the sand from north of the inlet to south of the inlet artificially but this is done at high cost.

4.5.3 *Invasive Species*

There is a risk of exotic or invasive species being introduced into the IRL from cargo vessel discharge

of ballast water, which generally contains live exotic organisms. Aquatic nuisance species (ANS) are nonindigenous species that can threaten native species and ecological stability of infested waters. Invasive species can also include plants, invertebrates, fish, amphibians, reptiles, birds, and mammals (Bryant, 1999). Any of these can be a threat to a local ecosystem, contributing to depletion and extinction of native species.

Of the exotic introductions into the United States, most plant and vertebrate animal introductions have been intentional, while most invertebrate animal and microbe introductions have been accidental. It is estimated that approximately 50,000 non-indigenous (non-native species) have been introduced into the United States. More than 98 percent of the United States food system is provided by introduced species such as corn, wheat, rice, other food crops, cattle, poultry and other livestock: Other intentional uses of exotic species have been for purposes such as landscape restoration, biological pest control, sport, pets and food processing. On the other hand, some exotic species have led to major economic losses. These losses have occurred in agriculture, forestry, environment and other areas. Damage caused by non-indigenous species has included native species extinctions.

The State of Florida has experienced problems with exotic species including plants, aquatic plants, wild dog packs, fish, and feral pigs. Approximately 95 percent of introductions of arthropods and annelids have been accidental. Many of these species have gained entrance in plants, soil, and ships' ballast water. Of the various species of mollusks in the United States, 88 percent have been introduced intentionally and accidentally and have become established in the aquatic ecosystems. Some of these mollusks, such as the zebra mussel, gained entrance through ballast water that was released into the Great lakes from ships that had traveled from Europe.

Congress directed the U.S. Coast Guard in the National Invasive Species Act of 1996 (NISA) to promulgate voluntary guidelines for ballast water management and other ship operations. This regulation was intended to reduce the number of non-indigenous aquatic nuisance species introduced into U.S. waters. Additionally submission of ballast management reports by all ships entering U.S. waters was made mandatory (U.S. Coast Guard, 2001). It was recently announced that in order to comply with the National Invasive Species Act of 1996, the U.S. Coast Guard has established regulations and voluntary guidelines to control the invasion of aquatic nuisance species. The regulations include mandatory reporting for nearly all vessels entering U.S. waters. The rule was scheduled to become final December 21, 2001.

The U.S. Coast Guard has been assisted with the issue of invasive species by the recent regulations, the Nonindigenous Aquatic Prevention and Control Act (PL 101-646), which requires samples from ballast waters of ships entering U.S. ports trade.

4.5.4 *Hydraulic Characteristics*

According to the Army Corps of Engineers Feasibility Report and Environmental Impact Statement (1986), prepared for the Fort Pierce Harbor project, "the oceanic tide and the tide within the inlet area are essentially semi-diurnal, with a very weak diurnal component. The tides at the Fort Pierce City Dock range about 0.6 feet compared with an average 3.3 foot range at the inlet, and lag behind inlet tides by about two hours. The water passing through the inlet has been observed to move as far as five miles north from the inlet area."

The USACE study also provided data concerning surface tidal currents in the inlet, which were measured during spring tides in 1979. According to USACE, maximum currents during two tidal cycles were 5.9 feet per second (fps) on flood tide and 7.4 fps on ebb tide. The times of the peak currents were coincident with high and low tides at the entrance to the inlet: +2.2 feet mean sea level (msl) and -1.6 feet msl, respectively. Inlet currents measured on February 27, 1958, showed peak flood and ebb velocities of 2.0 fps and 4.4 fps, respectively, during a 1.6 foot tidal cycle range. Peak volume transport through the inlet is estimated to average about 100,000 cubic feet per second.

Water circulation in the harbor is predominantly tidally driven, tidal currents account for 3 percent of

the variance of current flow. The circulation pattern is largely affected by the hydrographic features of the area, including islands, shoal areas, grass flats, and dredged channels. The two causeways that form the north and south boundaries have modified the natural flushing patterns of the harbor, as elsewhere in the lagoon system.

4.6 Beach and Dune Systems

4.6.1 *General Characteristics of the System*

The Port of Fort Pierce lies on the east-central coast of Florida and is connected to the Atlantic Ocean through the Fort Pierce Inlet. The harbor is located in the Indian River Lagoon adjacent to the City of Fort Pierce, St. Lucie County. The Port is adjacent to a state aquatic preserve and is part of a lagoon system designated as an "Estuary of National Significance." The lagoon is a critical habitat for the endangered West Indian manatee. The inlet provides access for a variety of estuarine-marine species.

The shoreline is typical of a young shoreline of emergence. During recent times, a bar has formed from material cut from the sea floor by wave action and to a lesser degree by deposition of sand from southward moving currents. Historically the inlet, known as the Indian River Inlet, was a natural meandering passage from the Indian River Lagoon to the Atlantic Ocean.

After 1892 and the opening of the St. Lucie Inlet, the passage became unusable because of shoaling. The present inlet was first modified by dredging in 1921, followed by the construction of two stone jetties in 1926. A channel was cut through Hutchinson Island, the barrier island that separates the Indian River Lagoon from the ocean, approximately 2.7 miles south of the location of the natural inlet. The jetties were constructed 900 feet apart; the existing southern jetty is about 1,200 feet long, the northern jetty is about 1,600 feet long.

The county has roughly 21 miles of beachfront shoreline, with six miles on North Hutchinson Island (North Beach) and 15 miles on South Hutchinson Island (South Beach). The Fort Pierce Inlet separates the two beaches from one other.

In 1935, the U.S. Army Corps of Engineers assumed responsibility for maintaining the channel jetties and enlarging the channel and turning basin to the present dimensions. Completed in 1938, the design included an east-west access channel 2.2 miles long and 300 feet wide at the 27-foot depth contour at the Atlantic Ocean access point. The design of the interior of the channel resulted in a 200-foot width, connecting to a 900-foot-wide and 25-foot-deep turning basin. Immediately west and north of the federal project area, additional turning space and berthing areas have since been constructed by local interests. With its limestone rock, sand sides, and sand floor, the channel provides habitat for a variety of algae, invertebrates, and fish.

4.6.2 *The Beaches*

Citing Coastal Zone Resources, Inc. (1985), the St. Lucie County, Comprehensive Plan Update, Coastal Management Element (2001) reported that the width of the beach berm (from the water's edge to the dune) ranges from 40 to 140 feet, with 75 and 85 foot averages on North Beach and South Beach, respectively, although there are numerous exceptions. Extreme conditions exist within 2.3 miles south of the Fort Pierce Inlet where there is very little beach and dune line due to erosion. The average elevation of the berm is two to five feet above mean high water (pp. 7-24).

The overall littoral trend along the beaches near Fort Pierce has been one of erosion, although there has been some accretion for approximately one mile north of the jetties. Erosion has been a continuing problem on the southern side of the inlet. The most severe erosion has occurred for approximately 1,200 feet south of the inlet, where the shoreline has receded as much as 450 feet during the period of record.

Another important and ongoing related issue, which should not be overlooked, is an expected sea

level rise, which the Environmental Protection Agency estimated in 1988 to be between 4.9 and 7.5 feet along the east coast of Florida between 1980 and 2100. The historic rate in this area is 0.06 to 0.08 feet per year. Under natural conditions, barrier islands migrate landward as sand is transferred from the ocean side to the lagoon side through over wash areas. Development requires efforts to prevent this natural process and, in so doing prevents the sediment buildup of lagoon side marshes. Therefore, attempts to buffer sea level rise may lead to higher water elevations along the lagoon shoreline.

4.6.3 *The Dunes* [N/A]

It appears that most of the coastal dune system surrounding the Fort Pierce Inlet has been lost either to urban development, beach erosion (especially south of the Inlet), or a combination of both. Aerial photography shows that only a small section of the primary dune now exists. The dune that remains is located in the Fort Pierce Inlet State Recreation Area. Primary dune vegetation includes sea oats (*Uniola paniculata*), railroad vine (*Ipomea pes-caprae*), dune sunflower (*Helianthus debilis*), and sea grape (*Cocco/obauverifera*).

The coastal barrier dune systems usually consist of a series of active dunes, sand ridges, troughs, and flats extending landward from the beach. St. Lucie County's dune system, however, is considered atypical because it is generally characterized by a single primary dune. South of the St. Lucie Power Plant on South Beach and a major portion of North Beach are comprised of landward over wash areas, which lack defined secondary dunes and ridges.

The widest and strongest dunes are found on North Beach, probably due to a supply of sand from littoral drift. Dune widths vary from about 200 feet immediately north of the inlet to being nearly nonexistent at the north county line, but most are between 50 and 150 feet. The dune on North Beach ranges in height from 10 to 15 feet. As noted above, there is very little dune line immediately south of the inlet. There is a stronger dune south of this area, high ranges in width from 20 to 50 feet. Continuing south are several areas with no dune, including the St. Lucie Power Plant area, which is subject to over wash. Beginning one mile south of the inlet, a low dune appears that eventually reaches 15 feet near the south county line.

4.6.4 *Trends in Erosion and Accretion*

The Fort Pierce Inlet plays a significant role in beach system dynamics, interrupting alongshore sediment transport (i.e., littoral drift is interrupted), while accretion builds up to the north and erosion occurs to the south. Net transport is estimated to be at least 130,000 cubic yards annually.

As noted elsewhere in this master plan, maintenance of the inlet and Port turning basin have been the responsibility of the U.S. Army Corps of Engineers since 1935, and these areas have been dredged 34 times to remove sediment from the entrance channel and turning basin. A large part of this sediment has been disposed of offshore; some beach-quality sand has been pumped onto the beach immediately south of the inlet. Beach erosion south of the inlet had progressed to the point that restoration/renourishment projects were undertaken and completed in 1971 and 1983, after which sand from channel maintenance dredging has been deposited on the beach south of the inlet. "A total of 1,283,200 cubic yards of material has been placed on the beach within the area 1.3 miles south of the inlet from 1971 through 1990."

More recently, to improve commercial access, the Army Corps of Engineers widened and deepened the channel in 1995. The existing Fort Pierce Inlet includes an entrance channel 350 feet wide by 30 feet deep, an interior channel 250 feet wide by 28 feet deep, and a turning basin 1,100 feet wide by 28 feet deep. Of a total dredge quantity of 600,000 cubic yards, 166,650 cubic yards of material were placed on the beach south of the inlet.

It should also be noted that the Florida Department of Environmental Protection, Division of Beaches and Shores developed a 30-year shoreline erosion project for St. Lucie County in 1988. The average projected erosion rate for the 10,000 feet of shoreline south of the inlet is 4.3 feet annually, while the

average projected accretion rate for the 10,000 feet of shoreline north of the inlet is 5.4 feet per year.

4.7 Management of Dredged Materials [FAC, section 9J-5.012 (S)(b)]

In 1997 the St. Lucie County Port and Airport Authority voted to accept a reconnaissance study by the Army Corps of Engineers as the first step in determining the feasibility for deepening the Fort Pierce Harbor. The results of this initial study indicated the project qualified to proceed to the next step to determine the overall feasibility of the project. The Authority decided that since there was no immediate or foreseeable need to deepen the harbor beyond the current 28 feet, they did not wish to proceed to the next step of feasibility analysis to deepen the Port.

At the current depth USACE reports indicate the Port will require maintenance dredging every five years. The amount of maintenance dredging would need to increase if additional berths were added.

There is a study in progress (Spring 2002), being conducted due to observations made by divers and fishermen for several years, of fine sedimentary deposits accumulating on reef amenities in the Fort Pierce near-shore continental shelf area. There was concern that dredging may be linked with the sediments and would become worse after scheduled dredging for the future. In the report, scientific literature was reviewed that indicated potentially negative effects for reef amenities covered by particulate matter, which can impair growth and increase coral reef mortality rates. This study was to consist of three phases: 1) Pre-2000 dredging/discharge study for baseline; 2) 2000 dredge discharge monitoring study; and 3) Post-discharge long-term monitoring study. At the time of Phase I collection, which are due to be confirmed later, there was an apparent absence of influence from inshore sediment sources at all the continental shelf sampling sites. This study established a baseline, which the authors intend to use for comparison after future dredging operations Atlantic Oceanographic and Meteorological Lab (AOML) of the National Oceanic and Atmospheric Administration.

Due to the nature of dredging, the requirements of handling and storing dredged materials, and the environmentally sensitive areas in which dredging occurs, it has become increasingly difficult to identify and permit suitable dredged material management areas in Florida. In response the Florida Inland Navigation District began a program in 1986 for managing dredged material on a long-term basis. This plan will allow for permanent infrastructure for management of all dredged material from the 374 miles on Intracoastal Waterway channel connecting Fernandina Harbor with Miami Harbor when it is fully implemented. Over 48 percent of the anticipated dredged material has been identified as potential beach quality material. Six permanent beach placement sites were identified for these materials. The remainder of the material is anticipated to contain levels of silt that preclude placement on the beach. Fifty upland containment sites are to temporarily store these sediments. The material is then to be excavated and beneficially used. Once the needs of dredged material management have been addressed the Florida Inland Navigation District will direct resources to the control of sediment in-flow into the waterways.

4.7.1 Taylor Creek Dredging

The Taylor Creek dredging summary report and alternatives indicated that Taylor Creek contains a significant amount of sediments, which may be harmful to the lagoon and offshore reefs if water velocity from storms were to cause them to be washed out. The portion of Taylor Creek that empties into the Port harbor has been reduced to a depth of six to seven feet. To maintain the original depth and remove the dredge material that has settled there for years, the depth should be 12 to 14 feet. There was concern that dredging and storing of dredged material would be a hazard. Recent analyses were cited that indicated that this dredging was not a concern. Leaving the muck in Taylor Creek was deemed inconsistent with the proposed objectives of the storm water master plan. Due to funding shortages for the project, the Port authority decided to seek additional funding to provide for removal and disposal of the material at an upland storage area.

The St. Lucie County Port & Airport Authority initiated the Taylor Creek Restoration, St. Lucie County Sediment Characterization Report. The project was to provide a preliminary characterization and

removal feasibility study of sediments from Taylor Creek. The project area was approximately 23 acres from C-25 spillway and North Canal on the west to ICW on the east. Two composite muck sediment samples and two water samples were tested. Individual samples were also taken and combined.

The conclusions listed in the report are reviewed below. Of the metals represented in the creek water, copper, lead, nickel and silver exceeded the Florida Class III Marine water quality standard. The toxicity characteristic leaching procedure (TCLP) determines if a particular material, due to leaching of analytes of concern, would be a potential hazard to groundwater. The TCLP results for metals indicate that no potential leaching hazard to the groundwater is expected from the upland disposal of the muck sediments. Although no standards exist for sediment disposal on land a comparison of Taylor Creek results with USEPA 503 regulations for sewage sludge disposal on land indicates that the sediments are well below regulatory limits and should not pose any land disposal concerns with regard to metals.

The concentration levels of metals and nutrients in the muck sediments suggest that the sediments are a possible source of contaminants to the above-lying creek water. This was further demonstrated by the additional increase in concentration metals shown in the elutriate test data. Removal of these sediments may aid in improving the water quality. However, evaluation of water up-stream of both the C-25 spillway and North Canal is also necessary. Physical testing of muck sediments suggested that the sediments from the two regions of the project are fairly similar. Use of chemical polymers are effective in reducing the turbidity but did not typically enhance further dewatering of the sediments. Based on the overall concentrations of metals and nutrients found in the elutriate test water, removal of muck sediments from Taylor Creek should enhance the water quality in the creek. Although no specific benthic surveys were conducted, removal of these muck sediments should benefit the benthic community, improve water quality and assist with the regeneration of seagrasses in areas adjacent to the creek. Two similar projects, Crane Creek (dredging completed the spring of 1998) and Turkey Creek (under implementation at the time of this report), in the IRL were designed with similar water quality, navigation and benthic environment improvement goals.

The Taylor Creek restoration project was conducted for sampling, analysis, and characterization of sediments and water from Taylor Creek. The data was used to develop and investigate options for sediment removal. The study area was approximately 6000 feet long from the western edge of the ICW to about 1000 linear feet west of the spillway for the C-25 and F-1 canals. The areas of study were divided into three reaches. The tasks included determination of the Creek Sediment and Water Chemical Characteristics, the Creek Sediment Physical Characteristics, and approximate volume of sediment in the project area, and provided dredged material disposal options and potential beneficial uses.

There are no sediment standards for chemicals so concentrations were compared with Florida Residential and Industrial Soil Clean Up Goals and the USEPA limits for land disposal of sewage sludge. Arsenic was the only parameter that exceeded the soil clean up goals. Based on the TCLP test results the sediments are not hazardous materials. Oil and grease were detected in all samples.

Approximately 90,000 cubic yards (c.y.) of sediment will be removed from reach number 1 (the area between the Florida East Coast Railroad (FECRR) Bridge and the western right of way of the ICW). The design channel is 140 feet wide and tapers to 100 feet. The average depth of sediment in this channel is six to seven feet. This area will be dredged to a depth of 12.5 feet from mean sea level regardless of sediment type. Significant amounts of muck are present outside the channel. Thickness ranges from three to eight feet.

Approximately 80,000 c.y. of sediment will be removed from reach number 2 (the area between the FECRR Bridge and the Spillway at the C-25 Canal and the submerged weir at the F-1 Canal). This will re-establish the design channel depth to approximately 12.5 feet mean sea level (MSL). This channel is 240 feet wide. Muck appears to have accumulated on the south side of the channel ranging from four to six feet. The north side of the channel can be characterized as hard sandy bottom.

The sediment removal for reach number 3 (the areas approximately 3,800 linear feet west of the C-25

spillway and from the fixed weir structure Canal No. 1 to 1,000 linear feet west of the F-1 spillway) was restricted to muck only. The average muck layer in this area was one to two feet.

The estimated volume of sediments in the project area was approximately 210,000 c.y. Three dredging options are available. When dredging is done, there is a bulking factor in which sediments tend to expand or bulk from their initial volume. Mechanical dredging such as clamshell or dragline has a typically smaller bulking factor than does hydraulic dredging. With hydraulic dredging, the deposited slurry settles into a solids content that consists of at least a 25 percent increase. However, the limited site access in reaches 1 and 2 would require the mechanical dredging process to have multiple material handling to remove the dredged sediments to the disposal area. Mechanical dredging would also hinder boat traffic within the marina due to the large size of the barges. This option is more viable for reach number 3. With hydraulic dredging, the disposal area would require an area to retain and dewater the dredge slurry. Sediment dewatering techniques are aimed at maximizing disposal storage capacity, separating dredged materials into reusable portions, and increasing settling rates to provide higher clear water decant rates. The most feasible sediment removal option is hydraulic dredging based on operational efficiency. Disposal option sites for Taylor Creek were not finalized at the time of this study. The study recommends a cost analysis be conducted after the disposal area is chosen.

Options for disposal include:

- Pumping all the dredge material into the disposal pond and storing it without dewatering. (Storage = 40 acres 25-30 feet high). This option is not feasible
- Pumping all the dredge material into the disposal pond and treating it with chemical flocculant; clear water would be decanted into a nearby body of water, and the ultimate sediment would be stored. (Storage= 40 acres 10-12 feet high)
- Remove the sand portion from the dredge slurry with hydrocyclone, and pump the fine-grained portion into the disposal pond. The sand portion would be hauled to desired reuse areas. The left over sediment would then be stored. (Storage= 40 acres 15-17 feet high)
- Dewater the fine-grained sediments from the option above using an advanced dewatering process to increase the final solids by at least 25%
- Use aggressive material drying techniques to increase solids content and minimize storage volume requirements. The 40-acre site is too small to provide enough drying areas to handle the estimated dredged volume. This technique could be used if the dredging was performed as a multi-year project. This technique is also weather dependent, as heavy rains will significantly impede the drying process

Reuse Options for Sand/Shell Fraction:

- Beneficial as fill material for typical construction projects
- Meets grain size requirements for use as a fine aggregate in the production of concrete or asphalt pavements, golf course construction, park construction, or beach erosion replenishment
- Coarse grained fraction of the sediment can be used as sub-grades when confined and damp but are subject to erosion. The dredged sand would also be suitable for use as an embankment material for constructing roads, highways and bridges

Reuse of Silt/Organic Fraction:

- High organic content makes muck an attractive alternative for plant growth media
- FDOT sodding, mulching, and grassing

- Topsoil amendment or muck blanket for grass cover establishment of roadway projects
- Supplement for potting soil mixes
- Wetland and wildlife habitat restoration
- Enhance marshes and wooded wetlands, wildlife nesting islands, and upland and transitional habitats

4.8 Summary of Recent Maintenance and Management Plans

Several major actions, described elsewhere in this document, have been taken over the years to address erosion and beach renourishment in the Fort Pierce Harbor area. For example, in 1994-95, short-term efforts to stabilize the shoreline south of the inlet led to the construction of three sand-filled tubes and the deposition of roughly 54,000 cubic yards of compatible beach material. The tubes were removed in 1999 when the beach renourishment project was completed. Long-term efforts at stabilization included the construction of a 200 foot-long spur jetty. It has been said that since completion of this structure in December 1997, post construction monitoring has indicated this structure has performed well.

In addition, a beach restoration management plan, which analyzed sand source compatibility and areas in need of erosion control measures (among other issues), was prepared by the (former) Florida Department of Natural Resources in 1987. The Fort Pierce Inlet Management Plan was prepared through a cooperative agreement between St. Lucie County, the State of Florida, and Coastal Planning and Engineering, Inc., (adopted by the State of Florida on May 30, 1997). Erosion causes and mitigation measures are the main subject of this plan, summarized below.

The three major goals of the inlet management program are: 1) mitigate erosion impact of the inlet, 2) maintain navigation, and 3) Re-establish alongshore sediment transport. Ultimately the Bureau of Beaches and Shore recommended and adopted the following actions implementation plan:

1. Initial restoration of 2.3 miles of beach south of the inlet
2. Placement of all beach compatible maintenance or offshore dredged material on down drift beaches. Material shall be placed on beach in areas of greatest need
3. Placement of supplemental material from upland sources or dredged from near shore north of the inlet, or from seaward of depth of closure on the beaches south of the inlet such that the combined total of material from all sources equals or exceeds 130,000 cubic yards on an average annual basis at a minimum
4. Improvement of south jetty to incorporate a spur jetty or other measures to reduce backflow of material into the inlet
5. Implement a comprehensive inlet, beach, and offshore monitoring program subject to approval of the Department
6. The sediment budget contained in the study report is adopted as an interim measure and shall be formally validated or redefined in subsequent revisions of the plan based on a comprehensive monitoring plan by December 31, 2001
7. Evaluate possible alternatives to facilitate the bypassing of sand from the shoreline north of the inlet to the down drift beaches

SECTION FIVE

PORT SAFETY, SECURITY, AND EMERGENCY MANAGEMENT

SECTION FIVE - PORT SAFETY, SECURITY, AND EMERGENCY MANAGEMENT

5.1 Natural Disaster Planning

5.1.1 Hurricane Evacuation Planning

According to the St. Lucie County Comprehensive Emergency Management Plan (1997), hurricanes are of particular concern to St. Lucie County. Hurricane season, the time when hurricanes are most likely to occur, is from June 1 until November 30. The greatest danger from a hurricane is from the storm surge. As the storm approaches and moves across a coastline, the storm surge may rise 14 feet or more above normal high tide and this is usually accompanied by battering waves, which overcome coastal lowlands. Additionally, extensive rain which may be associated with the storm may cause widespread flooding further inland.

A portion of the Port Planning Area lies within the Flood Velocity Zone (V12) and is subject to wave action as well as high water. Much of the remainder of the Port Planning Area lies in the 100-year flood plain. Essentially all of the Port Planning Area lies within the area considered to be a mandatory evacuation zone for a Category One storm event. The only exception would be some the areas that directly adjacent to North US #1, north of the Taylor Creek Bridge. With the exception of the Causeway Mobile Home Park, there are no other appreciable residential uses in the Port Planning area. There are a few, less than a dozen, residences scattered along the western periphery of the Port Planning Area. As the Port area redevelops, it is very likely that these few residential uses will be removed and replaced with non-residential development activities. In keeping with the State of Florida's policy of limiting future or expanded residential development within areas considered to be in the "Coastal High Hazard," as further defined in Chapter 163, Florida Statutes, the Master Plan for the Port of Ft. Pierce does not encourage the further expansion of residential uses in the Port Planning Area. Furthermore, since final land use authority for the majority of the Port Planning Area rests with the City of Ft. Pierce, and to a lesser degree St. Lucie County, the Port of Ft. Pierce should encourage both jurisdictions not to approve any further expansion of residential uses in the Port Planning Area.

The 1990 Coastal Management Element of the St. Lucie County Comprehensive Plan included an extensive discussion on the Hurricane Evacuation needs for the coastal area of the community. The evacuation information, and plans referenced in the 1990 Comprehensive Plan, was developed before the effects of Hurricane Andrew were felt in Florida. It is generally accepted that Hurricane Andrew re-wrote the book on disaster planning and management for the State of Florida. In 1994, the Federal Emergency Management Agency and the Army Corp of Engineers completed the Treasure Coast Regional Hurricane Evacuation Study. This study includes an assessment of the psychological effects of Andrew and the impacts that the memories of the storm will have on the majority of the populace to leave the area when a similar size storm approaches.

Generally, the "In-County" evacuation times for St. Lucie County, under the worst-case scenario, are 10 hours. In-County evacuation is considered to be the type of evacuation where County residents do not leave the area. "Out-of-County" evacuation times have not been computed on a County-by-County basis. Rather, in 1994 the Federal Emergency Management Agency (FEMA) and the Army Corp of Engineers completed the Treasure Coast Regional Hurricane Evacuation Study calculated regional clearance times. Regional clearance times are considered to be a truer indication of the evacuation needs in the event that a Category 3 or high storm were to approach the Treasure Coast. The worst-case scenario under the regional evacuation plan requires over 50 hours of evacuation time.

Because there is very limited residential use within the Port Planning Area, it is assumed that most employees of port businesses would be able to leave the Port for less hazardous areas and would not require shelter in the Port itself. At present, private Port users have their own plans for hurricane protection and obtain instructions from the St. Lucie County Board of Commissioners and the Captain

of the Port (U.S. Coast Guard). Under most circumstances, ships docked at the Port try to head out to sea prior to the arrival of a hurricane to avoid damages that ship movements could cause to docks and upland facilities. There is no port structure that might warrant special attention for tie-down during a hurricane. Protection of utilities serving the Port is the responsibility of the appropriate City agencies. The St. Lucie County Fire District handles day to day emergencies at the Port. Five (5) fire stations can respond: Airport, Central, Ave "O," South Beach, and North Beach.

A hurricane evacuation should be completed before the arrival of sustained gale-force winds (34 knots or 39 mph) or the onset of storm surge inundation. Due to the uniqueness of each storm, the decision to announce an evacuation order is subjective. Due to the profound social and economic impacts of an evacuation, an evacuation order generally occurs with just enough time to execute a safe evacuation. The principal time component of the evacuation process is the clearance time. This is the period of time after the individual has decided to evacuate that is required for the evacuee to prepare to leave and travel from his place of residence to a place of safety. Clearance time is a fixed period of time based on a specific scenario with a given level of threat and behavioral response.

The Treasure Coast Regional Hurricane Evacuation Study identified the principal hurricane routes in St. Lucie County. The County's evacuation road network includes major north-south and east-west arterials, as well as roads that would be used to gain access to the major arterials. The following roadway segments, in the Port Planning Area have been identified as critical links or intersections:

- Seaway Causeway and U.S. Highway 1 intersection
- A1A south of Seaway Causeway (Peter Cobb Bridge and intersections with Indian River Drive and US 1)
- North Beach Causeway
- White City Road and Midway Road
- North Beach Causeway intersections with 01 Dixie Highway and US 1

These links control the flow of evacuation traffic from and through the Port Planning Area during a hurricane evacuation and are key areas of special control.

The Fort Pierce Coastal Management Element (1990) recommended that the following techniques and strategies be adopted by County and City emergency management officials to reduce evacuation times:

1. As manpower supply allows, two officers should be stationed at each critical intersection, one to move traffic, and the other to assist disabled vehicles. Critical links and intersections discussed previously should be used as a starting point in developing manpower assignments
2. Position all available tow trucks along key travel corridors and critical links. At a minimum, tow trucks should be at major bridge crossings to remove disabled vehicles
3. Where intersections will continue to have signalized control, signal patterns providing the most "green time for the approach leading away from the coast should be activated by the State Department of Transportation field offices
4. All draw-swing bridges needed for evacuation should be locked in the "down" position during a hurricane warning. Boat owners must be made aware of flotilla plans and time requirements for securing vessels. Optimally, industrial and recreational vehicles should be moved to a safe harbor during or before a hurricane watch
5. Manual direction of traffic should be supplemented by physical barriers/cones that are

adequately weighted down and which are placed to channel traffic and prevent unnecessary turning and merging conflicts. This strategy can be used effectively at interchanges listed previously in the critical link/intersection tables

6. The movement of mobile homes and campers along evacuation routes should be minimized after a hurricane warning is issued. A disabled mobile home could block the only escape route available for evacuation in some areas. Such vehicles are difficult to handle in an evacuation due to sporadic wind gusts

5.1.2 *Post Disaster Recovery*

Following a major natural disaster, such as a hurricane, there will be a period of cleanup and rebuilding. The typical reaction by the community is to rebuild everything to the condition that existed before the storm. Rebuilding to pre-storm conditions may be imprudent and result in repeated damage to the same structures. The vulnerability of certain areas to damage by hurricanes or other storms cannot be ignored. In order to make the community safer and reduce inconveniences and dislocation caused by storms, revised land use and capital facilities plans should be considered. In order to respond quickly after a storm with alternative land use and capital facility plans, it is necessary to examine in advance the areas, structures, and facilities most likely to be damaged and provide alternates to current land use plans and facility sites which can be adjusted following a storm event.

According to the Fort Pierce Coastal Management Element (1990), there are no structures with histories of repeated damage due to coastal storms in the Port Planning Area. Based on recent observation, the areas most likely to receive severe storm damage are those areas east of A 1A, north of Surfside Park, and along the south side of the inlet, all of which lie outside of the Port Planning Area.

The roads, causeways, and bridges near the inlet are vulnerable to storm surge and flooding. Structural damage to the bridges from storm tossed debris is possible, but washout of roads is more likely. Loss of these connecting links, even temporarily, would present an extreme hardship on the barrier island residents. An early warning and clearance program will continue to be needed for the barrier island.

5.1.3 *Coastal High-Hazard Areas*

The area projected to experience the most severe damage is the coastal high hazard area. Currently the City of Ft Pierce Comprehensive Plan does not adequately identify the Coastal High Hazard as defined by Rule 9j-5, FAC. Noting that the majority of the Port Planning Area lays within this area, redevelopment plans in this area should be consistent with any state policy or restriction on the types of development that may be permitted here. Residential developments and other high-risk developments that potentially expose the public to the greatest personal and individual economic risk should be discouraged. New residential developments should not be supported by the Port of Ft. Pierce in any of the Port Planning Areas. The Port of Ft. Pierce should encourage both the City of Ft. Pierce and St. Lucie County to review their local Comprehensive Plan to ensure that long term development plans do not include development designations that would result in the placing of substantial portions of the local population at risk in the case of a major storm event.

5.2 **Hazardous Material Handling and Cleanup [FAC, section 9J-5.012(5)(b)]**

Under Goal 5 of this plan, commerce of hazardous materials in the Port of Ft. Pierce is restricted. The only identified source of hazardous materials in the Port area is the Fort Pierce Oil Company, which has tanks containing diesel fuel, gas, and asphalt. The firm indicated in 1989 that it had filed a hazardous substances plan with the U.S. Coast Guard and that it was in compliance with all agency requirements, including those of the Department of Environmental Protection. It has provided five (5) foot high concrete containment walls, boom skirts, and the required absorbent materials.

When the 1989 Fort Pierce Master Port Plan was written, St. Lucie Fire District was developing a hazardous material team to handle major emergency situations. This team has been established and is available to respond to any situation that may develop in the Port Planning Area. Depending on the magnitude of the situation, either the Combat Chief or the Chief of the Department would work with Port officials and tenants, in conjunction with the St. Lucie County Office of Emergency Management, to develop the plans and procedures required for safe operations at the expanding Port.

Although Port operators do not handle bulk petroleum or packaged petroleum products, such as cans or barrels, there is always a possibility of a small diesel oil spill during ship refueling. These spills can be cleaned up by the user responsible for the spill, or by a commercial oil spill cleanup crew. If Port activities expand, precise procedures to be followed in reporting and cleaning up oil spills must be established and disseminated to all Port users (PBS&J, 1990).

5.3 Port of Fort Pierce Security Plan

Ports play a critical role in national security. The primary criminal activity at ports is directly related to the import and export of goods and contraband that violate federal. The Interagency Commission (2000) categorized most crimes under the following headings: drug smuggling, stowaways and alien smuggling; trade fraud, cargo theft, export crime, stolen vehicle, and other serious crime. At the time of the Interagency Commission's report, the FBI considered terrorism directed at U.S. seaports to be low, in spite of high vulnerability to attack. Under Section- 311.09, Florida Statute the Port of Fort Pierce is considered a deepwater port. As the governing body and pursuant to section 311.12, Florida Statutes, the Board of County Commissioners is required to submit a Security Plan for the Port of Fort Pierce. The Port of Fort Pierce is considered to be a minimum security risk facility due to its low level of commercial activity.

There are few federal security standards to for the maritime industry. At this point in time less than three percent of containers entering U.S. ports are inspected. Ports have a strong history of localization and no national port authority exists. The importance of port security in blocking both terrorism and other crime must be addressed without impeding commerce.

In a memorandum to the State of Florida (Governor's Office of Drug Control) from St. Lucie County Administrator Douglas M. Anderson (2001, Jan. 16), it was noted that, while the Port of Fort Pierce "will adhere to the statewide minimum security standards, St. Lucie County owns no land designated for cargo port use at the Port of Fort Pierce." Attachments to this memorandum included excerpts from the Statewide Security Assessment of Florida Seaports (Camber Corp., September 2000), which revealed that (1) the Port of Fort Pierce consists of three privately owned and operated terminals responsible for their own security, and (2) the City of Fort Pierce Police Department regularly patrols the area. Also attached was the complete "Port Security Standards Compliance Plan," which currently serves as the Port's minimum security plan.

Most of the minimum state standards described in the following text are not applicable at this time because the land is privately owned. However, said standards will have to be met if and when the County purchases for development any Port property in the future. It is also noteworthy that Port management has met the requirements for (1) periodic stakeholder forums for those involved in port security issues, and (2) the inclusion of security-related initiatives in the Port's master plan (see Port Security Standards- Compliance Plan, minimum standards numbered 11.a. and 12.a.).

Note that the state is currently considering implementing increased port security measures in the wake of the September 11, 2001, terrorist attacks. In a recent press release by the American Association of Port Authorities (2001), appropriations bills H.R. 3338 and in S. 1214 were mentioned. The bills in question for the Department of Defense appropriations included provisions for Federal funding to enhance seaport security. Below the minimum standards required by the statute, what the port must do in the future as it grows and how the legislation affects County owned and privately owned land is outlined in regard to the current regulations.

5.3.1 Statute Overview

The first requirement of Section 311.12, Florida Statute is that all seaports must maintain a security plan relating to the specific and identifiable needs of the seaport, with the minimum standards requirement. These minimum standards requirements are set forth in "Port Security Standards Compliance Plan. To ensure compliance, each plan adopted must be reviewed and approved by the Office of Drug Control and the Department of Law Enforcement. These seaports shall allow access by the Department of Law Enforcement to the affected ports to allow inspections. In each seaport security plan, the port may establish areas with restricted access. In these cases, a Restricted Access Area Permit shall be required for entrance to these areas by employees. The security plan must set forth the conditions and restrictions to be imposed upon others visiting the port or any restricted access area.

The next requirement is that any applicant for employment, every current employee and other persons designated pursuant to the security plan for each seaport perform a fingerprint-based criminal history check by January 1, 2001. This check should be run on people who require entry into a Restricted Access Area that was identified in the security plan. If no area is identified, then a check should be run every five years or less. To conduct these checks, each employee shall provide fingerprints to be checked by the Department of Law Enforcement and the Federal Bureau of Investigation, who shall perform a federal check. These results shall be reported to the seaport, and the costs of these checks shall be paid by the seaport or other employing entity or by the person checked. Also each seaport security plan shall identify criminal convictions that shall disqualify a person from either employment or access to restricted areas. The statute then requires the Office of Drug Control (ODC) to complete a report on each seaport by December 31, 2001, and an evaluation annually thereafter. These reports shall make any recommendations that the ODC has for compliance with the minimum standards.

Funding is discussed in the last sections of the statute. The reports from the Department of Law Enforcement shall be consulted when considering funding. The allocation for funding for each seaport shall be jointly discussed by the Office of Drug Control and the FSTED Council. Any seaport that receives state funds for security projects must enter into a joint participation agreement with the appropriate state entity and must use the seaport security plan developed pursuant to Section 311.12, Florida Statutes, as the basis for the agreement. If funds are granted for more than one year, the agreement must reflect the entire scope of the plan. The joint participation may include timeframes and funding reimbursements. The agreement should also include penalties for not meeting the completion dates.

5.3.2 Security Compliance

5.3.2.1 Employee Requirements

The Port Security Standards Compliance Plan provides actual minimum standards for compliance with Section 311.12, Florida Statutes. These compliance standards and requirements are discussed below:

Identification (ID) badges -All workers should be required to show a picture ID badge when accessing or entering a restricted area designated by port management. Restricted areas should include at least the following: a) Cargo storage or staging yards; b) Docks/berths; c) Fuel storage or transfer yards; d) Cruise terminals. The ID requirement applies to all employees, including day workers and casual labor that work at the port more than 5 days in a 90-day period. These ID badges should be color coded to represent the areas that they are given access. This can also be accomplished by holograms. The cards shall be laminated and issued by serial number. All lost cards shall be reported and a log maintained of all currently issued and restricted cards.

Fingerprint Check - The guidelines then discuss the implementation of the fingerprint background check discussed above. The 10 badges will not be issued until the check is completed.

Criminal Background Check - The security plan, at a minimum, must also define all criminal activity that will exclude someone from employment Applicants who have been convicted of the following crimes In the past five years shall be excluded from employment: a) dealing in stolen property, regardless of whether or not adjudication was withheld; b) any violation involving controlled substances; c) any crime involving possession of a firearm or similar offenses; d) conviction of conspiracy to commit the above crimes. An applicant convicted under the above crimes may be considered for employment five years after release from incarceration, if free from subsequent conviction since being released.

Denial of Employment and Appeal Process - The compliance plan states that all prospective employees must provide all background information during the application process. If the seaport has denied employment to an applicant, the applicant must give a full report to the Florida Department of Law Enforcement by the first of October in any given year. This report shall include the applicant's identity, the factors supporting the determination, any special condition imposed, and any other material factors used in making the determination. These policies, procedures, and criteria shall be included in the security plan. If a seaport refuses employment based on this criteria, its security plan shall provide a procedure of appeal. This procedure shall provide the person a means to gain conditional employment or grant waivers. Waivers may be allowed on a temporary basis, depending on the needs.

Visitors and Temporary Employees - Port management must determine local procedures for permitting transient laborers or itinerant visitors and business people access to the port. Minimal requirements are to keep a logbook of such people. All personnel issued an ID badge must be logged into the book. JD badges will be issued on an annual basis, and any felony conviction within the preceding year will be grounds for denial of renewal.

5.3.3 Access Requirements

5.3.3.1 Visitor Access

- Visitors are required to check in, including a record of visitors name, purpose of visit, destination, vehicle tag number; and date/time of entry/departure.
- Visitors only allowed access to area specific to their business, and this access is granted by permit
- Visitors not allowed on the dock or in restricted areas and must park in designated areas

5.3.3.2 Access Gates & Gatehouse

- Control access to restricted areas, and should be located at all perimeter access points and principal interior access points
- There should be a minimum number of gates to allow for adequate access
- Gates/gate houses should be locked or staffed at all times
- Gates should at least match the construction of the fences
- Gatehouses at all vehicle entrances and exits must be staffed during business hours unless controlled by electronic access. Gatehouses should be situated so that exiting vehicles may be examined on seaport property
- Each gatehouse shall be equipped with telephones or other communication devices

5.3.3.3 Designated Parking

- Designated Parking shall be severely restricted and authorized by strictly enforced gate pass

and/or decal system

- Passes shall be color coded to show restrictions for time and area of parking
- Employee parking shall be restricted to designated areas, off dock and outside of fenced operational, cargo handling, and designated storage areas
- Parking on Port grounds shall be restricted largely to Port Authority, carrier, maintenance, and commercial and government vehicles, which are essential within the seaport or marine terminal. These areas shall be fenced or clearly marked
- Vendors and visitors shall be issued temporary parking permits for parking in restricted areas

5.3.3.4 *Fencing*

- Shall establish a secure perimeter by fences with controlled access
- Height shall be 8 feet, and 9 gauge galvanized steel, of 2 inch wide chain link construction topped with an additional 2 feet barbed wire outrigger consisting of 3 strands of 9 gauge, galvanized, barbed wire at a 45 degree outward angle above the fence
- Bottom of fence shall be no more than 2 inches from the concrete or asphalt, and the bottom surface shall be thick enough to prevent access from underneath
- The exterior and interior sides of the fence should be cleared and uncluttered by not less than 5 feet to ensure the integrity of the fence is not compromised

5.3.3.5 *Lighting*

Lighting shall be sufficient enough to adequately illuminate Port Operations areas. These facilities shall be illuminated to at least the level of twilight and must comply with voluntary agreements such as the U.S. Customs Sea Carrier or Super Carrier Initiatives, to include:

- Provided from sunrise to sunset
- Shall be high-mast, sufficient for adequately illuminating exterior gates, cargo areas, cargo traffic areas, and all working and walking areas
- Shall use updated lighting technology
- Shall be directed downward, away from guards or offices, and should produce high contrast with few shadows
- Five foot candle illumination in dock work areas, including container unloading and loading areas
- Security vehicles shall be equipped with spotlights

5.3.3.6 *Use of Signs*

Signs shall be used throughout the port and wherever access is restricted.

Signs conveying Customs authority and stating something of this nature: "This Port is a Border Entry Point and All Persons, Effects, and Vehicles are Subject to Search under Federal Statute 19 U.S. Code Sec. 981(f)," should be posted at main exterior access points, vessel gangways, and all restricted areas.

Minimum standards for signs: be highly visible with high contrast background and lettering. Signs should be visible at night, illuminated by lights or iridescent lettering. Be of sufficient size and boldness. Signs should be bilingual where appropriate.

5.3.3.7 Locking Requirement

The compliance plan requires the use of locks and keys to be used at the seaports. It requires that a key control should be implemented to delineate which personnel have the right of access to what specific areas. There should be a master ledger recording the legitimate holder of each copy of each key, and management or security personnel shall control the issuance of each key. These control systems, including locking devices, shall be inspected regularly and malfunctioning equipment shall be repaired or replaced immediately. When cargo handling equipment and vehicles are not in use, the keys will be removed. Only case hardened locks and chains shall be used, with chains permanently attached to fence posts/gates.

5.3.4 Administrative Requirements

5.3.4.1 Maintenance

An adequate maintenance system, comprised of regularly scheduled inspections to keep fencing, gates, lighting, and cameras in good working order, shall be implemented.

5.3.4.2 Security Committee

A standing security committee shall be appointed. Port management will sponsor and conduct a regularly scheduled forum at least once every three months, inviting all stakeholders in port security to participate and discuss security issues.

5.3.4.3 Security Master Plan

Port Management shall also implement a security master plan. This shall include security related initiatives in the port's strategic or master plan. They should identify and prioritize projected capital outlays for security-related projects.

5.3.4.4 Operating Procedures

Port Management shall also have standard operating procedures. They shall provide a current security manual incorporating standard operating procedures, standards of conduct, and responsibilities of appropriate security and management personnel. They shall also provide a definitive statement of what management expects of its security force personnel. Managers will review procedures periodically to ensure that new threats and procedural vulnerabilities are identified. The Port Security Director shall formulate written operation procedures for security-related matters, including bomb threats and alert levels and should collaborate with relevant government and law enforcement agencies to develop an emergency response plan. Port Management shall also take steps necessary to ensure the routine, scheduled presence of port security patrols by sworn law enforcement personnel.

5.3.4.5 Security Guards

The compliance plan also addresses security guards. It requires that they wear uniforms that are complete, distinct, and authoritative. The guards shall provide adequate patrols to include roving security, building, perimeter, and wharf checks. They should be equipped with two-way radios to be able to radio for support. They should also control all exterior access points and principal access points to the seaport and also be sufficient in number to provide 24-hour security. These guards should be state certified class D license holders, and they should be properly trained. If a person is a local law enforcement officer and also working as a security guard, they are not required to be class D certified.

Training for security guards shall include:

- Patrol methods
- Report writing, log and record keeping
- Identification of security problems and specific trouble areas
- Cargo handling and cargo documentation handling
- Federal security procedures, U.S. Customs, Immigration and Naturalization Service, and U.S. Coast Guard requirements
- State procedures (including Port Authority)
- Local police procedures
- Hazardous material transport and hazardous materials response
- First aid
- Use of force and weapons
- Explosives, nuclear, biological, chemical agent response
- Terrorism response procedures
- Labor unrest

5.3.5 *Computer Security*

There shall be formal guidelines for computer security in place for each port and tenant activity. The computerized information access must be password controlled and should be restricted on a need-to-know- basis, which would include dissemination of information no sooner than required.

5.3.6 *Cargo Processing*

Gate passes shall be issued to truckers and other carriers to control and identify those vehicles authorized to pick up cargo. Cargo should only be released to the carrier specified in the delivery order unless a release authorizing delivery to another carrier is presented and verified. Personnel processing delivery orders should verify the identity of the trucker and truck company before allowing entrance to or exit from restricted areas. Also, cargo stored in open areas and palletized or stacked cargo stored in warehouse facilities must be properly stacked and placed within, away from, and parallel to fences and walls to ensure unimpeded views for security personnel.

High value cargo and commodities should be stored in cribs or security cages designed to resist forcible entry from all sides. Separate logs and procedures for release and receipt shall be maintained. High value merchandise in mounted containers must be placed in a secure holding area where management or security personnel can observe it. Separate logs and procedures for the release and receipt of these containers shall be maintained. High value cargo containers requiring storage should be placed in a systematic manner such that their location is not readily apparent to criminals. Doors of high value containers should be stacked so that the doors of each container face each other. Also, access and keys to cargo handling equipment such as yard mule tug-masters, trucks, or high loaders should be strictly controlled. Cargo handling equipment should be kept in a secure and specified area when not in use.

5.3.7 *Cruise Operation Security*

Cruise security is only required if the Port of Fort Pierce has cruise ship departures. It must adhere to 33 C.F.R. Part 120 and 33 C.F.R. Part 128, the U.S. Coast Guard regulations. Port Management will provide "SOPs," used at passenger terminals, to all security personnel. They will also provide and maintain physical security barriers, alarms, and lighting in accordance with IMO 443. Management shall also ensure that vehicular access to cruise ships, while in port, is strictly enforced and that only authorized vendors are permitted access to cruise ships. They must also provide communications between all security personnel involved with the security of passenger terminal and vessels. It is also Port Management's duty to establish a system of identification and control for all personnel authorized access to the terminal, designate restricted areas for the embarking and disembarking of both passengers and baggage, ensure that carriers provide timely, accurate, and complete passenger and crew arrival and departure manifest information to the Immigration and Naturalization Service and the U.S. Customs Service. Port Management shall also restrict access to passenger terminal facilities and cruise ships through a designated screening point that includes a metal detector and x-ray systems for carry-on items.

5.3.8 *High Risk Port Requirements*

If the Port of Fort Pierce ever becomes a high-risk port, there are additional measures it can take to comply with security laws. The high risk designation would require an intrusion detection system. This system would include:

- Closed circuit television cameras to be used when warranted by security threat. They should be placed at main entrances and exits and in areas with high risk and/or high value cargo
- Cameras should be able to record at relatively low levels of light
- They should have remote control and zoom lens capability when used for surveillance
- Cameras should have video tape recording capabilities and be capable of being monitored at same time
- Cameras should be positioned with a recording mechanism to video record vehicles and pedestrians entering and exiting the facility

5.3.9 *Applicability of Security Plan*

These security requirements only pertain to property owned by St. Lucie County. Since the County currently owns only twenty acres in the Port, they would only have to make this area compliant with the applicable standards set forth above. The privately owned land would not have to be compliant with the state standards. However, noncompliance with state standards means that they may not receive state funds. If the County purchases any of this land in the future, the cost restraints of bringing the land purchased into compliance should be considered. Approval of the security plan must be obtained from the Office of Drug Control and the Department of Law Enforcement. Funding from the Florida Legislature is contingent upon seaports submitting plans that include "baseline measures and standards data for FY 2001- 2002 relating to the effectiveness of security in each port."

SECTION SIX

ONGOING EFFORTS

SECTION SIX - ONGOING EFFORTS

6.1 Projected Five Year Capital Improvements

Introduction:

Assuming the Port's successful completion of the initiative to acquire some, additional or all of the properties within its Operating Area under public ownership, the Port's capital development program will be phased with primary consideration split among:

- The availability of developable property
- The business need
- Financial viability and availability of Port (County) funding and funding from other private and public sources.

Previous master plans anticipated a 15-year period for the full development of the Port's Operating Area. With the ambiguities and uncertainties associated with the three considerations listed above, the projected timeframe for development of the Port's Operating Area could easily exceed 15 years or, conversely, be a shorter period if properties, business opportunities and funding sources were simultaneously available.

The current 5-Year Capital Improvement Plan (CIP) is a pragmatically developed plan that focuses on three areas for port facility and infrastructure development. Two are associated with specific physical areas of the Port Operating Area – Harbour Pointe and Fisherman's Wharf. The third entitled "Other Port projects" is not location-specific within the Port's Operating Area.

The Port's Five-Year CIP is focused on some private property acquisitions within the Port's Operating Area. In the Fisherman's Wharf area the CIP addresses the development of infrastructure that the Port, as a landlord, would be expected to provide port tenants at Fisherman's Wharf. In the Harbour Pointe area, the Port anticipates projects to: design, permit and build bulkheads, shore protection/stabilization, berths and docks; acquire property for the Avenue M extension; design, permit and construct the roadway extension; and perform maintenance dredging in Taylor Creek.

The projects and initiatives contained in the Projected Five Year CIP correlate with the Port's vision as expressed in Part 2 of the Master Plan, Goals, Objectives and Policies, and they support the short and long term goals and objectives of the Port. The projects are sequenced to support and promote the most feasible business development schedule that would enable realization of the Port's goals and objectives. Additionally, the sequencing of projects reflects projected availability of project funding from both public and private sources.

Tables 1-3 (provided below) detail the projected 5-year capital improvement plans for Harbour Pointe, Fisherman's Wharf, and Other Port Projects, respectively.

Table 1: Port of Fort Pierce Capital Improvement Projects (Harbour Pointe)

Harbour Pointe Projected 5-Year Capital Improvement Plan			
Project Description	Fiscal Year	Improvement Type	Estimated Project Cost
Conceptual Design, Development, and Seagrass Study Follow-Up and Habitat Survey	FY 17/18	Waterway Connectors Capacity Project	\$250,000
Bulkhead, Shore Stabilization, Dock and Berth Design and Permitting (Phase I)	FY 18/19	Waterway Connectors Capacity Project	\$800,000
Avenue M Infrastructure and Roadway Design (Phase I)	FY 18/19	Highway Connectors Capacity Project	\$600,000
Avenue M Infrastructure and Roadway Right-of-Way Acquisition (Phase I)	FY 18/19	Highway Connectors Capacity Project	\$850,000
Taylor Creek Maintenance Dredging Permit	FY 18/19	Waterway Connectors	\$250,000
Port of Fort Pierce Natural Resources Mitigation Site Design and Permitting	FY 18	Waterway Connectors Capacity Project	\$250,000
Bulkhead, Shore, Stabilization, Dock and Berth Construction (Phase II)	FY 19/20	Waterway Connectors Capacity Project	\$8,500,000
Avenue M Infrastructure and Roadway Construction (Phase II)	FY 19/20	Highway Connectors Capacity Project	\$6,000,000
Taylor Creek Maintenance Dredging	FY 19/20	Waterway Connectors	\$500,000

Table 2: Port of Fort Pierce Capital Improvement Projects (Fisherman’s Wharf)

Fisherman’s Wharf Projected 5-Year Capital Improvement Plan			
Project Description	Fiscal Year	Improvement Type	Estimated Project Cost
Fisherman's Wharf Bulkhead Condition Assessment	FY 16/17	Waterway Connectors Capacity Project	\$25,000
Fisherman's Wharf Basin Seagrass Survey	FY 16/17	Waterway Connectors Capacity Project	\$25,000
Property Acquisition Fisherman's Wharf Roadway	FY 17	Highway Connectors Capacity Project	\$510,000
Design Fisherman's Wharf Roadway	FY 17	Highway Connectors Capacity Project	\$250,000
Construct Fisherman's Wharf Roadway	FY 18	Highway Connectors Capacity Project	\$1,400,000
Fisherman's Wharf Bulkhead Design and Dredging Permit	FY 17	Waterway Connectors Capacity Project	\$696,000
Port of Fort Pierce Natural Resources Mitigation Site Design and Permitting	FY 18	Waterway Connectors Capacity Project	\$50,000
Fisherman's Wharf Bulkhead and Dredging Construction	FY 19	Waterway Connectors Capacity Project	\$5,965,000

Table 3: Port of Fort Pierce Capital Improvement Projects (Other Port Projects)

Other Port Projects 5-Year Capital Improvement Plan			
Project Description	Fiscal Year	Improvement Type	Estimated Project Cost
Port Avenue	FY 18/20	Highway Connectors Capacity Project	\$500,000
Harbor Street	FY 18/20	Highway Connectors Capacity Project	\$2,500,000
East Avenue M Extension (To ICW)	FY 18/25	Highway Connectors Capacity Project	\$2,500,000
Avenue O Extension (2 nd Port Entrance)	FY 18/25	Highway Connectors Capacity Project	\$5,500,000
Terminal Drive Roadway	FY 18/25	Highway Connectors Capacity Project	\$1,500,000
Stormwater and Drainage Facility Sufficiency Study (Port-Wide)	FY 19/20	Capacity Project	\$350,000

6.2 Future Demand for the Port of Fort Pierce

The decisions of the City of Ft. Pierce and the County to limit and guide growth are perhaps the most decisive factors affecting future growth of the Port of Fort Pierce. How the County, City and private owners choose to guide the market, via decisions about the economy and the quality of life, will ultimately determine the direction and development of the port.

Much of the community of St. Lucie County has expressed an interest in encouraging the development of a mega yacht facility at the Port of Fort Pierce. Mega yachts have been envisioned by many stakeholders as the anchor tenant of the port. Mega yachts are yachts that are 80 feet in length and over. Twenty years ago, the number of mega yachts under construction increased over 15 percent, with 279 mega yachts under construction worldwide at that time. Despite the Recession of 2008, the trend has continued. In 1997, the average size of a new mega yacht vessel was 116 feet; however, the most growth occurred in the 80 to 90 foot range. The process of constructing a mega yacht takes an average of two to three years. Dade, Broward and Palm Beach Counties were estimated, 20 years ago, to be home to 900 mega yachts and that number has increased over the past two decades.

The maintenance and repair of these mega yachts in Dade, Broward, and Palm Beach was estimated in 1997 to bring \$199 million to local boatyards. In Broward County facilities accommodating mega yachts included 16 boat yards, 2 boat sales facilities, 23 marinas, and one dockside restaurant.

In 2001, there were 428 mega yachts under construction, an increase of over 76 percent since 1997. Between 2001 and 2000 the increase in new starts was over 30 percent. Of the 428 new mega yachts under construction in 2001, 86 yachts were being constructed in the United States - making this country the second highest producer of mega yachts, behind only Italy, which was constructing 140. Over 100 shipyards are capable of servicing mega yachts worldwide. Thirty of these are found in the United States, with 16 of these in Florida. Both fleet and vessel size are increasing. At this point only 40 boatyards, worldwide, have facilities to dry dock those yachts over 200 feet.

There are a number of businesses related to the mega yacht industry. Among the related businesses are commercial charter activities, brokerage of the vessels, vessel parts sales, repairs, and maintenance. Problems associated with the industry include a lack of qualified craftsmen, shortages of crew, and limitations of dockage and lift facilities. There are also limitations on brokers restricting the marketing of foreign flag vessels. At the end of the twentieth century there was unprecedented growth in this industry. However, throughout the twentieth century the mega yacht industry has experienced cyclical expansions and contractions.

As much as 40 percent of the economic impact associated with mega yachts is due to service and repair. In South Florida, facilities are short and demand is high. In spite of this, one repair facility in South Florida reported operating at 50 percent capacity due to a shortage of skilled labor. Another concern is the impact of the high initial costs of developing the infrastructure to serve the mega yacht industry.

In the summer of 2002, the Port of Ft. Pierce received a number of responses to a Request for Qualification (RFQ) for the development of a portion of the Port Operations Areas. The submitted RFQ's focused on the development of a 90 acre mega-yacht construction/ refurbishment facility that could be expected to generate as much as \$100,000,000 annually into the regional economy. An economic study, prepared by PB Consulting of New York, estimated that the mega-yacht industry at the Port of Ft. Pierce would generate 833 new jobs and have a direct impact on the local economy of approximately \$25,000,000 annually.

To confirm these estimates, the County retained the economic consulting firm of Fishkind & Associates to perform an independent economic analysis to determine whether the estimates were valid. In October 2002, the Board of County Commissioners received the Fishkind study on the potential economic impact of the mega-yacht industry on the Port of Ft. Pierce and St. Lucie County. This report concluded that the mega-yacht industry would provide a needed, positive economic impact on the community, to include 765 new jobs and approximately \$32,000,000 annually.

The 2002 Port Master Plan was updated in 2013 and the mega yacht industry emerged as the focus for port commercial development. The limited handling cargo, while still of interest as a potential use for some port facilities within the Operating Area, took a diminished position within the spectrum of potential developments within the Port. Other potential development options for the Port included: a maritime academy/school, a hospitality industry school, a small island cruise or ferry operation, permanently berthing a historic ship as a floating museum, limited cargo operations, commercial/retail, waterfront restaurants, sport fishing supply and charter operations, small boat repair and supply, and hotels.

In 2015 and 2016, two studies were performed for the Fisherman's Wharf area of the Port's Operating Area. The County (Port) wanted to develop Fisherman's Wharf as a transition zone between the more historic/retail area to the south and the more industrial area to the north. Ultimately the two studies:

- Recommended the optimal property configuration for port tenant operations at Fisherman's Wharf
- Identified of the most feasible types of port tenant operations for Fisherman's Wharf
- Identified and performed preliminary planning, design and cost estimating for the facilities and infrastructure that the Port, as a landlord, would be expected to provide to attract viable port tenants to Fisherman's Wharf

The Fisherman's Wharf studies included multiple interviews with past, present and potential port tenants to ascertain the spectrum of feasible, predictable uses of the property. The consensus was that as a transition zone, mega yacht maintenance and repair operations were impractical at Fisherman's Wharf as were any sort of major cargo operations. Interviewees agreed that the focus at Fisherman's Wharf should be on sport fishing with businesses that chartered fishing boats, supplied fishing boats, accommodated and catered to area visitors who came to FT Pierce for sport fishing. This definitely included the preservation and enhancement of the existing County boat launching facilities. While the focus for Fisherman's Wharf was clearly on the sport fishing industry, the potential use of the basin to accommodate a small cruise vessel and an island ferry operation was researched and presented in the report.

In January 2017, the County solicited proposals from private firms or developers for the development of a mega yacht facility on the Harbour Pointe property (20 acres) within the Port's Operating Area. Two proposals were received and rejected by the County. Nevertheless, the focus of future port development is still on the mega yacht industry and the multiple related business lines, to include: manufacturing, marinas, yacht services and retail outlets. More specifically, these businesses include the manufacture of boats, yachts, boat-related equipment and supplies; distribution and retail sales of boats, yachts and marine supplies; boat rental/chartering; marine surveying, maintenance and repair; and vessel mooring and storage.

In summary, as of the consolidation of the Port of Fort Pierce Master Plan, the most probable nature of the future expansion of the Port during the next five to ten years is the development of mega yacht facilities in the Harbor Pointe area and the development of a transition zone, capitalizing on the sport fishing industry in the Fisherman's Wharf area. The transition zone at Fisherman's Wharf would be developed to accommodate tenants who would perform various functions that support sport fishing such as marina operations, vessel chartering, providing supplies, fuel, meals (restaurants and catering) and potentially hotel accommodations. Potential uses of the remainder of the properties within the Port's Operating Area have yet to be determined and will ultimately be designated by the County and the Port's many stakeholders.

6.3 Plan for Port Maintenance and Expansion Through 2022

This section presents the recommended expansion and maintenance plans and projects for the Port of Fort Pierce through 2022.

6.3.1 General Approach to Port Expansion and Maintenance

Protection of the environment, including the IRL, is of importance to everyone in St. Lucie County. Every effort should be made to ensure that the Fort Pierce Inlet and the IRL remain in good health, that water quality be maintained or improved, and that the Port operates in an environmentally sound manner. The waters of the inlet and around the Port are designated as Class III waters. Florida law designates Fort Pierce as a deepwater port; therefore, maintenance of the harbor is in the public interest. It has been determined in the GOP's of this plan that channel depth in the port is to be maintained at 28 feet.

Concerns regarding the impacts of port expansion on the environment have been written about by several sources. Thouverez (2000) wrote a report described as "a scientific literature survey" consisting of more than 200 studies, all of which considered impacts of shipping and port activities on the environment worldwide. This included the impact of port and deep draft vessel activities on the environment in Florida, with emphasis on the Indian River Lagoon (IRL). The author reported that environmental impacts could have significant long-term economic effects, although analysis and quantification of economic effects was deemed by the author to be beyond the scope of the study. Due to the potential negative impacts to the IRL, the author recommended that deepwater ports not be constructed or expanded on the IRL. Thouverez claims that the needs of tourism and commercial and recreational fishing are inconsistent with port expansion. The author recommended that the smaller ports capitalize on the natural features of the IRL, including water sports, fishing, boating, and river cruises.

According to the Indian River Lagoon Comprehensive Conservation & Management Plan (CCMP), the IRL provides a strong tourist and recreational attraction to the region. In 2002, 16 percent of Florida's hotels and restaurants existed within the IRL watershed region. The watershed region is also known for producing high-quality, local citrus. In 1990-91, the region accounted for approximately seven percent of the world's citrus production and 38 percent of Florida's citrus production. The region also offers commercial and recreational fishing as well as boating and marine services.

The implementation of the Indian River Lagoon CCMP involved more than 100 agencies with responsibilities for the lagoon reaching a united strategy to preserve the balance between man and nature and protect the integrity, diversity and productivity of the Indian River Lagoon (IRL). The issues included preservation of wetlands, seagrass restoration, endangered species protection, water and sediment quality improvement, land acquisition needs, and funding both preservation and restoration activities.

The Port of Fort Pierce is keenly interested in preserving the integrity of the environment and protecting our natural resources from the impacts of port-related activities. At the same time, the port represents a significant opportunity to bring economic vitality to St. Lucie County. As a small port, Fort Pierce should focus on developing and nurturing niche markets and building on existing businesses and industries in St. Lucie County. The assets of St. Lucie County should be emphasized as part of this development process. Such assets include the Indian River Lagoon; areas that have underwent, or are currently undergoing redevelopment in downtown Ft. Pierce; a deepwater port; intermodal access including rail, truck and an international airport; Interstate 95 and the Florida Turnpike; low traffic congestion for intermodal access; an available workforce; existing import/export business; existing truck transportation companies; and a strong agricultural industry. The port should be developed to enhance these assets and to cater to targeted industries.

Recognizing all of the concerns and considerations that have been described above, the Port of Fort Pierce will continuously strive to balance protection of the environment and local habitats with facility expansion for the economic betterment of the region.

6.3.2 *Specific Facility Development*

Specific facility development directives and the capital improvement projects pursued by the Port will depend on the evolving port vision. As consultants to the City of Fort Pierce, Maritime Trust (2001) presented five Development Scenarios as part of the 2002 Master Plan. The Maritime Trust Scenarios

include: Expanding commercial recreational activities; optimizing commercial recreation activities at the waterfront; developing education/research activities; expanding cargo and marine related industries; and Optimizing cargo and marine-related industries at the waterfront.

Maritime Trust (2001) cited several significant factors that shall be addressed if any of the five scenarios are pursued, including:

- Land acquisition
- Environmental protection
- Maintenance spoil disposal
- Security
- Railroad operations
- Port access
- Infrastructure
- Street improvements
- Land development regulations
- Marcona

6.3.2.1 Harbour Pointe

Harbour Pointe, a St. Lucie County asset, has been selected as an area targeted for development at the Port of Fort Pierce. In January of 2017, The Board of County Commissioners of St. Lucie County, FL, with the City of Fort Pierce advertised a Request for Qualifications (RFQ) seeking partners for the development of approximately 20 acres at Harbour Pointe. Two proposals were received in response to the RFQ, but both were ultimately rejected in April 2017. Table 1 provides a complete list of capital improvement projects that have been identified for Harbour Pointe through the period of 2022. Improvements have been categorized as either Waterway Connector or Highway Connector projects.

The following is a list of Waterway Connector projects at Harbour Pointe:

- Conceptual Design, Development, and Seagrass Study Follow-Up and Habitat Survey
- Bulkhead, Shore Stabilization, Dock and Berth Design and Permitting (Phase I)
- Taylor Creek Maintenance Dredging Permit
- Port of Fort Pierce Natural Resources Mitigation Site Design and Permitting
- Bulkhead, Shore, Stabilization, Dock and Berth Construction (Phase II)
- Taylor Creek Maintenance Dredging

In an effort to provide adequate access to the Harbour Pointe area, the following Highway Connector projects have been planned:

- Avenue M Infrastructure and Roadway Design (Phase I)

- Avenue M Infrastructure and Roadway Right-of-Way Acquisition (Phase I)
- Avenue M Infrastructure and Roadway Construction (Phase II)

6.3.2.2 *Fisherman's Wharf*

A second area targeted for development within the Port is Fisherman's Wharf. The Fisherman's Wharf area contains both St. Lucie County and City of Fort Pierce property assets. The Port recently completed two planning studies related to Fisherman's Wharf. The first study evaluated the three potential property configurations for FW after developing preliminary infrastructure designs and cost estimates and then comparatively evaluating the three configuration options based upon weighted evaluation factors agreed upon by Port, County and City staffs as well as FDOT D4. The second study identified the most viable uses of the property after a series of stakeholder interviews and then identified and preliminarily designed the improvements and infrastructure that the Port would have to provide as a landlord to attract long term port tenants. These studies are referenced in Section 1 of this Master Plan and are included as Appendix B of this document. Similar to Harbour Pointe, the projects have been categorized as Highway and Waterway Connector projects. A complete list of projects can be found in Table 2.

The list of Waterway Connector projects is summarized below:

- Fisherman's Wharf Bulkhead Condition Assessment
- Fisherman's Wharf Basin Seagrass Survey
- Fisherman's Wharf Bulkhead Design and Dredging Permit
- Port of Fort Pierce Natural Resources Mitigation Site Design and Permitting
- Fisherman's Wharf Bulkhead and Dredging Construction

Highway Connector projects to be undertaken at Fisherman's Wharf are listed below:

- Property Acquisition Fisherman's Wharf Roadway
- Design Fisherman's Wharf Roadway
- Construct Fisherman's Wharf Roadway

6.3.2.3 *Other Port Projects*

In addition to the Harbour Pointe and Fisherman's Wharf projects listed above, the Port of Fort Pierce has also identified additional infrastructure projects to improve access to the Port. A full project list detailing these efforts is provided in Table 3. To date, all projects identified within the Other Port Projects designation are classified as Highway Connector projects. These efforts are listed below:

- Port Avenue
- Harbor Street
- East Avenue M Extension (To ICW)
- Avenue O Extension (Second Port Entrance)
- Terminal Drive Roadway

- Stormwater and Drainage Facility Sufficiency Study (Port-Wide)

6.3.3 Probable Impacts of Port Expansion and Maintenance

6.3.3.1 Land Use

Much of the Port Operations Area is currently zoned by the City of Ft. Pierce as Planned Urban Redevelopment (PUR). One purpose of this type of zoning is to promote economics in land development resulting in housing and redevelopment of older, less nominally viable areas.

Public land acquisition has been a frequent topic among various stakeholders for many years. Maritime Trust (2001) reviewed various possibilities for future land acquisition. During the 1996 charrette, acquisition of the mostly undeveloped land was suggested for the MacArthur Tract (the 67 acres of undeveloped privately owned portions of the Port) and the 20-acre parcel known as the Cotton Property (Harbour Pointe Park). In 1997, the County subsequently purchased the 20-acre Cotton property now known as Harbour Pointe Park.

All of the development scenarios proposed by Maritime Trust (2001) involved the King Maritime Group LLC property (known as the Indian River Terminal) and the property to the north, which is divided by the Fort Pierce Oil Company. Harbor Street provides access between the two areas, but the division of the two properties creates a discontinuous security area. Traffic flow delays would be expected to occur due to the restricted access from one area to another. Maritime Trust recommended that consideration be given to purchasing the Fort Pierce Oil Company land.

On the north side of the road at the end of Fisherman's Wharf is a parcel of land owned by River Marina, Inc. This property is used primarily as an RO/RO (Roll On/ Roll Off) facility. Under all of the development scenarios, access to this property is along Fisherman's Wharf Road. This facility involves truck traffic, which is incompatible with the commercial recreation development proposed south of Fisherman's Wharf Road. Access could be made through Port property, which would involve going through security in order to drive a short distance to North Second Street. To avoid this inconvenience and take advantage of the opportunities to serve the maritime industry, afforded through this existing facility, Maritime Trust made the recommendation of purchasing the River Marina, Inc. property.

6.3.3.2 Historic Resources

Since there are no historic resources within the Port of Fort Pierce Port Planning Area, including the Port Operations Area, the proposed master plan will not impact historic resources. Adjacent structures in the downtown area are covered by city zoning laws and state regulations.

6.3.3.3 Natural Systems

The need to protect the environment of the IRL is recognized in the goals, objectives and policies (GOPs) of this plan. Although specific improvements have not been established a general direction for the Port was established through the GOPs. This direction includes accommodation of limited cargo operations, promotion of marine industry and related scientific and commercial activities, with particular encouragement of introducing a mega yacht facility.

Challenges for US public ports include mega ships, landside access, and global shipping alliances. Most US ports are now unable to handle the largest new containerships. Therefore, dredging is an important issue in terms of ability to handle the large ships (US Department of Transportation, Bureau of Transportation Statistics, Maritime Administration, & US Coast Guard, 1999).

Dredging and spoil disposal, oil spills, air pollution, invasive species, and anti-fouling paints are among the environmental issues of concern for the Port. As demands on the United States Marine Transportation System (MTS) increase, dredging continues to be a concern. Dredging is regulated heavily on the federal level. Such regulations include the Clean Water Act (Section 115); the Rivers

and Harbors Act (PL 55-525); the Marine Protection, Research and Sanctuaries Act (PL 92-532); and the Coastal Zone Management Act (PL 92-583). Dredging at the Port of Ft. Pierce is to be limited to maintenance dredging due to the decision to limit Port depth to its current 28 feet.

To minimize the environmental impact from ships, the International Maritime Organization (IMO) provides education programs and regulates It is noteworthy that the EPA cites recreational gasoline-powered engines as one of the largest non-road emitters of hydrocarbons and oxides of nitrogen for modes of transportation.

The principal environmental concerns include the dredging of navigation channels and managing disposal or beneficial use of dredged material; oil spills, air pollution from ships and anti-fouling paints; preventing water pollution, safe handling of hazardous cargo, and complying with wetland and endangered species regulations. Most ports and harbors are not deep enough for the newest vessels, and they require periodic dredging to maintain depths. Many ports may need to be deeper and broader to accommodate evolving technology and shipping practices. The US Army Corp of Engineers (USACE) and the US port authorities are responsible for dredging. From 1992, the USACE dredged an annual average of 273 million cubic yards of sediments at a cost of \$542 million per year.

Oil spills can have major impacts on ecosystems, aquatic species, wildlife, and birds, but impacts vary based on location and size of spills. The total number of reported spills from self propelled vessels and barges in the US increased between 1986 and 1995 but the volume and number of large spills decreased. Air pollution from ships and recreational watercraft is a major concern. Antifouling paint used on ships often contains a harmful compound that acts as a biocide. Federal programs to address environmental concerns include the Port State Control (PSC) program, fisheries enforcement in conjunction with the National Marine Fisheries Service in the US Department of Commerce, aquatic nuisance species control, and the artificial fish reef program.

The IRL region includes all or part of five counties of East Central Florida: Volusia, Brevard, Indian River, St. Lucie, and Martin. The Economic Assessment and Analysis of the Indian River Lagoon looked at the economic value of this natural resource. The total economic value of a natural resource is composed of human use values derived from market-oriented activities (transactions of goods) and non-market based preferences (visual beauty and recreational activities).

6.3.3.4 Probable Impacts on Natural Systems

The coastal sand beaches and surfzone ecosystem surrounding the Fort Pierce Inlet comprise a harsh environment of pounding waves and shifting sands. As such, this system is dominated by species able to survive in such a high-energy zone. Generally speaking, little vegetation is found here; burrowing invertebrates include the bivalve (*Donax*), mole (sand) crab (*Lepidopa*), beach flea (*Emerita*), and sand worms (Class Polychaeta); ghost shrimp (*Callinassa*) predominate. Shorebirds (including, but not limited to, several species of terns, gulls, sandpipers, and plovers), manatees, and nesting sea turtles (from May through September) have all been documented in the area.

It may be anticipated that expansion of the Port of Fort Pierce may have consequences on the wide range of plant and animal species of the IRL and its surrounding waterways and barrier beaches. These natural systems provide habitat for a variety of fish; algae and seagrasses, and invertebrates. In fact, the Final Navigation Study for Fort Pierce Harbor, Florida General Reevaluation Report and Supplement to the Final Environmental Impact Statement (EIS) (U.S. Army Corps of Engineers (USACE), 1994), was prepared after Florida's environmental agencies conducted field reconnaissance in 1991 and "discovered significant environmental resources (i.e., previously undocumented biological resources) in the project area" (USACE, 1994, p. 52). Based upon these findings and at the request of several state and federal agencies and private organizations, it was determined that USACE should compile a Supplemental EIS. The USACE Study (1994), and the accompanying Supplemental EIS, re-evaluated the final Feasibility Report and EIS of 1986 (authorized by Congress in 1988) and the General Design Memorandum of 1991 with respect to modifications of the existing federal project for deep-draft navigation at Fort Pierce Harbor.

The USACE study (1994) acknowledged that environmental resources located in the project area complicate solving the problems of draft and width. A channel that meets or exceeds minimum requirements for minimal risk to vessel traffic must be designed to avoid or minimize impacts to various environmental resources located in the area.

More recently, a report by the Florida Institute of Technology presented data from roughly 200 port-related studies conducted since 1979. This research concluded that factors such as increased turbidity from dredging and other port-related activities including increased maritime traffic can result in a wide range of environmental and ecological impacts.

Major threats to seagrass beds are turbidity, mechanical disturbance, and physical removal of seagrass beds through dredging or filling activities. Because seagrass requires shallow water for light penetration, small boat craft represent the primary source of sea grass damage. Recreational boat facilities development may result in a secondary impact to seagrass beds. Public education programs should be considered for small boaters to increase awareness of seagrass. Stormwater management at the port will be important to prevent turbidity from runoff, which is the primary source of turbidity. Seagrass has been documented in the vicinity of some of the proposed berths. Mitigation is required in the areas where seagrass removal cannot be avoided.

If such Port development involves harbor expansion, the impacts can be primary, or direct and immediate, or secondary and may take place over a longer period of time (Harbor Branch Oceanographic Institution, Inc. (HBOI), 1991). If dredged, basin development of bulkheads and docks were done along the perimeter, direct impacts could include a loss of shallow water habitats, removal of vegetation which would not recover due to increased water depths, possible elimination of rock reef ledge and boulder habitats, and the potential for suspended sediments. If petroleum combustion activity and sources of heavy metals were to increase, secondary impacts could include deterioration of water and sediment quality. If terrestrial industrial activities were to increase, runoff secondary impacts would be to decrease water transparency, elevate nutrients, and increase toxic materials discharge, all of which would affect vegetation. According to the HBOI (1991), "The magnitude of these impacts could range from negligible to severe, as they are primarily a function of how the port will be used and what activities will be permitted by the development (p. 175).

6.3.3.5 The Process of Beach Erosion

A study submitted by Taylor Engineering, Inc., in May 2001 (entitled Coastal and Inlet Processes Evaluation - Fort Pierce Inlet and Adjacent Beaches, hereinafter referred to as Taylor Study), examined presently occurring erosion processes and assessed the alternatives to mitigate down drift erosion. The study noted that the U.S. Army Corps of Engineers (USACE) has maintained both the channel and turning basin since 1935 and that maintenance occurs approximately once every two years. "Dredged material is either disposed of offshore or placed on the south beach (if the material is of beach quality)." Despite the fact that since 1967 more than 2.2 million cubic yards of sediment have been placed in the area, shoreline erosion of the beaches south of Fort Pierce Inlet continues.

The purpose of the Taylor Study was to understand sediment movement in and around inlet and identify actions that would improve inlet operation and management and effects on adjacent beaches. The study analyzed a broad array of data from actual observations of winds and bathymetric features to models of such variables as tidal circulation, sediment transport, and wave modeling. It was determined that coastal process including tides, waves, and wind all result in moving sediment around the inlet.

The Taylor Study resulted in the following description of the beach erosion process. In summary, several factors contribute to the erosion experienced along the south beach. The dominant alongshore sediment transport direction (southward) makes the south beaches the down drift side of the inlet. As waves from the northeast enter the area, the jetties create a shadow zone immediately adjacent to the inlet. South of the jetties, the shoreline experiences a marked increase in average wave energy once one moves outside the shadow zone. Increases in alongshore sediment transport

potential accompany the increases in wave energy. Therefore, the south shoreline experiences a significant gradient in alongshore sediment transport. This gradient, coupled with the littoral barrier presented by the jetties that effectively cuts off sediment supply to the south beach, produces the significant erosion experienced on the south beach. Tidal currents, entraining sediment into the inlet from the near shore region both on flood and ebb tide, further exacerbate the erosional stresses.

6.3.3.6 Shoreline development

The quality of the lagoon is dependent on the edge of the IRL. The shorelines in the area of the Indian River Terminal and Fisherman's Wharf on the south side, and at the marinas on the north side are currently the only shorelines that have been hardened. If any of the Maritime Trust development scenarios are pursued at least some shoreline hardening will be required. The deepwater portions of the Port would require vertical seawalls. In more shallow areas other hardening methods can be used that enhance the area environmentally. The use of vertical seawalls should be minimized to deepwater areas.

6.3.3.7 Dredging

According to the GOP's of this plan the Port depth is to be maintained at 28 feet. To maintain port depths in the entrance and interior channels periodic maintenance dredging is required. As such, maintenance dredging has occurred at the Port every two to three years primarily at the port entrance. The turning basin has undergone maintenance dredging approximately every five years. Advance maintenance of the channel could reduce the need for dredging and the impact of more frequent dredging activities. Advance maintenance dredging would occur by creating an area in the interior channel of 700 feet in length and 250 feet in width that would be dredged an additional four feet. This system would reduce the annual average equivalent costs of dredging the Port.

6.3.3.8 Dredge Material Disposal

The Port has access to an upland disposal site located on County Airport property, adjacent to Ridge Haven Road west of US Highway 1. The spoil site is designed to accommodate 300,000 cubic yards with hydraulic dredging methods and thus has adequate capacity.

6.3.3.9 Recent Mitigation Measures

The following erosion mitigation measure was described in the Taylor Study. To partially address this erosion problem, three geotextile fabric erosion control tubes were placed perpendicular to the shoreline within 1,000 feet of the south jetty in 1994 (FDEP Permit Number 562211859). These structures impounded a small volume of sand. As a result of their placement, relatively flat offshore profiles developed near the inlet. The profiles became progressively steeper with distance from the inlet. As part of the permitting for the 1999 nourishment, the Florida Department of Environmental Protection (FDEP) required removal of tubes despite their apparent success mitigating the erosional pressures.

The St. Lucie County Coastal Management Element of the Comprehensive Plan Update noted that very little structural erosion control measures have been implemented along the County's beachfront shoreline. Some rubble and bulkheads have been placed in the critically eroded area south of the inlet but were covered over by a 1970 nourishment project. The few sand fences that have been used in other areas have not been successful in trapping sand. In response to continued beach erosion, St. Lucie County has pursued various short and long-term alternatives to combat chronic beach erosion.

In 1994-95, short-term efforts to stabilize the severely eroding shoreline immediately south of the inlet led to the construction of three sand-filled tubes (i.e., the geotextile fabric erosion control tubes described in the Taylor Study excerpt immediately above) and the placement of approximately 54,000 cubic yards of compatible beach material. They were later removed in 1999 when the beach renourishment project was completed. Long term structural efforts to stabilize this same area included

the construction of a 200 foot long spur jetty. Since completion of this structure in December 1997, post-construction monitoring has indicated this structure has performed well.

6.3.3.10 Possible Future Alternatives

The Taylor Study concluded with the following observations and recommendations for specific facility enhancements with respect to port operation and maintenance. The design objectives behind the inlet improvements include mitigating erosion of the south beach and sediment trapping by the inlet in the flood shoal. Based on the work presented in the Taylor Creek study, two alternatives, (alternative 2) T-head groins and (alternative 3) T-head groins in combination with a south jetty extension, proved the most effective at fulfilling the design objective of protecting the beaches south of the inlet from erosion.

Alternative 3 proved the most effective at overall sediment management around the inlet. T-head groins ensure a stable, wide beach and provide increased beach fill retention through reduction of alongshore and cross-shore sediment transport. Judged solely on beach protection, these structures provide not only the most effective means to retain beach fill and maintain adequate beach width for storm protection, but they also provide the solution requiring the least tonnage per linear foot of structure and the least problematic construction.

From the standpoint of inlet management and operation, combining T-heads with a south jetty extension is the most attractive solution. The south jetty extension would reduce entrainment of sediments by tidal currents into the inlet and offshore, thus reducing channel maintenance and interior shoaling in the navigation channels in the Indian River. Additionally, the extension increases navigational safety by providing a more even distribution of flow across the inlet entrance. The extension provides only marginal benefits to beach stability south of the inlet. However, this alternative includes the large volume of rubble required per linear foot to extend the south jetty (given the local water depths), possible environmental impact to bottom, and more difficult/costly construction associated with the project location.

To summarize, alternatives 2 and 3 are both effective at reducing erosion along the beaches south of the inlet. However, alternative 3 proves more effective at overall sediment management. Final design of either alternative would include fine tuning the designs to optimize the protection to the south beaches, a thorough assessment of the benefits offered by each alternative, and a detailed cost analysis, tasks beyond the scope of this study. Therefore, the upcoming Design Memorandum recently initiated by the USACE for inclusion into the planned 2003 renourishment should include both these alternatives so that they may be accurately judged by these criteria before deciding on the final implemented engineering action.

6.3.3.11 Air Quality

Port operations are a potential source of air pollution. The Florida Department of Environmental Protection regulates to ensure air quality standards are met. The GOP's of this plan indicate an intention to work with other governmental bodies and the private sector to prevent air pollution that violates federal, state and local regulations.

6.3.3.12 Manatees

St. Lucie began protecting the Manatee population in 1990, through the adoption of the Comprehensive Plan. Vessel speed zones were adopted in 1994 and posting was completed in 1995. Despite a substantial increase in the number of registered boats these measures have been successful in reducing watercraft-related manatee deaths in the county. Between 1974 and 2000, manatee deaths in St. Lucie County have ranged from 0 to 5 per year, with a total of 56 recorded deaths in that time frame. In 2001, a Manatee Protection Plan (MPP) was approved conceptually by the St. Lucie County Board of Commissioners and was adopted in February of 2002. The MPP was adopted by the Florida Fish and Wildlife Conservation Commission's Executive Director in March of 2002.

One component of the MPP was the establishment of a Manatee Protection Advisory Committee (MPAC), comprised of governmental agencies, business representatives, and conservation organizations. Due to the effectiveness of the current speed zones, no new speed zones have been recommended.

The U.S. Fish and Wildlife Service (USFWS) designated St. Lucie County as a medium risk county for manatees. One goal of the County in implementing the MPP is to sustain this designation. Approximately 30 percent of the manatee deaths in St. Lucie County since 1974 have been firmly attributed to human-related causes. The biggest source of human related manatee deaths is boating impacts. Heavy boat traffic from shipping, commercial fishing, and recreation exists in the waters surrounding St. Lucie County. Manatee contact with humans can occur on a year round basis and is most likely to occur in the following situations: with watercraft, around power plants, near other congregating areas, and with introduced sources of food and water. Powerboat races, which are not currently held in St. Lucie County, pose a particular threat. Permitting for such events requires consultation with USFWS to ensure implementation of adequate safeguards.

According to the MPP the Port plan is to include manatee protection procedures for the following: dock design and construction; maintenance dredging; expansion of ship berths and channels; the use of explosives; sediment disposal; impacts to seagrasses and submerged aquatic vegetation; and crew procedures for observing and avoiding manatees, when arriving and departing from docks. Such procedures are to be outlined in specific goals, objectives and policies (See Objective 3.4). Currently all boat docks, marinas, and similar facilities must be permitted through state and federal agencies. Such permitting will consider manatee protection standards when issuing permits. New construction of waterfront projects, are under the jurisdiction of a number of federal, state, regional and local regulations.

The goal of the Boat Facility Siting Component (BFSC) of the MPP is to locate boat facilities in a way that will reduce the number of manatees injured or killed by boats. Four main areas were identified as having an abundance of manatees: Harbor Branch Oceanographic Institution; Queen's Cove development; Taylor Creek; and Moore's Creek. Boating activity is concentrated around the Fort Pierce Inlet. The proximity of the Port of Fort Pierce to major manatee aggregation sites located at Taylor Creek and Moore's creek make manatee protection one of the important considerations for this plan.

According to the HBOI (1991), "Any increase in ship and boat traffic in the port area has the potential to impact manatee populations as boat-manatee collisions are known to be a significant source of manatee mortality." At this point-in-time, the specific port development is not completely finalized, thus the full impact on the manatee population is not known.

6.3.3.13 Exotic Species

The introduction of exotic species into the IRL from bilge water is of concern. However, discharge of bilge water is prohibited under federal law and can result in significant penalties. Although deliberate violation of the law can occur, it should not be an issue that deters port development.

6.3.3.14 Public Access

Public access of Fort Pierce's waterfront will be greatly enhanced through implementation of the GOP's of this plan. A number of enhancements are to be encouraged by the Port, including access to short term parking, public fishing areas, unobstructed scenic views, an orderly network of streets and entrances, an integrated open space system, walkways, multi-use paths, and multi-use marine recreational activities.

6.3.3.15 Potable Water

Increases in Port activity are expected to increase demand for potable water.

6.3.3.16 *Wastewater Facilities*

Increases in Port activity are expected to increase demand for wastewater facilities.

6.3.3.17 *Stormwater/Drainage Facilities*

As stormwater run-off is the primary source of turbidity, stormwater management at the Port is a concern, particularly in regard to the seagrass beds. Stormwater runoff is also responsible for non-point source pollution. Such pollution comes from a wide variety of sources, not just a single source. Expansion of Port facilities will impact stormwater and drainage in the area. Any new development would require construction of stormwater management facilities to remove pollutants before they are discharged into a receiving body of water. Twenty percent of the property is generally required for stormwater management

It will be necessary to set aside a portion of the Port for stormwater management. Stormwater management will help to prevent turbidity from run-off, which is the primary source of turbidity. Issues of water quality are not expected to be a limitation to port development. In order to protect the water quality in the IRL, retention and treatment of stormwater will have to occur on site before discharge into the lagoon. The Port is planning to undertake a stormwater master planning effort; this project has been included within the Port's 5-year capital improvement program (Table 3 – Other Port Projects). This Stormwater Master Plan would take into consideration the entirety of the Port Planning Area.

6.3.3.18 *Solid Waste*

Solid waste impacts associated with expanded Port operations are thought to be negligible as port operations generate only negligible amounts of solid waste. Port solid waste generally includes discarded boxes, packing and residue from cargo shipments, and litter from garbage receptacles located at port facilities.

6.3.3.19 *Energy and Communications*

Additional power will be needed in response to improvements in the Port Planning Area.

6.3.3.20 *Transportation*

MTS (Marine Transportation System) is a system that consists of waterways, ports, intermodal connections, vessels, vehicles, and system users. The United States is the world's leading maritime and trading nation and relies heavily on the MTS to support this standing. Water is the safest, cheapest, and cleanest transportation mode.

At the time of the 2002 Master Plan, Florida's 14 seaports (eight on the South Atlantic Coast) accommodated 111 million tons of cargo in the 1997/1998 fiscal year. Exports accounted for 22 percent of this total, 27 percent being imports, and 51 percent being domestic trade. All indications are that Florida will continue to experience increases in population, tourism, and international trade. All of these elements will result in increased travel and transportation demand.

With the creation of FSTED the legislature mandated a clear message, which was, "transportation equals statewide economic development." Seaport expansion/development includes building bulkheads, container yards, cruise terminals, better road and rail access connections, deepening harbors and channels, and acquiring equipment needed to serve today's larger ships.

The Florida Multimodal Trade Corridor Assessment Study determined that Florida will face increasingly competitive forces for international trade, commerce & tourism. Due to the changing market, what were once mutually exclusive modal components of the shipping process (aviation, railroad, trucking, and water transport) are now mutually dependent elements. The study cited Dr. Roberto Cruz, stating

that a forecast in March 1999 projected the value of Florida's international trade to reach \$146 billion by 2008, independent of the goods expected from Cuba once trade reopens there. Based on this projection, the report estimated that 140 million tons of cargo could move through Florida's ports annually by 2008. Additionally, the state's tourism and cruise port destinations could welcome more than 15 million cruise passengers and tourists. The study found that the cost of shipment from origin to destination and the time sensitivity associated with that shipment are the determining factors for mode choice and location (geographically in the supply chain). The report warned that as congestion of the transportation network increases, profit margins to shippers and freight forwarders will decrease as costs of delay in getting product to market escalate.

According to the Florida Rail System Plan (2000), international trade is now Florida's leading industry to which the seaports are a key component. In 1999, Florida set a new international trade record of \$70.5 billion, and it was forecasted to rise to \$146 billion by 2008. However, Florida imports exceeded exports for the first time in a decade.

Florida's global trade markets encompass the Far East, Europe, the Caribbean, Central America, and South America. The seaports provide the distribution links for the north, south, east, and west via the rail system and the roadway network. Domestic industry typically requires the same intermodal transportation system essential for international.

In the next several years, the access market from Canada to Argentina is expected to become a reality, the reopening of Cuba to free-trade is expected to emerge, manufacturing in the Americas is expected to grow, and Florida's ports will continue to develop with trans-shipment markets for the new super-port in Freeport. Rail transportation is expected to become more important than ever in determining Florida's competitiveness in global markets.

Intermodal transportation is the use of more than one mode of transportation with transfer(s) between modes to make a trip or complete a freight movement. For intermodal transportation to be effective, the transfer has to be convenient and efficient. Two major pieces of federal legislation have encouraged intermodalism. They are typically referenced by their acronyms, ISTEPA and TEA-21, enacted in 1991 and 1999 respectively. Florida has fostered intermodalism through the Intermodal Development Program in 1990, which is to provide funding for intermodal projects and promote intermodal development within the state. The FSTED Program is another mainstay in the intermodal program funding. The Florida Freight Stakeholders Task Force was created in 1998 as a private/public sector partnership to address freight issues and needs. The "Fast Track" was created to accelerate finance of statewide or major regional transportation needs that enhance economic development which had been unfounded or under-funded in the past.

The purpose of the Year 2020 Florida Statewide Intermodal System Plan is to use a statewide system approach in addressing connectivity issues for all modes of transportation. Florida's freight system is comprised of highways (trucks), railroads, seaports, and airports. The most frequent transfers of freight occur at seaports between both rail and trucks and air and trucks.

Maintaining freight mobility will enable Florida to achieve its economic objectives for employment, value-added services, and economic prosperity. International commerce is currently Florida's number one trade industry. Almost 70 percent of Florida's international commerce moves by water. Florida ranks fourth among the states nationally in terms of container movement, with its deepwater seaports handling 2.37 million twenty-foot equivalent unit containers (TEUs) during 1997. The 1997 volume represents a 60 percent increase in container traffic over 1993. Approximately 40 percent of these marine containers are handled by rail.

According to the Year 2020 Florida Statewide Intermodal System Plan (2000), railroad intermodal facilities are dependent on connections with other modes, either water or most commonly trucks. Truck related issues are location specific but typically fall within the following categories:

- Inadequate roadway turning radii

- Lack of turning lanes
- Lack of traffic signals or turn signals at intersections
- Inadequate lane widths
- Routes through residential neighborhoods
- Inadequate turn lane storage
- Vertical or horizontal clearances
- Grade crossing delays
- Lack of direct access
- Roadway congestion, especially during rush-hour peaks
- Processing at terminal gates

As one of the two central Atlantic ports, the Port of Fort Pierce provides proximity to the citrus industry and direct rail connections that are significant assets. It is located in the heart of Florida's citrus industry and was once the primary exporter of Florida grapefruit to the Far East and Europe and is trying to recapture its momentum in that market.

Most of Florida's seaports rely on this system for the transport of cargo crossing their docks. All of the ports that depend on rail service experience some degree of the constraints of one railroad service. These and other physical and policy constraints, such as lack of on-dock rail facilities, grade crossing conflicts, service and scheduling problems severely hamper the ability of Florida's ports to compete with out-of-state rail-oriented load centers. Some of the maritime factors to be considered are contained in the following areas: container ships are getting larger and the South Florida Seaports (Port of Miami, Port Everglades, and Port of Palm Beach) are expanding their container-handling capabilities to supply Florida's markets to the south with consumer goods coming from Europe and Asia.

All indications are that Florida will continue to experience increases in population, tourism, and international trade. All of these elements will result in increased travel and transportation demands.

Ports act as catalysts for economic growth. Ports develop, manage, and promote the flow of waterborne commerce. The Maritime Trade and Transportation report (1999) described major trends affecting the commercial water transportation industry in the 1990s. From 1993 to 1997, world waterborne trade increased by 3.8 percent annually. U.S. foreign waterborne trade accounted for 21 percent of global waterborne trade in 1997. Between 1993 and 1997, U.S. foreign waterborne trade increased by 4.6 percent annually on average, while US domestic waterborne trade increased by only one percent a year. In the mid-1990s, five percent of the real gross domestic product (GDP) was from water transportation. Freight rates per ton-mile tend to be substantially lower for waterborne shipments than for other modes.

Three types of vessels operate in the deep-seas: 1) General cargo including containerships (manufactured products); 2) Dry bulk carriers (grains, coal, steel); and 3) tankers (petroleum and petroleum products). Containerization of cargo is the major trend of waterborne trade. The number of containerships is expected to grow eight to ten percent per year. This is at a significantly higher rate than other types of vessels. Container vessels are expected to replace break bulk ships in world liner trades. Miami and Palm Beach were among the ports showing the highest growth in international container trade reflecting high growth in US-Latin America container trades. Such containers protect goods and can be transferred intermodally to truck or train trade. Due to aging, more than half of

the small bulk carriers are being removed from service. They are being replaced with larger and safer double-hulled vessels. Container vessels represent most of the newer generation of ships.

Employment in water transportation is expected to increase at a rate of about one percent per year from 1998 to 2003. The Southeast had the highest growth in water transportation income from 1995 to 1997 due to growth in container traffic through southeast ports. Florida had a ten percent share of water transportation income in the US.

A Transit Greenway Conceptual Master Plan has been adopted by the City of Fort Pierce. Under this plan port development will incorporate features of the walkable, pedestrian-oriented community and transit greenways such as a transit mall component to be located east of the port's intermodal facility on Avenue O and US 1. Transit greenway corridors and rail to rail operations will loop through the port and connect to an intermodal facility east of US 1, at Avenue E, with the Fisherman's Wharf ferry stop. Projects contemplated include a total of four intermodal facilities which are as follows: 1) Seaway Gateway at the intersection of US 1 and Seaway Drive; 2) Fisherman's Wharf at the intersection of US 1 and Avenue H; 3) Port Entrance at the intersection of US 1 and Avenue D; and 4) Port Waterfront at the northeast corner of the County.

Figure D: Port of Fort Pierce Planning and Operations Areas

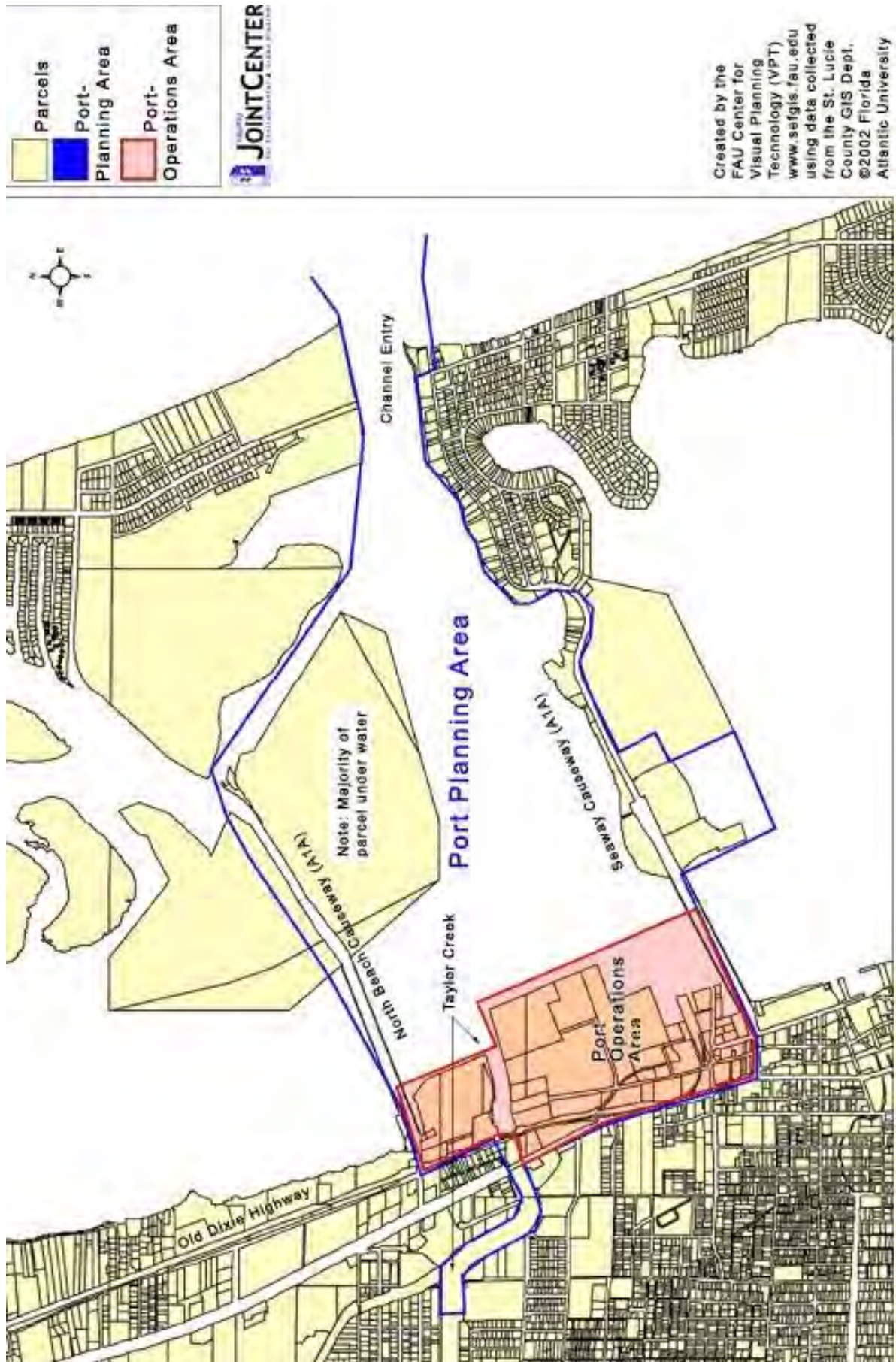


Figure E: St. Lucie County Future Land Use Map

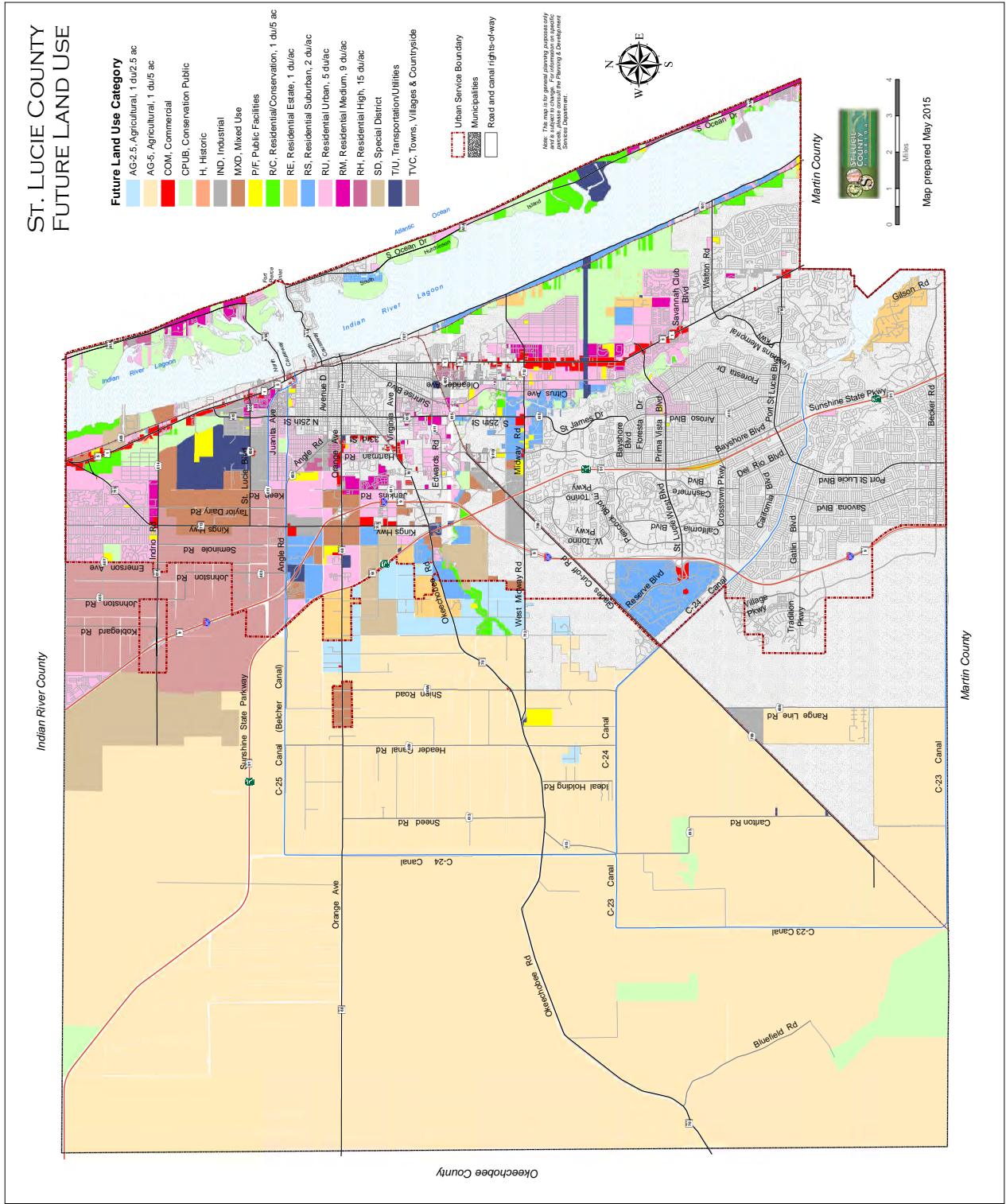
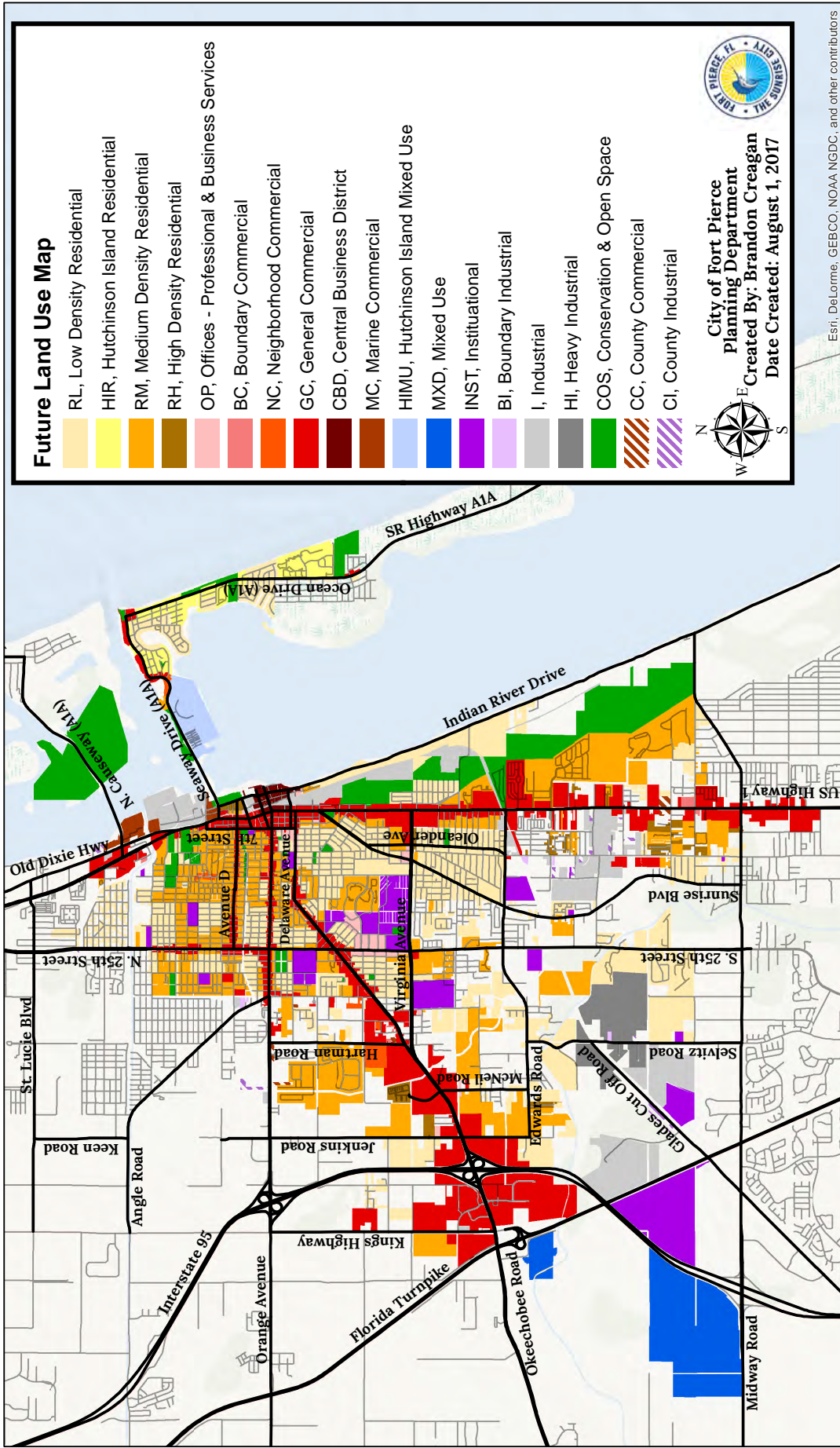


Figure F: City of Fort Pierce Future Land Use Map



APPENDIX A

SHAPING THE SEAPORT – MASTER PLAN FOR THE PORT OF FORT PIERCE 2002) APPENDICES, PORT OF FORT PIERCE MASTER PLAN UPDATE PHASE I (2012), AND COMPILATION OF DATA AND RECOMMENDATIONS FOR PORT OF FORT PIERCE MASTER PLAN UPDATE (2013)

REVISED

**ECONOMIC IMPACTS ON
ST. LUCIE COUNTY OF
A WORLD CLASS
RECREATIONAL MARINE
COMPLEX FOR MEGAYACHTS**

Prepared for:

**Mr. Douglas Anderson, County Administrator
St. Lucie County
2300 Virginia Avenue
Ft. Pierce, Florida 34982**

Prepared by:

**Fishkind & Associates, Inc.
11869 High Tech Avenue
Orlando, Florida 32817
407-382-3256 or Fishkind.Com**

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EXECUTIVE SUMMARY

ECONOMIC IMPACTS ON ST. LUCIE COUNTY OF A WORLD CLASS RECREATIONAL MARINE COMPLEX FOR MEGAYACHTS

- St. Lucie County is in the process of updating its Comprehensive Land Use Plan to incorporate the findings of its updated Master Plan for the Port of Fort Pierce, which was adopted recently by The Board of County Commissioners.
- In conjunction with updating the Master Plan and its Comprehensive Plan, the County issued a Request for Qualifications ("RFQ") RFQ 02-053 soliciting interest from qualified firms to lease and develop an 87 acre site at the Port.
- The Master Plan envisions this area developed with a world class marina and shipyard focused on the mega-yacht trade. Mega-yachts are boats over 75-foot in length.
- This study analyzes the economic impacts of Master Plan. The County forwarded two replies to its RFQ along with additional communication from the responders to serve as the basis for this analysis.
- The shipyard and marina complex of the Master Plan as articulated in the two replies to the RFQ would have a large and positive economic impact on St. Lucie County. The forecast of impacts is displayed in the table below. The marine complex will support more than 750 jobs and generate over \$30,000,000 in annual economic output and spending.

Summary of Economic Impacts

Summary of Impacts	Output	Employment
Marina	\$6,620,007	228
Shipyard	\$25,507,500	537
	=====	=====
Total	\$32,127,507	765

- Finally, catering to the clientele of the mega-yacht trade will enhance the visibility and status of the area's economy.

**ECONOMIC IMPACTS OF A WORLD CLASS RECREATIONAL MARINE
COMPLEX CONSISTING OF A SHIPYARD AND MARINA
ON St. LUCIE COUNTY**

1.0 Introduction

1.1 Assignment

St. Lucie County retained Fishkind & Associates, Inc. to analyze the economic and fiscal impacts of its updated Master Plan for the Port of Fort Pierce. Economic impacts refer to the effects of the Master Plan on the area's jobs and economic output.

1.2 Background

The Board of County Commissioners of St. Lucie County ("Board") recently adopted an updated Master Plan for the Port of Fort Pierce, Shaping the Seaport 2002 Master Plan for Port of Fort Pierce.¹ The Board is in the process of updating its Comprehensive Land Use Plan ("Comp Plan") to incorporate the updated Master Plan. These activities are mandated under Florida law that requires all 14 of Florida's deepwater seaports to prepare and to regularly update a master plan and to coordinate the master plan with the Comp Plan of the local government.²

The Port of Fort Pierce comprises approximately 163 acres, of which all but 34.65 acres are owned privately. Today 87.6 acres of the Port are undeveloped. The 1989 Fort Pierce Port Plan was based on the assumption that the County would acquire the undeveloped land for diverse marine-related uses. Opportunities were reviewed for expanding cargo operations, initiating cruise operations, and industrial uses. However, very little development has occurred.

The text for the goals, objectives and policies for the Proposed Deepwater Port Master Plan Component for the Coastal Management Element of the St. Lucie County Comprehensive Plan is as follows.

¹ FAU/FIU Joint Center (March 12, 2002), Shaping the Seaport 2002 Master Plan for Port of Fort Pierce.

² FAC, Section 9J-5.012(5)(a)

A revised vision for the Port of Fort Pierce was established in 1996 through a non-binding public referendum and charrette process, which shifted the intended general uses from exclusively cargo as per the 1989 Port Master Plan to a mix of recreational, commercial and industrial uses. Since that time and through additional public workshops, this vision has been further refined to focus the industrial component of the mixed use port on marine industries, specifically the megayacht industry, and for such uses to serve as the anchor tenant at the Port of Fort Pierce. [Emphasis added]

In conjunction with updating the Master Plan the Board issued RFQ 02-053 soliciting interest in leasing 87 acres of the undeveloped property at the Port for use as a state-of-the-art shipyard and world-class mega-yacht marina. The County forwarded two responses it received from very well qualified and financially capable groups interested in developing the shipyard and mega-yacht marina at the Port.

The replies to the RFQ demonstrate that the concept of a mega-yacht marina and shipyard at the Port is feasible. Therefore, the analysis presented here examines the economic and fiscal impacts of the marine facilities outlined in the two replies to the RFQ.

2.0 Size, Scope, and Feasibility of the Proposed Mega-Yacht Marina and Shipyard

2.1 Proposals for the Mega-Yacht Marina and Shipyard

As noted above, the County solicited interest in the development and operation of a mega-yacht marina and shipyard at the Port in RFQ 02-053. Two responses were provided for the basis of this study.

- (1) World Port, L.L.C. a joint venture between the Burger Boat Company and Lurssen Yachts and
- (2) An L.L.C. formed by Haskell Company, Parsons Brinckerhoff, and Maritime Trust Company

Both groups are highly qualified and eminently capable of designing, constructing, operating and maintaining the mega-yacht marina and shipyard. Both proposals are quite similar in size and scope of the proposed facilities. These are summarized in Table 1.

**Table 1. Size and Scope of Proposed Mega-Yacht Facilities
Marina and Shipyard at Port of Fort Pierce**

Category	World Port	Haskell et.al
<u>Marina</u>		
Acres	50	40
Slips	40	50
Size	100'-450'	80'-300'
<u>Shipyard</u>		
Acres	27	25
Lift #1	1,600 DWT	1,600 DWT
Lift #2	300 DWT	300 DWT
Land berths	30	30
<u>Amenities</u>		
Acreage	10	15
Public Use		7

Both proposals include a world-class mega-yacht marina and shipyard. World Port would develop a marina that could accommodate the very largest vessels and would include 40 slips on approximately 50 acres of the Port site. Haskell proposes to focus on ships ranging from 80-to-300 feet accommodating them in 50 slips developed on about 40 acres of the site.

The shipyard component of the two proposals is consistent with their projected marina operation. World Port envisions handling vessels ranging in size from 100-to-450 feet at the shipyard and provides the necessary lifts (1,600 deadweight tons "DWT") and building as well as extensive land berths. Haskell's shipyard also focuses on mega-yachts, but it is sized to accommodate vessels from 80-to-300 feet. Both shipyards are designed as state-of-the-art facilities providing the full range of construction, refit and repair services.

Finally, each proposal includes 10-to-15 acres for recreation, lodging, and restaurant uses. These would be geared to complement the marina and shipyard.

Neither proposal provided further details or employment projections. However, in subsequent communication with the County Haskell estimates that its complex would have total employment of 400.

Finally, only the World Port proposal provided a cost estimate, \$50,000,000 for their project. Again, however, both World Port and Haskell subsequently updated their cost estimates that now stand at \$100,000,000 for the marina complex and shipyard.

2.2 Commercial feasibility

The fact that two such qualified and respected groups responded to the RFQ proves that the concept of a world-class mega-yacht marina and shipyard has commercial merit. Therefore, the analysis contained in this report assumes that the Master Plan is economically viable.

3.0 Economic Impact Analysis – Review of the Literature and Impact Assessment

3.1 Literature review

While our review of the literature did not identify any study that specifically addressed a world-class mega-yacht marina and shipyard facility, there are a number of useful studies of recreational boating in Florida and in St. Lucie County. Furthermore, there are a number of studies examining the economic impacts of seaports in Florida. These studies provide useful background information and important metrics relative to economic impacts.

The most relevant of the recent studies was G.E.C.'s analysis of the economic impact of the Intracoastal Waterway in St. Lucie County.³ In the study GEC conducted extensive surveys of recreational boaters and the supporting marine industry in St. Lucie County. Using the IMPLAN input/output model GEC estimated the direct and induced economic impacts on St. Lucie County's economy from the operation and use of the Intracoastal Waterway.

Table 2 presents a summary of their findings. Recreational boating activities associated with the Intracoastal Waterway contributed over \$193,000,000 in total sales to St. Lucie County's economy. This activity supported 1,377 direct jobs in marine-related industries and a total of 2,359 jobs in the County.

³ G.E.C. (June 2001), Final Report An Economic Analysis of the District's Waterways in St. Lucie County.

The study also provides a wealth of detail concerning recreational boating in the County. Most relevant for this study are the data on larger vessels. St. Lucie County has approximately 10 mega-yachts larger than 65 feet registered in the County.⁴ As expected, the larger vessels are used more often and their expenditures per day are much higher than is true for smaller boats.⁵

Table 2. Summary of Economic Impacts of the Intracoastal Waterway in St. Lucie County

Category	Amount
Direct Jobs	1,377
Induced Jobs	982
	=====
Total Jobs	2,359
Direct Output	\$123
Induced Output	\$70
	=====
Total Output	\$193

GEC developed a profile for marine related businesses in St. Lucie County. Most of them are located along the waterway or adjacent to it. The largest class provides various types of services to boaters, followed by retail trade and manufacturing. These businesses report that 95% of their sales are related to maritime use.

The GEC study provides important perspective on the impact that may occur from the Master Plan. First, the study provides a sense of scale. Second, the GEC study demonstrates that the County has an important, viable, marine-based industry already. Therefore, an expansion of the direct business related to maritime activities, such as that anticipated under the Master Plan, has the local infrastructure and industry-base to capitalize on the downstream, or multiplier, impacts associated with new facilities.

⁴ GEC, Op. Cit., page 11.

⁵ GEC, Op. Cit., pages 45 and 49.

Most of Florida's seaports have conducted economic impact assessments recently. The most relevant of these are the ones recently generated for other near-by seaports on Florida's east coast, Everglades, Canaveral and Jacksonville. Although each of these is much larger than Fort Pierce, and each provides facilities and services not offered at Fort Pierce, the relationships between their port activities and the consequent economic impacts are useful guidelines for this report. Table 3 summarizes the economic impacts of these ports.

Table 3. Summary of Economic Impacts of Florida's East Coast Seaports

Category	Everglades	Canaveral	Jacksonville
Methodology	Input/Output	Input/Output	Input/Output
Direct Jobs	7,736	10,000	26,870
Induced Jobs	7,264	6,000	18,202
	=====	=====	=====
Total Jobs	15,000	16,000	45,072
Direct Output (\$millions)	\$707	\$286	\$801
Induced Output (\$millions)	\$643	\$178	\$499
	=====	=====	=====
Total Output (\$millions)	\$1,350	\$464	\$1,300

In examining their economic impacts each of the other three seaports utilized input/output methodologies. The GEC study also employed an input/output methodology. Essentially, the input/output method estimates the total impacts of an economic activity on the area's economy in three steps.

First, the direct effects of the seaports are measured. These direct effects are then analyzed to determine how much of the activity creates local spending and employment. For example, one measure of port activity is tons of cargo moved.

Some of the economic impact is localized, such as spending for labor and direct supplies. However, some of the impact "leaks" out of the area in the form of outside contractors, equipment, and supplies purchased from outside the local economy. Thus, the second step involves measuring this leakage. Third, the local component of the economic activity will generate additional spending and employment in the local economy as port employees spend their earnings and as port purveyors purchase inputs and supplies locally.⁶

These seaports are very large economic engines generating thousands of jobs and millions of dollars of local economic output and expenditures. The range and scope of economic impacts varies significantly across the ports depending upon their mix of business. Table 4 provides a summary of port activities for the three large comparable ports and presents related data for the Port of Fort Pierce.

Port Everglades provides a wide range of port services including cruise ships, containers, and bulk materials, particularly petroleum products. Jacksonville is exclusively a commercial port with no cruise ship activity. The port specializes in vehicle imports and containers. By contrast, Port Canaveral has a very large cruise ship business with a much smaller commercial component. Finally, Fort Pierce is a relatively small commercial port.

Table 4. Summary of Seaport Activity for Fort Pierce, Everglades, Canaveral and Jacksonville

Category	Everglades	Canaveral	Jacksonville	Ft. Pierce
Total Trade (\$Millions)	10,450	557	10,614	29
Total Tons (Millions)	23.7	4.6	18	0.1
Containers (TUES)	621,421		698,903	-
Cruise Passengers	3,072,343	915		-
		3,593,343		

⁶ See GEC, Op. Cit, pages 25-57 for an excellent discussion and application of the input/output methodology.

There are a number of other studies reviewed in developing this research. Among them the most relevant were those recently prepared for the Broward County Economic Development Council in 1995 and 1997.⁷ These studies conducted surveys of 720 marine-related businesses in the County of which 240 were completed and useable. Using the RIMS II input/output model the study concluded that Broward County's recreational marine industry generated total sales of more than \$3 billion with 94,571 total jobs supported by the industry. There is no doubt that the recreational boating industry produces very large and important economic impacts.

Finally, of particular relevance to this study is the analysis of tourist boats in Florida.⁸ Although this 1991 analysis is a bit dated, it provides direct survey-based data on the expenditures of 31 luxury vessels visiting Florida. The study results are summarized in Table 5 below. The vessels stayed an average of six months in Florida. Together they spent \$7,162,000 during their stay for an average of \$231,032 in 1991 dollars. Allowing for inflation this total would be \$319,803 today. Based on an input/output analysis using RIMS II the study determined that these vessels supported 165 jobs on a full time equivalent basis during their stay in Florida waters.

**Table 5. Summary of Results.
Economic Impact of 31 Luxury Vessels Visiting Florida in 1991**

Category	Direct	Total	Jobs
Expenditures	\$7,162,000	\$10,325,250	165
Per Vessel	\$231,032	\$333,073	5.32
Per Vessel \$2002	\$319,803	\$461,050	5.32

⁷ Broward Economic Development Council (June 1995 and 1997), The Economic Impact of the Recreational Marine Industry.

⁸ Broward Economic Development Council (1991), The Report on Preliminary Results of the Study to Estimate Local Spending and Economic Impact of Tourist Boats in Florida.

3.2 Methodology to estimate the economic impacts of the Master Plan

As noted previously, all of the relevant studies of the economic impacts of maritime activities used some form of input/output modeling⁹. The input/output approach allows for the quantification of the total economic impacts flowing from the direct effects of a particular economic activity, such as recreational boating, or from a specific facility, like a seaport. Input/output models based on general equilibrium analysis wherein the model tracks the economic transactions among various industries that ultimately results in consumer goods and services. The approach allows for the detailed tracing on inter-industry relationships.

Fundamentally, the concept is based on the idea that in every transaction there is both a purchaser and a producer. A purchase by one merchant from a wholesaler is viewed as a sale by the wholesaler. In turn the wholesaler purchases products from various manufacturers who in turn make those sales. Each manufacturer must purchase supplies and materials. In each round of transactions there is need for labor services. The input/output model generates a matrix that captures these complex interactions with a series of mathematical formula.

There are three basic input/output models that are routinely used by analysts of maritime activities, (a) Implan, (b) RIMS II, and (c) MARAD. Each of these is described briefly below.

IMPLAN is a regional input/output model originally developed by the U.S. Department of Agriculture, Department of Interior, the Federal Emergency Management Agency, and the University of Minnesota to assist the Forest Service in its planning activities. IMPLAN is calibrated based on the 1992 U.S. input/output accounts, benchmarked to 1995 income measures expressed in 1997 dollars. The model is a 525-sector matrix that estimates multipliers summarizing the induced economic effects of a direct change in final demand, or in sales. The model estimates sales revenues, income and employment.

⁹ See Leontief, Wassily (1941), The Structure of the American Economy, 1919-29, Harvard University Press: Cambridge, Massachusetts

RIMS II is a regional economic impact model consisting of 531 industrial sectors that was developed by the U.S. Department of Commerce, Bureau of Economic Analysis. The model is widely used by the Defense Department and the Congress to measure the regional impacts of national programs. Like IMPLAN RIMS II is based on the 1992 national input/output accounts. RIMS II adjusts the national coefficients using local area data on wages and employment to create locally tailored models. RIMS II measures economic impacts in terms of employment, earnings, and output (total sales).

MARAD is a model developed by the U.S. Department of Transportation, Maritime Administration in conjunction with Strauss-Wieder, Inc. and Rutgers University. The model is distributed under the name Pro Kit, and it is specifically designed to analyze the economic impacts of seaports. The model consists of a 30-sector input/output model calibrated for 100 metropolitan areas in the U.S. Since the model is focused on seaports, it provides economic impacts for container movements, bulk transport of liquids and dry materials, auto transport, break bulk, project cargo, ferry operations, and cruise ships.

Each of these three models was evaluated for use in this study, and each has merit. The MARAD model is the most focused on seaports. Unfortunately, MARAD is not calibrated for, nor does it handle well, recreational boating activities. Furthermore, the model cannot evaluate the impacts of shipyard activities. Therefore, it was eliminated from consideration.

IMPLAN is an excellent input/output model with sufficient breadth to analyze the activities envisioned in the Master Plan. However, it is our experience that IMPLAN is awkward to use and it is not well calibrated to the specific conditions in Florida.

By contrast, RIMS II is easy to use, and it is very well calibrated to conditions in Florida. Therefore, RIMS II was used here.

3.3 Economic impacts of the Master Plan

There are three basic steps to estimate the economic impacts of the Master Plan using RIMS II.

- (1) Determine the direct economic effects by measuring the dollar volume of final sales generated by the shipyard and marina.
- (2) Estimate the percentage of direct sales that leak out of the local area economy and thereby do not create additional rounds of spending. Deduct this leakage from the estimates of direct sales.
- (3) Estimate the total economic impacts of the shipyard and marina using the RIMS II multipliers.

The direct sales created by the mega-yacht marina and shipyard represent new economic activity for St. Lucie County. These spending streams create jobs, income, and additional economic output for the area. The sales for each of the two components of the Master Plan are estimated separately based on the information provided in the replies to the RFQ.

Starting with the marina, the responders to the RFQ projected between 40 and 50 slips at their mega-yacht facilities. The two proposals differed in terms of the vessels that they would accommodate. However, the bulk of the mega-yacht fleet is boats under 150 feet. Boats of this size typically carry a crew of four along with an average passenger load of four. Table 6 summarizes the basic assumptions.

Table 6. Basic Assumptions for the Mega-Yacht Marina

Category	Amount
Marina Slips	45
Average Vessel Length	125
Average Passengers	4
Average Crew	4

Dockage rates vary by season of the year. A review of competitive rate quotes from comparable facilities, such as Pier 66 and Bahia Mar, indicate in season rates for mega-yachts of \$3 per foot with a rate of \$2 per foot in the off season. Occupancy rates are very high for these facilities in season typically 95%-to-100%. Off-season occupancy rates fall to around 25%. These assumptions were used to estimate direct dockage spending for the proposed mega-yacht marina. Mega-yachts also have substantial expenditures for supplies and maintenance during the season. Spending on supplies was projected at 40% above dockage expenditures with maintenance estimated at 75% of spending on supplies. Off-season spending declines precipitously since the yachts are used much less frequently. Table 7 presents the estimates for direct expenditures for the mega-yacht marina.

Table 7. Forecast for Expenditures Generated at the Mega-Yacht Marina

Category	Nov-April	May-October	Total
Occupancy	95%	25%	
<u>Ships Direct Purchases</u>			
<u>Per Yacht</u>			
Dockage	\$67,500	\$45,000	\$112,500
Supplies	\$94,500	\$22,500	\$117,000
Maintenance/Services	\$70,875	\$11,250	\$82,125
Passenger Spending	\$36,000	\$36,000	\$72,000
Crew Spending	\$7,200	\$7,200	\$14,400
	=====	=====	=====
Gross Total per yacht	\$276,075	\$121,950	\$398,025
Less Occupancy Loss	\$13,804	\$91,463	\$105,266
Net per yacht	\$262,271	\$30,488	\$292,759
Total Yachts (45)	\$11,802,206	\$1,371,938	\$13,174,144

Total direct spending is estimated at \$13,174,144 or \$292,759 per vessel per year. This estimate compares favorably to the estimate of \$319,803¹⁰ per vessel from the 1991 study of 31 tourist vessels described in Section 3.1.

¹⁰ Adjusted to current dollars. The study estimated spending of \$231,032 per vessel in 1991 dollars.

The next step is to estimate the new spending generated by the shipyard. Unfortunately, neither of the proposals received in response to the RFQ contained projections for the annual expenditures or revenues of the shipyard. However, both potential operators have provided estimates of \$100,000,000 for their total investment for the marina complex of which \$75,000,000 is estimated for the shipyard. Based on this investment total a projected level of annual spending at the shipyard of \$150,000,000 was used. In order to generate a return on the investment of \$75,000,000 at the shipyard substantial gross revenues are needed, as well as a reasonable profit margin on those sales. For a project of this magnitude and risk a rate of return of 20% is required. This amounts to profits of \$15,000,000 per year. The estimated profit margin is projected at 10% with the resulting estimate for gross sales of \$150,000,000.

The next step in the methodology involves estimating the amount of spending that quickly leaks out of the local area's economy. The St. Lucie County economy does not produce most of the inputs and supplies that will be consumed at the marina. For example, St. Lucie County has no oil wells or refineries, so 100% of the petroleum products must be imported causing this spending stream to immediately leak out of the area creating few, if any, downstream multiplier effects. Substantial leakage of direct spending is typical of most local areas in Florida. In this study it is estimated that 75% of the direct spending stream leaks quickly from the local area economy leaving 25% of the spending stream to create multiplier effects through respending locally.

Leakage at the shipyard facility is likely to be much higher. The local economy manufactures few of the inputs used in mega-yacht construction. The area has no steel mills, computer fabricators, or coatings manufacturers. Therefore, most of the large volume of spending generated by the shipyard will leak from the area's economy. This study projects that 90% of the spending stream will leak out leaving 10% for respending in the local area.

The estimates of leakage are conservative projections. In this way the economic impacts of the facilities are not overestimated. Also, as noted below, these estimates for total shipyard sales of \$150,000,000 result in estimated direct employment of 300 at the shipyard and a total of 414 direct jobs for the marina and shipyard combined. This total of just over 400 direct jobs is consistent with the estimates for direct employment recently provided by Haskell.¹¹

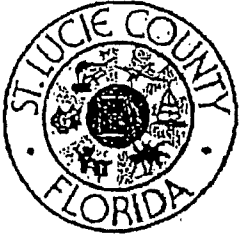
¹¹ PB Constructors estimates 400 direct jobs for the Haskell et al. proposal.



Based on the projections for total spending and the leakage from the spending stream, the RIMS II input/output model is used to project the total economic impacts of the Master Plan in terms of economic output (total local sales) and employment. The projections are provided in Table 8. The marina operation is projected to generate over \$6,500,000 in local economic output and to support more than 200 permanent jobs. The shipyard will generate local output of over \$25,000,000 per year, and it will employ 300 directly and support more than 500 total jobs in St. Lucie County. The marine complex will be a substantial economic benefit to St. Lucie County supporting more than 750 jobs and creating over \$30,000,000 in total annual economic output.

**Table 8. Economic Impacts of the Master Plan
Mega-Yacht Marina and Shipyard at Port of Fort Pierce**

Category	Direct	Induced	Total
Output (local only)			
Yachts	\$3,293,536	\$3,326,471	\$6,620,007
Boatyard	\$14,250,000	\$11,257,500	\$25,507,500
	=====	=====	=====
Total	\$17,543,536	\$14,583,971	\$32,127,507
Employment			
	Direct	Induced	Total
Yachts	114	115	228
Shipyard	300	237	537
	=====	=====	=====
Total	414	352	765



Agenda Request

Item Number 5B
Date: 11/12/02

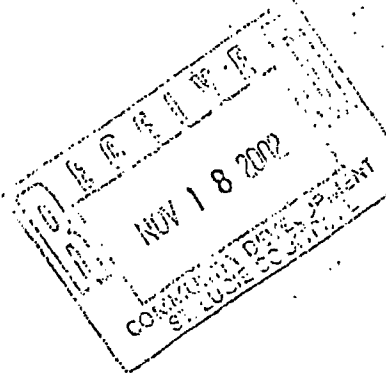
Consent []
Regular []
Public Hearing [x]
Leg. [x] Quasi-JD []

To: Board of County Commissioners
Submitted By: Community Development

Presented By [Signature]
Development Director

SUBJECT: Draft Ordinance 02-014 - An Ordinance Amending the Coastal Management Element of the St. Lucie County Comprehensive Plan to Provide for the Incorporation of the Port of Ft. Pierce Master Plan into this Element Through the Adoption of specific Goals, Objectives and Policies

BACKGROUND: On March 12, 2002, the Board of County Commissioners, sitting as the Port Authority for the Port of Ft. Pierce, approved a revised a master plan for the Port of Ft. Pierce. On June 4, 2002, the Board of County Commissioners reviewed the request of the Port of Ft. Pierce to include, within the St. Lucie County Comprehensive Plan the adopted Master Plan for the Port of Ft. Pierce, and authorized the transmittal of the submitted plan amendments to the Florida Department of Community Affairs, pursuant to the requirements of Section 163.31 78(2)(k), Florida Statutes. On August 30, 2002, the Florida Department of Community Affairs (DCA) provided the County with an Objection Recommendation and Comment (ORC) report on the submitted amendments to the County's Comprehensive Plan regarding the approved Port Master Plan



As the Board is aware, the Port Master Plan is intended to be a "policy type" of document rather than a specific layout plan for the Port Area. The original Master Plan did not include a detailed site layout for the Port Area nor did it address specific land use and zoning matters that are more appropriately the responsibility of the local governing authority in the Port Area. However as part of the ORC comments, the DCA has requested that the Port Master Plan be amended to include at least a general land use map of the Port Area, indicating broad planning designations, and what activities are contemplated in these areas. In addition, the general land use map is to demonstrate consistency with the existing Future Land Use Classifications of the appropriate unit of local government, either the City of Ft. Pierce or the Board of County Commissioners.

In order to address the ORC report from the DCA, the port of Ft. Pierce has prepared a series of amendments to the approved master plan for the Port of Ft. Pierce. Specifically, the proposed amendments include the addition of Master Development Map for the Port Area; an identification of land use activities that may expected in the Port Planning Area; an identification of the need for all land development activities in the Port Planning Area to be consistent with the respective Local Government Comprehensive Plans; an identification of the processes to be followed in regard to incorporating the annual CIP of the Port of Ft. Pierce into the respective Local Government Comprehensive Plans; an identification of the time schedule on which to permit new dredge disposal sites, if required, by the Port of Ft. Pierce, and limitations on the development/redevelopment of high risk land uses, such as residential development, in areas considered to be part of the Coastal High Hazard area as defined by the Local Government Comprehensive Plans, consistent with the requirements of Chapter 163, Florida Statutes.

FUNDS AVAILABLE: N/A

PREVIOUS ACTION: On June 4, 2002, the Board of County Commissioners reviewed the request of the Port of Ft. Pierce to include within the St. Lucie County Comprehensive Plan the adopted Master Plan for the Port of Ft. Pierce, and authorized the transmittal of the submitted plan amendments to the Florida Department of Community Affairs.

RECOMMENDATION: Staff recommends that the Board accept the revised Port Master Plan and approve Draft Ordinance 02-014 incorporating the Goals, Objectives and Policies of the Port of Ft. Pierce Master Plan into the Coastal Management Element of the St. Lucie County Comprehensive Plan

COMMISSION ACTION:
 APPROVED DENIED
 OTHER 5-0

CONCURRENCE:
[Signature]
Douglas M. Anderson
County Administrator

County Attorney _____
Originating Dept.: _____
Finance: _____
Mgt. & Budget: _____
Other: _____
Purchasing: _____
Other: _____
(AGEND664a)

the specifics of that component are yet to be determined. Based on these estimates of employment, and utilizing RIMS II multipliers, we estimate total employment growth of 813 jobs, earnings of an additional \$25 million per year, and additional business sales of \$15 million within the County. This latter includes about \$5 million in "off site" expenditures per year by visiting ships' crew, based on an assumption of \$50 per day of expenditures "off site". These could average about 250 crewmembers at any given time, assuming an average crew size of 10, and 25 yachts in the marina at any given time.

Other Potential Benefits

There are other benefits, economic and financial, which we have not considered here, due to the preliminary nature and brevity of the analysis. These may include, but would not necessarily be limited to:

- ~~Increased utilization of the cargo port, and resulting increases in port tariff revenues;~~
- Financial benefits to the County, including increased property and sales taxes;
- Potential for State of Florida port funding under the The Florida Seaport Transportation and Economic Development (FSTED) Program

Issues for Further Assessment

The following are some of the issues which remain to be assessed as the project is being structured.

- The additional benefits above, which we have not yet quantified, remain to be quantified. In particular, the extent to which County expenditures (if any), such as in exercising eminent domain, would be offset by increased County taxes and other fees remains to be assessed.
- Optimal financial structure of the project, including public-private funding, and the allocation of risk among the public and private sector
- Market considerations – the extent to which a multiple tenant/user may be better than a single investor

**9J-5.012 F.A.C.
COASTAL MANAGEMENT**

o. This chapter shall not be interpreted or applied to:

i. Mandate that local governments require existing facilities to be retrofitted to meet stormwater discharge water quality standards or stormwater management level of service standards.

ii. Eliminate any presumption provided by state or regional law or regulation that stormwater management systems which satisfy appropriate state or regional regulatory design and performance criteria also satisfy applicable stormwater discharge water quality standards.

iii. Prevent local governments from providing that compliance with adequate locally or regionally established level of service standards other than the design and performance criteria of Chapter 17-25, F.A.C., shall also be presumed to satisfy the stormwater discharge water quality standards.

iv. Prevent local governments from incorporating by reference stormwater management water quality standard exemptions to the extent they appear in state or regional stormwater management water quality laws or regulations.

v. Mandate that local governments conduct water quality sampling or testing of stormwater discharge receiving waters to implement the standards described in this subsection.

Specific Authority 163.3177(9), (10) FS.

Law Implemented 163.3177(1), (5), (6)(c), (8), (9), (10) FS.

History—New 3-6-86, Amended 10-20-86, 5-18-94, 3-21-99.

9J-5.012 Coastal Management.

The purpose of this element is to plan for and where appropriate restrict development activities where such activities would damage or destroy coastal resources, and protect human life and limit public expenditures in areas that are subject to destruction by natural disaster.

(1) Local governments required by law to prepare a coastal management element are listed in the document entitled "Local Governments Required to Include Coastal Management Elements in their Comprehensive Plans," dated

July 1, 1986, and available from the Department upon request. The local governments listed in the document and any other communities that incorporate subsequent to July 1, 1986, and meet the criteria in Chapter 380.24, Florida Statutes, shall include a coastal management element in their comprehensive plans.

(2) Coastal Management Data And Analysis Requirements. The element shall be based upon the following data and analyses requirements pursuant to subsection 9J-5.005(2).

(a) Existing land uses in the coastal planning area shall be inventoried. Conflicts among shoreline uses shall be analyzed and the need for water-dependent and water-related development sites shall be estimated. Any areas in need of redevelopment shall be identified. An analysis of the economic base of the coastal planning area based on the future land use element shall be included. A map or map series showing existing land uses and detailing existing water-dependent and water-related uses shall be prepared.

(b) Inventories and analyses of the effect of the future land uses as required to be shown on the future land use map or map series on the natural resources in the coastal planning area shall be prepared including: vegetative cover, including wetlands; areas subject to coastal flooding; wildlife habitats; and living marine resources. Maps shall be prepared of vegetative cover, wildlife habitat, areas subject to coastal flooding, and other areas of special concern to local government.

(c) An inventory and analysis of the impacts of development and redevelopment proposed in the future land use element on historic resources and sites in the coastal planning area shall be included along with a map of areas designated for historic preservation.

(d) An inventory and analysis shall be prepared of estuarine pollution conditions and actions needed to maintain estuaries including: an assessment of general estuarine conditions and identification of known existing point and non-point source pollution problems; an assessment of the impact of the development and redevelopment proposed in the future land use element and the impacts of facilities proposed in the traffic circulation and general sanitary sewer, solid waste, drainage, potable water, and natural groundwater aquifer recharge elements upon water quality, circulation patterns, and accumulation of contaminants in sediments; identification of actions needed to remedy existing pollution problems; and identification of existing state, regional

and local regulatory programs which will be used to maintain or improve estuarine environmental quality.

(e) The following natural disaster planning concerns shall be inventoried or analyzed:

1. Hurricane evacuation planning based on the hurricane evacuation plan contained in the local peacetime emergency plan shall be analyzed and shall consider the hurricane vulnerability zone, the number of persons requiring evacuation, the number of persons requiring public hurricane shelter, the number of hurricane shelter spaces available, evacuation routes, transportation and hazard constraints on the evacuation routes, and evacuation times. The projected impact of the anticipated population density proposed in the future land use element and any special needs of the elderly, handicapped, hospitalized, or other special needs of the existing and anticipated populations on the above items shall be estimated. The analysis shall also consider measures that the local government could adopt to maintain or reduce hurricane evacuation times.

2. Post-disaster redevelopment including: existing and proposed land use in coastal high-hazard areas; structures with a history of repeated damage in coastal storms; coastal or shore protection structures; infrastructure in coastal high-hazard areas; and beach and dune conditions. Measures which could be used to reduce exposure to hazards shall be analyzed, including relocation, structural modification, and public acquisition.

3. Coastal high-hazard areas shall be identified and the infrastructure within the coastal high-hazard area shall be inventoried. The potential for relocating threatened infrastructure shall be analyzed.

(f) Beach and dune systems shall be inventoried and analyzed, including past trends in erosion and accretion, the effects upon the beaches or dunes of coastal or shore protection structures, and identification of existing and potential beach renourishment areas. The analysis shall also identify measures which could be used to protect or restore beaches or dunes.

(g) Public access facilities shall be inventoried, including: all public access points to the beach or shoreline through public lands, private property open to the general public, or other legal means; parking facilities for beach or shoreline access; coastal roads

and facilities providing scenic overlooks; mannas; boat ramps; public docks; fishing piers; or other traditional shoreline fishing areas. The capacity of and need for the above facilities shall be analyzed. Public access facilities shall be shown on the map or map series required by Paragraph (2)(a) as water-dependent uses or facilities. These inventories and analyses shall be coordinated with the recreation and open space element and any countywide marina siting plan if adopted by the local government.

(h) Existing infrastructure in the coastal planning area shall be inventoried, including: roadways, bridges or causeways, sanitary sewer facilities, potable water facilities, man-made drainage facilities, public coastal or shore protection structures, and beach renourishment projects. The demand upon, capacity of, and area served by the existing infrastructure shall be analyzed. Analyses shall be prepared which estimate future needs for those facilities listed above, and which shall address the fiscal impact in terms of estimated costs, funding sources and phasing of any needed improvements.

(3) Requirements for Coastal Management Goals, Objectives, and Policies.

(a) The coastal management element shall contain one or more goal statements which establish the long term end toward which regulatory and management efforts are directed. These shall reflect the stated intent of the Legislature in enacting Section 163.3178, Florida Statutes, which is that local governments in their comprehensive plans restrict development activities that would damage or destroy coastal resources, and protect human life and limit public expenditures in areas subject to destruction by natural disasters.

(b) The element shall contain one or more specific objectives for each goal statement which address the requirements of Paragraph 163.3177(6)(g) and Section 163.3178, Florida Statutes, and which:

1. Protect, conserve, or enhance remaining coastal wetlands, living marine resources, coastal barriers, and wildlife habitat;

2. Maintain or improve estuarine environmental quality;

3. Provide criteria or standards for prioritizing shoreline uses, giving priority to water-dependent uses;

4. Protect beaches or dunes, establish construction standards which minimize the impacts of

man-made structures on beach or dune systems, and restore altered beaches or dunes:

5. Limit public expenditures that subsidize development permitted in coastal high-hazard areas subsequent to the element's adoption except for restoration or enhancement of natural resources;

6. Direct population concentrations away from known or predicted coastal high-hazard areas;

7. Maintain or reduce hurricane evacuation times;

8. Prepare post-disaster redevelopment plans which will reduce or eliminate the exposure of human life and public and private property to natural hazards;

9. Increase the amount of public access to the beach or shorelines consistent with estimated public needs;

10. Provide for protection, preservation, or sensitive reuse of historic resources; and

11. Establish level of service standards, areas of service and phasing of infrastructure in the coastal planning area.

(c) The element shall contain one or more policies for each objective and shall identify regulatory or management techniques for:

1. Limiting the specific impacts and cumulative impacts of development or redevelopment upon wetlands, water quality, water quantity, wildlife habitat, living marine resources, and beach and dune systems;

2. Restoration or enhancement of disturbed or degraded natural resources including beaches and dunes, estuaries, wetlands, and drainage systems; and programs to mitigate future disruptions or degradations;

3. General hazard mitigation including regulation of building practices, floodplains, beach and dune alteration, stormwater management, sanitary sewer and septic tanks, and land use to reduce the exposure of human life and public and private property to natural hazards; and incorporating the recommendations of the hazard mitigation annex of the local peacetime emergency plan and applicable existing interagency hazard mitigation reports. Incorporating recom-

mendations from interagency hazard mitigation reports shall be at the discretion of the local government;

4. Hurricane evacuation including methods to relieve deficiencies identified in the hurricane evacuation analysis, and procedures for integration into the regional or local evacuation plan;

5. Post-disaster redevelopment including policies to: distinguish between immediate repair and cleanup actions needed to protect public health and safety and long-term repair and redevelopment activities; address the removal, relocation, or structural modification of damaged infrastructure as determined appropriate by the local government but consistent with federal funding provisions and unsafe structures; limiting redevelopment in areas of repeated damage; and, policies for incorporating the recommendations of interagency hazard mitigation reports, as deemed appropriate by the local government, into the local government's comprehensive plan when the plan is revised during the evaluation and appraisal process;

6. Identifying areas needing redevelopment, including eliminating unsafe conditions and inappropriate uses as opportunities arise;

7. Designating coastal high-hazard areas and limiting development in these areas;

8. The relocation, mitigation or replacement, as deemed appropriate by the local government, of infrastructure presently within the coastal high-hazard area when state funding is anticipated to be needed.

9. Establishing priorities for shoreline land uses, providing for siting water-dependent and water-related uses, establishing performance standards for shoreline development, and establishing criteria for marina siting, including criteria consistent with the countywide marina siting plan if adopted by the local government, which address: land use compatibility, availability of upland support services, existing protective status or ownership, hurricane contingency planning, protection of water quality, water depth, environmental disruptions and mitigation actions, availability for public use, and economic need and feasibility;

10. Providing, continuing, and replacing adequate physical public access to beaches and shorelines; enforcing public access to beaches

renourished at public expense; enforcing the public access requirements of the Coastal Zone Protection Act of 1985; and providing transportation or parking facilities for beach and shoreline access:

11. Historic resource protection, including historic site identification and establishing performance standards for development and sensitive reuse of historic resources:

12. The orderly development and use of deepwater ports, if applicable, including how the local government shall cooperate with the deepwater port to resolve problems in transportation, land use, natural and man-made hazards, and protection of natural resources. Include a procedure to resolve inconsistencies between the local government comprehensive plan and the deepwater port master plan through the dispute resolution process as provided under s. 186.509, Florida Statutes, which is to be utilized in the event the local government and a deepwater port are unable to resolve the inconsistencies:

13. Ensuring that required infrastructure is available to serve the development or redevelopment in the coastal planning area at the densities proposed by the future land use plan, consistent with coastal resource protection and safe evacuation, by assuring that funding for infrastructure will be phased to coincide with the demands generated by development or redevelopment:

14. Protecting estuaries which are within the jurisdiction of more than one local government, including methods for coordinating with other local governments to ensure adequate sites for water-dependent uses, prevent estuarine pollution, control surface water runoff, protect living marine resources, reduce exposure to natural hazards, and ensure public access; and

15. Demonstrating how the local government will coordinate with existing resource protection plans such as resource planning and management plans, aquatic preserve management plans, and estuarine sanctuary plans.

(4) Local governments within the coastal area that participate in a countywide marina siting plan shall include the marina siting plan as part of this element.

(5) Port Master Plans for Deepwater Ports. A port master plan shall be prepared by or for each deepwater port for the purposes of coordinating the activities of the port

with the plans of the appropriate local government; determination of compliance does not imply conceptual approval by the State for permitting purposes.

(a) Deepwater ports shall prepare a port master plan and submit it to the appropriate local government for incorporation as a part of the coastal management element at least six months prior to the due date of the local government's comprehensive plan established pursuant to law. This port master plan shall be incorporated as a part of the coastal management element, and be consistent with the goals, objectives, and policies of the coastal management element. The port master plan of a deepwater port, as it appears in the coastal management element, shall be reviewed for compliance with the criteria below. Failure of a deepwater port which is not a part of the local government to submit a deepwater port master plan shall not cause the local government to be subject to the sanctions in Sections 163.3184 or 163.3167, Florida Statutes, nor cause the regional planning council to prepare the missing port master plan. In this case the deepwater port shall not have its in-water facilities exempted from the provisions of Section 380.06, Florida Statutes, and the port shall be subject to the sanctions in Sections 163.3184 and 163.3167, Florida Statutes. The failure of a deepwater port which is an agency of a local government to prepare a deepwater port master plan may result in the sanctions in Section 163.3184, Florida Statutes, being applied and the missing deepwater port master plan being prepared by the regional planning council. Regardless of whether a deepwater port has prepared a port master plan, any port development shall be consistent with the goals, objectives and policies of the coastal management element of the jurisdiction in which the development occurs.

(b) Inventories and Analyses. The deepwater port shall prepare all applicable inventories and analyses listed in Subsection (2) for the areas they own or administer. Furthermore, the deepwater port shall inventory and analyze: landside transportation needed to support the deepwater port, in-water facilities, maintenance of in-water facilities, management of dredged material, hazardous material handling and cleanup, and handling and cleanup of petroleum products. In addition, the deepwater port shall prepare a map showing the location and boundaries of port owned or administered lands.

(c) Goals, Objectives, and Policies. The deepwater port shall develop goals, objectives, and policies to address the applicable issues listed in Subsection (3). The goals, objectives, and policies shall be con-

sistent with the goals adopted in the remainder of the coastal management element.

(d) Port Maintenance and Expansion. The deepwater port shall set forth its plans for future port expansion for an initial five-year period and in-water facility maintenance for at least a ten-year period, and these plans shall show the economic assumptions used, the foreseeable changes in shipping technologies and port operations, the estimates of types and volumes of commodities to be handled, the needed expansions to in-water and on-land facilities, and the infrastructure required. The plan shall set forth requirements for maintaining in-water facilities and for the management of dredged material from both maintenance and expansion. The plan shall assess the impact of port expansion and maintenance on wetlands, beaches and dunes, submerged lands, floodplains, wildlife habitat, living marine resources, water quality, water quantity, public access, historic resources, and the land use and infrastructure of adjacent areas.

(e) Port Master Plan Integration into the Coastal Management Element. If a port master plan is prepared by a deepwater port, then the appropriate local government shall include the port master plan's goals, objectives, and policies and port maintenance and expansion sections in the coastal management element of its comprehensive plan. The data and analyses shall be summarized as required in Subsection 9J-5.012(2), and shall be submitted in support of the comprehensive plan.

Specific Authority 163.3177(9), (10) FS.

Law Implemented 163.3177(1), (5), (6)(g), (8), (9), (10), 163.3178 FS.

History—New 3-6-86, Amended 10-20-86, 3-23-94.

9J-5.013 Conservation Element.

The purpose of the conservation element is to promote the conservation, use and protection of natural resources.

(1) Conservation Data and Analysis Requirements. The element shall be based upon the following data and analyses requirements pursuant to Subsection 9J-5.005(2).

(a) The following natural resources, where present within the local government's boundaries, shall be identified and analyzed:

1. Rivers, bays, lakes, wetlands including estuarine marshes, groundwaters and air, including information on quality of the resource avail-

able from and classified by the Florida Department of Environmental Regulation;

2. Floodplains;

3. Known sources of commercially valuable minerals;

4. Areas known by the local soil and water conservation district to have experienced soil erosion problems; and

5. Areas which are the location of recreationally and commercially important fish or shellfish, wildlife, marine habitats, and vegetative communities including forests, indicating known dominant species present and species listed by federal, state, or local government agencies as endangered, threatened or species of special concern.

(b) For each of the above natural resources, existing commercial, recreational or conservation uses, known pollution problems including hazardous wastes and the potential for conservation, use or protection shall be identified.

(c) Current and projected water needs and sources for the next ten-year period based on the demands for industrial, agricultural, and potable water use and the quality and quantity of water available to meet these demands shall be analyzed. The analysis shall consider existing levels of water conservation, use and protection and applicable policies of the regional water management district.

(2) Requirements for Conservation Goals, Objectives and Policies.

(a) The element shall contain one or more goal statements which establish the long-term end toward which conservation programs and activities are ultimately directed.

(b) The element shall contain one or more specific objectives for each goal statement which address the requirements of Paragraph 163.3177(6)(d), Florida Statutes, and which:

1. Protect air quality;

2. Conserve, appropriately use and protect the quality and quantity of current and projected water sources and waters that flow into estuarine waters or oceanic waters;

STATE OF FLORIDA STATUTES 2000

**CHAPTER 187
(STATE COMPREHENSIVE PLAN)
Sections 20(5) TRANSPORTATION &
22(13) THE ECONOMY**

**CHAPTER 163.3178
(COASTAL MANAGEMENT)**

**CHAPTER 380 - PART II
(COASTAL PLANNING AND MANAGEMENT)**

**CHAPTER 403.021 PART I
(POLLUTION CONTROL)
Sections 9(a) & 9(b)
(LEGISLATIVE DECLARATION; PUBLIC POLICY)**

**CHAPTER 311.07 & 311.09
(FLORIDA SEAPORT TRANSPORTATION &
ECONOMIC DEVELOPMENT)**

**RULE 9J-5.012
COASTAL MANAGEMENT ELEMENT, F.A.C.**

4. Allow flexibility in state and local participation in funding of public transit projects and encourage construction and use of toll facilities in order to meet transportation needs.

5. Ensure that existing port facilities and airports are being used to the maximum extent possible before encouraging the expansion or development of new port facilities and airports to support economic growth.

6. Promote timely resurfacing and repair of roads and bridges to minimize costly reconstruction and to enhance safety.

7. Develop a revenue base for transportation which is consistent with the goals and policies of this plan.

8. Encourage the construction and utilization of a public transit system, including, but not limited to, a high-speed rail system, in lieu of the expansion of the highway system, where appropriate.

9. Ensure that the transportation system provides Florida's citizens and visitors with timely and efficient access to services, jobs, markets, and attractions.

10. Promote ride sharing by public and private sector employees.

11. Emphasize state transportation investments in major travel corridors and direct state transportation investments to contribute to efficient urban development.

12. Avoid transportation improvements which encourage or subsidize increased development in coastal high-hazard areas or in identified environmentally sensitive areas such as wetlands, floodways, or productive marine areas.

13. Coordinate transportation improvements with state, local, and regional plans.

14. Acquire advanced rights-of-way for transportation projects in designated transportation corridors consistent with state, regional, and local plans.

15. Promote effective coordination among various modes of transportation in urban areas to assist urban development and redevelopment efforts.

(21) GOVERNMENTAL EFFICIENCY.—

(a) *Goal.*—Florida governments shall economically and efficiently provide the amount and quality of services required by the public.

(b) *Policies.*—

1. Encourage greater cooperation between, among, and within all levels of Florida government through the use of appropriate interlocal agreements and mutual participation for mutual benefit.

2. Allow the creation of independent special taxing districts which have uniform general law standards and procedures and do not overburden other governments and their taxpayers while preventing the proliferation of independent special taxing districts which do not meet these standards.

3. Encourage the use of municipal services taxing units and other dependent special districts to provide needed infrastructure where the fiscal capacity exists to support such an approach.

4. Eliminate regulatory activities that are not tied to specific public and natural resource protection needs.

5. Eliminate needless duplication of, and promote cooperation in, governmental activities between,

among, and within state, regional, county, city, and other governmental units.

6. Ensure, wherever possible, that the geographic boundaries of water management districts, regional planning councils, and substate districts of the executive departments shall be coterminous for related state or agency programs and functions and promote interagency agreements in order to reduce the number of districts and councils with jurisdiction in any one county.

7. Encourage and provide for the restructuring of city and county political jurisdictions with the goals of greater efficiency and high-quality and more equitable and responsive public service programs.

8. Replace multiple, small scale, economically inefficient local public facilities with regional facilities where they are proven to be more economical, particularly in terms of energy efficiency, and yet can retain the quality of service expected by the public.

9. Encourage greater efficiency and economy at all levels of government through adoption and implementation of effective records management, information management, and evaluation procedures.

10. Throughout government, establish citizen management efficiency groups and internal management groups to make recommendations for greater operating efficiencies and improved management practices.

11. Encourage governments to seek outside contracting on a competitive-bid basis when cost-effective and appropriate.

12. Discourage undue expansion of state government and make every effort to streamline state government in a cost-effective manner.

13. Encourage joint venture solutions to mutual problems between levels of government and private enterprise.

(22) THE ECONOMY.—

(a) *Goal.*—Florida shall promote an economic climate which provides economic stability, maximizes job opportunities, and increases per capita income for its residents.

(b) *Policies.*—

1. Attract new job-producing industries, corporate headquarters, distribution and service centers, regional offices, and research and development facilities to provide quality employment for the residents of Florida.

2. Promote entrepreneurship and small and minority-owned business startup by providing technical and information resources, facilitating capital formation, and removing regulatory restraints which are unnecessary for the protection of consumers and society.

3. Maintain, as one of the state's primary economic assets, the environment, including clean air and water, beaches, forests, historic landmarks, and agricultural and natural resources.

4. Strengthen Florida's position in the world economy through attracting foreign investment and promoting international banking and trade.

5. Build on the state's attractiveness to make it a leader in the visual and performing arts and in all phases of film, television, and recording production.

6. Promote economic development for Florida residents through partnerships among education, business, industry, agriculture, and the arts.

7. Provide increased opportunities for training Florida's workforce to provide skilled employees for new and expanding business.

8. Promote economic self-sufficiency through training and educational programs which result in productive employment.

9. Promote cooperative employment arrangements between private employers and public sector employment efforts to provide productive, permanent employment opportunities for public assistance recipients through provisions of education opportunities, tax incentives, and employment training.

10. Provide for nondiscriminatory employment opportunities.

11. Provide quality child day care for public assistance families and others who need it in order to work.

12. Encourage the development of a business climate that provides opportunities for the growth and expansion of existing state industries, particularly those industries which are compatible with Florida's environment.

13. Promote coordination among Florida's ports to increase their utilization.

14. Encourage the full utilization by businesses of the economic development enhancement programs implemented by the Legislature for the purpose of extensively involving private businesses in the development and expansion of permanent job opportunities, especially for the economically disadvantaged, through the utilization of enterprise zones, community development corporations, and other programs designed to enhance economic and employment opportunities.

(23) AGRICULTURE.—

(a) *Goal.*—Florida shall maintain and strive to expand its food, agriculture, ornamental horticulture, aquaculture, forestry, and related industries in order to be a healthy and competitive force in the national and international marketplace.

(b) *Policies.*—

1. Ensure that goals and policies contained in state and regional plans are not interpreted to permanently restrict the conversion of agricultural lands to other uses.

2. Encourage diversification within the agriculture industry, especially to reduce the vulnerability of communities that are largely reliant upon agriculture for either income or employment.

3. Promote and increase international agricultural marketing opportunities for all Florida agricultural producers.

4. Stimulate research, development, and application of agricultural technology to promote and enhance the conservation, production, and marketing techniques available to the agriculture industry.

5. Encourage conservation, wastewater recycling, and other appropriate measures to assure adequate water resources to meet agricultural and other beneficial needs.

6. Promote entrepreneurship in the agricultural sector by providing technical and informational services.

7. Stimulate continued productivity through investment in education and research.

8. Encourage development of biological pest controls to further the reduction in reliance on chemical controls.

9. Conserve soil resources to maintain the economic value of land for agricultural pursuits and to prevent sedimentation in state waters.

10. Promote the vitality of Florida's agricultural industry through continued funding of basic research, extension, inspection, and analysis services and of programs providing for marketing and technical assistance and the control and eradication of diseases and infestations.

11. Continue to promote the use of lands for agricultural purposes by maintaining preferential property tax treatment through the greenbelt law.

12. Ensure that coordinated state planning of road, rail, and waterborne transportation systems provides adequate facilities for the economical transport of agricultural products and supplies between producing areas and markets.

13. Eliminate the discharge of inadequately treated wastewater and stormwater runoff into waters of the state.

(24) TOURISM.—

(a) *Goal.*—Florida will attract at least 55 million tourists annually by 1995 and shall support efforts by all areas of the state wishing to develop or expand tourist-related economies.

(b) *Policies.*—

1. Promote statewide tourism and support promotional efforts in those parts of the state that desire to attract visitors.

2. Acquire and manage public lands to offer visitors and residents increased outdoor experiences.

3. Promote awareness of historic places and cultural and historical activities.

(25) EMPLOYMENT.—

(a) *Goal.*—Florida shall promote economic opportunities for its unemployed and economically disadvantaged residents.

(b) *Policies.*—

1. Achieve by 1995 a 70-percent job placement rate for state training program graduates and a 50-percent reduction in the gap between the unemployment rate for disadvantaged groups and the average state unemployment rate.

2. Provide training opportunities for the unemployed which are based upon documented labor market needs.

3. Provide training and job placement assistance to hard-to-employ groups encountering special barriers.

4. Encourage economic development in economically distressed areas.

5. Ensure that the transportation system provides maximum access to jobs and markets.

6. Promote interagency coordination and cooperation to maximize the impact of employment and training services on target groups.

7. Provide services which assist students to make informed career decisions.

with other public facilities such as parks, libraries, and community centers; an analysis of the need for supporting public facilities for existing and future schools; an analysis of opportunities to locate schools to serve as community focal points; projected future population and associated demographics, including development patterns year by year for the upcoming 5-year and long-term planning periods; and anticipated educational and ancillary plants with land area requirements.

(b) The element shall contain one or more goals which establish the long-term end toward which public school programs and activities are ultimately directed.

(c) The element shall contain one or more objectives for each goal, setting specific, measurable, intermediate ends that are achievable and mark progress toward the goal.

(d) The element shall contain one or more policies for each objective which establish the way in which programs and activities will be conducted to achieve an identified goal.

(e) The objectives and policies shall address items such as: the procedure for an annual update process; the procedure for school site selection; the procedure for school permitting; provision of supporting infrastructure; location of future school sites so they serve as community focal points; measures to ensure compatibility of school sites and surrounding land uses; coordination with adjacent local governments and the school district on emergency preparedness issues; and coordination with the future land use element.

(f) The element shall include one or more future conditions maps which depict the anticipated location of educational and ancillary plants. The maps will of necessity be general for the long-term planning period and more specific for the 5-year period.

*History.—*s. 7, ch. 75-257; s. 1, ch. 77-174; s. 1, ch. 80-154; s. 6, ch. 83-308; s. 1, ch. 85-42; s. 6, ch. 85-65; s. 1, ch. 85-308; s. 7, ch. 86-191; s. 5, ch. 92-129; s. 6, ch. 93-206; s. 898, ch. 95-147; s. 3, ch. 95-257; s. 4, ch. 95-322; s. 10, ch. 95-341; s. 10, ch. 95-322; s. 24, ch. 96-410; s. 2, ch. 96-416; s. 2, ch. 98-146; s. 4, ch. 98-176; s. 4, ch. 98-258; s. 90, ch. 99-251; s. 3, ch. 99-378.

163.31775 Intergovernmental coordination element criteria and rule.—The state land planning agency shall evaluate statutory provisions relating to the intergovernmental coordination element, and shall consider changes to its intergovernmental coordination element rules, in consultation with a technical committee of 15 members, appointed by the secretary of the state land planning agency. The membership shall be representative of local governments, regional planning councils, the private sector, and environmental organizations. On or before December 15, 1995, the state land planning agency shall report to the Governor, the Speaker of the House of Representatives, and the President of the Senate on its recommendations for appropriate changes to the intergovernmental coordination element criteria in this chapter and shall submit its draft of a new intergovernmental coordination element rule. The Legislature shall review the draft rule and may approve, approve and modify, disapprove, or take no action on the rule. If the Legislature approves the draft rule, or approves and modifies the draft rule, the draft rule shall become effective as the intergovernmental coordination element rule. If the

Legislature takes no action on the draft rule, the state land planning agency shall promulgate the rule according to chapter 120. If the Legislature disapproves the draft rule, it shall specify the guidelines to be used by the state land planning agency in redrafting the rule. When the intergovernmental coordination element rule is effective as provided by this section, or has been promulgated according to chapter 120, the intergovernmental coordination element rules promulgated by the state land planning agency prior to June 30, 1995, shall stand repealed.

*History.—*s. 5, ch. 95-322.

163.3178 Coastal management.—

(1) The Legislature recognizes there is significant interest in the resources of the coastal zone of the state. Further, the Legislature recognizes that, in the event of a natural disaster, the state may provide financial assistance to local governments for the reconstruction of roads, sewer systems, and other public facilities. Therefore, it is the intent of the Legislature that local government comprehensive plans restrict development activities where such activities would damage or destroy coastal resources, and that such plans protect human life and limit public expenditures in areas that are subject to destruction by natural disaster.

(2) Each coastal management element required by s. 163.3177(6)(g) shall be based on studies, surveys, and data; be consistent with coastal resource plans prepared and adopted pursuant to general or special law; and contain:

(a) A land use and inventory map of existing coastal uses, wildlife habitat, wetland and other vegetative communities, undeveloped areas, areas subject to coastal flooding, public access routes to beach and shore resources, historic preservation areas, and other areas of special concern to local government.

(b) An analysis of the environmental, socioeconomic, and fiscal impact of development and redevelopment proposed in the future land use plan, with required infrastructure to support this development or redevelopment, on the natural and historical resources of the coast and the plans and principles to be used to control development and redevelopment to eliminate or mitigate the adverse impacts on coastal wetlands; living marine resources; barrier islands, including beach and dune systems; unique wildlife habitat; historical and archaeological sites; and other fragile coastal resources.

(c) An analysis of the effects of existing drainage systems and the impact of point source and nonpoint source pollution on estuarine water quality and the plans and principles, including existing state and regional regulatory programs, which shall be used to maintain or upgrade water quality while maintaining sufficient quantities of water flow.

(d) A component which outlines principles for hazard mitigation and protection of human life against the effects of natural disaster, including population evacuation, which take into consideration the capability to safely evacuate the density of coastal population proposed in the future land use plan element in the event of an impending natural disaster.

(e) A component which outlines principles for protecting existing beach and dune systems from human-induced erosion and for restoring altered beach and dune systems.

(f) A redevelopment component which outlines the principles which shall be used to eliminate inappropriate and unsafe development in the coastal areas when opportunities arise.

(g) A shoreline use component which identifies public access to beach and shoreline areas and addresses the need for water-dependent and water-related facilities, including marinas, along shoreline areas.

(h) Designation of high-hazard coastal areas, which for uniformity and planning purposes herein, are defined as category 1 evacuation zones. However, application of mitigation and redevelopment policies, pursuant to s. 380.27(2), and any rules adopted thereunder, shall be at the discretion of local government.

(i) A component which outlines principles for providing that financial assurances are made that required public facilities will be in place to meet the demand imposed by the completed development or redevelopment. Such public facilities will be scheduled for phased completion to coincide with demands generated by the development or redevelopment.

(j) An identification of regulatory and management techniques that the local government plans to adopt or has adopted in order to mitigate the threat to human life and to control proposed development and redevelopment in order to protect the coastal environment and give consideration to cumulative impacts.

(k) A component which includes the comprehensive master plan prepared by each deepwater port listed in s. 311.09(1), which addresses existing port facilities and any proposed expansions, and which adequately addresses the applicable requirements of paragraphs (a)-(k) for areas within the port and proposed expansion areas. Such component shall be submitted to the appropriate local government at least 6 months prior to the due date of the local plan and shall be integrated with, and shall meet all criteria specified in, the coastal management element. "The appropriate local government" means the municipality having the responsibility for the area in which the deepwater port lies, except that where no municipality has responsibility, where a municipality and a county each have responsibility, or where two or more municipalities each have responsibility for the area in which the deepwater port lies, "the appropriate local government" means the county which has responsibility for the area in which the deepwater port lies. Failure by a deepwater port which is not part of a local government to submit its component to the appropriate local government shall not result in a local government being subject to sanctions pursuant to ss. 163.3167 and 163.3184. However, a deepwater port which is not part of a local government shall be subject to sanctions pursuant to s. 163.3184.

(3) Expansions to port harbors, spoil disposal sites, navigation channels, turning basins, harbor berths, and other related inwater harbor facilities of ports listed in s. 403.021(9); port transportation facilities and projects listed in s. 311.07(3)(b); and intermodal transportation

facilities identified pursuant to s. 311.09(3) shall not be developments of regional impact where such expansions, projects, or facilities are consistent with comprehensive master plans that are in compliance with this section.

(4) Improvements and maintenance of federal and state highways that have been approved as part of a plan approved pursuant to s. 380.045 or s. 380.05 shall be exempt from the provisions of s. 380.27(2).

(5) The appropriate dispute resolution process provided under s. 186.509 must be used to reconcile inconsistencies between port master plans and local comprehensive plans. In recognition of the state's commitment to deepwater ports, the state comprehensive plan must include goals, objectives, and policies that establish a statewide strategy for enhancement of existing deepwater ports, ensuring that priority is given to water-dependent land uses. As an incentive for promoting plan consistency, port facilities as defined in s. 315.02(6) on lands owned or controlled by a deepwater port as defined in s. 311.09(1), as of the effective date of this act shall not be subject to development-of-regional-impact review provided the port either successfully completes an alternative comprehensive development agreement with a local government pursuant to ss. 163.3220-163.3243 or successfully enters into a development agreement with the state land planning agency and applicable local government pursuant to s. 380.032 or, where the port is a department of a local government, successfully enters into a development agreement with the state land planning agency pursuant to s. 380.032. Port facilities as defined in s. 315.02(6) on lands not owned or controlled by a deepwater port as defined in s. 311.09(1) as of the effective date of this act shall not be subject to development-of-regional-impact review provided the port successfully enters into a development agreement with the state land planning agency and applicable local government pursuant to s. 380.032 or, where the port is a department of a local government, successfully enters into a development agreement with the state land planning agency pursuant to s. 380.032.

(6) Local governments are encouraged to adopt countywide marina siting plans to designate sites for existing and future marinas. The Coastal Resources Interagency Management Committee, at the direction of the Legislature, shall identify incentives to encourage local governments to adopt such siting plans and uniform criteria and standards to be used by local governments to implement state goals, objectives, and policies relating to marina siting. These criteria must ensure that priority is given to water-dependent land uses. The Coastal Resources Interagency Management Committee shall submit its recommendations regarding local government incentives to the Legislature by December 1, 1993. Countywide marina siting plans must be consistent with state and regional environmental planning policies and standards. Each local government in the coastal area which participates in adoption of a countywide marina siting plan shall incorporate the plan into the coastal management element of its local comprehensive plan.

(7) Each port listed in s. 311.09(1) and each local government in the coastal area which has spoil disposal responsibilities shall provide for or identify disposal sites for dredged materials in the future land use and port elements of the local comprehensive plan as needed to assure proper long-term management of material dredged from navigation channels, sufficient long-range disposal capacity, environmental sensitivity and compatibility, and reasonable cost and transportation. The disposal site selection criteria shall be developed in consultation with navigation and inlet districts and other appropriate state and federal agencies and the public. For areas owned or controlled by ports listed in s. 311.09(1) and proposed port expansion areas, compliance with the provisions of this subsection shall be achieved through comprehensive master plans prepared by each port and integrated with the appropriate local plan pursuant to paragraph (2)(k).

(8) Each county shall establish a county-based process for identifying and prioritizing coastal properties so they may be acquired as part of the state's land acquisition programs. This process must include the establishment of criteria for prioritizing coastal acquisitions which, in addition to recognizing pristine coastal properties and coastal properties of significant or important environmental sensitivity, recognize hazard mitigation, beach access, beach management, urban recreation, and other policies necessary for effective coastal management.

*History.—*s. 7, ch. 85-84; s. 8, ch. 86-191; s. 24, ch. 87-224; s. 7, ch. 93-206; s. 629, ch. 95-147; s. 11, ch. 96-320; s. 65, ch. 99-251.

163.3179 Family homestead.—A local government may include in its comprehensive plan a provision allowing the use of a parcel of property solely as a homestead by an individual who is the grandparent, parent, stepparent, adopted parent, sibling, child, stepchild, adopted child, or grandchild of the person who conveyed the parcel to said individual, notwithstanding the density or intensity of use assigned to the parcel in the plan. Such a provision shall apply only once to any individual.

*History.—*s. 6, ch. 92-123.

163.3180 Concurrency.—

(1)(a) Sanitary sewer, solid waste, drainage, potable water, parks and recreation, and transportation facilities, including mass transit, where applicable, are the only public facilities and services subject to the concurrency requirement on a statewide basis. Additional public facilities and services may not be made subject to concurrency on a statewide basis without appropriate study and approval by the Legislature; however, any local government may extend the concurrency requirement so that it applies to additional public facilities within its jurisdiction.

(b) Local governments shall use professionally accepted techniques for measuring level of service for automobiles, bicycles, pedestrians, transit, and trucks. These techniques may be used to evaluate increased accessibility by multiple modes and reductions in vehicle miles of travel in an area or zone. The Department of Transportation shall develop methodologies to assist local governments in implementing this multimodal

level-of-service analysis. The Department of Community Affairs and the Department of Transportation shall provide technical assistance to local governments in applying these methodologies.

(2)(a) Consistent with public health and safety, sanitary sewer, solid waste, drainage, and potable water facilities shall be in place and available to serve new development no later than the issuance by the local government of a certificate of occupancy or its functional equivalent.

(b) Consistent with the public welfare, and except as otherwise provided in this section, parks and recreation facilities to serve new development shall be in place or under actual construction no later than 1 year after issuance by the local government of a certificate of occupancy or its functional equivalent. However, the acreage for such facilities shall be dedicated or be acquired by the local government prior to issuance by the local government of a certificate of occupancy or its functional equivalent, or funds in the amount of the developer's fair share shall be committed prior to issuance by the local government of a certificate of occupancy or its functional equivalent.

(c) Consistent with the public welfare, and except as otherwise provided in this section, transportation facilities needed to serve new development shall be in place or under actual construction no more than 3 years after issuance by the local government of a certificate of occupancy or its functional equivalent.

(3) Governmental entities that are not responsible for providing, financing, operating, or regulating public facilities needed to serve development may not establish binding level-of-service standards on governmental entities that do bear those responsibilities. This subsection does not limit the authority of any agency to recommend or make objections, recommendations, comments, or determinations during reviews conducted under s. 163.3184.

(4)(a) The concurrency requirement as implemented in local comprehensive plans applies to state and other public facilities and development to the same extent that it applies to all other facilities and development, as provided by law.

(b) The concurrency requirement as implemented in local comprehensive plans does not apply to public transit facilities. For the purposes of this paragraph, public transit facilities include transit stations and terminals, transit station parking, park-and-ride lots, intermodal public transit connection or transfer facilities, and fixed bus, guideway, and rail stations. As used in this paragraph, the terms "terminals" and "transit facilities" do not include airports or seaports or commercial or residential development constructed in conjunction with a public transit facility.

(5)(a) The Legislature finds that under limited circumstances dealing with transportation facilities, countervailing planning and public policy goals may come into conflict with the requirement that adequate public facilities and services be available concurrent with the impacts of such development. The Legislature further finds that often the unintended result of the concurrency requirement for transportation facilities is the discouragement of urban infill development and

3. To require the governmental agency to properly administer critical area regulations.

(d) The state land planning agency may institute an administrative proceeding against any developer or responsible party to obtain compliance with s. 380.06 and binding letters, agreements, rules, orders, or development orders issued pursuant to s. 380.032(3), s. 380.05, s. 380.06, or s. 380.07. The state land planning agency may seek enforcement of its final agency action in accordance with s. 120.69 or by written agreement with the alleged violator pursuant to s. 380.032(3).

*History.—*s. 3, ch. 74-326; s. 129, ch. 79-192; s. 34, ch. 81-167; s. 34, ch. 83-55; s. 5, ch. 83-308; s. 48, ch. 85-55; s. 57, ch. 93-206; s. 14, ch. 96-416

380.12 Rights unaffected by ch. 75-22.—Nothing in chapter 75-22, Laws of Florida, shall alter or affect rights previously vested under this chapter.

*History.—*s. 23, ch. 75-22.

PART II

COASTAL PLANNING AND MANAGEMENT

- 380.20 Short title.
- 380.205 Definitions.
- 380.21 Legislative intent.
- 380.22 Lead agency authority and duties.
- 380.23 Federal consistency.
- 380.24 Local government participation.
- 380.25 Previous coastal zone atlases rejected.
- 380.26 Establishment of coastal building zone for certain counties.
- 380.27 Coastal infrastructure policy.

380.20 Short title.—Sections 380.205-380.24 may be cited as the "Florida Coastal Management Act."

*History.—*s. 5, ch. 78-287; s. 1, ch. 92-276; s. 189, ch. 99-13

380.205 Definitions.—As used in ss. 380.21-380.24:

(1) "Department" means the Department of Community Affairs.

(2) "Coastal zone" means that area of land and water from the territorial limits seaward to the most inland extent of marine influences. However, for planning and developing coordinated projects and initiatives for coastal resource protection and management, the department shall consider the coastal zone to be the geographical area encompassed by the 35 Florida coastal counties listed in the Final Environmental Impact Statement for the Florida Coastal Management Program and the adjoining territorial sea. It is not the intent of this definition to limit the authority currently exercised under the federal law and the federally approved Florida Coastal Management Program by which projects landward and seaward of the 35 coastal counties are reviewed for consistency with the Florida Coastal Management Program.

*History.—*s. 2, ch. 92-276; s. 58, ch. 93-206; s. 187, ch. 99-13.

380.21 Legislative intent.—

(1) The Legislature finds that:

(a) The coast is rich in a variety of natural, commercial, recreational, ecological, industrial, and aesthetic

resources, including, but not limited to, "energy facilities," as that term is defined in s. 304(5) of the federal Coastal Zone Management Act of 1972, of immediate potential value to the present and future well-being of the residents of this state.

(b) It is in the state and national interest to protect, maintain, and develop these resources through coordinated management.

(c) State land and water management policies should, to the maximum possible extent, be implemented by local governments through existing processes for the guidance of growth and development.

(2) The Legislature therefore grants authorization for the department to compile a program based on existing statutes and existing rules and submit an application to the appropriate federal agency as a basis for receiving administrative funds under the federal Coastal Zone Management Act of 1972. It is the further intent of the Legislature that enactment of this legislation shall not amend existing statutes or provide additional regulatory authority to any governmental body except as otherwise provided by s. 380.23. The enactment of this legislation shall not in any other way affect any existing statutory or regulatory authority.

(3)(a) The Legislature finds that the coastal zone is rich in a variety of natural, commercial, recreational, ecological, industrial, and aesthetic resources of immediate and potential value to the present and future well-being of the residents of this state which will be irretrievably lost or damaged if not properly managed. The participation by citizens of the state will be an important factor in developing a plan for management of the coastal zone, and management of the state's coastal zone will require a highly coordinated effort among state, regional, and local officials and agencies.

(b) The state coastal zone management plan shall be a part of the state comprehensive plan. It shall contain a boundary, policies, goals, and programs necessary to comply with the requirements of the federal Coastal Zone Management Act of 1972, as amended (16 U.S.C. ss. 1451-1464), specifically delineating the role of state, regional, and local agencies in implementing the plan; and it shall provide that the appeal of any regulatory decision, other than those appeals provided for by existing law, shall be to the Governor and Cabinet.

(4) The Legislature recognizes that land acquisition has great potential to support the state's coastal management and regulatory efforts. Removing coastal properties from the pool of developable acreage reduces the adverse land use and environmental impacts the state coastal zone management program is attempting to eliminate or diminish, while at the same time minimizing public expenditures and reducing risk to life and property in storm-prone coastal areas. To this end, the acquisition of coastal lands shall be an important component of the coastal zone management program.

*History.—*s. 6, ch. 78-287; s. 5, ch. 84-257; s. 3, ch. 92-276; s. 59, ch. 93-206.

380.22 Lead agency authority and duties.—

(1) The department shall be the lead agency pursuant to 16 U.S.C. ss. 1451 et seq., and shall compile and

submit to the appropriate federal agency an application to receive funds pursuant to s. 306 of the federal Coastal Zone Management Act of 1972, as amended (16 U.S.C. ss. 1451-1464). The application for federal approval of the state's program shall include program policies that only reference existing statutes and existing implementing administrative rules. In the event the application or the program submitted pursuant to this subsection is rejected by the appropriate federal agency because of failure of this act, the existing statutes, or the existing implementing administrative rules to comply with the requirements of the federal Coastal Zone Management Act of 1972, as amended, no state coastal management program shall become effective without prior legislative approval. The coastal management application or program may be amended from time to time to include changes in statutes and rules adopted pursuant to statutory authority other than this act.

(2) The department shall also have authority to:

(a) Establish advisory councils with sufficient geographic balance to ensure statewide representation.

(b) Coordinate central files and clearinghouse procedures for coastal resource data information and encourage the use of compatible information and standards.

(c) Provide to the extent practicable financial, technical, research, and legal assistance to effectuate the purposes of this act.

(d) Review rules of other affected agencies to determine consistency with the program and to report any inconsistencies to the Legislature.

(3) The department shall adopt by rule procedures and criteria for the evaluation of subgrant applications that seek to receive a portion of those funds allotted to the state under the federal Coastal Zone Management Act.

(4) The department shall establish a county-based process for identifying, and setting priorities for acquiring, coastal properties in coordination with the Land Acquisition and Management Advisory Council, or its successor, so these properties may be acquired as part of the state's land acquisition programs. This process shall include the establishment of criteria for prioritizing coastal acquisitions which, in addition to recognizing pristine coastal properties and coastal properties of significant or important environmental sensitivity, recognize hazard mitigation, beach access, beach management, urban recreation, and other policies necessary for effective coastal management.

(5) In addition to other criteria established by statute or rule, the following criteria shall be considered when establishing priorities for public acquisition of coastal property:

(a) The value of acquiring coastal high-hazard parcels, consistent with hazard mitigation and postdisaster redevelopment policies, in order to minimize the risk to life and property and to reduce the need for future disaster assistance.

(b) The value of acquiring beachfront parcels, irrespective of size, to provide public access and recreational opportunities in highly developed urban areas.

(c) The value of acquiring identified parcels the development of which would adversely affect coastal resources.

(6) The department, in coordination with the Florida Coastal Management Citizen's Advisory Committee, shall develop and implement a strategy to enhance citizen awareness and involvement in Florida's coastal management programs.

History.—s. 7, ch. 78-287; s. 4, ch. 92-276; s. 60, ch. 93-206; s. 11, ch. 94-146; s. 186, ch. 99-13; s. 42, ch. 99-247.

380.23 Federal consistency.—

(1) When an activity requires a permit or license subject to federal consistency review, the issuance or renewal of a state license shall automatically constitute the state's concurrence that the licensed activity or use, as licensed, is consistent with the federally approved program. When an activity requires a permit or license subject to federal consistency review, the denial of a state license shall automatically constitute the state's finding that the proposed activity or use is not consistent with the state's federally approved program, unless the United States Secretary of Commerce determines that such activity or use is in the national interest as provided in the federal Coastal Zone Management Act of 1972.

(2)(a) Where federal licenses, permits, activities, and projects listed in subsection (3) are subject to federal consistency review and are seaward of the jurisdiction of the state, or there is no state agency with sole jurisdiction, the department shall be responsible for the consistency review and determination; however, the department shall not make a determination that the license, permit, activity, or project is consistent if any other state agency with significant analogous responsibility makes a determination of inconsistency. All decisions and determinations under this subsection shall be appealable to the Governor and Cabinet.

(b) However, effective October 1, 1992, if a finding or recommendation of inconsistency has been made by a state agency with regard to federal activities and projects listed under paragraphs (3)(a) and (b) and the inconsistency cannot be resolved by the department, the department shall refer such finding or recommendation to the Governor for final determination. The Governor shall review the comments, findings, or recommendations of all participating agencies and shall affirm the finding or recommendation of inconsistency unless the Governor determines that the federal activity or project is consistent with the enforceable social, economic, and environmental policies of the coastal management program. Any permitting, licensing, or proprietary authority of an agency shall not be preempted or otherwise limited by any provision of this paragraph. Consistency determinations made pursuant to this paragraph shall not be appealable to the Governor or Cabinet.

(3) Consistency review shall be limited to review of the following activities, uses, and projects to ensure that such activities and uses are conducted in accordance with the state's coastal management program:

(a) Federal development projects and activities of federal agencies which significantly affect coastal waters and the adjacent shorelands of the state.

(b) Federal assistance projects which significantly affect coastal waters and the adjacent shorelands of the state and which are reviewed as part of the review process developed pursuant to OMB Circular A-95.

(c) Federally licensed or permitted activities affecting land or water uses when such activities are in or seaward of the jurisdiction of local governments required to develop a coastal zone protection element as provided in s. 380.24 and when such activities involve:

1. Permits required under ss. 10 and 11 of the Rivers and Harbors Act of 1899, as amended.

2. Permits required under s. 103 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended.

3. Permits required under ss. 201, 402, 403, 404, and 405 of the Federal Water Pollution Control Act of 1972, as amended, unless such permitting activities pursuant to such sections have been delegated to the state pursuant to said act.

4. Permits required under the Marine Protection, Research and Sanctuaries Act of 1972, as amended, 33 U.S.C. ss. 1401, 1402, 1411-1421, and 1441-1444.

5. Permits for the construction of bridges and causeways in navigable waters required pursuant to 33 U.S.C. s. 401, as amended.

6. Permits relating to the transportation of hazardous substance materials or transportation and dumping which are issued pursuant to the Hazardous Materials Transportation Act, 49 U.S.C. ss. 1801-1812, as amended, or 33 U.S.C. s. 419, as amended.

7. Permits and licenses required under 43 U.S.C. s. 717 for construction and operation of interstate gas pipelines and storage facilities.

8. Permits required under 15 U.S.C. s. 717, as amended, for construction and operation of facilities needed to import and export natural gas.

9. Permits and licenses required for the siting and construction of any new electrical power plants as defined in s. 403.503(12), as amended.

10. Permits and licenses required for drilling and mining on public lands.

11. Permits for areas leased under the OCS Lands Act, as amended, including leases and approvals under 43 U.S.C. s. 1331, as amended, of exploration, development, and production plans.

12. Permits for pipeline rights-of-way for oil and gas transmissions.

13. Permits and licenses required for deepwater ports under 33 U.S.C. s. 1503, as amended.

14. Permits required for the taking of marine mammals under the Marine Mammal Protection Act of 1972, as amended, 16 U.S.C. 1374 s. 104.

(d) Federal activities within the territorial limits of neighboring states when the Governor and the department determine that significant individual or cumulative impact to the land or water resources of the state would result from the activities.

(4) The department shall by rule adopt procedures for the expeditious handling of emergency repairs to existing facilities for which consistency review is required pursuant to subsections (1), (2), and (3).

(5) In any coastal management program submitted to the appropriate federal agency for its approval pursuant to this act, the department shall specifically waive its right to determine the consistency with the coastal management program of all federally licensed or permitted activities not specifically listed in subsection (3).

(6) Agencies shall not review for federal consistency purposes an application for a federally licensed or permitted activity if the activity is vested, exempted, or excepted under its own regulatory authority.

(7) The department shall review the items listed in subsection (3) to determine if in certain circumstances such items would constitute minor permit activities. If the department determines that the list contains minor permit activities, it may by rule establish a program of general concurrence pursuant to federal regulation which shall allow similar minor activities, in the same geographic area, to proceed without prior department review for federal consistency.

(8) This section shall not apply to the review of federally licensed or permitted activities for which permit applications are filed with the appropriate federal agency prior to approval of the state coastal management program by the appropriate federal agency pursuant to 16 U.S.C. ss. 1451 et seq.

History.—s. 8, ch. 78-287; s. 1, ch. 90-220; s. 53, ch. 90-331; s. 5, ch. 92-276; s. 61, ch. 03-208; s. 22, ch. 98-176.

Note.—Repeated by Pub. L. No. 94-678.

380.24 Local government participation.—Units of local government abutting the Gulf of Mexico or the Atlantic Ocean, or which include or are contiguous to waters of the state where marine species of vegetation listed by rule as ratified in s. 373.4211 constitute the dominant plant community, shall develop a coastal zone protection element pursuant to s. 163.3177. Such units of local government shall be eligible to receive technical assistance from the state in preparing coastal zone protection elements and shall be the only units of local government eligible to apply to the department for available financial assistance. Local government participation in the coastal management program authorized by this act shall be voluntary. All permitting and enforcement of dredged-material management and other related activities subject to permit under the provisions of chapters 161 and 253 and part IV of chapter 373 for deepwater ports identified in s. 403.021(9)(b) shall be done through the Department of Environmental Protection consistent with the provisions of s. 403.021(9).

History.—s. 9, ch. 78-287; s. 11, ch. 94-122; s. 142, ch. 96-320.

380.25 Previous coastal zone atlases rejected.—The legislative draft of the coastal management program submitted to the Legislature by the department dated March 1, 1978, and the previously prepared coastal zone atlases are expressly rejected as the state's coastal management program. The department shall not divide areas of the state into vital, conservation, and development areas.

History.—s. 10, ch. 78-287.

380.26 Establishment of coastal building zone for certain counties.—The coastal building zone for coun-

ties not subject to s. 161.053 shall be as described in s. 161.54(1), after a public hearing is held in the affected county by the state land planning agency or its designee. The state land planning agency shall furnish the clerk of the circuit court in each county affected a survey of such line with references made to permanently installed monuments at such intervals and locations as may be necessary.

History.—s. 37, ch. 85-55

380.27 Coastal infrastructure policy.—

(1) No state funds shall be used for the purpose of constructing bridges or causeways to coastal barrier islands, as defined in s. 161.54(2), which are not accessible by bridges or causeways on October 1, 1985.

(2) After a local government has an approved coastal management element pursuant to s. 163.3178, no state funds which are unobligated at the time the element is approved shall be expended for the purpose of planning, designing, excavating for, preparing foundations for, or constructing projects which increase the capacity of infrastructure unless such expenditure is consistent with the approved coastal management element.

History.—s. 38, ch. 85-55; s. 38, ch. 95-196.

PART III

FLORIDA COMMUNITIES TRUST

- 380.501 Short title.
- 380.502 Legislative findings and intent.
- 380.503 Definitions.
- 380.504 Florida Communities Trust; creation; membership; expenses.
- 380.505 Meetings; quorum; voting.
- 380.506 Support services.
- 380.507 Powers of the trust.
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- 380.510 Conditions of grants and loans.
- 380.511 Florida Communities Trust Fund.
- 380.5115 Florida Forever Program Trust Fund of the Department of Community Affairs.
- 380.512 Annual report.
- 380.513 Corporate existence.
- 380.514 Inconsistent provisions of other laws superseded.
- 380.515 Construction.

380.501 Short title.—This part may be cited as the "Florida Communities Trust Act."

History.—s. 28, ch. 89-175; s. 2, ch. 90-192; s. 4, ch. 91-192; s. 5, ch. 91-429

380.502 Legislative findings and intent.—

(1) The Legislature finds that the conservation of natural areas is vital to the state's economy and ecology. The Legislature further finds that rapid increases in population and development throughout Florida threaten the integrity of the environment and limit opportunities for citizens and visitors to enjoy the state's natural areas. The Legislature further finds that inappropriate and poorly planned land uses overburden natural resources and disrupt the state's ecology.

Finally, the Legislature finds that the quality of life, environmental quality, as well as the viability and vitality of the urban areas of this state are directly linked to urban open space and greenways. The creation of greenways; expansion of green spaces; enhancement of recreation areas; and protection and restoration of urban lakes, rivers, and watersheds in the urban areas of this state are necessary to link populated areas with natural areas, preserve unique cultural and heritage sites, provide land for recreational opportunities to enhance the health and well-being of the urban residents of this state, improve water quality, reduce the level of urban crime and violence, and build confidence and self-esteem among the urban youth of this state.

(2) The Legislature recognizes that the primary responsibility for establishing well-planned land use rests at the local government level through the implementation of comprehensive plans. The Legislature also recognizes that many of the goals and objectives of these comprehensive plans will not be met through regulation, but require creative and innovative action to ensure their accomplishment.

(3) It is the intent of the Legislature to establish a nonregulatory agency that will assist local governments in bringing local comprehensive plans into compliance and implementing the goals, objectives, and policies of the conservation, recreation and open space, and coastal elements of local comprehensive plans, or in conserving natural resources and resolving land use conflicts by:

(a) Responding promptly and creatively to opportunities to correct undesirable development patterns, restore degraded natural areas, enhance resource values, restore deteriorated or deteriorating urban waterfronts, reserve lands for later purchase, participate in and promote the use of innovative land acquisition methods, and provide public access to surface waters.

(b) Providing financial and technical assistance to local governments, state agencies, and nonprofit organizations to carry out projects and activities and to develop programs authorized by this part.

(c) Involving local governments and private interests in voluntarily resolving land use conflicts and issues.

History.—s. 28, ch. 89-175; s. 2, ch. 90-192; s. 5, ch. 91-192; s. 5, ch. 91-429; s. 65, ch. 93-208; s. 19, ch. 96-389.

380.503 Definitions.—As used in ss. 380.501-380.515, unless the context indicates a different meaning or intent:

(1) "Comprehensive plan" means a plan that meets the requirements of ss. 163.3177, 163.3178, and 163.3191.

(2) "Department" means the Department of Community Affairs.

(3) "Local government" means a county or municipality.

(4) "Metropolitan" means a population area consisting of a central city with adjacent cities and smaller surrounding communities: a major urban area and its environs.

(5) "Nonprofit organization" means any private nonprofit organization, existing under the provisions of

- 403.111 Confidential records.
- 403.121 Enforcement; procedure; remedies.
- 403.131 Injunctive relief, cumulative remedies.
- 403.135 Persons who accept wastewater for spray irrigation; civil liability.
- 403.141 Civil liability; joint and several liability.
- 403.151 Compliance with rules or orders of department.
- 403.161 Prohibitions, violation, penalty, intent.
- 403.1651 Ecosystem Management and Restoration Trust Fund.
- 403.1655 Environmental short-term emergency response program.
- 403.1815 Construction of water distribution mains and sewage collection and transmission systems; local regulation.
- 403.182 Local pollution control programs.
- 403.1821 Water pollution control and sewage treatment.
- 403.1822 Definitions for ss. 403.1821-403.1832.
- 403.1823 Department of Environmental Protection; rulemaking authority; administration of funds.
- 403.1826 Grants, requirements for eligibility.
- 403.1829 Funding of projects; priorities.
- 403.1832 Department to accept federal aid; Grants and Donations Trust Fund.
- 403.1834 State bonds to finance or refinance facilities; exemption from taxation.
- 403.1835 Water pollution control financial assistance.
- 403.1837 Florida Water Pollution Control Financing Corporation.
- 403.1838 Small Community Sewer Construction Assistance Act.
- 403.191 Construction in relation to other law.
- 403.201 Variances.
- 403.231 Department of Legal Affairs to represent the state.
- 403.251 Safety clause.
- 403.265 Peat mining; permitting.
- 403.281 Definitions; weather modification law.
- 403.291 Purpose of weather modification law.
- 403.301 Artificial weather modification operation; license required.
- 403.311 Application for weather modification licensing; fee.
- 403.321 Proof of financial responsibility.
- 403.331 Issuance of license; suspension or revocation; renewal.
- 403.341 Filing and publication of notice of intention to operate; limitation on area and time.
- 403.351 Contents of notice of intention.
- 403.361 Publication of notice of intention.
- 403.371 Proof of publication.
- 403.381 Record and reports of operations.
- 403.391 Emergency licenses.
- 403.401 Suspension or revocation of license.
- 403.411 Penalty.
- 403.412 Environmental Protection Act.
- 403.413 Florida Litter Law.
- 403.4131 "Keep Florida Beautiful, Incorporated"; placement of signs.
- 403.41315 Comprehensive illegal dumping, litter, and manne debris control and prevention.
- 403.4132 Litter pickup and removal.
- 403.4133 Adopt-a-Shore Program.
- 403.4135 Litter receptacles.
- 403.414 Environmental award program.
- 403.415 Motor vehicle noise.
- 403.4151 Exempt motor vehicles.
- 403.4153 Federal preemption.
- 403.4154 Phosphogypsum management program.
- 403.4155 Phosphogypsum management; rulemaking authority.
- 403.42 Florida Clean Fuel Act.
- 403.011 Short title.—This act shall be known and cited as the "Florida Air and Water Pollution Control Act."
- History.—s. 2, ch. 67-436
- 403.021 Legislative declaration; public policy.—
- (1) The pollution of the air and waters of this state constitutes a menace to public health and welfare; creates public nuisances; is harmful to wildlife and fish and other aquatic life; and impairs domestic, agricultural, industrial, recreational, and other beneficial uses of air and water.
- (2) It is declared to be the public policy of this state to conserve the waters of the state and to protect, maintain, and improve the quality thereof for public water supplies, for the propagation of wildlife and fish and other aquatic life, and for domestic, agricultural, industrial, recreational, and other beneficial uses and to provide that no wastes be discharged into any waters of the state without first being given the degree of treatment necessary to protect the beneficial uses of such water.
- (3) It is declared to be the public policy of this state and the purpose of this act to achieve and maintain such levels of air quality as will protect human health and safety and, to the greatest degree practicable, prevent injury to plant and animal life and property, foster the comfort and convenience of the people, promote the economic and social development of this state, and facilitate the enjoyment of the natural attractions of this state. In accordance with the public policy established herein, the Legislature further declares that the citizens of this state should be afforded reasonable protection from the dangers inherent in the release of toxic or otherwise hazardous vapors, gases, or highly volatile liquids into the environment.
- (4) It is declared that local and regional air and water pollution control programs are to be supported to the extent practicable as essential instruments to provide for a coordinated statewide program of air and water pollution prevention, abatement, and control for the securing and maintenance of appropriate levels of air and water quality.
- (5) It is hereby declared that the prevention, abatement, and control of the pollution of the air and waters of this state are affected with a public interest, and the provisions of this act are enacted in the exercise of the police powers of this state for the purpose of protecting the health, peace, safety, and general welfare of the people of this state.

(6) The Legislature finds and declares that control, regulation, and abatement of the activities which are causing or may cause pollution of the air or water resources in the state and which are or may be detrimental to human, animal, aquatic, or plant life, or to property, or unreasonably interfere with the comfortable enjoyment of life or property be increased to ensure conservation of natural resources; to ensure a continued safe environment; to ensure purity of air and water; to ensure domestic water supplies; to ensure protection and preservation of the public health, safety, welfare, and economic well-being; to ensure and provide for recreational and wildlife needs as the population increases and the economy expands; and to ensure a continuing growth of the economy and industrial development.

(7) The Legislature further finds and declares that:

(a) Compliance with this law will require capital outlays of hundreds of millions of dollars for the installation of machinery, equipment, and facilities for the treatment of industrial wastes which are not productive assets and increased operating expenses to owners without any financial return and should be separately classified for assessment purposes.

(b) Industry should be encouraged to install new machinery, equipment, and facilities as technology in environmental matters advances, thereby improving the quality of the air and waters of the state and benefiting the citizens of the state without pecuniary benefit to the owners of industries; and the Legislature should prescribe methods whereby just valuation may be secured to such owners and exemptions from certain excise taxes should be offered with respect to such installations.

(c) Facilities as herein defined should be classified separately from other real and personal property of any manufacturing or processing plant or installation, as such facilities contribute only to general welfare and health and are assets producing no profit return to owners.

(d) In existing manufacturing or processing plants it is more difficult to obtain satisfactory results in treating industrial wastes than in new plants being now planned or constructed and that with respect to existing plants in many instances it will be necessary to demolish and remove substantial portions thereof and replace the same with new and more modern equipment in order to more effectively treat, eliminate, or reduce the objectionable characteristics of any industrial wastes and that such replacements should be classified and assessed differently from replacements made in the ordinary course of business.

(8) The Legislature further finds and declares that the public health, welfare, and safety may be affected by disease-carrying vectors and pests. The department shall assist all governmental units charged with the control of such vectors and pests. Furthermore, in reviewing applications for permits, the department shall consider the total well-being of the public and shall not consider solely the ambient pollution standards when exercising its powers, if there may be danger of a public health hazard.

(9)(a) The Legislature finds and declares that it is essential to preserve and maintain authorized water depth in the existing navigation channels, port harbor turning basins, and harbor berths of this state in order to provide for the continued safe navigation of deepwater shipping commerce. The department shall recognize that maintenance of authorized water depths consistent with port master plans developed pursuant to s. 163.3178(2)(k) is an ongoing, continuous, beneficial, and necessary activity that is in the public interest; and it shall develop a regulatory process that shall enable the ports of this state to conduct such activities in an environmentally sound, safe, expeditious, and cost-efficient manner. It is the further intent of the Legislature that the permitting and enforcement of dredging, dredged-material management, and other related activities for Florida's deepwater ports pursuant to this chapter and chapters 161, 253, and 373 shall be consolidated within the department's Division of Water Resource Management and, with the concurrence of the affected deepwater port or ports, may be administered by a district office of the department or delegated to an approved local environmental program.

(b) The provisions of paragraph (a) apply only to the port waters, dredged-material management sites, port harbors, navigation channels, turning basins, and harbor berths used for deepwater commercial navigation in the ports of Jacksonville, Tampa, Port Everglades, Miami, Port Canaveral, Ft. Pierce, Palm Beach, Port Manatee, Port St. Joe, Panama City, St. Petersburg, Pensacola, Fernandina, and Key West.

(10) It is the policy of the state to ensure that existing and potential drinking water resources of the state remain free from harmful quantities of contaminants. The department, as the state water quality protection agency, shall compile, correlate, and disseminate available information on any contaminant which endangers or may endanger existing or potential drinking water resources. It shall also coordinate its regulatory program with the regulatory programs of other agencies to assure adequate protection of the drinking water resources of the state.

(11) It is the intent of the Legislature that water quality standards be reasonably established and applied to take into account the variability occurring in nature. The department shall recognize the statistical variability inherent in sampling and testing procedures that are used to express water quality standards. The department shall also recognize that some deviations from water quality standards occur as the result of natural background conditions. The department shall not consider deviations from water quality standards to be violations when the discharger can demonstrate that the deviations would occur in the absence of any human-induced discharges or alterations to the water body.

*History.—*s. 3, ch. 67-434; s. 1, ch. 78-98; ss. 1, 5, ch. 81-228; s. 4, ch. 84-77; s. 48, ch. 84-332; s. 11, ch. 85-269; s. 1, ch. 85-277; s. 8, ch. 86-186; s. 2, ch. 86-213; s. 143, ch. 86-320; s. 1004, ch. 97-103; s. 4, ch. 99-353.

403.031 Definitions.—In construing this chapter, rules and regulations adopted pursuant hereto, the following words, phrases, or terms, unless the context otherwise indicates, have the following meanings:

(1) "Contaminant" is any substance which is harmful to plant, animal, or human life.

CHAPTER 311

FLORIDA SEAPORT TRANSPORTATION AND ECONOMIC DEVELOPMENT

- 311.07 Florida seaport transportation and economic development funding.
- 311.09 Florida Seaport Transportation and Economic Development Council.
- 311.105 Florida Seaport Environmental Management Committee; permitting; mitigation.
- 311.11 Seaport Employment Training Grant Program.
- 311.12 Seaport security.
- 311.13 Certain information exempt from disclosure.
- 311.14 Seaport freight-mobility planning.

311.07 Florida seaport transportation and economic development funding.—

(1) There is created the Florida Seaport Transportation and Economic Development Program within the Department of Transportation to finance port transportation or port facilities projects that will improve the movement and intermodal transportation of cargo or passengers in commerce and trade and that will support the interests, purposes, and requirements of ports located in this state.

(2) A minimum of \$8 million per year shall be made available from the State Transportation Trust Fund to fund the Florida Seaport Transportation and Economic Development Program.

(3)(a) Program funds shall be used to fund approved projects on a 50-50 matching basis with any of the deepwater ports, as listed in s. 403.021(9)(b), which is governed by a public body or any other deepwater port which is governed by a public body and which complies with the water quality provisions of s. 403.061, the comprehensive master plan requirements of s. 163.3178(2)(k), the local financial management and reporting provisions of part III of chapter 218, and the auditing provisions of s. 11.45(3)(a)5. Program funds also may be used by the Seaport Transportation and Economic Development Council to develop with the Florida Trade Data Center such trade data information products which will assist Florida's seaports and international trade.

(b) Projects eligible for funding by grants under the program are limited to the following port facilities or port transportation projects:

1. Transportation facilities within the jurisdiction of the port.
2. The dredging or deepening of channels, turning basins, or harbors.
3. The construction or rehabilitation of wharves, docks, structures, jetties, piers, storage facilities, cruise terminals, automated people mover systems, or any facilities necessary or useful in connection with any of the foregoing.
4. The acquisition of container cranes or other mechanized equipment used in the movement of cargo or passengers in international commerce.
5. The acquisition of land to be used for port purposes.
6. The acquisition, improvement, enlargement, or extension of existing port facilities.

7. Environmental protection projects which are necessary because of requirements imposed by a state agency as a condition of a permit or other form of state approval; which are necessary for environmental mitigation required as a condition of a state, federal, or local environmental permit; which are necessary for the acquisition of spoil disposal sites and improvements to existing and future spoil sites; or which result from the funding of eligible projects listed herein.

8. Transportation facilities as defined in s. 334.03(31) which are not otherwise part of the Department of Transportation's adopted work program.

9. Seaport intermodal access projects identified in the 5-year Florida Seaport Mission Plan as provided in s. 311.09(3).

10. Construction or rehabilitation of port facilities as defined in s. 315.02, excluding any park or recreational facilities, in ports listed in s. 311.09(1) with operating revenues of \$5 million or less, provided that such projects create economic development opportunities, capital improvements, and positive financial returns to such ports.

(c) To be eligible for consideration by the council pursuant to this section, a project must be consistent with the port comprehensive master plan which is incorporated as part of the approved local government comprehensive plan as required by s. 163.3178(2)(k) or other provisions of the Local Government Comprehensive Planning and Land Development Regulation Act, part II of chapter 163.

(4) A port eligible for matching funds under the program may receive a distribution of not more than \$7 million during any 1 calendar year and a distribution of not more than \$30 million during any 5-calendar-year period.

(5) Any port which receives funding under the program shall institute procedures to ensure that jobs created as a result of the state funding shall be subject to equal opportunity hiring practices in the manner provided in s. 110.112.

(6) The Department of Transportation shall subject any project that receives funds pursuant to this section and s. 320.20 to a final audit. The department may adopt rules and perform such other acts as are necessary or convenient to ensure that the final audits are conducted and that any deficiency or questioned costs noted by the audit are resolved.

History.—s. 65, ch. 90-136; s. 5, ch. 91-429; s. 55, ch. 93-120; s. 20, ch. 94-237; s. 130, ch. 96-320; s. 86, ch. 97-278; s. 5, ch. 97-280; s. 40, ch. 2000-152; s. 3, ch. 2000-264.

311.09 Florida Seaport Transportation and Economic Development Council.—

(1) The Florida Seaport Transportation and Economic Development Council is created within the Department of Transportation. The council consists of the following 17 members: the port director, or the port director's designee, of each of the ports of Jacksonville, Port Canaveral, Fort Pierce, Palm Beach, Port Everglades, Miami, Port Manatee, St. Petersburg, Tampa,

Port St. Joe, Panama City, Pensacola, Key West and Fernandina; the secretary of the Department of Transportation or his or her designee; the director of the Office of Tourism, Trade, and Economic Development or his or her designee; and the secretary of the Department of Community Affairs or his or her designee.

(2) The council shall adopt bylaws governing the manner in which the business of the council will be conducted. The bylaws shall specify the procedure by which the chairperson of the council is elected.

(3) The council shall prepare a 5-year Florida Seaport Mission Plan defining the goals and objectives of the council concerning the development of port facilities and an intermodal transportation system consistent with the goals of the Florida Transportation Plan developed pursuant to s. 339.155. The Florida Seaport Mission Plan shall include specific recommendations for the construction of transportation facilities connecting any port to another transportation mode and for the efficient, cost-effective development of transportation facilities or port facilities for the purpose of enhancing international trade, promoting cargo flow, increasing cruise passenger movements, increasing port revenues, and providing economic benefits to the state. The council shall update the 5-year Florida Seaport Mission Plan annually and shall submit the plan no later than February 1 of each year to the President of the Senate; the Speaker of the House of Representatives; the Office of Tourism, Trade, and Economic Development; the Department of Transportation; and the Department of Community Affairs. The council shall develop programs, based on an examination of existing programs in Florida and other states, for the training of minorities and secondary school students in job skills associated with employment opportunities in the maritime industry, and report on progress and recommendations for further action to the President of the Senate and the Speaker of the House of Representatives annually.

(4) The council shall adopt rules for evaluating projects which may be funded under ss. 311.07 and 320.20. The rules shall provide criteria for evaluating the economic benefit of the project, measured by the potential for the proposed project to maintain or increase cargo flow, cruise passenger movement, international commerce, port revenues, and the number of jobs for the port's local community.

(5) The council shall review and approve or disapprove each project eligible to be funded pursuant to the Florida Seaport Transportation and Economic Development Program. The council shall annually submit to the Secretary of Transportation; the director of the Office of Tourism, Trade, and Economic Development; and the Secretary of Community Affairs a list of projects which have been approved by the council. The list shall specify the recommended funding level for each project; and, if staged implementation of the project is appropriate, the funding requirements for each stage shall be specified.

(6) The Department of Community Affairs shall review the list of projects approved by the council to determine consistency with approved local government comprehensive plans of the units of local government in which the port is located and consistency with the

port master plan. The Department of Community Affairs shall identify and notify the council of those projects which are not consistent, to the maximum extent feasible, with such comprehensive plans and port master plans.

(7) The Department of Transportation shall review the list of projects approved by the council for consistency with the Florida Transportation Plan and the department's adopted work program. In evaluating the consistency of a project, the department shall determine whether the transportation impact of the proposed project is adequately handled by existing state-owned transportation facilities or by the construction of additional state-owned transportation facilities as identified in the Florida Transportation Plan and the department's adopted work program. In reviewing for consistency a transportation facility project as defined in s. 334.03(31) which is not otherwise part of the department's work program, the department shall evaluate whether the project is needed to provide for projected movement of cargo or passengers from the port to a state transportation facility or local road. If the project is needed to provide for projected movement of cargo or passengers, the project shall be approved for consistency as a consideration to facilitate the economic development and growth of the state in a timely manner. The Department of Transportation shall identify those projects which are inconsistent with the Florida Transportation Plan and the adopted work program and shall notify the council of projects found to be inconsistent.

(8) The Office of Tourism, Trade, and Economic Development, in consultation with Enterprise Florida, Inc., shall review the list of projects approved by the council to evaluate the economic benefit of the project and to determine whether the project is consistent with the Florida Seaport Mission Plan. The Office of Tourism, Trade, and Economic Development shall review the economic benefits of each project based upon the rules adopted pursuant to subsection (4). The Office of Tourism, Trade, and Economic Development shall identify those projects which it has determined do not offer an economic benefit to the state or are not consistent with the Florida Seaport Mission Plan and shall notify the council of its findings.

(9) The council shall review the findings of the Department of Community Affairs; the Office of Tourism, Trade, and Economic Development; and the Department of Transportation. Projects found to be inconsistent pursuant to subsections (6), (7), and (8) and projects which have been determined not to offer an economic benefit to the state pursuant to subsection (8) shall not be included in the list of projects to be funded.

(10) The Department of Transportation shall include in its annual legislative budget request a Florida Seaport Transportation and Economic Development grant program for expenditure of funds of not less than \$8 million per year. Such budget shall include funding for projects approved by the council which have been determined by each agency to be consistent and which have been determined by the Office of Tourism, Trade, and Economic Development to be economically benefi-

cial. The council may submit to the department a list of approved projects that could be made production-ready within the next 2 years. The list shall be submitted as part of the needs and project list prepared pursuant to s. 339.135.

(11) The council shall meet at the call of its chairperson, at the request of a majority of its membership, or at such times as may be prescribed in its bylaws. However, the council must meet at least semiannually. A majority of voting members of the council constitutes a quorum for the purpose of transacting the business of the council. All members of the council are voting members. A vote of the majority of the voting members present is sufficient for any action of the council, except that a member representing the Department of Transportation, the Department of Community Affairs, or the Office of Tourism, Trade, and Economic Development may vote to overrule any action of the council approving a project pursuant to subsection (5). The bylaws of the council may require a greater vote for a particular action.

(12) Members of the council shall serve without compensation but are entitled to receive reimbursement for per diem and travel expenses as provided in s. 112.061. The council may elect to provide an administrative staff to provide services to the council on matters relating to the Florida Seaport Transportation and Economic Development Program and the council. The cost for such administrative services shall be paid by all ports that receive funding from the Florida Seaport Transportation and Economic Development Program, based upon a pro rata formula measured by each recipient's share of the funds as compared to the total funds disbursed to all recipients during the year. The share of costs for administrative services shall be paid in its total amount by the recipient port upon execution by the port and the Department of Transportation of a joint participation agreement for each council-approved project, and such payment is in addition to the matching funds required to be paid by the recipient port. Except as otherwise exempted by law, all moneys derived from the Florida Seaport Transportation and Economic Development Program shall be expended in accordance with the provisions of s. 287.057. Seaports subject to competitive negotiation requirements of a local governing body shall be exempt from this requirement.

*History.—*s. 65, ch. 90-136; s. 24, ch. 90-227; s. 5, ch. 91-429; s. 58, ch. 93-120; s. 4, ch. 93-184; s. 4, ch. 93-262; s. 21, ch. 94-237; s. 87, ch. 95-143; s. 692, ch. 95-148; s. 10, ch. 95-257; s. 131, ch. 96-320; s. 71, ch. 99-385; s. 4, ch. 2000-266.

311.105 Florida Seaport Environmental Management Committee; permitting; mitigation.—

(1)(a) There is created the Florida Seaport Environmental Management Committee, which shall be under the direction of the Florida Seaport Transportation and Economic Development Council.

(b) The committee shall consist of the following members: the Secretary of Environmental Protection, or his or her designee, as an ex officio, nonvoting member; a designee from the United States Army Corps of Engineers, as an ex officio, nonvoting member; a designee from the Florida Inland Navigation District, as an ex officio, nonvoting member; the Secretary of Community Affairs, or his or her designee, as an ex officio,

nonvoting member; and five or more port directors, as voting members, appointed to the committee by the council chair, who shall also designate one such member as committee chair.

(c) The committee shall meet at the call of the chair but must meet at least semiannually. A majority of the voting members constitutes a quorum for the purpose of transacting business of the committee, and a vote of the majority of the voting members present is required for official action by the committee.

(d) The committee shall provide a forum for discussion of environmental issues, including, but not limited to, those relating to maintenance dredging and dredged-material management; environmental mitigation; air and water quality permitting; and the maintenance of navigation channels, port harbors, turning basins, harbor berths, and associated facilities.

(e) The committee shall work closely with the Department of Environmental Protection, United States Army Corps of Engineers, and ports listed in s. 403.021(9)(b) to ensure that suitable dredged material is deposited on Florida's beaches to the extent the committee determines to be economically feasible and consistent with beach restoration and other beneficial uses criteria of the Department of Environmental Protection.

(2) Each application for a permit authorized pursuant to s. 403.061(37) must include:

(a) A description of maintenance dredging activities to be conducted and proposed methods of dredged-material management.

(b) A characterization of the materials to be dredged and the materials within dredged-material management sites.

(c) A description of dredged-material management sites and plans.

(d) A description of measures to be undertaken, including environmental compliance monitoring, to minimize adverse environmental effects of maintenance dredging and dredged-material management.

(e) Such scheduling information as is required to facilitate state supplementary funding of federal maintenance dredging and dredged-material management programs consistent with beach restoration criteria of the Department of Environmental Protection.

(3) Each application for a permit authorized pursuant to s. 403.061(38) must include the provisions of paragraphs (2)(b)-(e) and the following:

(a) A description of dredging and dredged-material management and other related activities associated with port development, including the expansion of navigation channels, dredged-material management sites, port harbors, turning basins, harbor berths, and associated facilities.

(b) A discussion of environmental mitigation as is proposed for dredging and dredged-material management for port development, including the expansion of navigation channels, dredged-material management sites, port harbors, turning basins, harbor berths, and associated facilities.

(4) Environmental mitigation is not required for dredging and dredged-material management for the maintenance of port harbors, navigation channels,

Attachment A

Rule 9J-5.012. Coastal Management Element, F.A.C.

Subsection	Requirements Relating to Deepwater Ports
(2) (a)	Inventory/analysis of existing land uses, including a discussion of conflicts among shoreline uses, water-dependent and water-related uses.
(2) (b)	Inventory/analysis of natural resources, including vegetative cover, coastal flooding, wildlife habitats, living marine resources.
(2) (c)	Impacts of proposed development and redevelopment on historic resources.
(2) (d)	Estuarine pollution conditions, and actions needed to maintain estuaries, including identification of known point and non-point source pollution problems; and identification of state, regional, and local regulatory programs to maintain environmental quality.
(2) (e) 1.	Natural disaster planning concerns: Hurricane evacuation planning;
(2) (e) 2.	Natural disaster planning concerns: Post-disaster redevelopment;
(2) (e) 3.	Natural disaster planning concerns: Coastal high-hazard areas.
(2) (f)	Beach and dune systems.
(2) (g)	Public access facilities inventory.
(2) (g)	Capacity and need for public access facilities.
(2) (h)	Existing infrastructure inventory and analysis.
(2) (h)	Analysis of future infrastructure facility needs.
(3) (a) (b) (c)	Master Plan Goals, Objectives, and Policies.
(5) (b)	Landside transportation needs to support the deepwater port.
(5) (b)	Maintenance of in-water facilities.
(5) (b)	Management of dredged material.
(5) (b)	Hazardous material handling and cleanup.
(5) (b)	Handling and cleanup of petroleum products.
(5) (b)	Location and boundary of port owned or administered lands.
(5) (c)	Goals, objectives and policies.
(5) (d)	Port maintenance and expansion plans.
(5) (d)	Impacts of port expansion and maintenance.

renourished at public expense; enforcing the public access requirements of the Coastal Zone Protection Act of 1985; and providing transportation or parking facilities for beach and shoreline access:

11. Historic resource protection, including historic site identification and establishing performance standards for development and sensitive reuse of historic resources;

12. The orderly development and use of deepwater ports, if applicable, including how the local government shall cooperate with the deepwater port to resolve problems in transportation, land use, natural and man-made hazards, and protection of natural resources. Include a procedure to resolve inconsistencies between the local government comprehensive plan and the deepwater port master plan through the dispute resolution process as provided under s. 186.509, Florida Statutes, which is to be utilized in the event the local government and a deepwater port are unable to resolve the inconsistencies;

13. Ensuring that required infrastructure is available to serve the development or redevelopment in the coastal planning area at the densities proposed by the future land use plan, consistent with coastal resource protection and safe evacuation, by assuring that funding for infrastructure will be phased to coincide with the demands generated by development or redevelopment;

14. Protecting estuaries which are within the jurisdiction of more than one local government, including methods for coordinating with other local governments to ensure adequate sites for water-dependent uses, prevent estuarine pollution, control surface water runoff, protect living marine resources, reduce exposure to natural hazards, and ensure public access; and

15. Demonstrating how the local government will coordinate with existing resource protection plans such as resource planning and management plans, aquatic preserve management plans, and estuarine sanctuary plans.

(4) Local governments within the coastal area that participate in a countywide marina siting plan shall include the marina siting plan as part of this element.

(5) Port Master Plans for Deepwater Ports. A port master plan shall be prepared by or for each deepwater port for the purposes of coordinating the activities of the port

with the plans of the appropriate local government; determination of compliance does not imply conceptual approval by the State for permitting purposes.

(a) Deepwater ports shall prepare a port master plan and submit it to the appropriate local government for incorporation as a part of the coastal management element at least six months prior to the due date of the local government's comprehensive plan established pursuant to law. This port master plan shall be incorporated as a part of the coastal management element, and be consistent with the goals, objectives, and policies of the coastal management element. The port master plan of a deepwater port, as it appears in the coastal management element, shall be reviewed for compliance with the criteria below. Failure of a deepwater port which is not a part of the local government to submit a deepwater port master plan shall not cause the local government to be subject to the sanctions in Sections 163.3184 or 163.3167, Florida Statutes, nor cause the regional planning council to prepare the missing port master plan. In this case the deepwater port shall not have its in-water facilities exempted from the provisions of Section 380.06, Florida Statutes, and the port shall be subject to the sanctions in Sections 163.3184 and 163.3167, Florida Statutes. The failure of a deepwater port which is an agency of a local government to prepare a deepwater port master plan may result in the sanctions in Section 163.3184, Florida Statutes, being applied and the missing deepwater port master plan being prepared by the regional planning council. Regardless of whether a deepwater port has prepared a port master plan, any port development shall be consistent with the goals, objectives and policies of the coastal management element of the jurisdiction in which the development occurs.

(b) Inventories and Analyses. The deepwater port shall prepare all applicable inventories and analyses listed in Subsection (2) for the areas they own or administer. Furthermore, the deepwater port shall inventory and analyze: landside transportation needed to support the deepwater port, in-water facilities, maintenance of in-water facilities, management of dredged material, hazardous material handling and cleanup, and handling and cleanup of petroleum products. In addition, the deepwater port shall prepare a map showing the location and boundaries of port owned or administered lands.

(c) Goals, Objectives, and Policies. The deepwater port shall develop goals, objectives, and policies to address the applicable issues listed in Subsection (3). The goals, objectives, and policies shall be con-

sistent with the goals adopted in the remainder of the coastal management element.

(d) Port Maintenance and Expansion. The deepwater port shall set forth its plans for future port expansion for an initial five-year period and in-water facility maintenance for at least a ten-year period, and these plans shall show the economic assumptions used, the foreseeable changes in shipping technologies and port operations, the estimates of types and volumes of commodities to be handled, the needed expansions to in-water and on-land facilities, and the infrastructure required. The plan shall set forth requirements for maintaining in-water facilities and for the management of dredged material from both maintenance and expansion. The plan shall assess the impact of port expansion and maintenance on wetlands, beaches and dunes, submerged lands, floodplains, wildlife habitat, living marine resources, water quality, water quantity, public access, historic resources, and the land use and infrastructure of adjacent areas.

(e) Port Master Plan Integration into the Coastal Management Element. If a port master plan is prepared by a deepwater port, then the appropriate local government shall include the port master plan's goals, objectives, and policies and port maintenance and expansion sections in the coastal management element of its comprehensive plan. The data and analyses shall be summarized as required in Subsection 9J-5.012(2), and shall be submitted in support of the comprehensive plan.

Specific Authority 163.3177(9), (10) FS.

Law Implemented 163.3177(1), (5), (6)(g), (8), (9), (10), 163.3178 FS.

History—New 3-6-86, Amended 10-20-86, 3-23-94.

9J-5.013 Conservation Element.

The purpose of the conservation element is to promote the conservation, use and protection of natural resources.

(1) Conservation Data and Analysis Requirements. The element shall be based upon the following data and analyses requirements pursuant to Subsection 9J-5.005(2).

(a) The following natural resources, where present within the local government's boundaries, shall be identified and analyzed:

1. Rivers, bays, lakes, wetlands including estuarine marshes, groundwaters and air, including information on quality of the resource avail-

able from and classified by the Florida Department of Environmental Regulation:

2. Floodplains;

3. Known sources of commercially valuable minerals;

4. Areas known by the local soil and water conservation district to have experienced soil erosion problems; and

5. Areas which are the location of recreationally and commercially important fish or shellfish, wildlife, marine habitats, and vegetative communities including forests, indicating known dominant species present and species listed by federal, state, or local government agencies as endangered, threatened or species of special concern.

(b) For each of the above natural resources, existing commercial, recreational or conservation uses, known pollution problems including hazardous wastes and the potential for conservation, use or protection shall be identified.

(c) Current and projected water needs and sources for the next ten-year period based on the demands for industrial, agricultural, and potable water use and the quality and quantity of water available to meet these demands shall be analyzed. The analysis shall consider existing levels of water conservation, use and protection and applicable policies of the regional water management district.

(2) Requirements for Conservation Goals, Objectives and Policies.

(a) The element shall contain one or more goal statements which establish the long-term end toward which conservation programs and activities are ultimately directed.

(b) The element shall contain one or more specific objectives for each goal statement which address the requirements of Paragraph 163.3177(6)(d), Florida Statutes, and which:

1. Protect air quality;

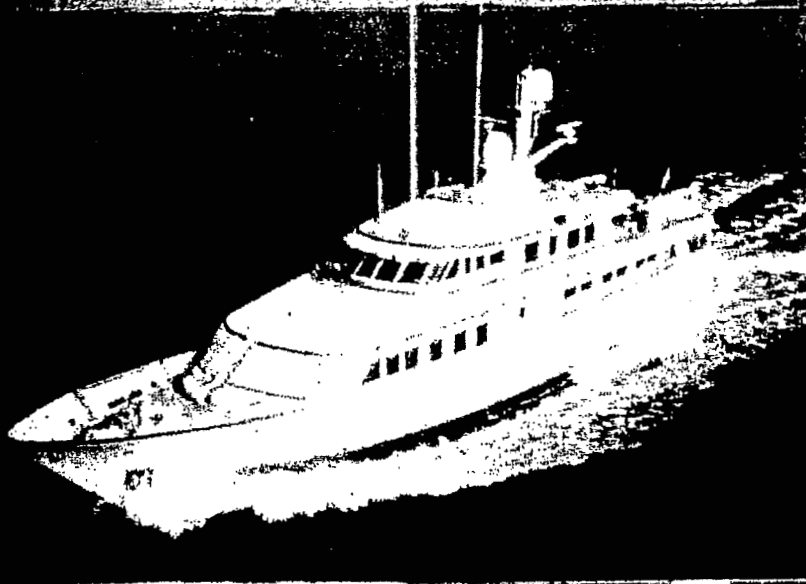
2. Conserve, appropriately use and protect the quality and quantity of current and projected water sources and waters that flow into estuarine waters or oceanic waters;

3.

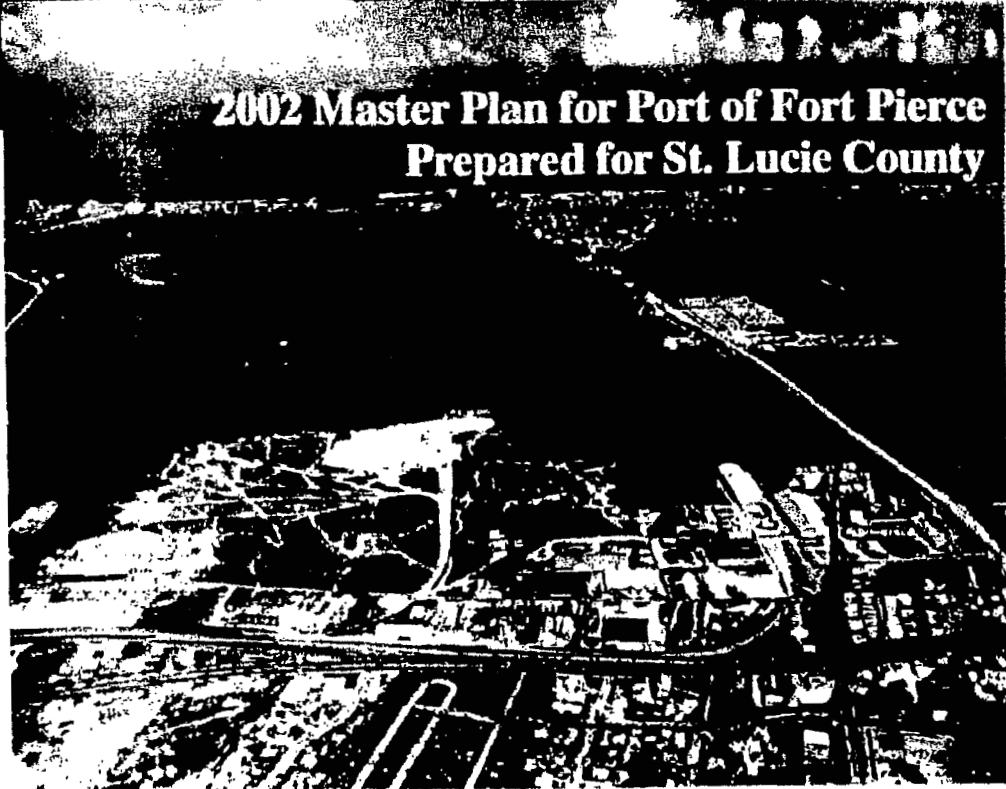
PORT OF FORT PIERCE

Charrette Report

SHAPING THE FUTURE OF THE PORT



**2002 Master Plan for Port of Fort Pierce
Prepared for St. Lucie County**



PAU/PIU
JOINT CENTER
for Environmental & Urban Problems

Part 1

Summary of Charrette Recommendations

a public process where all views were welcomed and a detailed master plan was produced at the end. Such a master plan would include hard choices, as development scenarios were clearly irreconcilable. However, the hope was that most valuable ideas would survive fair public scrutiny, and would be accepted by a great majority of the stakeholders and the public at large.

The Port Charrette achieved its goals. The city and the county adopted the plan in concept immediately upon completion. The city is preparing new zoning categories and comprehensive plan amendments which will help implement the plan. On November 5, 1996, county voters once again demonstrated their commitment to a mixed-use port by approving a bond to acquire the Cotton Property for future tourism and recreation development. The referendum was placed on the ballot following the charrette. The campaign information centered around a drawing, prepared by the charrette professional team, which depicted the conceptual development of the parcel. During the next few months and years, the vision depicted by the charrette renderings stands a good chance of being realized.

The Process

The port charrette was patterned after the previous city charrettes, but the organizers believed that public participation should be extended and the total time elapsed from the beginning to the end of the process should be lengthened to allow for adequate deliberations. Hence, the port charrette was organized in two phases. Although many participants would probably be the same during both phases, as the general public was invited to most events, each phase was facilitated by a different professional team with city and county staff providing continuity throughout the process. The objective was to achieve a good balance of public input and professional consultation.

The charrette attempted to maximize public participation. Practically all the events, whether scheduled or informal, were open to the public. The only exception was a brief series of private interviews conducted during Phase I with property owners, developers and commissioners from the City and the County.

Phase I

Phase I provided a public forum. A professional team of port engineering consultants facilitated a series of private interviews and two public input sessions. The purpose of the private interviews was to allow candid input from stakeholders who might be more forthcoming in a private setting.

The first public session was held on Friday, July 19, 1996. The consultants made a brief site presentation and then invited the public to present their views on port development. All comments made during this part were recorded for future referral during the design process.

The next day, Saturday, July 20, the consultants presented their findings and recommendations during a second public session.

CHARRETTE RECOMMENDATIONS

1. **Divide Vacant Port Area into 3 Zones: Cargo, Tourist/Recreation and Flex Zone**

The charrette study area included a variety of parcels on both shores of the "Indian River Lagoon. Nevertheless, 87 acres of vacant land on the mainland side of the Port received most of the attention. The vacant land was composed of two tracts: the MacArthur parcels (about 67 acres) and the Cotton property (about 20 acres). At the time of the charrette, the Port an Airport Authority was considering the acquisition of some or all of that land.

The southern third of the 87 acres was adjacent to the existing deep water berths and the charrette proposed that it should develop primarily for cargo and industrial uses. Tropicana and Agrilog, two companies that were negotiating a land lease with the Authority before the charrette could be located in that area. The lease was contingent on the acquisition of land by the Authority. The surrounding areas was used already for warehousing and cargo (packing houses, silos, storage, etc.). The charrette master plan proposed a modest expansion of similar uses, in order to maximize the economic development opportunities of the Port.

The northern third of the vacant land, on the other hand, would be developed for tourist and recreational uses. This included the Cotton property and the northern section of the MacArthur land. A variety of uses may occur within this area, some purely recreational (such as a park and public access to the water) others typical of mixed-use commercial projects (such as a hotel, restaurants, condominiums and office space). However, emphasis would be places on public uses and public spaces, as the area was envisioned as a waterfront recreational district to be enjoyed by all the residents of the county and the visitors to the area.

The flex zone was planned for the balance of the land between the main cargo area and the tourist/recreational area. It was intended to provide an opportunity for growth by either the cargo port or the tourist/recreational area or both, depending on market conditions. At the present time, the land within the flex zone is mainly occupied by the Marcona operation. This company has a lease until the year 2014. The flex zone, therefore, was a practical way to guide the future development of a parcel located at the core of the vacant area of the port and which had no short-term development potential and to allow flexibility to account for future market conditions. The charrette plan shows infrastructure that would allow either cargo or tourist/recreational uses, which should develop in an orderly fashion after the two other zones are fully occupied. The new infrastructure includes new roads, improved waterfront edges and, a new rail spur. The design does not foreclose nor determine which use might eventually occupy this flexible area.

The character of the buildings would be prescribed by a set of detailed codes. A new mixed-use zoning designation category will specify the allowed uses. All regulations will emphasize design concepts which enhance the compatibility of different uses. In addition, the impact of future projects

9524
The new northern entrance will connect directly into Harbor Street which heads south into the main cargo area. The radius and curve of the entrance was designed to accommodate trucks and tourist buses.

This new entrance should be attractive. Special attention should be placed on landscape and signs. Well designed retention walls for the ramp will create a higher aesthetic view as shown in the perspective rendering from the Charrette. Attention to detail is important if retaining walls are to be employed. Scored walls, cornices, moldings, and arched openings and public art should be incorporated in the design. Such attention to detail will underscore the commitment of the citizens of Fort Pierce to high quality development.

4. Require a High Aesthetic Quality for all Buildings within the Port Area

Beauty and attractiveness are essential to create an environment where different uses can coexist and where tourist would enjoy a visit. A high aesthetic level of building has to be a primary objective of any development within the port area. The buildings of the cargo area as well as the recreational area have to meet strict requirements for appearance, scale, proportion, and fenestration. These details shall be set forth by the city and described in a new mixed-use category and other local land development regulations.

In addition, the concrete silos are prominent landmark on the City skyline. Their appearance can be improved with painting or some other type of cosmetic change. A design competition would elicit more ideas from.

6. Add Another Rail Spur Adjacent to Proposed Spurs 3 and 4

An additional rail spur running perpendicular to berth 3 would enhance both its cargo and recreational possibilities. It could be used for a rail connection for a cruise operation. It could also be used for cargo operations.

7. Build Bulkhead Where it is Needed, But Don't Build it Where Not Necessary

New bulkheads could be created for berths 2, 3, and 4. All of these are within the cargo area except the north edge of berth 4 which would run adjacent to the 'flex zone'. Wherever possible, "rip-rap" or other types of soft edge should be preferred over bulkheads. In any event, the environmental effect of new bulkheads should be carefully examined.

8. Renovate The Park on the Causeway Island and Build New Boat Ramps

In order to maximize the recreational potential of lands already owned by the public, the park along the north side of the Causeway Island should be improved with new landscaping, expanded boat ramps, and better signage.

CHARRETTE IMPLEMENTATION

The implementation of planning concepts was not the primary focus of the charrette. However, some general ideas were proposed by the charrette participants and the professional team. The intent was to chart a direction towards the realization of the charrette master plan. Some of the ideas for implementation come strictly from the consultant as their advice to the community. Others come from the general group of people who participated in the charrette, or individuals. They do not mean to be exhaustive or final, and it is anticipated that in the next few months and years the city and the county will develop precise policies and strategies for the implementation of the charrette vision.

1. The Public Should Acquire Vacant Land

The port area includes two large vacant parcels: the MacArthur tract and the Cotton tract. The MacArthur tract contains 67 acres. The Cotton property contains 20 acres. Both of these properties are owned by private entities.

The Port and Airport Authority is responsible for the planning of deep water ports. However, unless there is public control of the land, the Authority's and the city's impact on development will be minimal. For a period of several years before the charrette, the authority has targeted the MacArthur and Cotton parcels for acquisition.

In the months preceding the charrette, a business plan was developed by the Authority to buy the MacArthur tract. The price of \$16 million was to be evenly split between an \$8 million grant from the state's port council and a local match. Two cargo companies, Tropicana and Agrilog, would lease about 20 acres of the tract. Their payments to the Authority would generate enough revenue to pay the local share of the total amount.

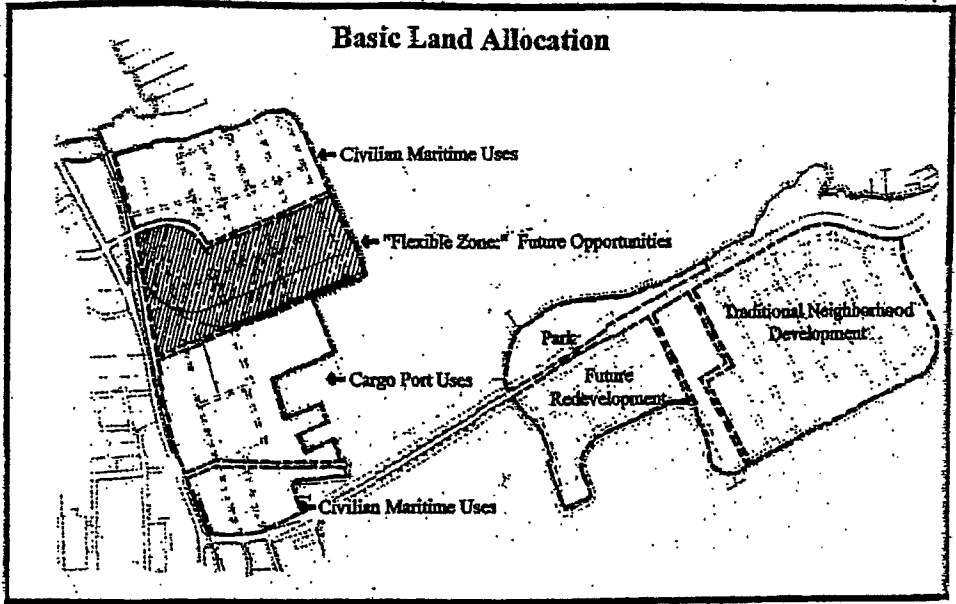
In September, 1996, the Ports Council approved the grant. A preliminary draft of the charrette master plan was reviewed as part of the application process and was found consistent with the intent of the grant. In November, 1996, the voters of St. Lucie county approved a bond to acquire the Cotton property, allowing the start of the implementation of the charrette master plan.

Public ownership presents good development options. This is due to the scope of improvements needed by any complex development scheme. The vacant 87 acres of the Port has inadequate infrastructure and poor access. A new northern entrance into the port would be needed to accommodate the traffic of any project of even moderate intensity. Although it is conceivable that a private developer would be interested in such improvements, it would be unlikely based on past development ideas and on current development practices and expectations. A public-private partnership, in which the public owned the land and made the necessary improvements to create buildable parcels, and a private developer constructed the buildings and programmed the uses according to market needs and the wishes of the citizens, is more likely to result in significant new development.

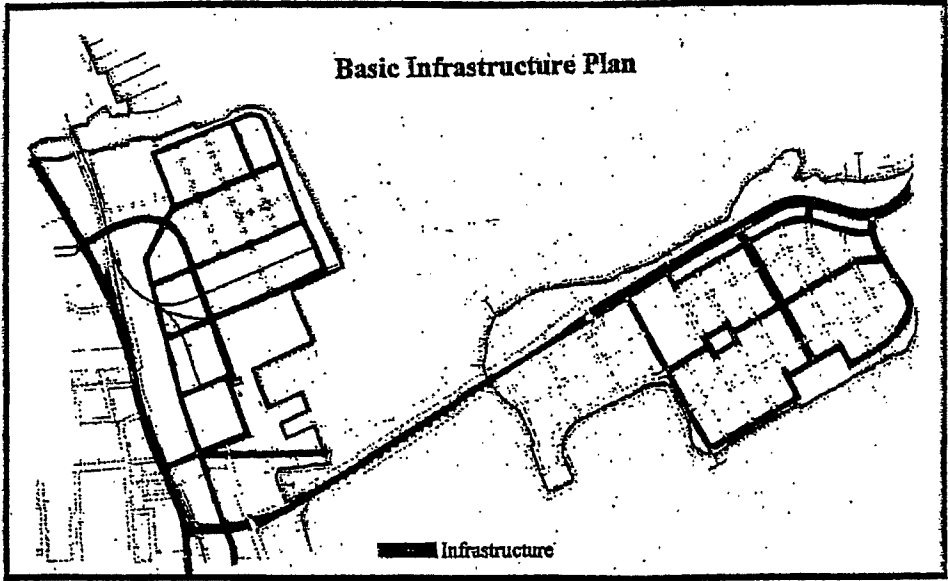
the north. It provides a left hand turn off US and overpasses the rail lines. This overpass removes any congestion which might have occurred from simultaneous vehicular and rail movements. This entrance also must be designed to facilitate the movement of large trucks. Therefore, the charrette drawings indicate a gentle slope and left hand curve in the entrance ramp as it enters the port area.

The original entrance to the south should also be maintained to allow for secondary departures during peak hours of traffic. A new configuration shown in the charrette drawings realigns the south entrance. This allows for easier turns into and out of the port area and negates the current tendency of trucks to use Avenue 'H'.

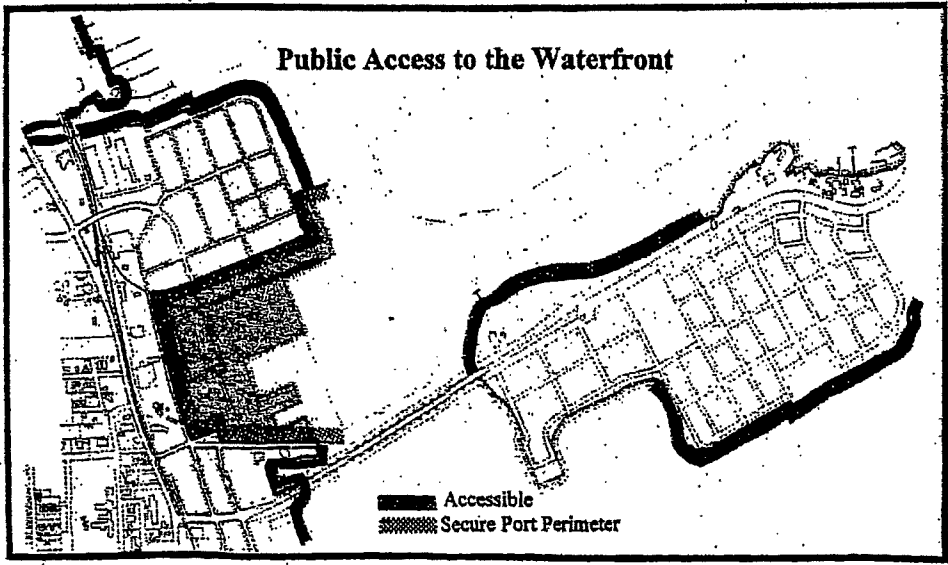
Basic Land Allocation



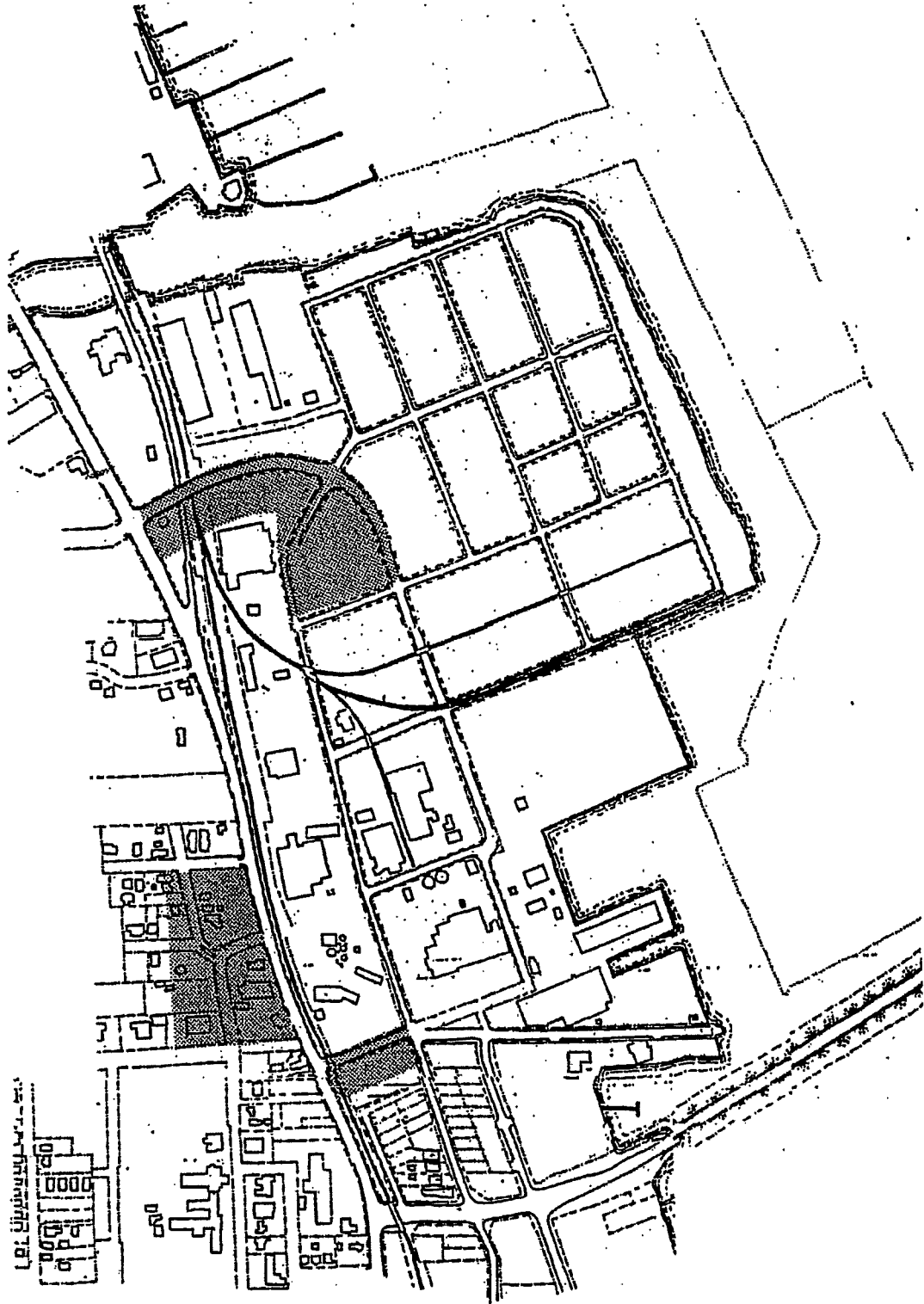
Basic Infrastructure Plan



Public Access to the Waterfront

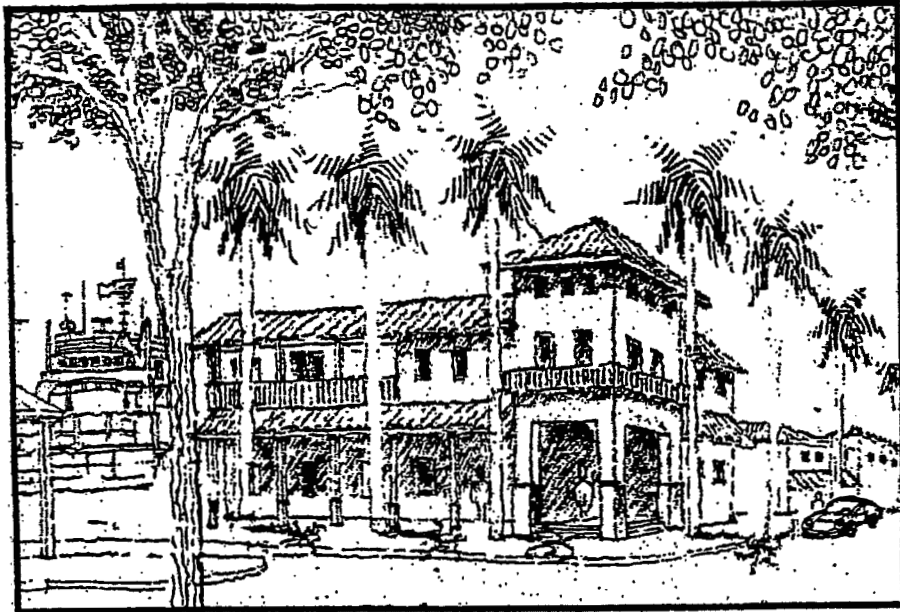


PROPOSED ROAD IMPROVEMENTS
Port Charette Master Plan

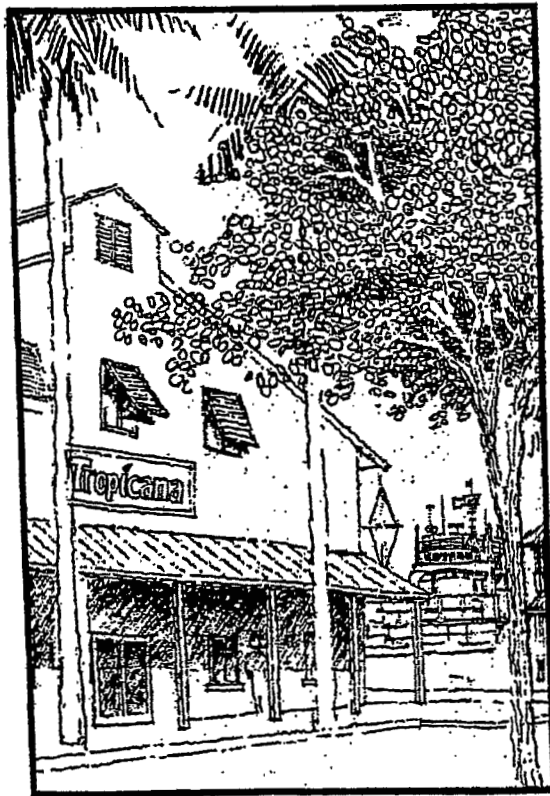


 **Proposed Road Improvements**

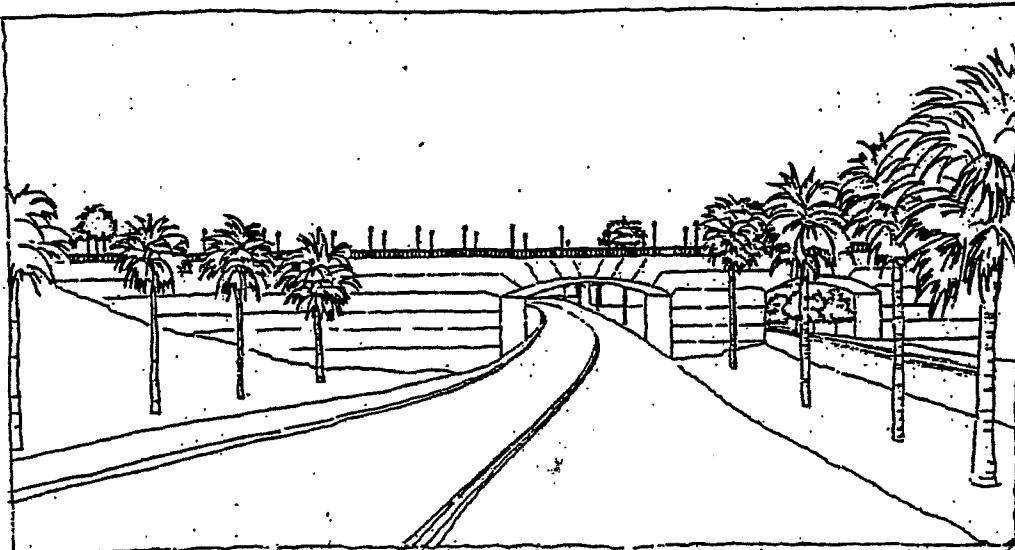
OFFICE BUILDINGS
Cargo and Industrial Area



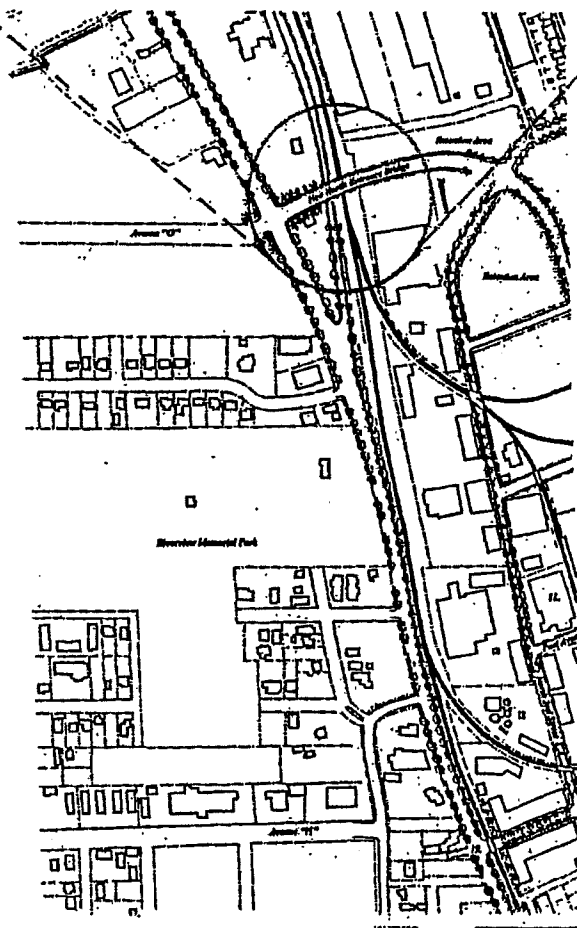
Port Authority Office



Warehouse Operation Office



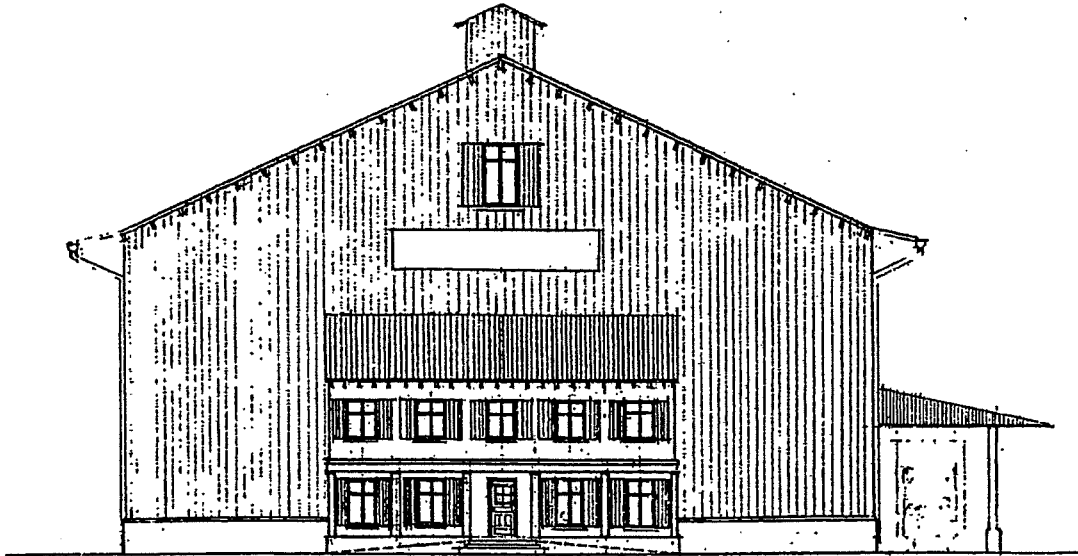
Bridge over Old Dixie Highway and FEC Tracks



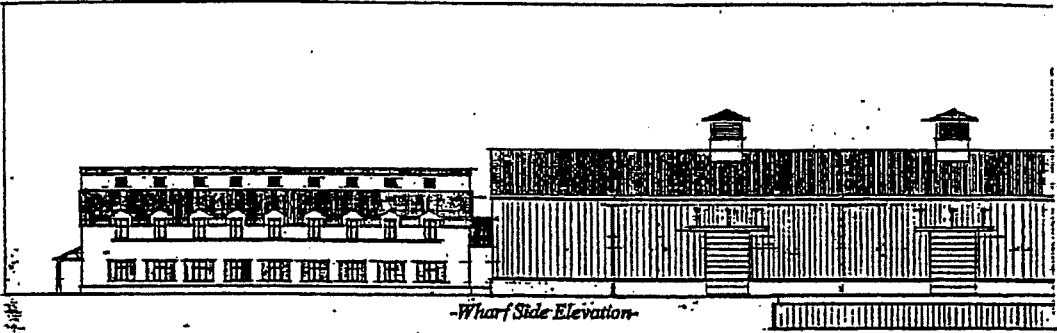
Location Map

NEW NORTHERN ENTRANCE
Proposed bridge from US 1.

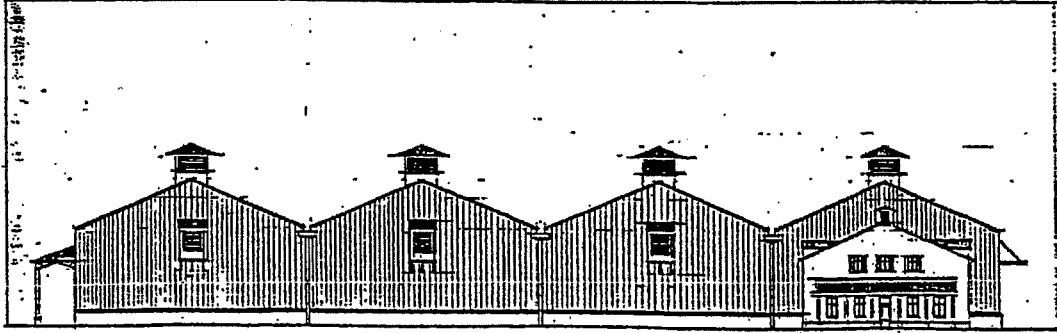
WAREHOUSE
Cargo and Industrial Area



Typical Front Elevation

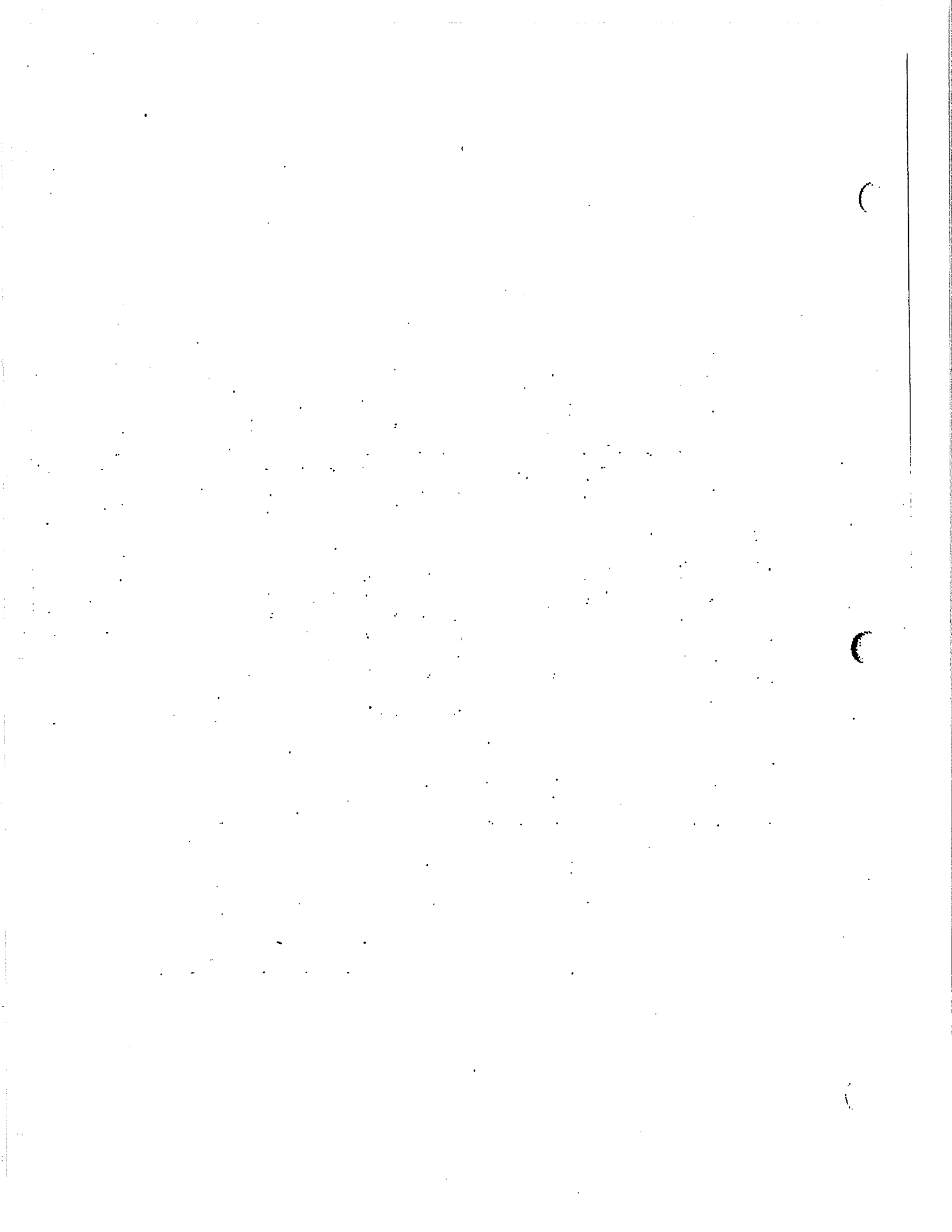


-Wharf Side Elevation-



Typical Side Elevation

**PUBLIC WORKSHOP
REPORTS**



**PORT OF FT. PIERCE MASTER PLAN
PUBLIC INPUT WORKSHOPS**

**WORKSHOP I
SUMMARY REPORT**

**OCTOBER 30, 2001
5:00 – 9:00 PM
ST. LUCIE COUNTY CIVIC CENTER**

TABLE OF CONTENTS

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APPENDIX 2 - WORKSHOP EVALUATIONS	19

INTRODUCTION

BACKGROUND

On October 30, 2001 the FAU Joint Center team preparing the Ft. Pierce Port Master Plan conducted the first of three public workshops to solicit input to be used in preparing the plan. Approximately 95 participants attended the meeting.

The purpose of the first workshop was to explore the range of aspirations in the community for the future of the port, to identify the issues that will need to be addressed in the plan, and to identify information that community members would like the consultant team to consider in developing the plan.

The meeting was facilitated by the Florida Conflict Resolution Consortium and records of the discussions made on easel-paper or in other ways during the course of the meeting. This report presents the results of discussions at that meeting, based on transcripts of those notes. More detailed descriptions of the process used for each discussion are presented in the corresponding sections of this report.

AGENDA

The following agenda was followed during the meeting. The full agenda packet used by participants is available separately from the consultant team.

- 5:00 Welcome and Introductions
- 5:15 Review History and Context of Ft. Pierce Port Planning:
 - Need to develop port plan; Brief overview of previous/other efforts
- 5:45 Review Status of the Consultant Study:
 - Structure and role of the Port Master Plan process
 - Preparation of the required data and analysis
 - Updates to the website www.ftpierceportplanning.org
- 6:15 Futures Exercise. *It is 2010. What activities are happening in and around the port? What does the port look like? What effects does it have on and in the community?*
- 7:00 Break
- 7:15 Futures Exercise Debriefing
- 7:45 Issue Identification
 - What are the issues the community should address through the port plan process?*
 - What background information (i.e., reports, documents, special conditions, etc.) does the planning team need to consider to plan wisely for the port?*
- 8:55 Next Steps
- 9:00 Adjourn

FUTURES EXERCISE

PROCESS

Small Group Discussions

After the initial presentations of background information, participants formed four small groups. Each small group was asked to discuss and answer the following questions. A facilitator assisted each group with its discussion and recorded its answers on easel-paper.

For this exercise, assume it is the year 2010. Imagine the port is fully developed and playing a positive role in the community. From your perspective, how would this look? Please consider the following questions.

- *What activities are happening in and around the port?*
- *What does the port look like?*
- *What effects does it have on and in the community?*

Debriefing

During the debriefing, the groups were asked to tell each other about their discussions and to compile a common set of answers. Each group in turn was asked to offer one of the ideas it had generated. These were recorded by the facilitators on a common list. This process was repeated until all substantively different ideas had been offered. After this process was completed, participants identified items they all could agree to, and items about which they had concerns.

The purpose of the debriefing was to identify in broad terms areas of agreement and areas of difference that would need to be resolved in later workshops.

This section of the report presents the results of each small group's discussion, as well as the debriefing.

FUTURES GROUP 1

- Recreational facilities.
- Ecologically safe, clean activities - good curb appeal.
- Water sports park for kids.
- People strolling - tables and chairs - people sitting and reading.
- Enjoying scenery and weather.
- One or two upscale waterfront restaurants.
- A high tech port with state of the art systems - import / export jobs and taxes - clean.
- Moorings for boats - dingy dock and/or launch services.
- Mega-yacht business with prestigious yachts and sailboats - no rusting hulks.
- Mega-yacht facility-yard for refurbishing - sail loft - yacht brokers, slips and anchorage - repair facilities - canvass shops - support industry for mega-yachts.
- Export and import.
- Motels.
- Lagoon maintained in a better state than now - no dredging.
- Maintenance dredging is vital.
- Depth of no more than 28'
- No container activities and yards.
- Container facilities.
- Clean environment.
- Parking.
- Waterfront promenade.
- No blighted area.
- Low (no) crime rate.
- Gift shops - shops generally.
- Deli for boaters.
- Clean and friendly.
- Pump-out facility if you have boats.
- Expanded marine research facilities.

- Efficient transport in and out.
- Enhanced rail system.
- Cargo activity - not expanded beyond present.
- Minimal cargo activity.
- Logical game plan for all of these activities and facilities - including role of parking.
- No wildlife.
- Tropical landscaping - beautiful.
- No cargo containers storage in port area.
- Cargo and ecologically sound and beautiful are compatible.
- Consistent with County comprehensive plan.
- Retain unique charm of Ft. Pierce as waterfront community - intimate, compact, friendly.
- Is public ownership of land increasing?
- Maintain ecological health at all cost - try cooperation first, if that doesn't work then eminent domain.
- There will be a ripple effect out from port revitalizing community - support services.
- Good or bad ripples.
- Concern about costs of private decisions.
- Preserve what lagoon is used for now - recreation.
- New North Beach Bridge.

FUTURES GROUP 2

- Multi-purpose port.
- Recreation area and secure area.
- Cargo - juice, citrus, fruit.
- Area for large mega yachts - build and maintain.
- Cranes for container ships with storage buildings.
- County working with private owners to develop port - cooperation.
- Restaurants - good ones.
- Develop to highest and best - job creation.
- Freezer containers and warehouses.
- Develop a port authority that will control the port.
- Job distribution - equally.
- Port authority security.
- Deep-water port - more than 34'.
- Deep-water port will help lagoon.
- Ecosystem concerns balanced with industrial concerns.
- Cruise ships and cargo ships.
- Hand-stacked chicken ships.
- Containers west of U.S. 1.
- Move sand pile and put in a mega yacht facility.

- Move sand pile from berth 4 to berth 1 after it gets bulkheads.
- Use Ft. Lauderdale model – it's beautiful. Or use Baltimore, San Diego, Canaveral.
- Regional transportation input and network.
- County and city tap FSTED funds to develop port.
- Develop marine education programs.
- Keep environmental concerns and integrate with port.
- The port is being used.
- Someone to coordinate logistics and communication.
- Efficient ship-to-rail transfer.
- Efficient tax base from those at the port.
- Incentive to attract companies to the port.
- Input from Big 3 citrus producers. They should use this port.
- A developed port will create opportunities for citizens and help community grow.
- Maintain an aesthetic standard (port authority, city, county).
- More security and defense from Department of Defense.

FUTURES GROUP 3

- More recreation areas, marinas, yachts.
- Pleasing to the eye.
- Nice fishing area, standing by but not on bridges.
- Recreation port.
- Areas funding economy = 500 jobs and benefits.
- 1st class hotel – ancillary fee.
- Destination – bring people, tourists, businesses, taxes.
- Shopping areas.
- Estuary free of exotic introductions.
- Ditto.
- Mixed use – some cargo.
- Recreation, outstanding 5 star hotel, businesses.
- Ditto.
- Enlarge hotel, incorporate convention center.
- Sailing, yachts = \$'s.
- Traffic situation around port is HANDLED.
- Nice restaurant.
- Clean businesses, take great grandchildren to mix some cargo with clean entertainment. No expansion of R/R – noise.
- Charrette implemented.
- 3-4 new deep water baths permanent jobs, citrus off trucks, businesses to support.
- Clean walks around it.
- Small cargo ships for fruit, not ugly ships dumping oil – businesses live together.
- Area grandkids walk around see results.
- No cargo, too small, cargo forces out other entities.

- Silos? Use some thinking.
 - Restaurant on top of silo's.
 - Buildings consistent with downtown architecture, landscaping, scenic views.
 - Silo's gone.
 - Ditto architecture - aragonite gone.
 - Good business area protected environmentally.
 - Don't lose small town environment.
 - Compare Port Canaveral. - beautiful - integrate downtown.
 - Good, presentable - day and night take grandchild; cargo, cruise ship, sailboats. Outstanding jobs - tax revenue relief, homeowner's architecture in future.
 - Need more work - jobs.
 - Silo's gone; can't dress them up - sailboats, granddaughter great architecture, landscaping, nice folk, clean industry, convention folks.
 - Can't use silos or toilet bowl. Coconut palms, . . .
 - Mega yacht facility without cargo.
 - Indian River Terminal cleaned up. Observation, walkway.
 - Beautiful ships 3 to 4 a day with cargo for shops from around world, Fort Pierce participates in global economy/job.
 - Silos limit by draft of lack of maintenance of channel.
 - Move public land at port. Higher taxes?
 - \$12 - \$60 an hour a yacht.
 - IRCC/Training for mega yachts.
 - Live downtown - make it alive - condos - bodies - ecology protected.
 - See what its like at Port Canaveral - coordination.
 - Docking fees \$6 - \$10K a day.
 - Tax base, revenue.
- \$30 an hour on docks; ~~12\$~~ = 175 people - 60\$

FUTURES GROUP 4

- Redo master plan.
- Beautiful area with condos, restaurants, hotels, and water taxis, marina.
- Restaurant on top of silos.
- Tall ships.
- Mega yachts.
- Study data (every 10 years.) Don't degrade area.
- Seaplanes.
- Cargo with state of the art facilities.
- 300' limit on cargo ships
- Wharf area.
- 500,000 tons of cargo into and out of port.
- 28' limit to depth.
- Tied to Taylor Creek with boating and housing.

- No cargo.
- Freezer containers.
- Citrus museum.
- Intermodal transportation with rail and shipping.
- Remove silos.
- Maritime school.
- Saving silos and storing aragonite.
- Eliminate deepwater status.
- Charter boats.
- No more dredging.
- Sailboat racing.
- Tie to U.S. #1 and entrance.
- Protect downtown and beach access from excess truck and rail traffic.
- FTZ (Foreign Trade Zone)
- Outdoor events - concerts, festivals
- Connection to downtown with tram.
- Intermodal - airport connection.
- Sea mammal rehab aquarium.
- Tourism.
- Scuba diving/hard hat diving.
- Convert silos to aquariums (deep water) for bioluminous fish.
- Dry storage.
- Larger vessels.
- Shops and parking areas.
- Covert silos to Fort Pierce utility.
- Connection with historical museum by water taxi.
- Distribution facilities.
- Remove/relocate power plant.
- Perimeter boardwalk including water front pavilion.
- Silos as observation towers.
- Work with school system.
- Subsurface lounge with bay windows.
- Activities that exemplify prosperous economy.
- Tram/trolley connection.
- Part/open space.
- Environmental science center.
- Conference facilities.
- Human powered watercraft station.
- Rollout grandstands for aquatic extravaganza.
- Amtrak passenger station.
- Garage.

- Native plant gardens.
- Astrodome for events.
- Splash through fountain.
- Demonstration wetlands.
- Small luxury cruise ships facility.
- Expand Smithsonian.
- Beach bus. Tours by ducks(WWII)
- Building for Waterfront Council and Conservation Alliance.
- 20' depth.
- 34' depth.
- Lighthouse (futuristic)
- Silo into lighthouse.
- Detonate silos.
- No more 5 p.m. meetings.
- Decrease in citrus industry results in Development - Land - Urbanization.
- Increase in Brazil's import of citrus into port.
- Boomer population expansion - citrus → Condo's.
- Increase in recreation facility - hotel/convention/cruise.
- Airport - seaport link.
- Brazilian groves in FIA for development.
- Export of citrus from FIA by Brazilian products (grapefruit juice)
- Growth "fruit" fleet → Deeper 40' + port.
- Expense of additional dredging and protecting beaches.
- Economics - Increase tax base, provide jobs, \$'s poured back into community.
- Recreational areas in N./S. Beach residential areas. (High tax areas).
- Sales tax revenue to community.
- Rec. and Cargo - \$'s for community.
- Increase in \$'s from working other counties.
- Convention Center - jobs - preserve water.
- Ships/cargo/mixed use.
- Hotels/restaurants.
- Mega yacht/yacht refurbishing.
- Docking Facilities.
- "Very nice" facility to entice people to Fort Pierce - Residential and Tourist and Investors
- Enhance or detract-depending on type development.
- Create wealth and bring jobs.
- If done "wrong" way, negative impact on environment.
- Required infrastructure.
- Increase tax base-hotel/mega yacht.
- Lower property tax.

- Increase property value.
- Make positive destination.
- Balance all of the above.
- Marine related activities predominate (shipping/boating/marine rec./hotels/housing to support.
- Blue-collar jobs/workers in port development, work.
- Opportunity for advancement in job and job skills.
- Reduction in poverty level.
- Reduction in crime.
- Improve Fort Pierce image/pride.

FUTURES EXERCISE DEBRIEFING

- Ecologically safe and clean port.
- Multipurpose port.
- Convention centers, hotels restaurants related to maritime development.
- Building architecture and landscaping consistent with rest of city redevelopment.
- Tie port to U.S. 1 entrance and protect downtown and beach access from excess traffic.
- Depth of no more than 28 feet.
- Cargo.
- Recreation.
- Economic issues - generate a tax base increase from maritime and ancillary development. Create jobs.
- Yacht repair facilities with associated economic benefits.
- Leave plenty of space for parking and perimeter boardwalk.
- Promenade - access to shops and facilities.
- Development of a port authority to control the port.
- Upscale development done with concern and care for the environment. If it is done wrong it will have a negative impact.
- No cargo. Recreation and tourism.
- Expand cargo.
- Do something with the silos - redevelop them or blow them up.
- Make sure the port plan consistent with the county's comprehensive plan.
- Be aware of possible economic change in the citrus industry.
- Look at good models for ports.
- Convention center.
- Inter-modal connections - airport, water taxi.
- Expanded rail.
- Expand required infrastructure.
- City and County should tap FSTED funds to develop the port.
- Make it look better.
- Tie to Taylor Creek.

- No more 5:00 p.m. meetings.
- Expanded marine research facilities.
- Incentives to attract companies to the port.
- More recreation area - a place to bring the grandchildren, go fishing.
- Freezer plants for citrus.
- An estuary free of toxics and exotics.
- Free trade zone at port and airport.
- 34' depth.
- Replace North Beach Bridge.
- Aragonite and sewage treatment plants gone.

Commonalities (Ideas all might agree with)

- Income and jobs, wealth - building.
- Aesthetics improved.
- Clean environment.
- Maintain and enhance lagoon.
- Upscale?

Concerns (To be resolved)

- Don't limit use options to recreation; if there is no cargo.
- Cargo/recreation tension.
- Financing and funding of these plans.
- Depth - objections to 34' 95'.
- Finding the right points of reference - other ports to compare to.

ISSUES

PROCESS

During this discussion, participants identified issues that would need to be addressed in the port plan. They were asked to answer the following question, using markers and large "post-its" provided for the purpose.

What are the issues the community should address through the port plan process? They were asked to write only one answer per "post-it" (i.e. those participants who wished to identify five issues were asked to use five post-its.) The facilitators then collected the "post-its," read them, and grouped them into categories on easel-paper at the front of the room. The issues submitted on "post-its," and the categories of issues resulting from the grouping process, are presented below.

ENVIRONMENTAL ISSUES:

- Concern over sea level rise (dredging).
- Maintain the Indian River Lagoon and improve where needed.
- That the Indian River Lagoon and the Land Side Environment is enhanced and not damaged. Who wants a pot of gold when you can't find a fish or lobster to cook because of disease or extinction?
- Development of port in an economically and ecologically sustainable manner.
- Check with Harbor Branch Oceanographic Institute for information on lagoon.
- The ship's channel sucks sand off the beach.
- What water depth can we justify for the port? Circulation of clean seawater allows the benefits we now have. Will more do better and would deepening the port materially change the flows?
- Absolutely NO pollution to the Indian River Lagoon.
- Protection of the "Most diverse estuary in North America" - above all.
- How many times has DEP or Corps cited Port of Ft. Pierce for pollution? How many times for other Florida ports?
- Clean air.
- Need for valid information and data on how deepening the channel will help flush and clean out the lagoon.
- All of the letters from agencies that have concern that we might be building a cargo port in the most diverse estuary in North America.
- Issues: Environmental concerns.
- Health of the lagoon.
- Clean environment.
- Maintain and support a environment that is ecologically sound.
- Protection of the Indian River Lagoon and the surrounding environment.
- Protection of Indian River Lagoon.
- Identify the greatest good for the greatest number.
- Indian River Lagoon should not be disturbed.
- Fort Pierce should be in a separate category from the other deepwater ports. How many reasons do you want?
- What are the REAL environmental concerns? Let's talk about the science.

RECREATION:

- Where are all the people going to come from to support an all-recreational area?
- Recreation for the water and the land - i.e.:
 - Marinas
 - Hotels
 - Walkways
 - Picnic areas

- Don't confuse "recreation development" with not contributing to the economic base of our community.
- "Recreation" includes mega-yachts, convention centers, hotels, restaurants, theme parks, tourists, and other paying activities.
- No need for more recreation in these four areas. Plenty of other areas up and down river.
- Who will utilize boardwalks, shops, restaurants, etc? The ones we have now are not full. We need to attract full time residents.

PORT AUTHORITY:

- City and county - 3 members each from city and county with fluctuating time frames.
- Should there be an independent Port Authority?
- Port Authority - should we have one?
- Who maintains the channel without cargo?
- Should the entity charged with implementing the plan be required to purchase the land that will be developed? Answer: YES!
- Who is best suited to run the port and why?
 - Independent Port Authority?
 - County?
 - City?
 - Private owners?
- Managing the port - What kind of Port Authority?
- Who and what will dictate the port boundaries? Why?
- No Port Authority as another taxing authority/district. Not another tax burden for the citizens.

USES:

- Don't overlook the positive aspects of a deep-water port designation.
- Can fuel/petroleum be considered as a viable cargo item?
- Economic feasibility of various developments.
- If this is such a good port for citrus, why hasn't anyone used it for such?
- How do we pay for all of the improvements without creating industrial/cargo jobs? Taxes must increase.
- A blend of light industry, commerce, recreation and environmentally friendly activities in one area. All with a marine related aspect.
- Why is cargo development not pursued by county and city like the mega-yachts.
- Types of port activity?
- Consider the port as a multi-county, regional asset.
- Public use and benefit as opposed to exclusive use for private profit.

- Cargo:
 - Jobs - What economic level?
 - What services will all blue-collar workers require adding to an already overloaded community and health, social services, etc.?
- Collect video and data from Port Canaveral and Port Everglades on how to develop a mixed- use port. And that the cargo port should be expanded.
- Should the cargo port charette definitions be expanded from the present cargo port of small ships for citrus/etc. to large ships with containers, cranes, and container storage yards vs. cleaner business like mega-yacht repair facilities?
- A mixed port. Whatever it may be, let it be for the future so our children can make a living.
- Remember at port:
 - Hotels
 - Shops
 - Restaurants
 - Tourism

ECONOMIC DEVELOPMENT:

- Attracting people to our community that have plenty of money to spend here creating high increases in jobs and sales tax revenue.
- Port should support local industry.
 - Re: Agriculture
 - Marine
 - Import/Export
- Multi faceted development that will environmentally and economically support the community.
- Develop business that will increase our tax base.
- St. Lucie County has the highest unemployment of any county in Florida - 10 years in a row! (Florida Trend).
- Tax base approximately 2.5 million income per year through property taxes plus sales tax on service - parks and hotels, restaurants through mega-yachts.
- How to make the port contribute most to the community's well being.
- What development will best serve the community by creating good paying jobs?
- Port Plan Process:

To develop the port for cargo, to create jobs for the people of Fort Pierce. This needs jobs for its people with jobs comes more tax base for the local government. The county can grow. This can and will be done without damaging the environment. Without jobs for the community this area will never improve. Keep jobs in Fort Pierce.
- Jobs - current and added.
- Jobs (year-round).
- Tax base- Profitable industry.

- Should tax incentives be used to attract marine related business to the port?
- Provide employment for year-round residents.
- Development of the port to create jobs (high income) mixed use per Charrette.
- Increase tax base for the community.
- Cargo. More jobs. Deep-water port.
- Develop business/industry that will create long-term employment opportunity for the local available work force.
- Provision for high tech jobs.
- Long-term benefits for the port businesses and people they may employ as a result of port development.
- Business/industry that will insure a permanent employment base for local residents. Secure job. Future for local job market. Long term employment.
- Need for housing. Need people to live in downtown area to keep it alive.
- How the port can support growth in other areas of the county.
- Target profitable industries yet make them conform to aesthetic design/look.
- Identify the greatest good for the greatest number.
- More job and more job.
- More jobs. More jobs.
- Should the port be an economic engine?

IMPACTS OF CARGO:

- Do not try to mix upscale development and heavy industrial - it won't work and heavy industrial will win out every time.
- Safety for the community.
- Job creation. Cargo facilities.
- Cargo demand for the US State and area.
- Spin off business as related to cargo handling.
- How will cargo benefit the community?
- Small boats do more damage than large ships!
- The negative impact of expanded cargo (Blight and community; Container yards; Increased trucking and increased crime.)
- The FIT Environmental Report states that shipping is environmentally destructive. Written documentation refuting this is necessary or it should stand as fact. Stop stating opinions and start with science!!
- Necessity - What will need to be done to support the port activity?
For example:
Accommodate cargo usage.
Trucking.
Railroad.
Security.
Traffic control vs. more emphasis on other development.

- Relationship of the South Beach as residential and recreational area to the port development.
- Container yards producing poor air quality.
- Safety of environment from pollution of all kinds including that from foreign ships.

FINANCE:

- If corps goes away, then who pays for harbor maintenance, who pays for jetty maintenance, and who pays for South Beach re-nourishment? How much will that be?
- How much do we need to raise taxed in City of Ft. Pierce (not County, not Port St. Lucie) to buy all the 130 acres of land, buy all the businesses, re-train all the existing employees and then to build publicly owned hotels and restaurants?
- Ability to finance the needs!

TRANSPORTATION:

- Trucking industry as a correlated industry to cargo port requires large not environment enhancing.
- Accessibility (transportation and ease of use through parking and good roads).
- Improve transportation in the area as needed. No L.A. Airport or N.Y. Harbor!

PORT DEPTH:

- Deeper dredging will cause swifter currents and more sea grass erosion.
- Deep water port more ships.
- Deepening the port to 34" will help the lagoon.
- Allowing the ship channel to fill in to 20 feet. How many reasons do you want?

PROCESS:

- Unlike the Walton Road Bridge, let the people decide.
- This process is taking a lot of people's valuable time and is all a lot of B.S.
- How do the majority of county residents want to see "their" port area developed?
- Do property owners in the port have property rights that should prevail at all?
- Was not the charrette voted on by the people?
- Referendum needed.

PLANNING

- The planning process should consider every single science based written environmental report. Not just pay lip service which I'll bet this planning session does but I hope I'm wrong.
- Environmental reports, studies of other ports, economic studies.
- The port is considered a regional asset. Who and how should bordering countries participate in this process?

- Limited city and county involvement.
- Feasibility/Implementation. Be realistic!
- How to recognize private property rights.
- Planning/Transportation. Include other counties - Martin, St. Lucie, Indian River, Okeechobee.
- Be consistent with the comprehensive plan.
- Flexibility in planning.
- How best to maintain flexibility in the "plan" as the port is developed.
- Involvement of the four county area:
 - Indian River
 - Martin
 - Okeechobee
 - St. Lucie

OTHER:

- National defense.
- How best can the governmental agencies facilitate development and not be impediments to development.
 - Economic impact
 - Transportation
 - Security
 - Employment
 - Finance - Tax - Commerce
 - Multi-purpose

INFORMATION

PROCESS

During this discussion, participants identified information they would like the planning team to consider when drafting the plan. Issues that would need to be addressed in the port plan. They were asked to answer the following question, using markers and large "post-its" provided for the purpose.

What background information (i.e., reports, documents, special conditions, etc.) does the planning team need to consider to plan wisely for the port?

The facilitators then collected and read the "post-its." The information suggested for review is presented below.

INFORMATION SUGGESTED FOR REVIEW

- The Comprehensive Plan, Land development codes, the future plans for restoration of the Fort Pierce area.
- Transportation (MPO) plans for the future so as to structure less traffic congestion (rail, truck and car) at the port to U.S. #1 and its feeder areas.
- U.S. #1 is already a nightmare.
- Why is Port Video not part of the data provided on list?
- 1986 Master Plan
- 1956 Master Plan
- Background information:
- Use of other successful plan programs "Master plans" (just downscale - Ft. Lauderdale, San Diego, Baltimore)
- Collection of studies done by Harbor Branch Oceanographic
- Smithsonian Institution
- Marine Resources Council
- Background information:
- Numerous "studies" made over the years. What was the result and/or consensus?
- Background information:
 - Comprehensive Plan
 - CRA Master Plan
 - Port Study
 - Market Analysis
- Sort through the two pages of literature. Review contained in the information pack you provided us with.
- The Charrette.
- The Port workshops
- The Port Owners
- Use experience from other development of port facilities.
- Document or report on paying for the port.
- Consider the study by FIT on ports in the south.
- 1989 Port Master Plan.
- Background issues:
- Dredge disposal site.
- Who wants what is at Palm Bay in their front yard? At Crane Creek?
- The County Report on Economic Development dated June 2000.

APPENDIX 1

COMMENTS FROM COMMENT FORMS

1. Referendum to determine what community wants. Not allow our port to ruin our community because of greed. This issue is truly the Most Important Issue to face our community. The Charrette is antiquated. #1 we had not revitalized our historic downtown nor did we realize the scientific concerns for the lagoon nor did we know seriousness issues of exotics in bilge water. Also we did not realize positive development like mega yacht industry was possible. You talk about jobs! Mega yacht potential 500 jobs - cargo 50 jobs with mega yacht industry providing little damage to lagoon compared to cargo. FSTED funds will be lethal to our community. Remember we are the only port located on the "Most Diverse Estuary in North America". We can not afford to destroy it.
2. If we don't get into specifics - this process will fail. This means really addressing details and differences. Detailed maps. How and exactly what jobs in what areas?
3. What was the Charrette 12 years ago for if no ideas were ever expanded into action? This seems like you're starting over from scratch! No expanded cargo or container cargo - recreation areas to bring tourists and residents downtown and plus a mega yacht facility bringing in tourist economic dollars into this county - putting us on the map instead of the cargo, container cargo and mass dumping that's currently being done at the port.
4. For the next 2 meetings! The realization of all attending that everyone has a freedom of speech and ideas. Each should respect the right of others to speak without snide remarks and innuendoes. Smaller groups and the ability to hear!
5. Keep the integrity of our river and do not destroy the environment of our area. No sludge, no oil spills. Do not destroy our paradise.
6. Living so close to the Ft. Pierce Inlet and the Port we are literally at ground zero regarding the impact of port development. The future direction of our port will have a profound effect recharging the ecological health of our Indian River Lagoon/crime situation and our property values.

APPENDIX 2
 WORKSHOP I EVALUATIONS
 October 30, 2001

How Well Did the Workshop Achieve the Meeting Objectives?

	<i>Circle One</i>				
	<u>Good</u>	<u>Poor</u>			
<u>Average</u>					
• Explanation of Workshop Series Process, Scope, and Outcomes	5	4	3	2	1
	3	4	2	1	1
	3.64				
• Review of the Master Plan Process and Technical Requirements	5	4	3	2	1
	2	6	1	1	1
	3.64				
• Review of On-Going Activity that would affect Port Planning	5	4	3	2	1
	1	3	4	2	1
	3.09				
• Community's Vision for the Future of the Port Exercise	5	4	3	2	1
	3	3	1	3	1
	3.36				
• Identification and Agreement on Key Issues that must be addressed in any Plan Update	5	4	3	2	1
	4	2	3	2	
	3.73				
• Agreement on Needed Next Steps	5	4	3	2	1
	4	1	2	1	
	4.0				

Rate the Following Aspects of the Meeting?

• Clarity of the meeting purpose and plan	5	4	3	2	1
	4	3	2	2	
	3.82				
• Background information was helpful	5	4	3	2	1
	3	1	3	2	2
	3.09				
• Agenda packet was helpful	5	4	3	2	1
	5	2	2	2	
	3.91				
• Balance of structure and flexibility	5	4	3	2	1
	3	3	3	2	
	3.64				
• Group involvement and productivity	5	4	3	2	1

APPENDIX

- Facilitation
- Facility

5	3	2	1	
<u>3.82</u>				
5	4	3	2	1
5	3	2	1	
<u>4.09</u>				
5	4	3	2	1
3	4	1	2	1
<u>3.55</u>				

General Comments:

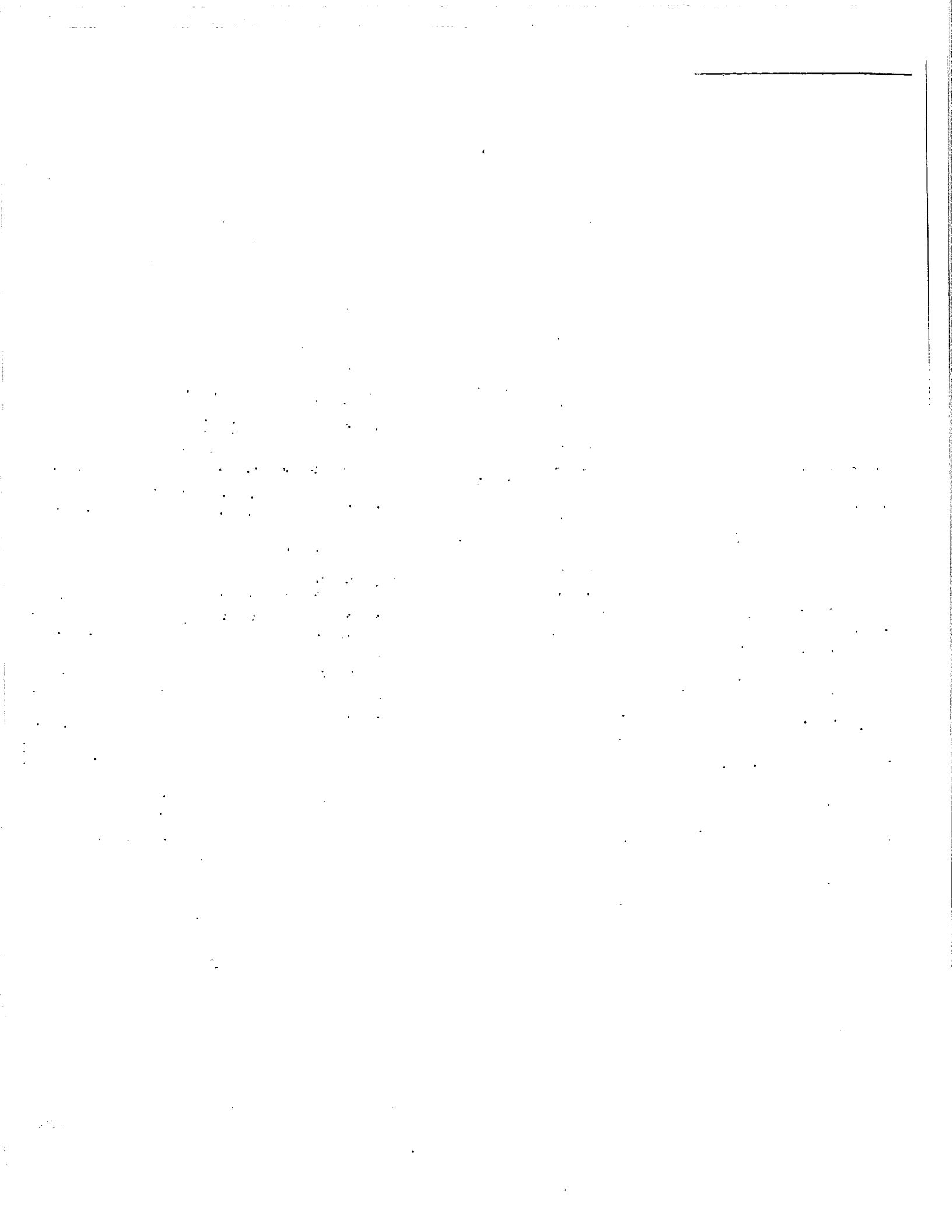
- Good discussion.
- Here we go again!
- Unless we get very specific about issues on jobs, environment, etc. this will be a waste of time.
- Seats too hard.
- Good beginning.

What Did You Like Best About the Workshop?

- Not much so far -need specifics.
- Public input.
- Sharing ideas.

How Could the Workshop Have Been Improved?

- Speaking allowed by individuals (time limits).
- Get specific.
- Different time.



PORT OF FT. PIERCE MASTER PLAN
PUBLIC INPUT WORKSHOPS

WORKSHOP 2
SUMMARY REPORT
NOVEMBER 14, 2001
6:00 - 9:00 PM

ST. LUCIE COUNTY CIVIC CENTER

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INTRODUCTION

BACKGROUND

On November 14, 2001 the FAU Joint Center team preparing the Ft. Pierce Port Master Plan conducted the second in a series of public workshops to solicit input to be used in preparing the plan. Approximately 105 participants attended the meeting.

Building on the results of the first workshop, the purpose of the second workshop was to identify suggestions that might serve as the basis for draft goals, objectives, or policies in each of the Port Master Plan's topic areas required by Florida rules.

PROCESS

The meeting began with a brief review of the role of the master plan and of other documents and processes in determining the future of the port. This was followed by a review the results of the Workshop 1. The facilitators suggested that the topics for the Workshop 2 issue discussions would allow participants to address the requirements of Florida rules and the issues raised during Workshop 1.

The meeting was facilitated by the Florida Conflict Resolution Consortium and records of the discussions made on easel-pads during the course of the meeting. A more detailed description of the process used for each discussion is included in the corresponding section of this report. This report presents the results of discussions at Workshop 2, based on transcripts of the easel-pad notes.

AGENDA

The following agenda was used during the meeting. The full agenda packet used by participants is available separately from the consultant team.

- 6:00 Welcome and introduction, agenda review
- 6:10 Review of role of the Port Master Plan
- 6:20 Review of futures and issues exercises results from Workshop 1
- 6:30 Issues discussions - guiding the future of the port through goals, objectives and policies
 - Activities
 - Environmental Issues
 - Public Access
 - Disaster Planning
 - Landside Infrastructure
 - Navigation Channels
 - Responsibility for Port
 - Other Topics
- 8:55 Next Steps
- 9:00 Adjourn

ACTIVITIES

PROCESS

The discussion focused on how the plan would address activities and uses that might be proposed for the port in the future. The facilitators opened the discussion by asking the following question.

"What performance standards or criteria should any future activities have to meet?"

They then asked whether the group would agree that the following might serve as a point of departure for the discussion of how the plan will address such activities.

"The plan will be a tool for helping the community assess future proposals. Although what is proposed in the future will depend to a large degree on market conditions and on the opportunities perceived by individuals and companies, there seems to be agreement in the community on the following.

- *The port plan will continue to accommodate some cargo, even if only the existing operations.*
- *The port plan should also accommodate recreation and commercial uses and marine industry to some degree."*

No disagreement was expressed from the group. In addition several members suggested, with general assent from the group, that protection of the environment of the Indian River Lagoon should also be counted among the assumptions of this discussion.

PARTICIPANT SUGGESTIONS

Participants in the discussion suggested that performance standards should do the following.

- Address quality of life, especially crime.
- Activities should not negatively impact the likelihood that upscale businesses move to the port.
- Not allow cargo activities to preclude recreation or activities.
- Make use of the economic development potential of cargo (expansion).
- No loss of seagrass or decline in water quality.
- Lower crime through providing decent jobs.
- Provide some cargo and some recreation.
- Prohibit exchange of ballast water.
- Any uses must be consistent with the aesthetics of the downtown - compatible with scale and proportion.
- Create better jobs than cargo can create.
- Performance standards should encourage water related or dependent uses. (They should provide incentives for them.)
- Address desirable kinds of cargo.
- Prevent contamination of port neighbors.
- Consider future economic impact.
- Require security adequate to take care of crime concerns.

- Allow research, (Smithsonian, Harbor Branch).
- Allow highest and best use of property at a deep-water port.
- Minimize damage to inlet, harbor beaches (barrier island) and lagoon.
- Ensure that existing ports and port facilities are used to the greatest extent possible before expansion.
- Criteria should emphasize clean uses as well as marine industry.
- Performance standards should identify the current level of biodiversity and ensure its continuation.
- Within the parameters set by the current depth, maximize the jobs created at the port.
- Require ships to transit without lifting sediment into water column.
- Be consistent with original intent of the inlet - commerce.
- Be compatible with renovated downtown.
- Be compatible with surrounding land uses, natural resources.
- Develop cargo where depth allows.
- Allow, supports diversity of uses - commercial, recreational boaters.
- Allow development of this "jewel" that we have for jobs.
- Help create synergy between transportation, other resources, port development, etc.
- Develop the port and the airport.
- Ensure that the risk of invasive species is controlled.
- Require activities consistent with current depth.
- Require any activity to follow state, city guidelines.
- Allow something for everybody's needs.
- Provide jobs.

ENVIRONMENTAL ISSUES

PROCESS

This discussion focused on how the plan would address the environmental issues required by Florida rule as well as environmental issues raised by participants at Workshop 1. The facilitators opened the discussion by asking for either additional performance standards related to environmental issues, or suggestions that might become goals, objectives, or policies in the final plan.

PARTICIPANT SUGGESTIONS

- This is the most diverse estuary in the U.S. The plan should acknowledge that.
- The plans should address environmental issues in a science-based way.
- Include all the statements on environmental issues made during the activities discussion.

ACTIVITIES

- Address wastewater in ballast of ship – bilge water.
- You or a task force should evaluate the environmental hazard posed by a port relative to the impacts of other activities such as boating.
- Invasive species have a negative economic impact. We need to control or minimize their effects, including their effects on water supply.
- Develop a base-line understanding of the ecology, then allow no activity that negatively impacts the current level of ecological balance.
- Prevent suspension of toxins in water resulting from dredging.
- Need protection from and control of coastal flooding for beaches and adjacent areas.
- There are economic development benefits to environmental resources.
- Dredging, deepening, widening will negatively impact (worm-reef) fishing, etc.
- Flooding is created by deepening of the inlet – minimize.
- Regarding flooding and tidal effects on homes, you get decreased impact on homes by widening or deepening the channel – water flows away faster.
- Agriculture, citrus, and tourism provide large economic benefits to community.
- Safeguard sea grasses. They play an important role for manatees, other fish life (and tourism, resources).
- Remove silt in port to enhance environment.
- Air quality standards: address emissions in plan.
- Concern about importing foreign agriculture, food, vegetables.
- Regarding the statement that water velocity is due to the width of port and a wider deeper channel will protect against flooding – negative.
- Take care of the lagoon and it will do the same for community.
- Address the possible transmission of insects and rodents from ships (i.e., wood eating beetles). Monitor cargo for above.
- Address Taylor Creek and city sewer plant.
- You can protect environment and create good jobs.
- Cargo is strictly monitored by Feds.
- Jobs in harmony with environment are possible – we need the jobs.

PUBLIC ACCESS

PROCESS

This discussion focused on how the plan should address public access issues. The facilitators opened the discussion by asking "What kinds of public access would you like to see at the port?"

PARTICIPANT SUGGESTIONS

- Keep access separate from cargo area. The more people, the less security.
- Public access at Area 3 or North Bridge.
- Allow maximum public access.
- We now expect public access in all new projects in the undeveloped areas pursuant to new plan.
- Would like to see Sea Escape, one day cruises etc.
- Access for fishermen in lagoon without ships sticking out in those areas.
- Total access to all four areas except for cargo portion of (sp?) Eagan facility.
- More facilities for transient watercraft uses.
- When planning access, include land for adequate parking.
- Allow dockage for watercraft to visit water dependent commercial activities.
- Provide for areas to walk, bathroom facilities.
- Address traffic congestion.
- Establish a 100' perimeter around port for people to enjoy.
- Preserve public access to scenic views unobstructed by unaesthetic factors.
- Address access from Hutchinson Island.

DISASTER PLANNING

PROCESS

This discussion focused on how the plan should address disaster planning. The facilitators opened the discussion by asking "What provisions should the plan make for responding to natural and man-made disasters?"

PARTICIPANT SUGGESTIONS

- Waterside fire protection.
- If the plan asks for Red Cross participation, be sure you include a funding source.
- Address Hurricane evacuation for Area #1. Need new bridge. Address how to get past rail as well.
- Right-to-know for hazardous material for workers, citizens.
- Strategy to ensure bridges are not damaged by boats.
- Monitor health of environment.
- Reduce the risk of release of toxic organisms.
- Guidelines for mooring ships in storm events.
- In Area #3, prevent sewage spills, move treatment plant.
- There have been problems getting off the island - information about how to do so should be accessed by radio. Marine aspects need a coordinated plan and strategy.
- You need security planning. Address the threat of terrorism.
- Clean up equipment for hazardous material should be readily accessible.
- Test the aragonite plant for possible pollution. Need to mitigate.

LANDSIDE INFRASTRUCTURE

PROCESS

This discussion focused on port-related landside infrastructure. The facilitators opened the discussion by asking for suggestions that might become goals, objectives, or policies in the plan. The following suggestions were made by participants.

PARTICIPANT SUGGESTIONS

- There is room for more berths. Construct them.
- Do not allow transportation from port to interfere with traffic in Ft. Pierce.
- No additional rail spurs. They are not compatible with upscale development.
- Build a 2,000-car garage in the northwest corner of Area 2, with a fly over straight into the garage.
- Towers to reefs!!
- Replace North Bridge.
- Address rail traffic and related noise.
- Address U.S. 1 congestion.
- Address packing areas and related truck traffic and noise.
- Include intermodal connections, especially to airport.
- Be pro-active rather than reactive - attract high value, value-added industries.
- Accurately assess infrastructure needs before you set infrastructure goals. We have unfortunate examples of goals (and infrastructure) set based on inaccurate assessments of need.
- Would like to see one of biggest freezers on Treasure Coast at the port.
- Infrastructure needs for mega-yachts and for cargo are very different.
- Any new infrastructure must take care of the Indian River Lagoon.
- No increase in unsightly corrugated metal warehouses or piles of containers.
- The plan should be diverse enough to attract FSTED funding. To do this, you have to include some cargo.
- Consider a passenger terminal.
- Develop criteria for the kinds of transportation that will be needed:
 - availability;
 - accessibility;for each type, identify the advantages and disadvantages.
- Need to address ownership in order to address infrastructure.
- Improve the park on the left-hand side as you enter Area 1.
- Infrastructure in Area 2 must be compatible with the historical look and resources of the area.

NAVIGATION CHANNELS

PROCESS

This discussion focused on the port's deepwater channels. The facilitators opened the discussion by asking for suggestions that might become goals, objectives, or policies in the plan. The following suggestions were made by participants.

PARTICIPANT SUGGESTIONS

- Need better navigational aids.
- Limit depth of channel to 28 feet.
- No deepening or widening of the inlet or channel.
- The U.S. Coast Guard has the experience to address navigational aids.
- Would like to see lights on the channel from end-to-end.
- Deepen the channel to 34'.
- Would like to see a manatee alarm in the port.
- Ships over 300 come in by tug.
- No increase in dredging beyond the historical amount.
- Dredge spoils need to be addressed.
- No additional lighting end-to-end.
- No tax money for private owners.
- Turtle reproduction would be harmed by lights along the channel.
- Off-shore dredge spoil site may damage reef.
- NOAH study of off-shore site.
- Cost associated with various depths should be studied and considered.

RESPONSIBILITY FOR THE PORT

PROCESS

This discussion focused on various factors related to responsibility for the port, including ownership, and the various options for a formal port authority. The facilitators opened the discussion by asking for suggestions that might become goals, objectives, or policies in the plan. The following suggestions were made by participants.

PARTICIPANT SUGGESTIONS

- There are activities, for example ash barges tied at trees, as well as other activities that require public oversight. Who is in charge?
- Need for someone to be responsible for what is going in. Clarify who that is. The responsibility should be in public hands.
- Future of port should be determined by the community. Government should be run by a public port authority.

RESPONSIBILITY FOR THE PORT

- One possible make-up for a port authority would be six members, three appointed by the County and three appointed by the City.
- We need a full-time port authority.
- The port authority should be separate from the county and city commissions. It should be independent.
- Work with the port owners instead of threatening to take their land.
- The last thing we need is another rogue authority.
- Need coordination with agencies of the federal government - coast guard, immigration.
- Eminent domain exists for a reason.
- A window for acquisition has existed only recently. The property was not for sale five-to-ten years ago.
- Customs should have a full-time presence.
- Public ownership.
- Look for highest and best use of the port. The asset belongs to the entire region and state.
- Establishing an elected authority is the only way to get a good one.
- The authority should not be a separate taxing district.
- Accept no money with cargo strings attached.
- Get something done, not more surveys.
- County and City want control now that someone is willing to do something.
- Taking the land will be costly.
- What we are talking about is taxation and control without private owner participation.

OTHER

PROCESS

At the end of the meeting, the facilitators asked for suggestions regarding any topics that had not already been addressed. Participants made the following suggestions.

PARTICIPANT SUGGESTIONS

- Look at Port Canaveral. It faced these issues fifteen years ago. See what they have done over the last 20 years.
- People should have an opportunity to go to referendum.
- Ports set targets and don't get there. Don't invest in unrealistic goals.
- Ft. Pierce has become a more desirable place to live. If we reverse this we become the "hole in doughnut."
- Post the agenda on the website before the next meeting.
- Provide backup documentation, especially regarding crime and cargo.
- This is the future for the generation that comes after.

BIN

PROCESS

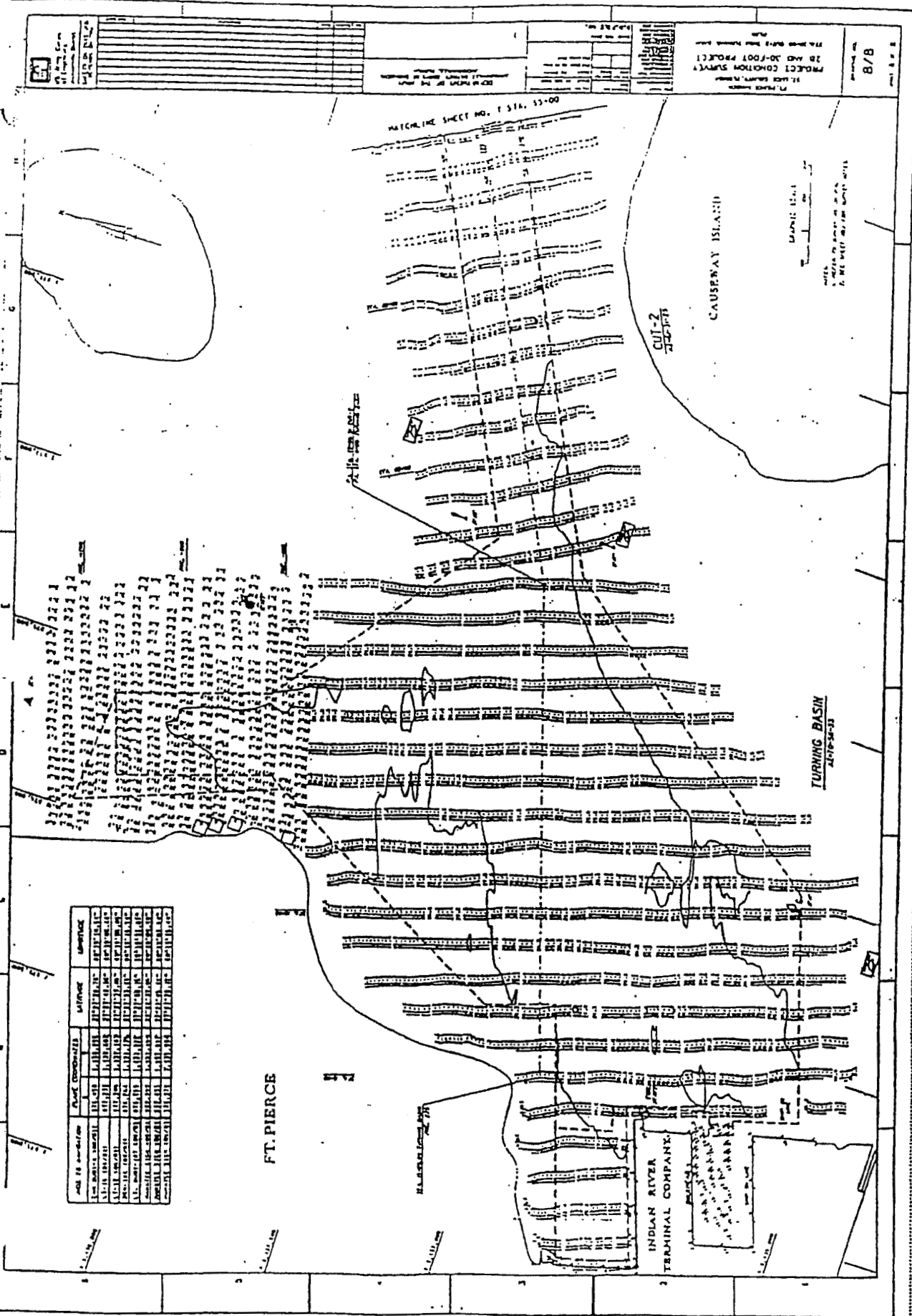
Throughout the meetings, comments that did not directly address the topic under discussion were recorded on a "bin" sheet. The following comments were recorded.

PARTICIPANT SUGGESTIONS

- Address the risk of biological contamination.
- Port owners should be involved.
- Back-up for the plan should include projections of targeted industries. What effect will they have in terms of jobs, resources five-to-ten years out. Specifically look at container cargo.
- Need an agency to control what, who comes in.
- We need cooperation between all entities to address environmental issues and activities at the port.
- Cruise industry = tourism=jobs.
- There must be public access to the port authority.
- Need a 2,000 car garage in Area 2.
- Your report should be available to public.

- Attached please find an informal study of the job potential of a mega-yacht facility. I will try to have more specific numbers and figures by the Nov. 29th meeting. Gerald Kuhlinski 561.465.0463
TCMSKUK@quixnet.net
- After your study is filed with the county, how can we monitor the actions being considered by the powers that be? Would a citizen advisory committee aid public education on the issues?
- We have a very limited amount of deep water ocean access that was generated at great expense by the building of two causeways and bridges. This area of unlimited height capabilities for cargo boats and "tall ships" should be used for the greatest possible economic benefit for the whole region.
- Other - Economic - Tourism as seen throughout Florida will only bring low paying jobs and higher taxes, more crime. What is needed is industrial jobs. Other - Economic - The container ports of the U.S. are projected to double in volume in the near future.
- Process: Avoid clapping etc.
Politely stop speakers if they discount others.
- Environment It is vital that the environment be protected to ensure the continued health of our sportfishing and tourism industries.
Economic Development An assessment of immediately generated jobs to be brought by a mega yacht facility and a container port needs to be done - Kevin Stinette.
- Please see attached information, which is pertinent to issues addressed.
Thank you - Shirley Buckingham.
- Mega yachts require no additional dredging. Largest yachts require 14' draft. Self contained EPA approved.
Most friendly to: Environmentally friendly
Create the most jobs
Bring people to the area.
Keep in St. Lucie County.
- Only documented facts be used to make any decision as to our Port Master Plan so that the most diverse estuary in North America is not in jeopardy. We must protect our revitalized downtown Fort Pierce. It was chosen by Scenic America in 1999 as one of twelve last chance landscapes in the U.S. and it is threatened by increase in cargo development at the Port. We must consider these valuable evaluations by groups outside our community. This cargo port has never been profitable - only a menace. Perhaps it is time to (1) Let the community decide what direction over port should go - referendum. (2) Eliminate the "non mandatory" deep water port status. We must establish a Port Master Plan that above all protects our most valuable asset - our natural resources. Interesting fact: We do not need jobs - We need people who are willing to work! Please buy a copy of local newspaper - The Tribune - and read the classified wanted ads begging for employees. All types of jobs!

- Environmental/Economic: The lagoon and surrounding eco-systems should be protected above all. It is the largest and most important economic resource that we have in this community. The health of it cannot be sacrificed for the monetary gain of a few business interests. That area must be developed for recreation, entertainment and sport activities with limited cargo activity.
- Activities: The port owners should not be shut out of the process. They should not be TOLD their land will be condemned and taken and the Charrette should be followed. This is what the people wanted and cargo was in the Charrette. Cargo will bring jobs to this community and the people that will work at the port will be people from Fort Pierce who really need to work and really want to work. We support mixed use at the port. We welcome mega yachts. We just want the other mixed-use which is cargo. Thank you.
- Responsibility - The port should be publicly owned and operated. The community Redevelopment Agency of Ft. Pierce should have input into the use along with the city, county and other elected representatives to guide the port.
- First, the best idea is a two question vote of the citizens. (1) More cargo? No more cargo/no flex zone or mixed use language. Put all this to rest. All previous vote intentionally left room for interpretation.
Also let us get to facts on how many jobs are created by cargo movement. How much movement is required for how many jobs? How much will the jobs pay? What will people be doing? Now look at yacht refurbishing facilities. How many real jobs would be created and how much would they pay?
- Landside Infrastructure: All development of infrastructure must protect the Indian River Lagoon, downtown Fort Pierce redevelopment and the quality of life that have brought us here to this paradise. We must not make the same mistakes that have caused Riviera Beach to look like a third world country. This will necessitate tremendous expenditure of public funds.
- My comment this afternoon. I support the port here in Ft. Pierce for mix-use for cargo and tax uses. Bringing the port here will create jobs for all citizens. It will create more revenue for the City of Fort Pierce and also the county. We here in Fort Pierce import and export so much cargo and all the revenue are going to various counties. Don't we think we want these revenue and jobs and economic progress here? I feel every one here in St. Lucie county and the city of Fort Pierce should welcome the port for our future and our children's and grand children's future. Fort Pierce is a peaceful place it is dying and we need to keep it alive all our resources are going elsewhere and not being developing here. Thank you
- Activities - Needs to be "consistent" with the CRA Community Redevelopment agency Master Plan as to use and maximum return on investment consistent with Downtown and good for the environment.
Public Access - Biking and rollerblading path, paved walkways.
Need mega yacht industry to minimize negative appearance and destruction of the lagoon caused by dredging for cargo ships.



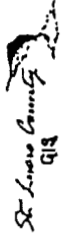
PROJECT NUMBER
 PROJECT LOCATION
 PROJECT CONDITION SURVEY
 20 AND 30-FOOT PROJECT
 8/78

MATCHLINE SHEET NO. 1 STA. 13+00

NO. TO SECTION	PIECE IDENTIFIER	DATE	BY	REVISION
1	1	11/15/77	J. H. [unclear]	REVISION
2	2	11/15/77	J. H. [unclear]	REVISION
3	3	11/15/77	J. H. [unclear]	REVISION
4	4	11/15/77	J. H. [unclear]	REVISION
5	5	11/15/77	J. H. [unclear]	REVISION
6	6	11/15/77	J. H. [unclear]	REVISION
7	7	11/15/77	J. H. [unclear]	REVISION
8	8	11/15/77	J. H. [unclear]	REVISION
9	9	11/15/77	J. H. [unclear]	REVISION
10	10	11/15/77	J. H. [unclear]	REVISION
11	11	11/15/77	J. H. [unclear]	REVISION
12	12	11/15/77	J. H. [unclear]	REVISION
13	13	11/15/77	J. H. [unclear]	REVISION
14	14	11/15/77	J. H. [unclear]	REVISION
15	15	11/15/77	J. H. [unclear]	REVISION
16	16	11/15/77	J. H. [unclear]	REVISION
17	17	11/15/77	J. H. [unclear]	REVISION
18	18	11/15/77	J. H. [unclear]	REVISION
19	19	11/15/77	J. H. [unclear]	REVISION
20	20	11/15/77	J. H. [unclear]	REVISION

Port of Ft. Pierce

Figure A



St. Lucie County
GIS
Community Development Department
Map prepared January 16, 2009
This map was prepared for general informational purposes only. It is not intended to be used as a legal document. The County does not warrant the accuracy of the information shown on this map.

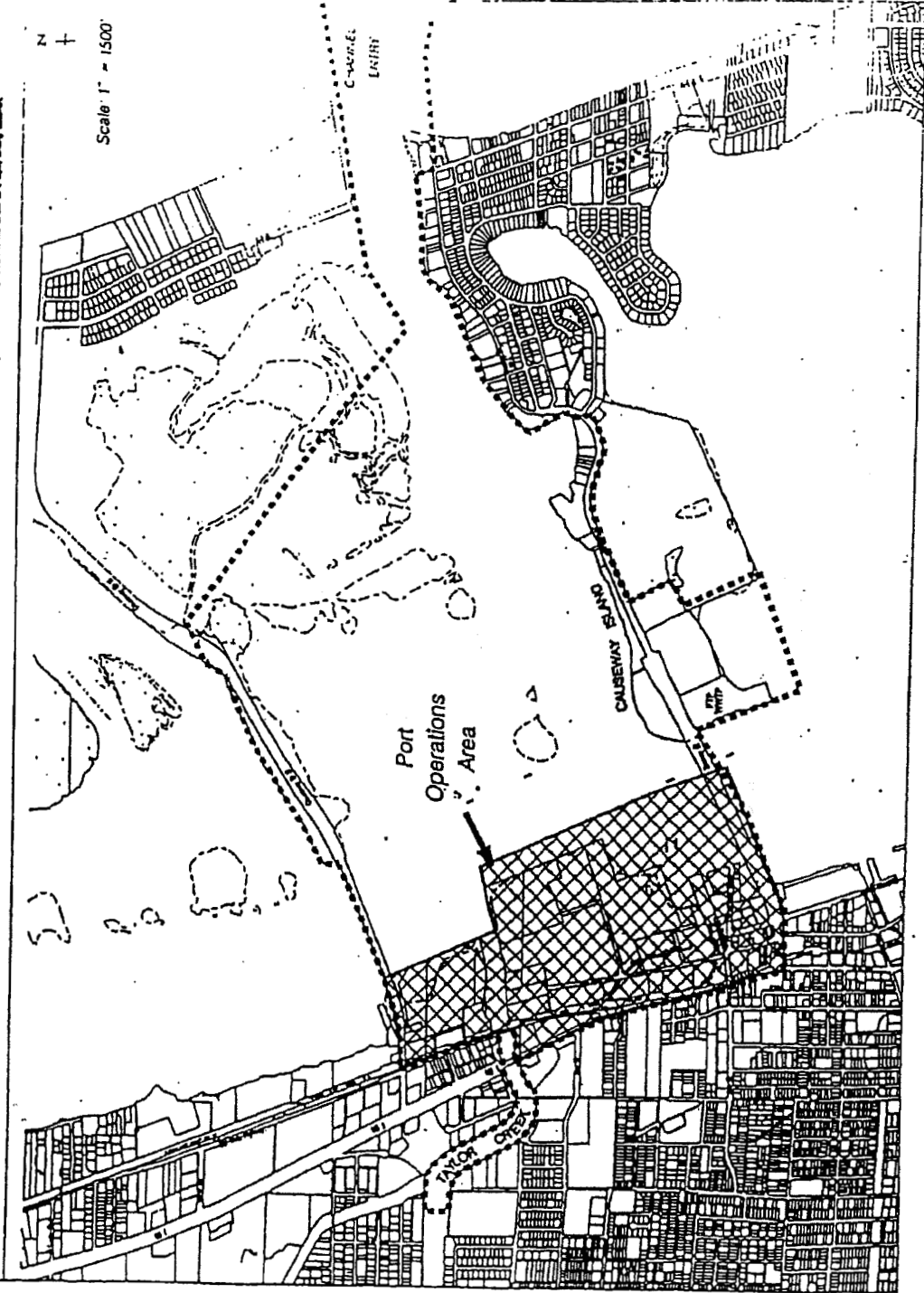
Port planning area



Port operations area



N +
Scale: 1" = 1500'



[Calendar](#) [Background](#) [Maps](#) [Contacts/Links](#) [Documents](#) [Media](#)



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Join our discussion on the goals, objectives, and policies

Download the FINAL GOP Document (MS Word format)

- Environmental Issues. Strict control of vessel emissions such as antifouling paint and air pollution with no increase over existing conditions and a reduction over time. No reduction in water clarity, no increase in toxic elements. No loss of existing sea grass. No reduction in water quality. Environmental issues based on scientific study be clearly cited. Opinions with no scientific merit be clearly indicated. Please use the scientific studies collected by FIT with the scientific survey on Port Impacts April 2000.
- "Environmental" Because of the "deep water" port designation the dredging is paid for by the U.S. Taxpayers. If there is not sufficient commerce from cargo the dredging will no longer be necessary. The Inlet will continue to fill in and "choke" the Indian River Lagoon. Who will pay for the dredging if there is no cargo.
- My comment is just this, everybody is not going to be happy. You really need to look at the fact that the people of Fort Pierce don't have many job opportunity for the young people. And yes there are not many activities there for people and for jobs and for others to try to have a piece of the pie as well

APPENDIX 2
 WORKSHOP 2 EVALUATIONS
 November 14, 2001

How Well Did the Workshop Achieve the Meeting Objectives?

Circle One
Good Poor

Average

- To review the role of the Port Master plan

5	4	3	2	1
1	3	1	2	
3.43				
- To build on the results of Workshop I to identify suggested recommendations for inclusion in the plan as goals, objectives, and policies.

5	4	3	2	1
2	1	2	2	
3.43				
- To identify areas of agreement and disagreement regarding suggested recommendations

5	4	3	2	1
3		1		3
3.0				

Rate the Following Aspects of the Meeting?

- Clarity of the meeting purpose and plan

5	4	3	2	1
3		2		2
3.29				
- Background information was helpful

5	4	3	2	1
1	1	1	2	2
2.57				
- Agenda packet was helpful

5	4	3	2	1
3	2	1	1	
4.0				
- Balance of structure and flexibility

5	4	3	2	1
2	1	2	1	1
3.29				
- Group involvement and productivity

5	4	3	2	1
3		2	1	1
3.43				
- Facilitation

5	4	3	2	1
4	2		1	
4.29				
- Facility

5	4	3	2	1
3	3		1	
4.14				

General Comments:

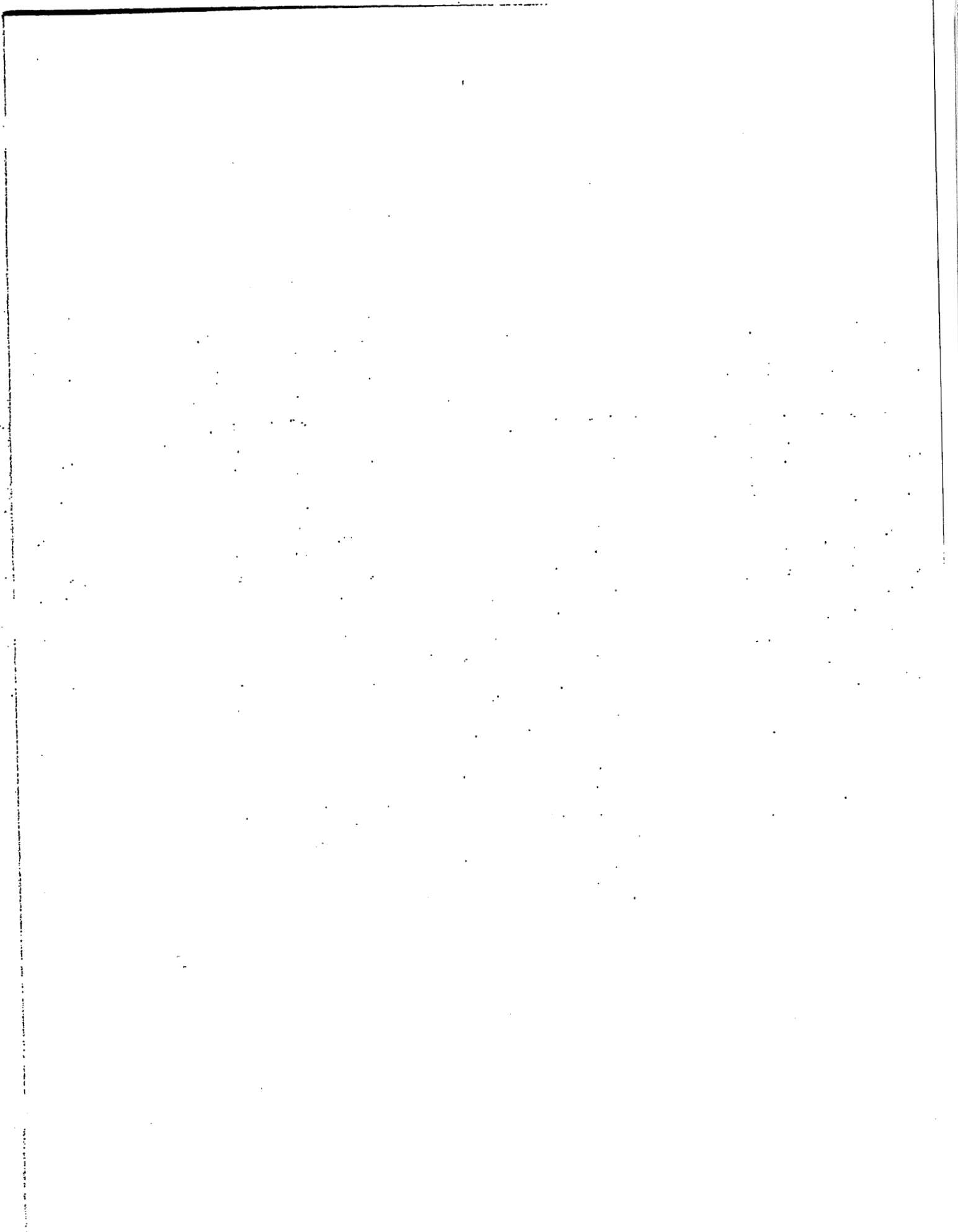
- Well done.
- I will reserve my comments to see the results.

What Did You Like Best About the Meeting?

- Not much.

How Could the Meeting Have Been Improved?

- By getting to the real issue - should we be allowed to harm our lagoon for the perceived benefit of the economy?
- Only documented facts.



PORT OF FT. PIERCE MASTER PLAN
PUBLIC INPUT WORKSHOPS

WORKSHOP IV
SUMMARY REPORT
January 30, 2002
6:00 - 9:00 PM

ST. LUCIE COUNTY CIVIC CENTER

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INTRODUCTION

BACKGROUND

On January 30, 2002 the FAU Joint Center team preparing the Ft. Pierce Port Master Plan conducted the fourth in a series of public workshops to solicit input to be used in preparing the plan. Approximately 50 participants attended the meeting.

Building on the results of the first three workshops, the purpose of the fourth workshop was to solicit community feedback on key issues for which public comment indicated divergent views on policy. The team identified six key issues for discussion. The community was asked to provide feedback and possible options for resolving the six key policy issues identified by the team for discussion and possible refinement.

MEETING PROCESS

The meeting began with a brief review of the role of the Port Master Plan, overview of Plan development process to date, and remaining process timelines. The rest of the meeting dedicated to soliciting community input on key topical areas identified for possible refinements in the draft. In addition, time was left at the end of the workshop to solicit comments on other substantive issues relative to the current draft of proposed goals, objectives, and policies for the Port of Ft. Pierce Master Plan.

The meeting was facilitated by the Florida Conflict Resolution Consortium and records of the discussions made on easel-pads during the course of the meeting. A more detailed description of the process used for each discussion is included in the corresponding section of this report. This report presents the results of discussions at Workshop IV, based on transcripts of the easel-pad notes.

AGENDA

The following agenda was used during the workshop. The full agenda packet used by participants is available separately from the consultant team.

- 6:00 Welcome and introductions
 - Agenda review
 - Review of previous workshop activities
- 6:10 Review of role of the Port Master Plan
- 6:20 Review of principal issues raised by comments from the public and from County and City Commissions
 - Port Boundary Area (Clarification)
 - Should vs. Shall (Clarification)
 - Specificity Regarding Uses
 - Port Authority (Including Intergovernmental Coordination)
 - Environmental Protections
 - Port Depth
- 6:45 Discussion of key issues
 - Participants will be asked to identify possible strategies to address each issue, and to discuss, evaluate and refine the strategies.
- 8:30 Comments on other substantive portions of the draft
- 8:55 Next Steps
- 9:00 Adjourn

ACTIVITIES

PROCESS

Review of principal issues raised by comments from the public and from County and City Commissions

The team identified six topical areas where comments from the community and elected officials suggested that additional review and refinements to the draft may be constructive.

Port Boundary

Jim Murley, director of the FAU/FIU Joint Center, offered clarification on the Port boundary based on distinction between Port operations and the Port study area.

The public was asked to offer feedback on the Port boundary issue as well as to ask questions and provide comments on the topic.

Following are the comments and options provided verbally by the community:

Port Boundary - Additional Questions

- ◆ Crosshatched area suggests operations area expansion.
- ◆ Mayor's comments were to stay in area between bridges.
- ◆ What funding sources are you considering? - FSTED.
- ◆ Question about area near North Beach Causeway - city or county?
- ◆ Concern about what is FSTED eligible.
- ◆ Concern about effect of having part of planning area in county.
- ◆ Eliminate aquatic preserve areas with Port Operations area.

Use of the Words Should vs. Shall in the Draft

Jim Murley, director of the FAU/FIU Joint Center, provided clarification of the use of should vs. shall in this version of the draft, and indicated that future versions would consider changes based on community feedback and elected officials' direction.

The public was asked to offer feedback on the use of should vs. shall in the document as well as to ask questions and provide comments on the topic.

Following are the comments and options provided verbally by the community:

Should vs. Shall Options and Comments

- ◆ Put shalls in draft and let elected's change.
- ◆ Need finality on issue relative to port uses.
- ◆ Should - too permissive.
- ◆ Shall - provides parameters for decision-makers.
- ◆ Use shall for strong statements and limited use issues.
- ◆ Eliminate areas with big loopholes - use shall.
- ◆ Should provides flexibility in Plan = keep shoulds in place.

Specificity Regarding Uses

Jim Murley, director of the FAU/FIU Joint Center, offered a range of possible options for defining specificity regarding uses based on review of all comments.

The public was asked to provide possible options for defining specificity regarding uses as well as to ask questions and provide comments on the topic. Following are the comments and options provided verbally by the community:

Specificity of Uses Options and Comments

- ◆ Mention Mega yacht concept explicitly in the Plan.
- ◆ Recreation, container cargo, and cruise lines.
- ◆ Continued use as- is. No expansion of cargo.
- ◆ Marine industrial research facilities.
- ◆ All options should contain security elements.
- ◆ Need jobs in Fort Pierce.
- ◆ County voters don't want cargo expansion.
- ◆ Associations (homeowners) vision for Port - balance concerns but; expanded cargo not compatible.
- ◆ Use Port to attract positive people/activities.
- ◆ Majority against expanded cargo.

Port Authority Including Intergovernmental Coordination

Jim Murley, director of the FAU/FIU Joint Center, offered a range of possible options for Port authority and intergovernmental coordination based on review of all comments.

The public was asked to provide possible options for Port authority as well as to ask questions and provide comments on the topic. Following are the comments and options provided verbally by the community:

Port Authority Options and Comments

- ◆ City or County could assign point of contact for port activities.
- ◆ City and County jointly establish agreement.
- ◆ Special act per local request.
- ◆ Dual responsibility for City or County board.
- ◆ 1/2 appointed by City and 1/2 by County.
- ◆ 1/2 local and 1/2 government appointed.
- ◆ Elected Body.
- ◆ Draft 2 would have let anything happen.
- ◆ County comments - County will remain Authority until vision is realized.
- ◆ More faith in local government than state.
- ◆ Keep Authority elected.
- ◆ Establish a structure that is not bureaucratic.
- ◆ Need good port staff regardless of structure.
- ◆ County purpose for RFP is to decide Port authority based on development.
- ◆ What regulatory authority does county have?

Environmental Protections

Jim Murley, director of the FAU/FIU Joint Center, offered a range of possible options for providing environmental protections in the draft based on review of all comments.

The public was asked to provide possible options for environmental protections as well as well as to ask questions and provide comments on the topic. Following are the comments and options provided verbally by the community:

Environmental Protections Options and Comments

- ◆ Drainage and runoff - need holding area.
- ◆ Take strictest interpretation of State and Federal standards.
- ◆ Major economic impact to area dependent on healthy environment in lagoon.
- ◆ Minimize and mitigate should be replaced with protect (i.e., seagrass beds). Use shall in protection elements of Plan.
- ◆ Make a list of what we don't want (i.e., invasive species)
- ◆ How about standards more stringent than state and federal standards - shall.
- ◆ Recreational boating also causes degradation to the Lagoon.
- ◆ Remember Port is man-made and Inlet is as well - improvements needed to Lagoon - Keep Port's economic vitality in place.
- ◆ Begin restoring the Lagoon.

Port Depth

Jim Murley, director of the FAU/FIU Joint Center, offered a range of possible options for defining port depth in the draft based on review of all comments.

The public was asked to provide possible options on port depth as well as well as to ask questions and provide comments on the topic. Following are the comments and options provided verbally by the community:

Port Depth Options and Comments

- ◆ Depth of channel should be 34' consistent with all sorts of ships.
- ◆ Cargo operations are not sustainable at current depth - to keep sustainable, must be deeper.
- ◆ Leave depth alone - lost lobster beds after last time. Also want to explore relation of dredging and erosion.
- ◆ County direction very clear (28') this will provide direction to ACOE.
- ◆ Commissioner has been unanimously re-elected on this - No more than 28'.
- ◆ No more than 28' has been consistent input for years.
- ◆ Was 25' before 28'. Agencies expressed concern, but economic impact was deemed more important. What has 28' done except open door to 34'?
- ◆ Written justification was safety and DEP specifically said they did not want to set precedent.
- ◆ Earlier comparison to Wilmington DE. They are going to 45'. Why would 34' be competitive?
- ◆ Why are we here tonight?

- ◆ Large percentage of sand dredged by ACOE, sucked in by inlet at current depth.
- ◆ Reaffirming input provided by coalition after last draft.
- ◆ Feel very strongly about Commission input because they are saying it for us.
- ◆ Support County in saying inlet should not be deeper.
- ◆ Chilling if decision has already been made - look for best profit center.
- ◆ Profit center not in law.
- ◆ Depth needs to be consistent with Cargo.
- ◆ Need independent Port Authority.
- ◆ Evaluate range of depth from 12' to 50'.

Comments on Other Substantive Aspects of the Draft

To conclude the discussion, the facilitator opened the floor to comments about any of the goals, objectives and policies. The following comments were offered:

- ◆ Sub element should replace Charette - plan should begin with statement of community vision - don't refer to Charette in Plan.
- ◆ Security is important - containers transfer weapons, etc.
- ◆ Plan should review a full range of views - not limiting.
- ◆ Charette should not be used as a vision.
- ◆ Charette does not reflect what is at the Port today or what new potential is at the port.
- ◆ Survey client (County) first and let public respond later.
- ◆ Security for Port based on local dynamics and is under review by State as part of a larger Port system.
- ◆ Port is economic vehicle for County as a whole.
- ◆ Plan should provide recommendations and alternatives for decision-makers.
- ◆ Cargo vs. other development - don't subsidize cargo from taxpayers.
- ◆ Need to be visionary - look at economic health of community - for future.

PORT MASTER PLAN PUBLIC INPUT PROCESS OVERVIEW

July 18, 19, and 20, 2001

Assessment interviews conducted with representatives of interested stakeholders to determine their issues, concerns, and desire to participate in the Master Plan development process. (Business, property owners, local government managers/planners, minority community, and environmental interests).

September 14, 2001

Process overview and update with Harbor Advisory Council and the Waterfront Council.

September 19, 2001

Meeting with minority community to explain process and determine/solicit commitment to participate in the development workshops.

PUBLIC INPUT WORKSHOPS

Over 100 citizens attended each of the three workshops.

Workshop I – October 30, 2001

Futures Exercise – From your perspective how would the Port look in 2010.

Activities and effects on the community.

Issues Identification – What issues should the community address through the Port Plan process. Needed background information.

Comments were captured on flipcharts and compiled in a report.

Workshop II – November 14, 2001

The Community was asked if they agree with the following Assumptions:

- ◆ Some cargo even if limited to existing operations
- ◆ Recreation and commercial uses (i.e., walk areas, hotels, shops, restaurants, office, condo; aesthetically consistent with City's redevelopment – charette)
- ◆ Marine industries (i.e., mega yacht)
- ◆ Protection of the environment of the Indian River lagoon.

There was unanimous agreement from participants on the assumption guiding the development of the Plan.

Following the consensus testing of the above assumptions the community was asked to provide guidance for considering proposals for developing the Port (Future of the Port) through development of a series of goals, objectives, and policies.

Seven key issues were discussed and feedback given. These areas are key components of the outline provided in Rule 9J-5:

- ◆ Activities
- ◆ Environmental Issues
- ◆ Public Access
- ◆ Disaster Planning
- ◆ Landside Infrastructure
- ◆ Navigation Channels
- ◆ Responsibility for the Port
- ◆ Other

Following the workshop the team compiled a preliminary set of goals, objectives, and policies for community review and discussion. The draft was based on community input received at Workshop II.

Workshop III – November 29, 2001

During the Workshop the Community was asked to prioritize goals and objectives for discussion and refinement, and to offer comments and suggested refinements. Following the workshop the team provided a window for receiving additional comments and following the comment period refined the draft of goals, objectives, and policies for the proposed Port of Ft. Pierce Master Plan.

Workshop IV – January 30, 2002

This workshop will be to review and evaluate key substantive issues identified through public comment and by local officials prior to compiling the final draft of the Plan.

DECISION-MAKING PROCESS SCHEDULE

County Commission, City Commission, and Harbor Advisory Council Update – January 22, 2002

The team met separately with each group to provide them with an overview of the Plan and solicit any feedback. In addition, County Commissioners, City Commissioner, and Harbor Advisory Council members were given a survey to solicit their specific comments on the draft.

Third Draft – February 14, 2002

County to distribute 3rd draft of Port Master Plan with goals, objectives and policies to County and City commissions and consultant to post 3rd draft of Port Master Plan with goals, objectives, and policies on project WEB page.

Joint City County Workshop – February 19, 2002

Ft. Pierce City Commission and Board of County Commissioners to hold a joint workshop to review the status of the Port Master Plan.

Public Hearing on Draft Four – March 19, 2002

County Commission to hold public hearing on, and approve, through a resolution the final draft of Port Master Plan with goals, objectives and policies.

PORT OF FT. PIERCE MASTER PLAN
PUBLIC INPUT WORKSHOPS

WORKSHOP 3
SUMMARY REPORT
NOVEMBER 29, 2001
6:00 - 9:00 PM

ST. LUCIE COUNTY CIVIC CENTER

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INTRODUCTION

BACKGROUND

On November 29, 2001 the FAU Joint Center team preparing the Ft. Pierce Port Master Plan conducted the third in a series of public workshops to solicit input to be used in preparing the plan. Approximately 95 participants attended the meeting.

Building on the results of the first two workshops, the purpose of the third workshop was to review draft goals, objectives, and policies and make suggestions for refinement. The goals, objectives, and policies address each of the Port Master Plan's topic areas required by Florida rules.

MEETING PROCESS

The meeting began with a brief review of the role of the Port Master plan and the results of Workshop 2. The rest of the meeting was a review and refinement of the draft goals, objectives and policies and identification of anything that might be missing.

The meeting was facilitated by the Florida Conflict Resolution Consortium and records of the discussions made on easel-pads during the course of the meeting. A more detailed description of the process used for each discussion is included in the corresponding section of this report. This report presents the results of discussions at Workshop 3, based on transcripts of the easel-pad notes.

AGENDA

The following agenda was used during the meeting. The full agenda packet used by participants is available separately from the consultant team.

- 6:00 Welcome and introductions
 - Agenda review
 - Review of previous workshop activities
- 6:10 Review of role of the Port Master Plan
- 6:20 Individual review of draft goals objectives and policies
- 6:35 Group selection of priorities for Workshop III discussions
- 6:45 Discussion of selected objectives (or related goals/policies)
- 8:55 Next Steps
- 9:00 Adjourn

ACTIVITIES

PROCESS

The group was asked to review the draft list of goals, objectives, and policies that was distributed in the agenda packet. Participants were asked to select five of the objectives (to include corresponding policies) that the group should discuss at the meeting. Facilitators asked the following question.

Which objectives (or related goals/policies) is most important to discuss tonight. (We will try to focus our discussion time on those parts of the draft most in need of refinement or modification.

Facilitators asked for a show of hands for each of the objectives. The following was the vote for each of the objectives. The number in parenthesis is the number of participants who raised their hand for the objective to be one of the discussion items for the meeting.

<u>(60)</u>	<u>Obj. 1.1</u>
<u>(32)</u>	<u>Obj. 1.2</u>
<u>(42)</u>	<u>Obj. 1.3</u>
<u>(26)</u>	<u>Obj. 1.4</u>
<u>(17)</u>	<u>Obj. 1.5</u>
<u>(35)</u>	<u>Obj. 2.1</u>
<u>(21)</u>	<u>Obj. 2.2</u>
<u>(18)</u>	<u>Obj. 3.1</u>
<u>(7)</u>	<u>Obj. 4.1</u>
<u>(2)</u>	<u>Obj. 4.2</u>
<u>(27)</u>	<u>Obj. 5.1</u>
<u>(52)</u>	<u>Obj. 6.1</u>
<u>(46)</u>	<u>Obj. 7.1</u>

The reason for developing an order of discussion was simply a function of time. It was anticipated that there would not be enough time at the meeting to discuss all of the objectives.

Facilitators explained that there would be a total of four ways to suggest refinements of the goals, objectives, and policies. One would be to offer comments during the discussion at the meeting. Another would be to write comments on post-it paper and attach the post-it to flip chart sheets hanging on the walls of the meeting room. A third way to submit suggestions was completion and submission of a comment form in the agenda packet. A final way to offer suggestions was electronically on the website, www.ftpierceportplan.org.

PROCESS

The facilitator asked the group to turn their attention to Objective 1.1, which received the most votes. The facilitator asked the group for comments about the objective or accompanying policies. The facilitator repeated this procedure for each of the objectives. The following is a transcription of the flip chart notes for each objective discussed at the meeting.

PARTICIPANT SUGGESTIONS

Objective 1.1

- The port should help to revive the area economy within 2 years.
- 1.1.3 Should be deleted. The airport is outside the scope of the Master Plan.
- The port should be developed to its fullest potential to create jobs - the airport should be tied to port.
- 1.1.3 If it stays, "appropriate" should be qualified. Don't build things that aren't needed.
- 1.1.3 Don't delete it; transportation needs to be linked. The airport and the port should provide jobs.
- Include training for new jobs.
- Don't link the port and the airport.
- Many airlines and airports are struggling.
- 1.1.1 Encourage the improvement of existing facilities
- 1.1.3 Delete.
- 1.1.4 Strike "at least"
- 1.1.4 The port too small, it needs more berths. This priority misses the point.
- 1.1.1 The port needs development now to help create jobs.
- 1.1.3 The airport needs development to create jobs.
- 1.1.1 Port development will create jobs, there should development deadlines.
- 1.1.3 Develop the airport.
- 1.4 Strike "at least".
- 1.1 Take into account the spin off businesses from a more active port.
- 1.1 Change shall to should.
- Create 350 jobs by 2003.

Objective 1.1 (Continued)

- 1.1.3 Strike "tie the port to airport . . ."
- 1.1.3 If not deleted, move this policy to 5.1, intermodal transportation system..
- 1.1.2 Nothing will do more for job creation than maximizing yacht facilities.
- 1.1.4 Strike "at least". Replace it with: existing level should be maximum.

Objective 6.1

- The port should maintain existing channel depth.
- Modify depth to allow other ships that need a 34' depth.
- The present port depth is consistent with current activities.
- Change the objective to read, Change depth to 34'.
- How about a 42' depth?
- The port will never be a large port so the current depth is sufficient.
- Going to a greater depth will cost a lot of money.
- Maintain the channel depth of 28'.
- It is not economically feasible to enlarge the port.
- The depth of the channel should be responsive to the needs of the businesses doing business at the port.
- Fill in the channel to a 20.5' depth.
- Modify the objective so that it is subject to environmental concerns.
- Dredge the channel to 34' because silt will seep back in.
- The channel depth should not exceed 28'.
- Don't deepen the channel to bring in cargo.
- The channel was dredged to 28' but no additional activity occurred. A 45' depth is inappropriate for this community.
- Depth should be commensurate with economic needs.

Objective 7.1

- The third line down - add "and quality of life".
- 7.1.4 Eliminate "Florida Ports Council"
- 7.1.2 Change should to shall and add non-taxing.
- 7.1.2 Add "elected" before port authority.
- 7.1.2 Change should to shall and add elected and non taxing.
- 7.1.4 Add City of Ft. Pierce and delete Florida Ports Council.
- 7.1.2 Change should to shall and the port authority should be independent.
- Anything involving public interest should be removed.
- The state legislature must initiate an independent port authority.
- Port Authority should be dependent and non taxing.
- Home Rule is better than state involvement.
- The Port Authority and the environmental agencies should be in same building.
- Add City of Ft. Pierce and interested agencies.
- 7.1.2 Should include city and county commissioners only

Objective 1.3

- Eliminate %
- Replace should with shall.
- Replace industry with commercial, and change should to shall.
- Add commercial, marine, and cargo activity.
- Promote only environmentally safe industries.
- Some of the marine industries conflict so location must be a consideration.
- Add marine science industries.
- 1.3.1 Add definition
- Some of these deserve no protection, change the language.
- Add cruise lines to marine activities.
- 1.3.2 Strike the objective. It is incompatible with area.

Objective 2.1

- 2.1.1 and 2.1.2 Above and beyond the ports influence.
- Replace "% ..." with "because of increased dredging".
- 2.1. is not operable - no comparison for %.
- 2.1.1 Port has nothing to do with fresh water in flows.
- The lagoon needs to be restored.
- 2.1 Must ensure protection, no %.
- Existing laws don't prevent exotic species.
- Don't allow hazardous materials in port. Change shall to should. Insert 15%.
- Change to: Port will protect habitat of IRL by fostering economically feasible development. I am not comfortable with minimize.
- 2.1.2 St. Lucie County shall prohibit development.
- 2.1.3 Concern protect indigenous species.
- 2.1 Insert 15% by 2004. Change all shalls to shoulds. Change minimize to reduce.
- 2.1.3 Strike "with existing ... laws and"
- Locate and consider studies that discuss discharge from yachts, pleasure boats, and cargo ships.
- The marine industry association has studies.
- Get the facts on exotics.
- Add policy - Increase trade with regional entities that would avoid exotic species.
- Bring in jobs without hurting environment or bringing in exotics. Both can be done.

Objective 1.2

- Change should to shall
- 1.2.3 Strike "Future uses of port" and replace it with, shall be terminated and moved by 2003. Include the plan should be consistent with downtown redevelopment master plan and community redevelopment master plan.
- 1.2.3 Delete. It is confusing and unenforceable.
- 1.2.3 Strike "aesthetically" throughout.
- 1.2.2 Strike. The port is not port of downtown.

Objective 5.1

- I agree with it.
- Replace should with shall.
- Include something about public transportation if all these jobs materialize.

PROCESS

To conclude the discussion, the facilitator opened the floor to comments about any of the goals, objectives and policies. The following comments were offered.

PARTICIPANT SUGGESTIONS

- 1.1.4 Change to, shall accommodate
- Goal 3 - add the goal from the city about public access.
- Control the use of multiple barges - maybe this should be a new policy
- 2.2 Change should to shall and add "entering port area" after estuary.
- 1.2.3 Change to, should be encouraged as specified on a post-it comment.
- 1.3 Add, including cargo
- 1.3 This is incompatible with commercial and industrial activity.
- Ensure access to waterfront.
- 2.2 Change minimize to prohibit.
- 2.2.1 Preserve and restore historic seagrass.
- 2.2.1 Change preserve to prevent and remove idea of mitigation.
- Review city documents that were mentioned, carefully.
- Fully write out Fort, don't use Ft.

PROCESS

To conclude the meeting, the facilitator asked participants for anything that might be missing, any new ideas for goals, objectives and policies. The following comments were offered.

PARTICIPANT SUGGESTIONS

- Specify the boundaries of Port.
- The port should include 113.6 acres.
- Provide documentation for the current depth of channel.
- County and City governments provide incentives for companies to provide jobs.
- There was a comment about Worm reefs in the inlet.
- Include policy about Port Zoning (PUR)
- Make some reference to land use provisions in other documents.
- The port is the most diverse area of the most diverse estuary on the continent.
- Include any reference material from the MT study done by the city.
- Port Authority and Port Security should be in same facility.
- Look at the study by Harbour Branch for the county.
- Include the Port Master Plan of 1989.
- Investigate whether seagrass still exists in areas that were once dredged.
- City and County government should not run the port.
- What is the goal of the community?
- The Port should create sustainable, quality jobs.
- County should continue to maintain berths 1 & 4, and develop 2 & 3.
- 1.1.1 Should be the policy to talk about jobs.
- Consider using the term "county" instead of "Port of Ft. Pierce".
- Any jobs created should be for local people.
- Industries that come to port should use local people to the fullest extent possible.

APPENDIX 1 COMMENT FORMS

Comment Form 1

- A) It would be most helpful & make for much more organized comments if we had the material prior to meetings.
- B) 28th ft. depth & inlet should never be gone beyond. Since dredging from 24 40 28' we have severe beach erosion. Computer modeling of different depths should be done.
- C) Why ruin a beautiful comeback city with increasing cargo & ruin the most diverse estuary in North America?

Comment Form 2

Policy 1.2.3. activities at the Port of Fort Pierce should be encouraged to be aesthetically consistent with uses of the port.

Objective 2.1 by initiating restoration ACTIVITIES address quality of life, including crime reduction, loss of sea grass, gradually improve water quality. Work toward eliminating damage to inlet, harbor, beaches. Performance standards and eventual return to material levels. Environmental issues. Develop a base line with a view toward gradual return towards natural levels. Regarding the statements, the deeper the waters the higher the surface velocity. Landside infrastructure. Build a 2000 car garage with perimeter ramp to port level.

Comment Form 3

Objective 1.1 - Do you realize almost all the comments made have been written and given to the individuals to practice before they come? We've seen this all 3 meetings. Anything relating to cargo!! There have been many people coming in with cargo the thing. Regarding jobs why do they not read the newspaper which lists lots of jobs!

Comment Form 4

The Master Plan to date - an excellent job has been done to date given the diversified group you are working with. You have been able to put together everyone's ideas and needs. There have been many changes suggested - but basically you have put a document together which is good. Tonight's comments are adaptable and some probably not appropriate. I was skeptical after session one but extremely optimistic at this point.

Comment Form 5

Well run considering the diverse evidence and opinions you encountered. I'll be curious to see what is incorporated or deleted.

APPENDIX 2 POST-IT COMMENTS

Goal 1 Port Activities

Objective 1.1

- Delete policy 1.13 or move to 5.1 to inter-modal transportation section – ADD policy – The port of Ft. Pierce will continue to accommodate only the current level of cargo at the port.

Policy 1.1.3

- Not necessarily linking.
- Rewrite in its entirety because our community has determined a General Aviation -or- entirely deleted policy.

Policy 1.3.1

- Do not add cruise lines as this assumes a dredged depth to accommodate.

Policy 1.1.4

- Accommodate cargo operations to a maximum level of existing annual etc.

Objective 1.2

Policy 1.2.2

- Line 1. Should delete shall. Add after Port of Fort Pierce. Such activities should be ecologically and economically sustainable.

Objective 1.5

- The Port of Ft. Pierce shall strive to develop in such a manner that is economically beneficial while not creating an environment that would be conducive to criminal activity or enterprises. 1.5.3 – The Port of Fort Pierce shall provide for appropriate security infrastructure that is consistent with the treat level. (Lights, perimeter fencing, private security officers, etc.)

Policy 1.5.1

- If port entity is privately owned it should be funded by those owners.

Policy 1.5.3

- The Port of Fort Pierce shall provide for appropriate security infrastructure that is consistent with the treat level. (Lights, perimeter fencing, private security officers, etc.)

Goal 2 Environmental Protection

Objective 2.1

- About any ship arriving in the Port. Every ballast tank containing water should be tested for live organisms!
- I.e. Delete or mitigate and permitted.

Policy 2.1.2

- The Port of Ft. Pierce shall prohibit development that increases long-term turbidity and/or removes or causes the removal of sea grass from the lagoon.

Policy 2.1.3

- Port of Fort Pierce shall protect indigenous species by prohibiting activities that are likely to introduce exotic species into the lagoon

Objective 2.2

- This section of the lagoon has within more varieties of marine species than anywhere in North America according to written information in Smithsonian magazine. This is a critical designation and should be mentioned.

Goal 4 Emergency Management

Objective 4.2

Policy 4.2.2.

- Hazardous materials shall not be allowed in the port.

Goal 5 Landside Infrastructure

Objective 5.1

Policy 5.1.1

- The City should support efforts to improve the south entrance to the Port along Second Street . . . and as development occurs the City shall require improvements to the intersection of U.S. #1 and Ave. "H" Fisherman's Wharf and it's intermediate vicinity.
Jack Cahill

Goal 6 Navigation Channels

- Channel should be allowed to go back to 20.5 feet.

Objective 6.1

- Port of Fort Pierce shall not exceed the existing 28' channel depth.

Policy 6.1.3

- Maintain and limit depth of 28 feet.

Goal 7 Responsibility for the Port

Objective 7.1 and Policy 7.1.4 should include the city of Ft. Pierce.

Policy 7.1.2

- Port Authority elected by voters.

Policy 7.1.3

- Determine exact port boundaries as per the City of Fort Pierce Port Master Plan described.

Goal 7 OLD Policy 2 3 6.1.1

- Please return to Dec 20, 1999 boundaries of the port shall be:
 1. N. Taylor Creek
 2. E. Indian River Lagoon
 3. South Fisherman's Wharf
 4. W. 2nd Street

Other Post-it Comments:

Bill Hearn

- Goal to establish port boundaries: Objective: Provide elected officials prospective developers and investors, and the public a clear understanding of the physical boundaries of the Port as that term is used in this plan. Policy: The physical boundaries of the Port shall be:
 1. North: Taylor Creek
 2. East: The Indian River Lagoon
 3. South: Fisherman's Wharf
 4. West: Second Street

Charles Grande 561.229.9878

- The boundaries should be defined as they were in the city of Ft. Pierce Port Sub. Element dated Dec. 20, 1999.
- The plan is only logical if the Port's physical Boundaries are defined. You should adopt the City of FP accepted boundaries.
North: Taylor Creek
East: The Indian River Lagoon
South: Fisherman's Wharf
West: Second Street
- Objective – to provide elected officials, prospective developers and investors, and the public a clear understanding of the physical boundaries of the port as that term is used in this plan
- Policy – The physical boundaries of the port shall be
North: Taylor Creek
East: The Indian River Lagoon
South: Fisherman's Wharf
West: Second Street
- Boundaries of the Port of Fort Pierce as follows:
East of 2nd St. and south of Taylor Creek – West of the Indian River and North of Fisherman's Wharf. Total 113.46 Acres.

**APPENDIX 3
WORKSHOP EVALUATION FORM**

**PORT OF FT. PIERCE MASTER PLAN
PUBLIC INPUT WORKSHOPS
WORKSHOP III NOVEMBER 29, 2001**

How Well Did the Workshop Achieve the Meeting Objectives?

	<u>Good</u>	<u>Poor</u>	<u>Average</u>
• To understand the role of the Port Master plan:	5 4 3 2 1	1 6 1 1	3.78
• To review the draft goals, objectives and policies and suggest refinements:	5 4 3 2 1	3 4 1 1	4.0

Rate the Following Aspects of the Meeting?

• Clarity of the meeting purpose and plan	5 4 3 2 1	2 5 2	4.0
• Background information was helpful	5 4 3 2 1	2 4 2 1	3.67
• Agenda packet was helpful	5 4 3 2 1	4 5	4.44
• Balance of structure and flexibility	5 4 3 2 1	3 3 1 1	4.0
• Group Involvement and productivity	5 4 3 2 1	5 4	4.56
• Facilitation	5 4 3 2 1	5 3 1	4.33
• Facility	5 4 3 2 1	2 6 1	4.0

General Comments:

- See attached.
- Materials not given in advance including agendas. Felt like I was in kindergarten.
- I believe that the overall points were made and that they kept respect in the meeting.
- Facilitators were excellent at keeping the group on task. Ideas vs. individuals.
- Well done.

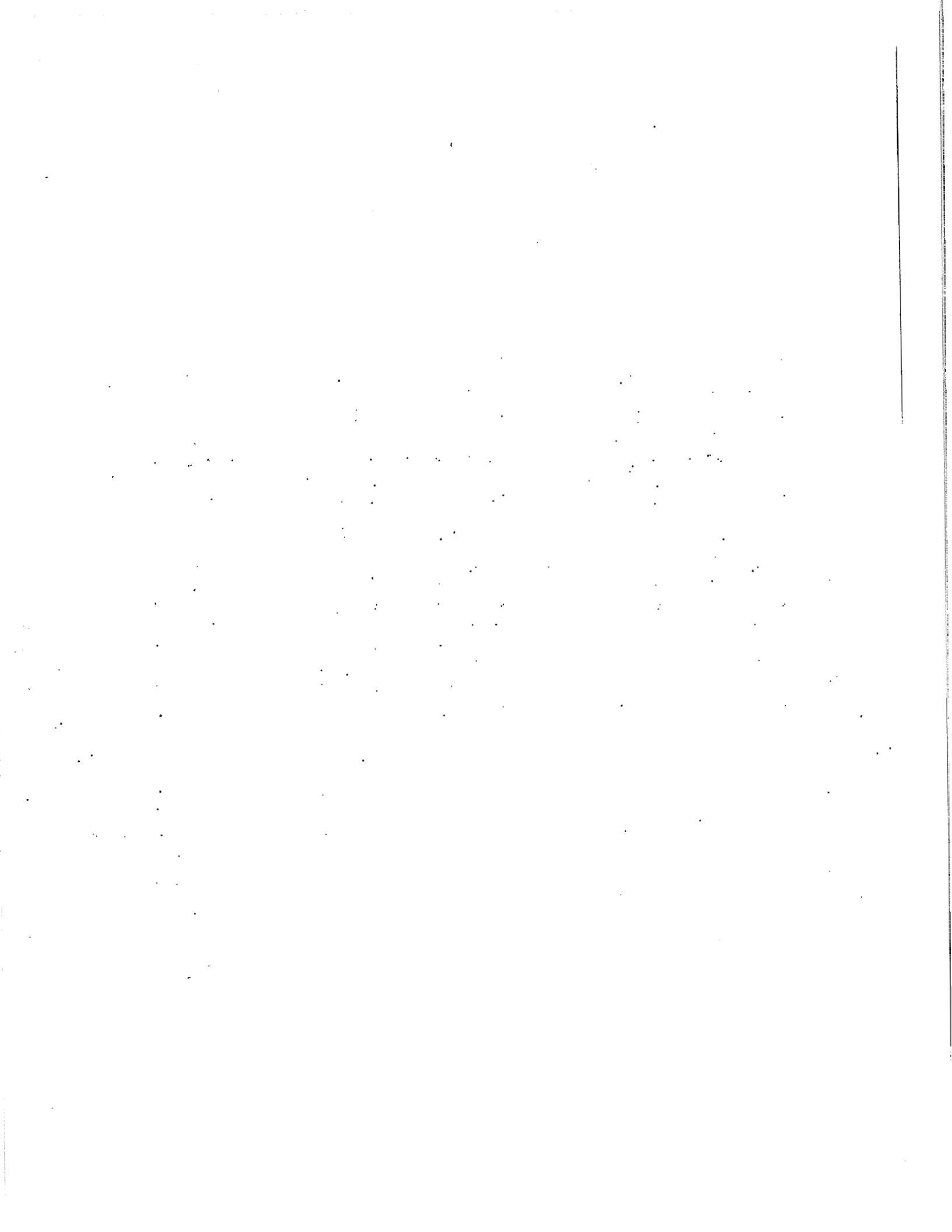
What Did You Like Best About the Workshop?

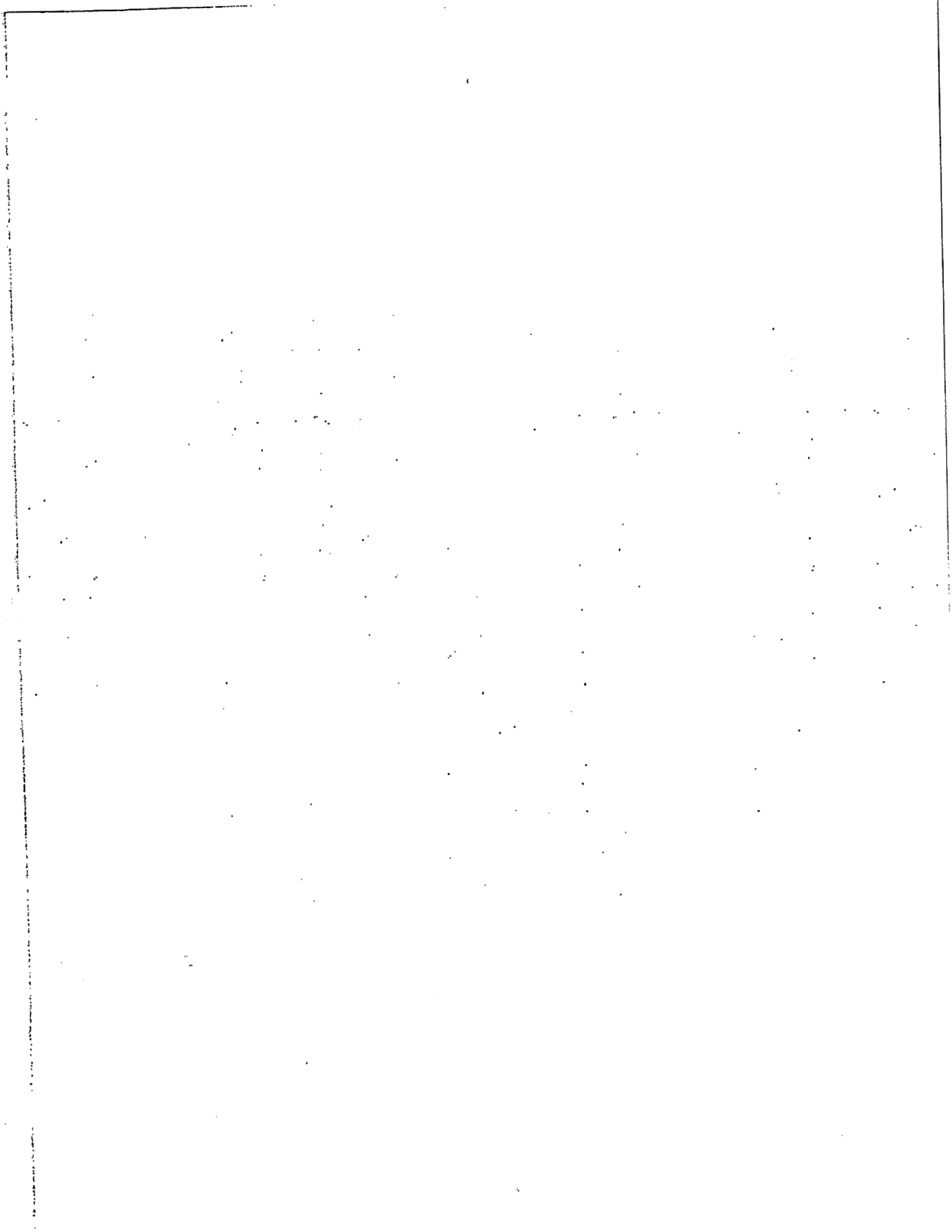
- O.k.
- Opportunity to speak as a citizen of this community.
- Overall the many discussions.
- Freedom to express myself.
- Openness – free speaking encouraged.

How Could the Workshop Have Been Improved?

- O.k.
- Have local people conduct workshop who will live with the results.
- Not as long (6-8 maybe). Tables and chairs
- Break earlier so more people remain to conclusion.







FORT PIERCE CITY COMMISSION AND
ST. LUCIE COUNTY BOARD OF COUNTY COMMISSION

JOINT WORKSHOP
SUMMARY REPORT ON THE
PORT OF FT. PIERCE MASTER PLAN

February 19, 2002
1:30 - 3:30 PM

St. Lucie County Commission Chambers

Meeting Design & Facilitation By:



Report By Jeff A. Blair and Rafael Montalvo
Website: consensus.fsu.edu

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INTRODUCTION

BACKGROUND

On February 19, 2002 the FAU Joint Center team preparing the Ft. Pierce Port Master Plan conducted a facilitated joint workshop with the Fort Pierce City Commission and the St. Lucie County Board of County Commission. The workshop was designed to allow Commissioners to provide feedback on the third draft of the Port Master Plan and to test Commissioners' level of support for the draft.

Prior to the joint workshop, Commissioners were asked to fill out a survey indicating their level of support for Draft II of the goals and objectives for the Port Master Plan.

In response to the survey results and extensive public comment compiled during three facilitated public input workshops, the Joint Center prepared a third draft of the proposed master plan for review and discussion at the February 19, 2002 joint workshop.

Commissioners were asked to provide feedback on the refinements made between Draft II and Draft III, and to offer any further recommendations for changes to the third Draft.

WORKSHOP PROCESS

The team provided the Commissioners with an overview of the survey results, refinements made between Draft II and Draft III in response to memberÆs and public concern, and then asked for comments and suggestions for refinements to Draft III. Commissioners were asked to express their comments and level of support on Draft III refinements and proposed changes offered during the workshop for the proposed Port of Ft. Pierce Master Plan.

The workshop was facilitated by the Florida Conflict Resolution Consortium and records of the discussions made on easel-pads during the course of the workshop. A more detailed description of the process used for each discussion is included in the corresponding sections of this report. This report presents the results of discussions and decisions made by the Commissioners at the joint workshop, based on transcripts of the easel-pad notes.

WORKSHOP OBJECTIVES

- o To review elected officials and public comments received since presentations to City Commission and County Commission.
- o To review refinements made to the draft in response to input received.
- o To discuss and agree on any additional refinements needed.

AGENDA

The following agenda was used during the workshop. The full agenda packet used by participants is available separately from the consultant team.

- 1:30 Welcome and Introductions
- 1:35 Introduction of Consultant Team
- 1:40 Agenda and Process Review
- 1:50 Review of Survey Results
Review of key issues identified in the survey.
Identification of additional issues for discussion, if any.
- 2:00 Discussion of Key Issues
For each of the key issues identified in the survey:
- o Review and clarify draft responses to previous elected official and public comment;
 - o Discussion of further refinements, if needed;
 - o Consensus-testing, as appropriate.
- 3:20 Next Steps
- 3:30 Adjourn

MEMBERS PRESENT

St. Lucie County

Doug Coward, Chairman
Frannie Hutchinson, Commissioner
Cliff Barnes, Commissioner
Paula Lewis, Commissioner
John Bruhn, Commissioner
County Attorney - Dan McIntyre
County Administrator - Doug Anderson

Fort Pierce

Edward Enns, Mayor
Rufus Alexander, Commissioner
R. Duke Nelson, Commissioner
Christine Coke, Commissioner
Robert Benton, Commissioner
Dennis Beach - City Manager
Robert Schwerer - City Attorney

WORKSHOP PROCESS

- o Review of workshop agenda and objectives
- o Review of workshop participation guidelines, facilitator's role and consultant's role
- o Orientation to workshop packet/materials
- o Overview of survey results
- o Overview of refinements to Draft II to Draft III changes
- o Topic discussion order based on survey results
- o Facilitator's will introduce each topic and team will provide an overview of refinements to draft II reflected in draft III
- o Facilitator's will ask for clarifying questions first
- o Comments/Discussion
- o Proposed options
- o Pros and cons
- o Test for consensus

ACTIVITIES

REVIEW OF SURVEY RESULTS (See Attachment 1)

The facilitators noted that in general the survey's indicated a high level of support for Draft II with most objectives receiving an average consensus-ranking of 4 or higher. Those objectives that received less than a 4 would be highlighted for discussion at today's joint workshop. In addition, it was noted that many refinements had been made in Draft III to address concerns identified in the survey results and through public comment. Commissioners were reminded that since refinements had been made in Draft III comments and suggested changes should be based on the third draft.

The team suggested a discussion order based on survey responses to Draft II. All objectives that received an average score of under 4 on a scale of from 5 to 1 with 5 indicating agreement and 1 indicating disagreement would be discussed first.

The following discussion order was suggested and approved by Commission members:

- Goal 1 Responsibility for the Port including boundary area
 - Objective 1.1
 - Objective 1.2
- Goal 7 Navigation Channels
 - Objective 7.1
- Goal 6 Landside Infrastructure
 - Objective 6.1
- Goal 2 Port Activities
 - Objective 2.3
- Goal 3 Environmental Protection
 - Objective 3.1

The following objectives, which received high consensus-test results, were also identified by Commissioners as priorities for discussion.

Objectives: 2.1, 2.2, 2.4, 3.3, 4.1

Following discussion and agreement on refinements to the above referenced objectives, Commissioners were asked to identify any additional objectives they would like to discuss.

DISCUSSION OF KEY ISSUES

Goal 1 Responsibility for the Port including boundary area **Objective 1.1**

Comments

Objective 1.1

Re: Goal 1 Does "vested" by "Law" modify ownership?
Role of title? Flag for clarification.

Critical that Ft. Pierce have major input on Port Authority

- o Was "conjunction" stronger than "cooperation"?
- o Need 2 years?
Yes, from County's perspective.
- o If we don't know who "Port" is, how can we say what it should do?

Policies 1.1-1.15

- o Does deletion of - unless Port Authority legislatively established make it harder to do this?

Policy 1.1.1

- o Add "local" elected officials (Policy leaves open possibility of working with city later)
- o Leave authority as is for now

Approved Refinements to 1.1

Add local officials to policy 1.1.1

Test for Consensus on 1.1

The 10 Commission members unanimously expressed their support for Objective 1.1 including the approved refinements listed above.

Objective 1.2

Comments

Objective 1.2

- o Port of Ft. Pierce is a geographical area. This requires a person to be in charge.

Policy 1.2.2

- o Does this eliminate the possibility of using northern section for megayachts?
Make sure it doesn't.
- o Use tourist, commercial and recreational uses to give more flexibility.

Approved Refinements to 1.2

Use tourist, commercial and recreational uses in 1.2.3

Test for Consensus on 1.2

The 10 Commission members unanimously expressed their support for Objective 1.2 including the approved refinements listed above.

Goal 7 Navigation Channels

Objective 7.1

Comments

- o Does this exclude future needs? Does this mean we will adamantly stay with this even if a future need that is different comes up?
- o Goal and objective language inconsistent with each other.
- o Seems to create a legal duty to maintain at 28 - may create liability for port if not maintained.
- o Heard from Harbor Branch yet?
- o Shall maintain maximum channel depth and maximum channel width - important to worm reefs and ledges & economically important and important to fish and lobster.
- o Survey, document and protect worm reefs. (See prepared statement)
- o Require EIS to change width.
- o There is opportunity to promote high quality economic development within current depth and width. Ditto comment on width.
- o Concern about future needs someone in future may not be concerned about snook or snooper.
- o Concern about including specific #s - what if needs change - but probably won't make a difference.
- o Change goal language existing and limited (?) - future needs?
- o Any concerns about width- One concern, may need to change.
- o If change needed, can be changed.
- o Concerns about deleting future needs.
- o Don't agree with 28" will meet future needs
- o Future needs as outlined in this plan - General agreement.
- o What would be reaction to military use to Port?

Maintain support a maximum channel depth

Approved Refinements to 7.1

Maintain support a maximum channel depth

Research, define, and specify a maximum channel width in the Plan.

Test for Consensus on 7.1

The 10 Commission members unanimously expressed their support for Objective 7.1 including the approved refinements listed above.

Goal 6 - Landside Infrastructure

Objective 6.1

Comments

- o Why were DCA and OTTED left off? Add
- o 6.1.2 Assumption - St. Lucie County as port authority? Yes
- o Better to say Port of Ft. Pierce.
- o Little need to link airport and seaport û no objection, but should not be a priority to increase link or invest.

To city's benefit to keep link concept in plan.

Approved Refinements to 6.1

Add DCA and OTTED to list.

Replace St. Lucie County with Port of Ft. Pierce.

Test for Consensus on 6.1

The 10 Commission members unanimously expressed their support for Objective 6.1 including the approved refinements listed above.

Goal 2 - Port Activities

Objective 2.3

Comments

2.3.1

- o Does removal of repair yards and marine facilities preclude those for megayachts?
- o Related service needs covers those?
- o May also need repair yard to service small or regular sized boats already there.
Leave in

2.3.2

- o Add research vessels.
- o Add or specify port for tall ships (sailing ships).

2.3.2

Why was Charrette reference kept here? And not elsewhere? Not needed.

Approved Refinements to 2.3

Indicate Port's designation as a tall sailing ship port.

2.3.1 Add additional examples of activities, i.e., boat service and repair yards, and marina facilities.

2.3.2 add; i.e., research vessels.

Remove reference to Port of Ft. Pierce Charrette.

Test for Consensus on 2.3

The 10 Commission members unanimously expressed their support for Objective 2.3 including the approved refinements listed above.

Objective 2.2

Comments

Policy 2.2.3

- o Move eminent domain.
- o Better define appropriate unit of government, mechanisms
- o Should or shall? Shall?
- o Legal issue & mandatory to spend \$/Es for eminent domain.
- o Consultant or Attorneys.

Approved Refinements to 2.2

Move eminent domain to end of 2.2.3

Test for Consensus on 2.2

The 10 Commission members unanimously expressed their support for Objective 2.2 including the approved refinements listed above.

Goal 3 Environmental Protection

Objective 3.1

Comments

Storm water systems not currently adequate - need to invest to retrofit.

Approved Refinements to 3.1

None made.

Test for Consensus on 3.1

The 10 Commission members unanimously expressed their support for Objective 3.1 as proposed in Draft III.

Objective 2.1

Comments

Enhance economic prosperity instead of exceed average salary. That is a sliding scale.

Test for Consensus on 2.1

The 10 Commission members unanimously expressed their support for Objective 2.1 as proposed in Draft III.

Objective 2.4

Test for Consensus on 2.4

The 10 Commission members unanimously expressed their support for Objective 2.4 as proposed in Draft III.

Objective 3.3

Test for Consensus on 3.3

The 10 Commission members unanimously expressed their support for Objective 3.3 as proposed in Draft III.

Objective 4.1

Test for Consensus on 4.1

The 10 Commission members unanimously expressed their support for Objective 4.1 as proposed in Draft III.

Goal 8 Manatee Protection

Policy 8.1.1

Comments

Adjusting future and proposed? If so specify.

Approved Refinements to 8.1

Policy 8.1.1 applies to future and proposed docks and not existing.

Test for Consensus on 8.1

The 10 Commission members unanimously expressed their support for Objective 8.1 as proposed in Draft III.

Objective 5.2

Comments

- o No language addressing types of materials we don't want to see?

- o Agree, but we need history (info).
- o Oremulsion, aregonite.
- o How do you specify which?
- o How do you enforce? Can you legally?
- o Environmental protection policies may suffice.
- o This may be a reason for port to be in public ownership, so public.
- o Would like to see at least broader language that we do not want to see hazardous materials commerce going in and out. Would provide direction for RFP.
- o Would like to see height limit (100Æ. Conditional use above that.
- o Hazardous materials and heights land ù use and zoning issues. Would policy infringe on this?
- o Leave with city.

Approved Refinements to 5.2

Draft should reflect general policy that Port will not be used for hazardous materials commerce.

Test for Consensus on 5.2

The 10 Commission members unanimously expressed their support for Objective 5.2 as proposed in Draft III.

New Goal 3 policy

Comments

Do not want to see north south bulkheads ù whenever we improve shoreline would rather do so in a way that absorbs energy.

Test for Consensus on new policy to Goal 3

The 10 Commission members unanimously expressed their support for a new policy in Goal 3 that would encourage wave energy absorbing bulkheads in the Port area.

ATTACHMENT 1
 Port of Ft. Pierce Master Plan
 Draft Goals, Objectives, and Policies Survey

	<u>Objective</u>	<u>City Average</u>	<u>County Average</u>
<u>Goal 1 - Responsibility for the Port</u>			
	<u>1.1</u>	1.33	2.33
	<u>1.2</u>	2.5	4.7
<u>Goal 2 - Port Activities</u>			
	<u>2.1</u>	4.67	4.33
	<u>2.2</u>	4.83	4.0
	<u>2.3</u>	4.8	3.7
	<u>2.4</u>	5.0	5.0
	<u>2.5</u>	4.83	4.0
<u>Goal 3 - Environmental Protection</u>			
	<u>3.1</u>	4.83	3.7
	<u>3.2</u>	4.67	4.7
	<u>3.3</u>	4.5	4.33
<u>Goal 4 - Public Access</u>			
	<u>4.1</u>	4.5	4.33
<u>Goal 5 - Emergency Management</u>			
	<u>5.1</u>	5.0	5.0
	<u>5.2</u>	4.8	5.0
<u>Goal 6 - Landside Infrastructure</u>			
	<u>6.1</u>	4.5	3.0
<u>Goal 7 - Navigation Channels</u>			
	<u>7.1</u>	4.2	1.67
<u>Overall Reaction to the Draft</u>		4.0	3.33

RESOLUTION NO. 06-36

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA, AUTHORIZING TRANSMITTAL OF THE PORT OF FORT PIERCE MASTER PLAN TO THE COASTAL MANAGEMENT ELEMENT OF THE COMPREHENSIVE PLAN TO THE STATE LAND PLANNING AGENCY FOR REVIEW.

WHEREAS, Rule 9J-5.012, Florida Administrative Code, requires counties and municipalities with ports to adopt Port Master Plans to their Comprehensive Plans; and

WHEREAS, a community charrette process created the current Port of Fort Pierce Master Plan in 1996. The Port of Fort Pierce Master Plan was created through a charrette process in 1996. The Port Master Plan envisions a mixed-use coastal land use that will feature mega-yacht facilities, marine commercial services, limited industrial services, hotels, conference center, limited residential, general retail, recreational, and office space; and

WHEREAS, the Port Master Plan was adopted by a non-binding referendum by the City and has been adopted by the St. Lucie County Board of County Commissioners in 2002 (Ordinance No. 02-014); and is being transmitted in its entirety for review and future adoption into the Coastal Management Element of the Fort Pierce Comprehensive Plan.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA:

SECTION 1. That the Port of Fort Pierce Master Plan be transmitted to the State Land Planning Agency for review and comments prior to beginning the process for adoption to the Fort Pierce Comprehensive Plan, Coastal Management Element, under F.S. 163.3184.

SECTION 2. This resolution shall become effective upon adoption.

IN WITNESS WHEREOF, this Resolution has been duly adopted on this 19th day of June, 2006.

MAYOR COMMISSIONER

ATTEST:

CITY CLERK

(CITY SEAL)

Port of Fort Pierce Master Plan Update Phase I Market Overview / Stakeholder Input



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Executive Summary

The Phase 1 Study was initiated for 2 purposes: to determine if Seaport investment at the Port of Ft. Pierce would attract new cargo activity consistent with the Goals and Objectives of the Florida Transportation Plan 2060 and the Florida Chamber TradeFlow and Logistics Study; and if the Community was willing to engage in a collaborative effort to update their Master Plan.

The results of the Phase 1 effort indicate:

The Port is well positioned for a number of business opportunities that would result from increased Seaport infrastructure investment.

The Community well understands the potential for the land within the Port boundaries and have many ideas on how the property should be developed. The Team held 3 public meetings attended by more than 300 people in total and received approximately 300 completed questionnaires and comment cards overall. A summary of input is provided in the Appendix.

In addition a number of unanticipated opportunities/issues arose during the process of completing Phase 1, including:

- Research identified that the State of Florida passed legislation in 2011 that provided for 50% funding to match efforts for the implementation of maritime education and training facilities and programs. The Team recognizes that a Phase 2 collaborative effort could look at new Seaport/Maritime Training uses at the Port.
- Research indicates that the 2002 Master Plan has been successful as a tool to fund transportation related projects. Both the Taylor Creek Dredging and Spoils site project and the Port Entrance and 2nd Street Project as are fully funded for Fiscal Year 2013 which begins on July 1, 2012. As a result, there are no new projects to be considered for State Seaport/Intermodal funding.
- The 2012 Florida Legislature passed significant funding for Seaport and Intermodal projects and the legislation was signed into law by the Governor. A summary of the legislation is attached in the Appendix.

Community Outreach Overview

The community outreach objective was to facilitate a public engagement process for determining whether to proceed with a Phase 2 to do an actual Master Plan Update. The Phase 1 Collaborative Opportunities Analysis focused upon getting a “yes” or “no” answer from the public. The community outreach strategy was first to identify a full spectrum of key community stakeholders in various categories including the general public, government, education and business, and then to engage some of them in conversation about the Port of Fort Pierce. The purpose was to find out if they or their constituents were interested in engaging in a larger community-wide master planning process to explore potential additional uses at the Port. The community outreach and engagement process was designed to be broad-based and inclusive. Some 48 discussions and meetings as well as four community meetings were conducted during the Phase I process. The study team contacted local groups and individuals about Phase I. Some groups invited the team to participate in meetings they set up, which significantly increased the reach to more individuals with a cross section of views, than the team would have gotten from individual interviews.

A Port of Fort Pierce Collaborative Analysis “Fact Sheet” and “Questionnaire” was developed to ensure that a consistent and impartial message was being conveyed to the public. This provided the public with straightforward information about the Phase I process, scope and intent. By disseminating this information at numerous locations, electronically via e-mail, and posting it on both the City of Ft. Pierce and St. Lucie County websites, the volume of community members engaged in the process was substantially increased.

Market Overview

Strategic investment of State Seaport and Intermodal funds is focused on investments that support an overall State of Florida plan to intercept Florida-borne trade that is shipped through Non-Florida Ports, attract New Trade to the State, and in the case of Ft. Pierce and other small Ports to support the State’s large Ports by keeping trade in the State that may be relocated due to the influx of major shippers at the large Ports.

These include:

- Mega yacht facility could offer dry-docking and servicing support services
- Enhance the port to expand trade within the Caribbean Basin. Opportunities for growth may come from other Florida ports not having the space or facilities to accommodate smaller operators.
- Better rail connectivity to the FEC would enhance the port’s operations and potential new markets and expansion, e.g., Cuba, Bahamas. Port of Fort Pierce is ideal for railcar on ferry.
- Expand Wal-Mart Distribution Center, Fort Pierce and the Caribbean
- Utilize Freeport to Fort Pierce to distribution center utilizing FEC rail
- Capitalize on domestic shipping/short-sea shipping
- Opportunities to accommodate shuttle ocean service to/from transshipment points, e.g., Freeport or new markets, e.g., Cuba linking into Wal-Mart Distribution Center (Fort Pierce), CVS Caremark Distribution Center (Vero Beach) and Tropicana Products Inc. (Fort Pierce).

Capital Improvements Needed to Achieve Key Goals

- Land acquisition
- New Port entrance in design stage
- Infrastructure construction

Spheres of Influence

- Hinterland served: St. Lucie, Indian River, Okeechobee, Highlands, Hendry, Glades and Martin Counties
- Trading partners: Caribbean basin, Bahamas, Far East and Europe

Potential Action Items for Consideration

- Continue lobbying U.S. Army Corps of Engineers to provide regular maintenance dredging of the harbor channel to its original depth of 28’ enabling the Port of Fort Pierce to be more active and be recognized by the U.S. Government as a viable component of the national transportation system. Inform the Corp. that the Port is constructing the final Phase of the Taylor Creek

project, construction of a core roadway, utilities and drainage project is fully funded and programmed for construction in FY 2012-2013 and the Port has actively engaged the Community in developing a new strategic plan geared towards economic development and mixed maritime uses.

- Continue efforts to develop and attract land for mega-yacht use. Niche shipping can be viewed as compatible with marina, mega-yacht, and boat works operations, so advancement of both the former and the latter activities could prove harmonious and complimentary while also furnishing the benefits of diversity in revenue streams.
- Establish the Port of Ft. Pierce as a niche shipping port. While the bigger east coast ports will pick up large volumes of cargo, the Port of Ft. Pierce stands to gain from small vessels being squeezed out of these ports; expand capacity at the Port to serve appropriate size clean container, break bulk, and bulk markets; focus on more regional cargo activities, including intrastate and interstate waterborne transportation and traditional maritime markets, such as the Caribbean Basin.
- Enhance the new Florida Maritime Training Academy for Merchant Mariners located in the Port of Fort Pierce and seek to develop the facility into a true statewide/international maritime training center in collaboration with Indian River State College and other international trade and logistics career academies and programs established for high school, vocational and advanced-degree students. Collaboration on this effort should consider expansion and inclusion of the Aviation program already in place.
- Encourage domestic shipping, marine highway and short-sea shipping, as the Port of Fort Pierce is in a prime location; improve landside connectivity to airports, seaports, and rail terminals; develop and maintain high-capacity, long-distance rail, water and truck corridors. The Port is in a position to contribute significantly to the regional transportation system and facilitate distribution to inland logistics centers as a spoke to connect intermodal transportation links.
- Expand on Freeport to Fort Pierce trade by enabling Distribution Centers to utilize the FEC rail, road and airport connections; maintain and enhance regional distribution networks by working with the public and private sector to attract more distribution centers such as Home Depot, Dollar Tree, Target, Pier 1, and Ikea to service domestic and international trade.
- Continue commitment to provide infrastructure for land to be developed for mixed marine recreation, marine commercial, and marine industrial uses and support and pursue acquisition of new waterfront land swaps or inland locations for the redevelopment of seaport operations for the Port of Fort Pierce; adopt land use plans supporting both freight-intensive activities and environmental stewardship.

In summation, a deepwater port is a genuine asset, and the Port of Fort Pierce has numerous opportunities to advance toward achieving its full potential as one of Florida's deepwater ports. The City of Ft. Pierce Urban Core is in its infancy as a great urban space that can be enhanced by increased activities at the Port but good urban design applications need to be outlined so they blend together well and support each other. Pursuit of such bodes to bring well-paying jobs and other economic benefits to the Port of Ft. Pierce, City of Ft. Pierce, St. Lucie County and the Treasure Coast region as a whole. Of paramount importance is a pledge that all who are connected with this effort share in cherishing the treasured waters of the Indian River Lagoon and recognize the importance of ensuring that, as the Port of Fort Pierce finds its lucrative niche in Florida's No. 1 industry of international trade, development must not come at the expense of the County's natural resources. A core commitment of this effort is dedication to environmental stewardship to safeguard the Lagoon for fish and for families.

Introduction and Background

Overview of the Port of Fort Pierce

Communities throughout the State of Florida are examining or re-examining how they can take advantage of these opportunities and marshal local and regional assets into new avenues to create sustainable, good-paying jobs. The following discussion is designed to identify key potential assets of St. Lucie County and the Port of Ft. Pierce and to offer options for further action.

**Port of Fort Pierce
St. Lucie County, Florida**



Port History

In the heart of citrus country, the Port of Fort Pierce was at one time the main exporter of grapefruit to Europe and the Far East. The railway arrived in the 1920s to expand the Port of Fort Pierce's reach.

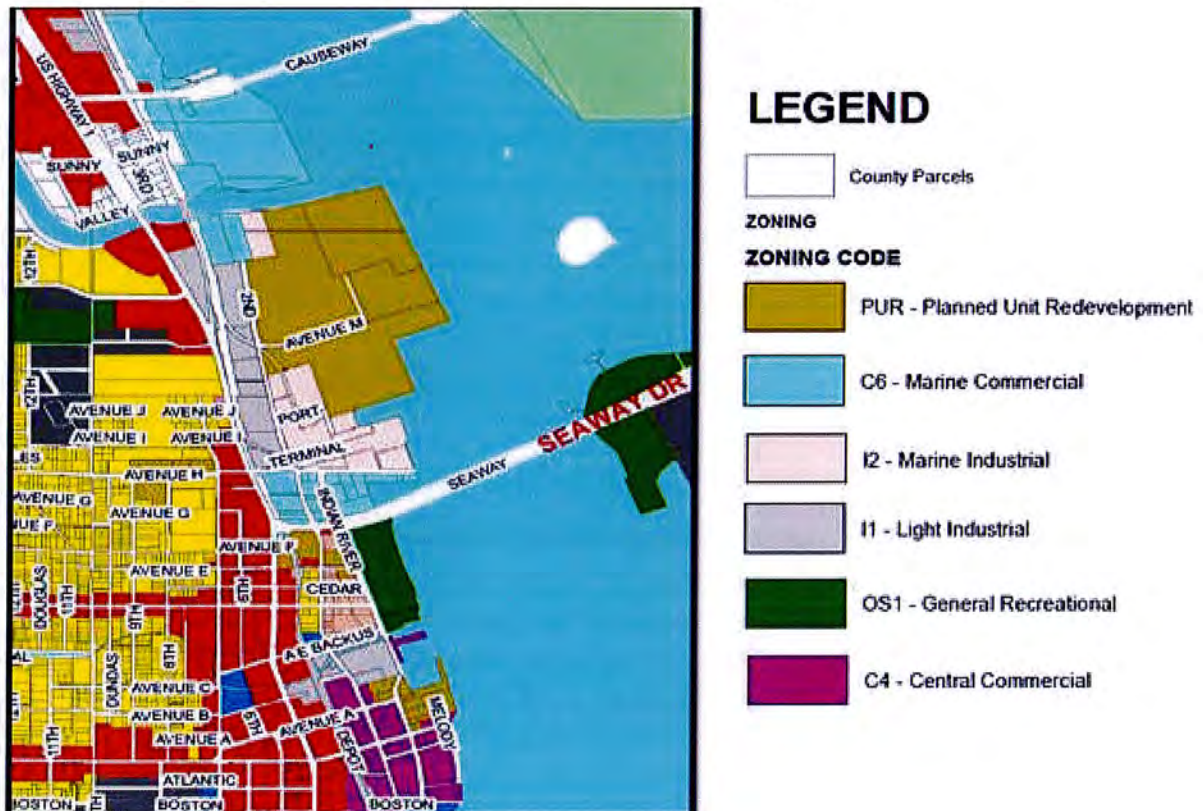
The Florida Legislature established the Port of Fort Pierce Inlet District in 1918 to fund construction and operation of a new inlet between the Indian River and the Atlantic Ocean. The current inlet was dredged in 1921, and two stone jetties were constructed in 1926 in the Port of Fort Pierce. A channel was cut through Hutchinson Island that had separated the Indian River Lagoon and the Port of Fort Pierce from the sea. In 1935, the harbor was authorized as a federal project and was completed by the U.S. Army Corps of Engineers in 1938.

The Florida Legislature abolished the Inlet District in 1947, replacing it with the Port of Fort Pierce Port Authority. In 1961, the Legislature created the Fort Pierce Port and Airport Authority to operate under

The Florida Legislature abolished the Inlet District in 1947, replacing it with the Port of Fort Pierce Port Authority. In 1961, the Legislature created the Fort Pierce Port and Airport Authority to operate under the auspices of St. Lucie County. In 1988, Florida law created the St. Lucie County Port and Airport Authority. Finally, in 1998, the Legislature dissolved that body and transferred its holdings and responsibilities to the Board of County Commissioners of St. Lucie County to operate and manage the Port of Fort Pierce.

In 1996, St. Lucie County purchased about eight hectares of waterfront property in the northeast corner of the port area (known as Harbour Pointe) to be used for tourism, recreational, and marine commercial uses. The county also operates a public boat ramp in the southern port area. Almost half of the 71 hectares continues to be undeveloped in private ownership. Land uses within the Port of Fort Pierce planning area are a mix of public property for recreation, community support services, and conservation.

Port of Fort Pierce – Current Zoning



Community Outreach Process

- The Phase I Community Outreach effort facilitated a process to determine the public’s wishes about going forward through a collaborative process to update the Port of Fort Pierce Master and explore and include additional uses for the Port. The community outreach process was designed in three phases:
 - Identification of key stakeholders;
 - Engagement of stakeholders; and
 - Collection of the stakeholders’ sentiments about updating the Master Plan.
- Stakeholders were identified through researching historical documents, the past master plan, reviewing the rosters of various City of Ft. Pierce and St. Lucie County Advisory Boards, homeowner associations, extensive internet research of local civic and business organizations, maritime and marine businesses, workforce unions, land owners and port operators, government officials and the citizenry at large. A data base of over 400 stakeholders was assembled.
- Stakeholders were categorized in three groups:
 - General public;
 - Shipping and trade; and
 - Education and training.
- Engagement Process
 - Interviews with individuals and small groups were held
 - Attended meetings of local civic, business groups and organizations, such as the Chamber of Commerce, Rotary Club, etc., see Tab 5 for a list of the meetings held to discuss Phase I Collaborative Analysis.
- Community Participation
 - Community meetings were held. The City of Fort Pierce hosted two meeting attended by 177 community stakeholders, St. Lucie County hosted one community meeting attended by 121 stakeholders, and the International Longshoremen Local 1359 hosted a meeting at Indian River State College attended by 91 community stakeholders;
 - More than 150 completed questionnaires were submitted to the consulting team;
 - Three written suggestions for possible additional uses for the Port were submitted for consideration by members of the public. See Tab 4.
 - A summary of comments made at the community meetings. See Tab 2.

Phase 1 Community Outreach Effort

Community Involvement Meeting/Venue	Date	# Participants	# Speakers
Indian River State College	March 7, 2012	91	22
St. Lucie County Commission	May 2, 2012	121	27
City of Fort Pierce/River Walk Center	May 16,2012 1:00 PM	101	17
City of Fort Pierce Commission Chambers	May 16,2012 6:00 PM	76	24
Total		389	
Total number of meetings with key stakeholders in various venues and by telephone		48	

The Port of Ft. Pierce and St. Lucie County Today

While commercial exports are not a significant part of the county's economy today, the production of grapefruit in St. Lucie County and subsequent export through the Port of Ft. Pierce is a valued-added component of the overall economic base.

The Treasure Coast is seeing the growth of manufacturing, boat building, repairs and related industries servicing both the commercial and recreational markets, and jet engine part manufacturing. Additional assets include the location of a Wal-Mart Distribution Center for regional stores which has up to 1,100 associates when in high volume and a CVS Distribution Center in nearby Vero Beach.

Educational, scientific research, and employment certification and training institutions are located on-port or in neighboring communities creating a synergy to be capitalized upon. It is important to consider that marine research studies can be compatible with expanded port activity and may even support attracting marine research vessels to use the Port of Fort Pierce.

- The Smithsonian Institution's National Museum of Natural History supports a research center in Ft. Pierce: "Smithsonian Marine Station" specializing in marine biodiversity and ecosystems of Florida. Research focuses on the Indian River Lagoon and the offshore waters of Florida's east central coast with comparative studies throughout coastal Florida.
- The St. Lucie County Regional History Center offers a glimpse at the foundation of the community including the earliest known residents, the Ais Indians, to the Creek and later the Seminoles.
- The Manatee Observation and Education Center is a non-profit wildlife observation and nature education facility.
- The Harbor Branch Oceanographic Institute, a marine science, engineering, and technology research arm of Florida Atlantic University, is focused on aquaculture and stock enhancement, marine biomedical and biotechnology, marine ecosystem health, ocean engineering and technology, ocean exploration and undersea research education, and marine science education.
- Indian River State College offers a wide variety of educational and certification programs, and could develop a full Maritime Training Program.
- The Florida Maritime Training Academy, new to the community, is a premier facility established as a practical training site for all seafarers, from entry level seamen to the most experienced Masters and Chief Engineers.
- The area is quickly becoming a biotech area boasting Torres Pines Institute for Molecular Science, Mann Research Center, Oregon Vaccine & Gene Therapy Institute and Oakridge National Laboratory.

Each of these facilities represents a part of a whole which could be marketed as a community committed to education and research which could utilize waterfront infrastructure for advancement.

The Port of Fort Pierce City Marina is on one of Florida's best all-weather inlets, the beautiful Indian River Lagoon. Offering 284 slips, the marina offers all the amenities for visiting boaters. Within easy reach of the Atlantic Ocean, the marina offers many opportunities for both recreational and commercial fishermen, and it is a short trip from the Bahamas. Marine services are provided by local businesses and include boat cleaning and detailing service, bottom cleaning, yacht auctions, and a variety of services to keep boats in top shape.

Private users of the Port – mainly Indian River Terminal Company and McCulley Marine move various types of cargo through their facilities. Currently, approximately 358,000 tons of cargo passes through Indian River Terminal annually. Nearly all of this container and general cargo traffic moves into the Bahamian and Caribbean islands -- primarily Freeport, Grand Bahamas; Provincials, Turks and Caicos; and Nassau -- and comprises mostly exports of products, materials, and supplies to support everyday life in those islands, plus supplies, equipment, and tools for development projects. Projected increases in cargo throughputs reflect the growing demands of development- related projects that serve tourist and recreation markets in the islands. The Hinterland serviced by the Port of Ft. Pierce is St. Lucie, Indian River, Okeechobee, Highlands, Hendry, Glades, and Martin counties with Trading Partners in the Caribbean Basin, Bahamas, Far East, and Europe.

Current and projected activities and products moving through the private Ft. Pierce Terminals include:

Table 1: Imports - Aragonite, cement. Exports: Materials and supplies for Island residents

	Current	Projected
Year	2010/2011	2014/2015
Cargo (TONS)	358,000	923,000
Cargo (TEU'S)	15,080	27,500

St. Lucie County owns 20 acres at the Port, adjacent to 67 acres owned privately. This is in addition to the 12 acres that house the privately owned Indian River Terminal. Almost half of the waterfront is privately owned.

Table 2: Dashboard Sampling of Ports Similar to Port of Fort Pierce and Their Jobs Per Acre

Port of Fort Pierce Port Manatee Port of Palm Beach Port of Fernandina Miami River		
The above Florida Ports have similarities to Port of Fort Pierce and are most appropriate for comparison. They share some similarities in cargo types, demographics, proximity to communities.		
Combined Port Acreage	Direct and Indirect Jobs	Jobs Per Acre
566 Acres	5,945	10.5

The Port of Fort Pierce has significant potential to become a stronger economic engine, bringing sustained jobs with solid wages that can support a family. Port jobs generate good wages well in excess of retail compensation averages. The average annual wage of seaport-related jobs is \$54,400, double the average annual wage for all other non-advanced degree occupations (\$26,933) and \$15,000 more than the average annual wage for all occupations (\$38,470)¹.

¹ Flaports.org

Today, the Port of Fort Pierce is at the hub of highway and rail transportation routes that reach across south Florida and provide ready connectivity with the northeast and mid-west. The confluence of Interstate 95, Florida's Turnpike and the Florida East Coast Railway make for true assets to support both waterborne and inland port activity. Port employment in both shipping and maritime uses would expand far beyond the Port boundaries.

Port Parcel Map



It may also be helpful graphically to look at an aerial map of the existing Port of Fort Pierce and nearby properties in relation to maritime jobs-per-acre statistics. This analysis combines acreage and jobs for five Florida ports (Port of the Miami River, Port of Palm Beach, Port of Fort Pierce, Port of Fernandina and Port Manatee) that have similarities in terms of cargo types handled, lack of significant cruise industry presence and proximity to communities, reflecting 5,945 direct and indirect jobs related to a combined 566 acres, or 10.5 jobs per acre. This per-acre figure is within approximately 10 percent of the national average jobs per acre for U.S. port facilities, thus underscoring its validity. If this per-acre figure were to be reflected specifically in Port of Fort Pierce jobs, it could be deduced that a doubling of existing Port operations from the 11.5-acre Indian River Terminal site to a total of 23 acres would double Port jobs to 241.5 from 120.75. Were a land swap to be implemented through which the 20-acre County Park site were to become part of the Bell Property and the 20 acres of the present Bell Property closest to the existing Port of Fort Pierce be turned over to the County and be developed for Port activity, approximately 210 new jobs would be created, bringing the Port's total to 330.75 jobs.

Furthermore, were the full 67-acre Bell Property to be developed for Port operations, the potential number of newly created permanent jobs – not even counting those specific to facility construction – would calculate to 703.5 new jobs, bringing the Port's total to 824.25 jobs related to 78.5 acres of Port operations (a footprint approximately one-half the size of the 160-acre working area of the Port of Palm Beach).

The Port of Fort Pierce can leverage the State of Florida's business successes with the growing markets in the Caribbean and parts of Latin America. This finding is supported by the discussion and findings of Port studies conducted by entities within the State of Florida. By building on the established trade activities, such as construction materials, automotive parts, vehicles, small boats, produce, Port of Fort Pierce would focus to enhance current customers' efforts that will lead to future expansion of the Port's markets.

Unique Events

A series of unique events have sharpened awareness of the opportunities international trade and logistics may offer citizens throughout Florida and in St. Lucie County, if embraced and implemented. The movement of goods through Florida's ports contributes significantly to everyday life not only by providing food, clothes, computers, vehicles, furniture, boats, component parts, and more, but also by creating direct and related jobs needed to grow, manufacture, and move these commodities into, out of and within Florida. Florida is part of the global supply chain which rings the world.

- The economic recession has hit St. Lucie County unusually hard. While the Florida unemployment rate is approximately 10 percent, the unemployment rate in St. Lucie County has been as high as 14 percent. Other contributing economic factors include foreclosures, insurance failures, and costly natural disasters. The foundation of Florida's economy has been shaken requiring a new look at other industry sectors to diversify dependence on traditional components: tourism, construction, and agriculture.²
- Florida will soon be the third largest state in the U.S. with a 2011 population of over 19 million people³ and 85.9 million tourists⁴: a significant destination consumer market for international trade.
- The expansion of the Panama Canal by 2014 will offer transit of larger ships carrying more containers of goods through an efficient, cost-effective, all-water transportation route from Asia and the Pacific to the consumer and manufacturing markets of the U.S. East Coast offering potential shipment and transshipment scenarios for Florida.
- The National Export Initiative (NEI)⁵ – is an Obama Administration March 2010 initiative to improve conditions that directly affect the nation's ability to export and targeting the Administration's goal of doubling exports by 2015. The purpose is to develop programs that assist state and local governments, and Small to Medium Sized Enterprises (SMEs) in coordination with the Advocacy Center at the Department of Commerce to, among other things, increase current exports, identify new markets, U.S. Government-led trade missions to effectively promote exports by U.S. companies and increase export credits to SMEs.
- The implementation of the U.S. Free Trade Agreements with South Korea, Colombia, and Panama will foster new trade relationships and increase market opportunities for Florida exports.
- In 2010 and 2011, the Florida Chamber Foundation, Florida Seaport Transportation and Economic Development (FSTED) Council, and the Florida Department of Transportation (FDOT) completed a groundbreaking series of studies and initiatives addressing trade, logistics, ports and transportation for the State of Florida. These include the following:

² US Bureau of Labor Statistics

³ US Census Bureau, Florida Quick Facts

⁴ <http://media.visitflorida.org/research.php>

⁵ The White House Office of the Press Secretary, Executive Order 13534 - National Export Initiative, March 11, 2011

- The Florida Chamber Foundation and the FDOT, along with private sector partners, completed a study entitled: *Florida Trade and Logistics Study*, in December 2010⁶. This landmark study documented existing and projected future domestic and international trade flows to, from, and within Florida; identified opportunities available to Florida to compete in the global marketplace; and identified the strategies needed to take advantage of the most promising opportunities.
- The Florida Chamber Foundation also is leading a statewide initiative to develop an economic blueprint for the next two decades: “Six Pillars for Florida’s Future.” The Six Pillars framework process is meant to help communities statewide prosper and create high-paying jobs through a visioning process which looks to a 20-year horizon addressing those topics which have been deemed critical to economic success in the future:
 - Talent supply and education
 - Innovation and economic development
 - Infrastructure and growth leadership
 - Business climate and competitiveness
 - Civic and governance systems
 - Quality of life and quality places
- The Florida Department of Transportation over the past few years has worked closely with more than 80 statewide partners to update modal plans covering the statewide Strategic Intermodal System, aviation, rail, and seaports; and to develop the 2060 Florida Transportation Plan, the state’s first-ever 50-year transportation policy framework. It provides an overarching statewide assessment of what needs to be accomplished to prepare for and take advantage of the anticipated growth in domestic and international trade with stated objectives to:
 - Document existing and project future domestic and international trade flows to, from and within Florida;
 - Identify opportunities available to Florida to compete in the global marketplace; and
 - Identify the strategies needed to take advantage of the most promising opportunities.

The 2060 Florida Transportation Plan (FTP) highlights Florida as a successful importer and exporter of goods to and from the Caribbean and parts of Latin America and identifies the need to maximize its pivotal role with these trading partners. As a note, this indicates the statewide initiative would recognize the value and be supportive of efforts to enhance Fort Pierce’s current and future expansion in these market areas. A couple of additional points in the study relevant to market development planning for Fort Pierce are recognition of the need to improve port-to-port feeder services and transshipment activity and to support acquisition and redevelopment of new waterfront land, as constraints hinder capacity growth at five of the eleven seaports interviewed for this study.

⁶ Florida Trade and Logistics Study, Florida Chamber Foundation, December 2010

- For the first time in decades, increasing international trade through Florida’s seaports to create jobs and economic opportunity has become a highly visible, significant initiative of Florida’s political leadership. Florida Governor Rick Scott, the state’s self-proclaimed Chief Ambassador for Economic Development, is proactively calling out-of-state manufacturers, supply chain logistics managers, foreign companies, and others touting the attributes of the Florida business climate and promoting re-location or expansion of their businesses to Florida. The Governor’s 7-7-7 Plan: Seven Steps for 700,000 Jobs in 7 Years is reflected in his 2012 Job Creation and Economic Growth Agenda⁷ which was embraced and supported by the Legislature. Components expanding a variety of existing tax incentives for businesses include:
 - Increases the current corporate income tax exemption from net income from \$25,000 to \$50,000.
 - Decreases the productive output required to qualify for the sales tax exemption for industrial machinery and equipment used by an expanding business from 10 percent to 5 percent.
 - Increases the total amount of tax credits available to be allocated under Enterprise Florida’s “New Markets Development Program” from \$97.5 million to \$195 million⁸.
- Building on achievements of the past two years to create stronger nexus between economic development and environmental stewardship, the 2012 Legislature passed two landmark transportation and economic development bills which offer a number of innovative approaches to infrastructure investments, inland intermodal distribution centers, and transportation corridors.⁹ More specifically, these new laws would:
 - Require FDOT to develop a Freight Mobility and Trade Plan by July 1, 2013, to include proposed policies and investments that promote the following:
 - Increasing the flow of domestic and international trade through the state’s seaports and airports, including specific policies and investments that will recapture cargo currently shipped through seaports and airports located outside the state.
 - Increasing the development of intermodal logistic centers in the state including specific strategies, policies, and investment that capitalize on the empty backhaul trucking and rail market in the state.
 - Increasing the development of manufacturing industries in the state, including specific policies and investments in transportation facilities that will promote the successful development and expansion of manufacturing facilities.
 - Increasing the implementation of compressed natural gas (CNG), liquefied natural gas (LNG), and propane energy policies that reduce transportation costs for businesses and residents located in the state.
 - Require a Statewide Seaport and Waterways System Plan to be developed by FDOT in coordination with seaports and other partners and must identify 5-, 10-, and 20-year

⁷ www.FLGOV.com

⁸ House Bill 7087, 2012 Florida Regular Legislative Session

⁹ Senate Bill 1998 and House Bill 599, 2012 Florida Regular Legislative Session

needs for the seaport system along with projects needed to ensure the success of the transportation system as a whole.

- Increase minimum funding of the Florida Seaport Transportation and Economic Development (FSTED) program from \$8 million to \$15 million annually.
 - Redirects the flow of funds from state motor vehicle registration fees back from the state's general revenue fund to state and local transportation funding programs.
 - Requires FDOT to give emphasis in all appropriate transportation plans, including the Florida Transportation Plan and the Strategic Intermodal System Plan for freight issues and needs.
 - Requires FDOT to plan and develop "Strategic Intermodal System Highway Corridors" that allow for high-speed and high-volume traffic movements within the state. The FDOT must ensure that access is "limited or controlled" to these corridors.
 - Create the Strategic Port Investment Initiative to set aside an additional \$35 million annually from the Statewide Transportation Trust Fund for certain seaport projects which are selected jointly by FDOT and representatives of the state's ports.
 - Create the Intermodal Logistics Center (ILC) Infrastructure Support Program to provide funds for roads, rail facilities, or other means for the conveyance or shipment of goods through a seaport and allocate \$5 million per year towards funding for up to 50% of the eligible costs of local government or private projects at ILC facilities that meet certain criteria.
 - Define the term "intermodal logistics center" as a facility or group of facilities serving as a point of intermodal transfer of freight in a specific area physically separated from a seaport whose activities relating to transport, logistics, goods distribution, consolidation, or value-added activities are carried out and whose activities and services are designed to support or be supported by one or more seaports, as provided in s. 311.09, F.S.,
 - Designate Integrated Logistics Centers (ILCs) as part of the Strategic Intermodal System and waive transportation concurrency requirements for ILCs that meet certain criteria.
 - Allow designated seaports to make use of offsite stormwater management facilities under certain under certain conditions.
 - Allow FDOT additional opportunities in choosing between various mitigation methods when wetland mitigation is required for transportation projects.
- Targeted programs are being developed to create a trained workforce to engage in the many fields related to international trade. Partnerships among public and private agencies and educational institutions are being implemented today and are ripe for significant expansion and collaboration. With a state college such as Indian River State College geared to partner with the domestic and international trade sector, a curriculum could be devised to blend the needs of the local and global business community with the fields of industrial and international business management, computer and technical logistics programs, import and export transaction requirements, finance, ship officers training, and many more.
 - A recent example is the Florida International Trade and Logistics initiative focusing on youth and future talent development. Key components of the effort are to develop Career and

Professional Education (CAPE) industry certification; Science, Technology, Engineering, and Mathematics (STEM) talent development in collaboration with STEMflorida, Inc.; and to create secondary and middle school career academies to focus on trade and logistics learning paths to ensure a viable workforce. WorkForce Florida, Inc., the Northeast Florida Educational Consortium, and private sector industry partners are working together through a grant process to create twelve Florida International Trade and Logistics Career Academies throughout the state with a geographic focus on the deepwater seaports, inland ports and air cargo transportation hubs. Partnering with Indian River State College, the Florida Maritime Training Academy, and the local school board to offer trade and logistics training in St. Lucie County with practical application and on-the-job training at the Port of Ft. Pierce may present tangible possibilities.

The newly created Florida Department of Economic Opportunity, the Florida Agency for Workforce Innovation, WorkForce Florida, Inc., as well as other local and regional public and private education institutions and programs are focusing on fostering the creation of a workforce much more reflective of the needs of the business community.

Macro Trade Developments Affecting Florida Ports

Several developments at the macro level within the Caribbean Basin will continue to expand or potentially develop in the future, presenting more opportunities for all-water services to the Southeastern U.S. and Florida. These include:

- The Panama Canal Expansion
- Caribbean Transshipment Port Developments
- Trade Expansion with Cuba
- New Foreign Trade Agreements with Colombia, South Korea and Panama

In assessing these Macro Trade Developments, some of the impacts on the Port of Fort Pierce will be indirect. For example, the Panama Canal expansion will encourage larger containerhips to call in the Southeastern region of the U.S. This will directly lead to congestion at current container ports, and the indirect benefit for the Port of Fort Pierce may be the relocation of small “niche” carriers to the smaller “niche” ports. The Port of Fort Pierce can support small “niche maritime operators” which, when pressured by growth and congestion of major Florida container ports will seek an alternative port of call. This finding and market strategy has been successfully followed in other U.S. port regions where smaller “niche ports” have taken overflow and sustainable cargo opportunities from the major load centers. “Niche cargo” continues to be associated with the palletized fresh fruit markets and Roll-on / Roll-off cargo.

Other developments will have a direct impact on the port, such as the opening of trade with Cuba. Previous studies of the Cuban infrastructure show that trade will include not only the larger Cuban ports but will include many smaller regional ports. These smaller ports will be ideal markets for the smaller vessels currently calling at other Caribbean trading partners. Smaller ports of Cuba and other Caribbean markets that have limited depths are well-poised as compatible partners with the Port of Fort Pierce with its limited depth in serving operators of smaller-size vessels that are getting squeezed from big load centers. It is not suggested that the Port of Fort Pierce lure business away from other nearby ports but rather that the Port of Fort Pierce position itself to serve the needs of smaller shippers whose needs are not being fully attended to at big load centers. Several types of cargo could be attracted to the Port of Fort Pierce.

The Panama Canal Expansion

The Panama Canal expansion program is well underway and will allow the transit of larger post-Panamax vessels. This expansion includes a new set of locks and the deepening of channels. The expansion of the Panama Canal will allow direct all-water service from Asia to the transshipment ports in the Caribbean and ports along the U.S. East Coast and Gulf Coast. The transshipment ports within the Caribbean and those ports in the U.S. that can handle post-Panamax vessels are positioned to grow from the economics associated with the larger vessels. Increases in overall trade with the east coasts of North America and South America and the major containerized cargo ports, e.g., Port of New York and New Jersey, Norfolk International Terminals, Port of Charleston, Port of Savannah, Port of Jacksonville, Port Everglades, Port Miami, Port of Santos, Port of Buenos Aires, will result from the expanded Panama Canal. The program investment to the Panama Canal expansion is projected to be US \$5 to \$8 billion and is scheduled for completion in 2014-2015.

Trade forecasts completed by U.S. East Coast ports and the Panama Canal Authority concluded that a greater volume of cargo will transit on all-water routes from the Far East to the East Coast of the US,

thus supporting expansion plans at ports to meet this forecasted demand. A cascading effect that may present a market for the Port of Fort Pierce is feeder services that may be required to service the Central Florida and Interstate 4 growth corridor. The Port of Fort Pierce, as a niche port, could develop further its market position and deepwater port assets to aid in the development and expansion of the State of Florida Seaport System and the overall intermodal transportation system within Florida. The potential location and development of multiple intermodal logistics centers for the distribution of goods entering the state as imports are being processed and packaged for export could be facilitated through enhanced transportation linkages to the Port of Fort Pierce.

Caribbean Basin Transshipment Port Developments

To understand the potential of the Port of Fort Pierce over the next 10 years, the Consultant presents at the macro level, an overview of transshipment port developments in the Caribbean Basin. There are numerous ports within the Caribbean that operate largely as transshipment ports. In essence, they receive containerized cargo from Asia, the Americas and Europe, and redistribute the cargo to various feeder services. These ports include:

- Port of Kingston, Jamaica
- Port of Cartagena, Colombia
- Port of Cristobal and Caribbean Entrance Container Terminals , Panama
- Puerto Caucedo, Dominican Republic
- Freeport Container Port, Bahamas
- Port Miami, U.S.
- Port of Point Lisas and Port of Spain, Trinidad
- Port of the Americas at Port of Ponce, Puerto Rico (planned)
- New terminal, Mariel Bay, Cuba (under development by Terminal de Contenedores de Mariel S.A and PSA International, wholly-owned by state investment firm Temasek Holdings)

These transshipment ports in general have been designed with deeper channels, i.e., 45- to 50-foot deep channels, to handle all-water services from Europe and the Mediterranean, the Americas and Asia. Additionally, they have been planned to have sufficient upland areas for today's throughputs and forecast growth. The operators and developers of these facilities tend to be the known international port entities, e.g., APM Terminals, Mediterranean Shipping Company, Hutchison Port Holdings, DP World, Terminal Links (CMA-CGM), SSA Marine, Ports America Group. These are generally referred to as Tier 1 port operator and developer entities. There exist other entities which we will refer to as Tier 2 port operators, developers and investors, e.g., International Container Terminal Services Inc. (ICTSI), The Cooper Group, Logistec Corporation, ICS Logistics, Waterson Terminal Services LLC, that operate port terminals but tend not to be transshipment terminal operators.

While the channel dimensions of the Port of Fort Pierce, in its current configuration, do not allow it to compete with the above transshipment ports, it is likely that the port may serve a role within the feeder cargo service activity utilizing smaller vessels. These smaller vessels will include lift-on/lift-off barges, small container vessels, and roll-on/roll-off vessels. All of these vessel categories fit the Port of Fort Pierce, but it is essential to restore the port's depth to 28 feet. Examples of feeder cargo services are Tropical Shipping as it relates to its shipping activities between the Port of Palm Beach and the Caribbean; Horizon, Crowley, SeaStar and Trailer Bridge as it relates to its shipping activities between the Jacksonville Port Authority and Puerto Rico; Crowley, Sea Freight, King Ocean as it relates to its

shipping activities between Broward County's Port Everglades and the Caribbean and Central America; and Bernuth and Antillean Marine as it relates to shipping activities between the Miami River and the Caribbean and Central America.

The Port of Fort Pierce, based on its operating conditions, e.g., channel dimensions, berth, terminals and intermodal access, has the potential to increase trade with Caribbean and Central and South American ports and cargo operating terminals with similar operating characteristics that limit the size of roll-on/roll-off vessels, lift-on/lift-off vessels, and other cargo vessels. This would be an expansion upon similar trade currently conducted through the Port of Fort Pierce with the Port of Freeport, Bahamas.

Several types of cargo could be attracted to the Port of Fort Pierce. While citrus exports are unlikely to return to historically high levels, the port can still handle what there will be. The US Census Bureau, Foreign Trade Division reports: While tariffs on fruit will not be completely eliminated, they will be significantly reduced and permit US growers much greater access to what has been a heavily protected Korean industry. Tariffs on orange juice concentrate, on the other hand, will be completely eliminated within five years of implementation of the FTA. Though demand for concentrate has been historically more volatile than that for citrus fruit, the elimination of these barriers will make US concentrate much more affordable relative to Brazilian concentrate, which, according to the USDA, currently satisfies the majority of Korean demand. This will represent tremendous opportunities for Florida citrus growers, especially the Port of Fort Pierce and therefore, Florida ports are poised to benefit due to the proximity to the exporters. In addition, potential cargos could encompass automotive parts and privately owned vehicles (POVs) going to the Bahamas and other Caribbean and Central American ports. Also, all types of construction materials can be imported (as the Florida building market recovers) and exported (to build resorts and other developments in Caribbean). Similarly, earthmoving and other construction equipment that could be used in developing Cuba could move in Roll-on / Roll-off fashion.

Future Potential Cargos for Port of Fort Pierce

Table 3: Leading Export Prospects from the Southeastern US

	2009	2020	2029	2009 to 2020	2020 to 2029
Total Commodities	40,591,676	83,750,543	114,585,964	106%	37%
Pulp	3,655,484	6,568,343	8,326,847	80%	27%
Paper and Paperboard and Products	2,988,494	6,388,683	8,893,315	114%	39%
Cork and Wood	1692771.04	3872959.58	5077685.44	186%	28%
Waste Paper	1549948.51	3444864.47	5896618.96	70%	10%
Meat, Frozen	1357983.2	2465851.01	33613378.35	126%	52%
Animal Feed	1295194.61	1776941.61	1997645.6	129%	31%
Textiles	782343.58	1627146.93	2279017.31	122%	71%
Cotton	549994.86	829780.85	1030553.24	155%	58%
Special Industry Machinery	277329.47	678746.39	997878.2	82%	36%
Air	5,901	12,576	19,001	113%	51%

Source: IHS Global, August 2011 South Atlantic waterborne trade forecast

Table 4: Moderate or Emerging Export Prospects from the Southeastern US

	2009	2020	2029	2009 to 2020	2020 to 2029
Total Commodities	40,591,676	83,750,543	114,585,964	106%	37%
Wood Products	152,950	363,335	458,163	138%	26%
Grain	87,305	132,309	148,052	52%	12%
Meat, Fish and Dairy, Other	85,260	135,281	161,868	59%	20%
Meat, Fresh/Chilled	80,678	155,614	226,007	93%	45%
Other Raw Textile Materials	2,442	3,056	3,280	25%	7%
Other Agriculture	67,566	120,810	153,194	79%	27%
Fertilizers and Pesticides	108,534	135,111	152,194	24%	13%
Rubber Products	189,969	422,630	622,436	122%	47%
Other Food	451,179	734,866	986,991	63%	34%
Crude Fertilizers	6,203,100	10,364,843	12,330,645	67%	19%
Tobacco	44,924	62,309	52,221	39%	-16%

Source: IHS Global, August 2011 South Atlantic waterborne trade forecast

Table 5: Strongest Southern US Import Markets

	2009	2020	2029	2009 to 2020	2020 to 2029
Total Commodities	79,578,018	118,911,098	151,291,294	49%	27%
Inorganic Chemicals	2,505,619	3,772,249	4,484,133	51%	19%
Chemical Products, nec.	1,034,013	1,319,777	2,122,491	28%	60%
Organic Chemicals	1,011,598	2,199,983	3,821,071	117%	74%
Metal Products	684,948	1,515,300	2,265,076	121%	49%
Stone, Clay and Other Crude Materials	6,181,801	8,675,418	9,054,265	40%	4%
Non-Metallic Product, nec.	1,956,082	3,462,126	6,128,983	77%	77%
Machinery and Equipment, nec.	527,108	1,335,959	2,407,142	153%	80%
Special Industrial Machinery	205,265	365,687	462,506	78%	26%
Engines and Turbines	177,614	334,764	559,895	88%	67%
Electrical Industrial Machinery	166,134	345,920	520,851	108%	51%
Agricultural Machinery	71,852	171,920	301,738	139%	76%
Transport Equipment, nec.	48,866	128,949	254,121	164%	97%
Metal and Wood Working Machinery	45,058	71,320	113,293	58%	59%

Source: IHS Global, August 2011 South Atlantic waterborne trade forecast

Table 6: Florida's Anticipated Distribution Centers as Related to Jobs, Salaries & Incomes

Estimated Economic Activity of Distribution Center Activity				
	2015	2020	2025	2030
Jobs				
Direct Jobs	18,158	40,712	62,410	82,909
Induced Jobs	8,255	18,532	28,409	37,740
Indirect Jobs	12,852	28,816	44,174	58,683
Total Jobs	39,276	88,068	134,993	179,332
Personal Income (1,000)				
Direct	\$590,135	\$1,323,140	\$2,028,325	\$2,694,543
Induced / Respending	\$1,168,457	\$2,619,817	\$4,016,084	\$5,353,194
Indirect	\$436,877	\$979,521	\$1,501,570	\$1,949,772
Total Income	\$2,195,479	\$4,922,478	\$7,545,979	\$10,024,509
State and Local Taxes (1,000)				
State Taxes	\$92,605	\$207,638	\$318,289	\$422,834
Local Taxes	\$69,860	\$156,633	\$240,113	\$318,980
Total Taxes	\$162,465	\$364,263	\$558,402	\$741,814

Source: Martin Associates

The goal of all communities is to support and develop businesses resulting in high employment density on asset, i.e. most jobs per acre. This means cargo terminal facilities, distribution centers, mega yacht facilities, marine building facilities, retail, condos, restaurants, ocean related museums, maritime training academy etc.

Florida Initiatives

While, at present, the Port of Fort Pierce is not realizing its full potential as one of Florida's deepwater ports, new and expanded shipping and economic development opportunities do exist. A deepwater port is a genuine asset, so, for the benefit of Fort Pierce, St. Lucie County and the broader region, it is important that legitimate opportunities are fully capitalized upon.

The Florida Strategic Intermodal System (SIS) is designated by Florida law and managed by the Florida Department of Transportation.

- It is a transportation system that:
 - Is made up of facilities and services of statewide and interregional significance (strategic)
 - Contains all forms of transportation for moving both people and goods, including linkages that provide for smooth and efficient transfers between modes and major facilities (intermodal)
 - Integrates individual facilities, services, forms of transportation (modes) and linkages into a single, integrated transportation network (system)
- The SIS was established to:
 - Efficiently serve the mobility needs of Florida's citizens, businesses, and visitors; and
 - Help Florida become a worldwide economic leader, enhance economic prosperity and competitiveness, enrich quality of life, and reflect responsible environmental stewardship.
- The current designated SIS is a network of high-priority transportation facilities which:
 - Includes the state's largest and most significant commercial service airports, spaceport, deepwater seaports, freight rail terminals, passenger rail and intercity bus terminals, rail corridors, waterways and highways; and
 - Carries more than 99 percent of all commercial air passengers and cargo, virtually all waterborne freight and cruise passengers, almost all rail freight, 89 percent of all interregional rail and bus passengers, and 55 percent of total traffic and more than 70 percent of all truck traffic on the State Highway System.
- Various designations are assigned to transportation facilities, and it is through this program that state funding is made available for intermodal infrastructure projects. Currently, the Port of Ft. Pierce is not designated on the SIS, but by focusing on international trade and logistics opportunities, the potential growth component may lead to the designation as an "emerging" or "pre-emerging" strategic deepwater seaport and to the benefits of funding opportunities for transportation hubs.

As referenced previously, in 2010 and 2011, the Florida Chamber Foundation, the FSTED Council, and the FDOT completed a series of landmark studies addressing trade, logistics, ports and transportation for the State of Florida. One study entitled: *An Economic Analysis: Priority Seaport Projects to Expand Capacity, Enhance Competitiveness, Accelerate Economic Growth, and Create Well-Paying Jobs Statewide*, published by the FSTED Council, in March 2011, provides an analysis of identified infrastructure projects and economic value to the State of Florida.

This evaluation of the economic impacts resulting from the additional cargo and cruise passengers transiting Florida's seaport system upon implementing 17 priority projects at nine select seaports, including the Ports of Miami, Jacksonville, Everglades, Tampa, Canaveral, Manatee, Palm Beach, Fernandina, and Panama City. The Port of Fort Pierce, as it was not identified as one of that state's major deepwater ports, was not included in this report's evaluation. The priority projects presented for funding total \$853.2 million with requested state contribution to match estimated at \$337.3 million. It is estimated these projects would generate a return in terms of state and local taxes of about \$7.47 per dollar of initial state investment, clearly illustrating the potential value of port infrastructure investment.

The one point discussed with potential relevance to market development planning for the Port of Fort Pierce was the significance of maintaining and enhancing existing Florida trade with the Caribbean and Latin America. This suggests the potential value of Fort Pierce's existing relationships in these markets and need for any market planning to focus on evaluating possibilities for maximizing exploitation in these markets.

As noted previously, *A Five-Year Plan to Achieve the Mission of Florida's Seaports, 2010/2011 – 2014/2015*¹⁰, provides a statewide assessment of the current and five-year projected quantity, value and distribution of Florida's trade and commerce via its 14 deepwater ports¹¹, as well as the Port of Fort Pierce. Some of the points made concerning the state's overall seaport trade that need to be factored into market planning include:

- The regional distribution of the state's global commerce in 2010 illustrated that South America, Central America, and the Caribbean – accounted for 59.2 percent of the state's international trade. The reported top five regions with which Florida trades -- South America (1) at 36.6%, Western Europe (2) at 14.7%, Asia (3) at 14.5%, Central America (4) at 13.1%, and the Caribbean (5) at 9.5% with the greatest value of exports to countries in South America.
- Industrial machinery, electric machinery, and vehicles continue to lead the top ten-commodity list.
- Waterborne international trade moving through Florida's seaports was valued at \$69.7 billion in 2010, increasing by 22.6 percent from the \$56.9 billion recorded in 2009. This \$69.7 billion represented 55.2 percent of Florida's \$126.2 billion total international trade.
- Of the \$69.7 billion in waterborne international trade, \$33.8 billion were imports and \$35.9 billion were exports. Both exports and imports through Florida's seaports continued to rebound in 2010. Exports represented 51.4 percent of the state's total international trade value, and imports represented 48.6 percent. The state's continuing strong waterborne export trade with its neighbors to the south is the primary reason for the predominance of exports over imports.
- About 0.1% of this activity is attributed to Port of Fort Pierce. On a tonnage basis, including the bulk tonnage, the Port of Fort Pierce handled 358,000 in 09/10 and is projected to handle 923,000 in FY 14/15. The comparative tonnages of cargo types moving through the Port of Fort Pierce in FY 09/10 are 77,000 tons dry bulk, 4,000 tons liquid bulk, 55,000 tons break bulk and 179,000 tons general cargo.
- The report identifies for the seaports' collectively, a \$2.56 billion five-year capital improvement program for FY 10/11 through FY 14/15, of which it identifies 0.2% for the Port Fort Pierce, with

¹⁰ Florida Seaport Transportation and Economic Development Council, *A Five-Year Plan to Achieve the Mission of Florida's Seaports, 2010/2011–2014/2015*, March 2011

¹¹ Note that Port Citrus was added to the FSTED Council by the 2011 Legislature

\$1.8 million in FY 10/11, \$2.3 million in FY 12/13, but no monies are identified for FYs 13/14 or 14/15.

In a study completed by the FDOT entitled: *Florida Seaport System Plan*, Dec. 14, 2010, research completed by the FDOT in 2006, found every \$1 in state funds spent for seaports results in \$6.90 in economic benefits to the State¹². Subsequent analyses performed using the FDOT Seaport System Planning Framework Tool confirmed this level of benefit. Further research completed by the Florida Ports Council (FPC) in 2009 found Florida's seaport system cargo activity provides 550,000 direct and indirect jobs throughout Florida, including 100,000 port-related jobs and 450,000 user-related jobs, amounting to \$66 billion in business output and \$24 billion in personal income.

Seek designation of the Port of Fort Pierce as a pivotal strategic facility of Florida's Strategic Intermodal System (SIS). Present criteria for such designation include that the facility account for 0.005 (1/2 of 1%) of all national freight movement volume, or approximately 1 million tons per year. Currently, the Port of Fort Pierce is almost one-third of the way toward this threshold mark, and, based upon this report's findings, the required level is an achievable goal in the foreseeable future.

¹² Florida Department of Transportation, *Florida Seaport System Plan*, December 14, 2010

Federal Initiatives

National Export Initiative

The NEI is the Obama Administration March 2010 initiative to improve conditions that directly affect the nation's ability to export and targeting the Administration's goal of doubling exports by 2015. Based upon USACE 2007 data, exports represent 49.8% (58,522 tons) of the total cargo handled at the Port Fort Pierce (total import/export cargo tons 117,541). By exploiting the NEI assistance programs through the U.S. Commercial Service office of the U.S. Department of Commerce, small- and medium-size businesses in St. Lucie County may provide an avenue to help significantly increase and build on the current market share. The U.S. Commercial Service has a global network and offers exporters assistance with market intelligence, trade advocacy, working with state and federal partners, and participation in trade missions and shows. In some cases, the cargo generated by the NEI program may be required to move through other Florida ports; however, by promoting this program within St. Lucie County, the port is directly contributing to the creation of jobs and other value-added economic development activities.

America's Marine Highway Program

The Maritime Administration (MARAD) is promoting a short-sea transportation program as the America's Marine Highway (AMH) program. The program is intended to expand freight uses of the country's inland and coastal waterways to mitigate landside congestion, reduce greenhouse gas emissions and accomplish other objectives.¹³

The USDOT on August 11, 2010, officially designated 18 AMH all-water routes that can serve as extensions of the surface transportation system. One of these is the M-95 Corridor along the Atlantic coast from Florida to Maine. MARAD has sponsored the soon-to-be-completed East Coast Marine Highway Initiative Study of the M-95 Corridor. This study seeks to further advance the America's Marine Highway program by identifying corridor-specific Marine Highway markets, developing tailored business plans and optimal operational models for those markets along and related to the M-95 corridor.

Additionally, MARAD completed an assessment of the types of vessels suitable for AMH trade finding them generally not unique, but similar to ships already in service. Identifying 11 different designs that would adequately address the spectrum of vessel types envisioned, including configurations suitable for existing Port of Fort Pierce navigation conditions. The 11 designs range in size, type and speed, from Articulated Tug Barge (ATB) roll-on/roll-off vessels to conventional roll-on/roll-off type trailer ships, combination roll-on/roll-off and container carriers, and special high speed vessels. These proposed vessel designs have a range of design water draft of from 14.1 to 32.8 feet.¹⁴

¹³ U.S. Department of Transportation, Maritime Administration in Consultation with the Environmental Protection Agency, America's Marine Highway - Report to Congress, April 2011

¹⁴ MARAD DTMA1C10061, Final Report, American Marine Highway Design Project, October 28, 2011

Market Analysis

For the purpose of this analysis forecast are presented for imports and exports for the forecasted years of 2015 and 2020. The “market analysis” utilizes the 2007 Global Insight forecast produced as part of the FREIGHT ANALYSIS FRAMEWORK (FAF). The FAF integrates data from a variety of sources to create a comprehensive picture of freight movement among states and major metropolitan areas by all modes of transportation. To assist in the economic and market evaluation of the Port of Fort Pierce, a spreadsheet model using fairly generic available government data was constructed to address the scope of work. The model results were contrasted and compared to the USACE import/export volumes documented for the Port of Fort Pierce for 2007.

Additionally, the FAF estimates commodity movements by truck and the volume of long distance trucks over specific highways. Models are used to disaggregate interregional flows from the Commodity Origin-Destination Database into flows among localities and assign the detailed flows to individual highways. These models are based on geographic distributions of economic activity rather than a detailed understanding of local conditions. While FAF provides reasonable estimates for national and multi-state corridor analyses, FAF estimates are not a substitute for local data to support local planning and project development. However, FAF is effective in estimating commodity flows and related freight transportation activity among states, sub-state regions, and major international gateways.¹⁵ In order to make FAF more applicable, a source and use database was generated at the Florida county level using:

- The detailed County Business Patterns Database, which lists all firms by employment range and detailed industry code
- The 2007 Commodity Flow Database, which has detailed commodity flows at the state level
- The 2007 Economic Census, which has detailed revenue and Cost of Goods Sold by industry by county
- The U.S. detailed sources and use tables that are part of the national Input-Output framework

These were used together to estimate the total goods demanded on a county basis as well as total goods produced on a county basis for Florida. These estimates were then controlled to the FAF regions thus imposing FAF trade designations, mode used and trading geography.

To assist in the market evaluation of the Port of Fort Pierce, a spreadsheet model using fairly generic available government data was constructed to address the scope of work. This model incorporated and reviews various assumptions so that the model results match what is happening in the Florida market and more specifically at the Port of Fort Pierce. The model includes checking travel times for destinations that have had significant infrastructure improvement since 2002, reviewing assumed transport cost per mile, truck fee, barge fee, etc. and utilization of the 2007 Global Insight forecast produced as part of the FAF. The model results were contrasted and compared to the USACE import/export volumes documented for the Port of Fort Pierce for 2007. Since 2007, domestic import and export volumes, largely the commodities of sand and gravel, were small, amounting to 250 tons of domestic imports and 2,000 tons of domestic exports. The spreadsheet model does not address a forecast flow for them. The domestic imports and exports only captures St. Lucie County, for which, as of the year 2010, the United States Census Bureau sets the population at 277,789 and is part of the Port St. Lucie, Florida, Metropolitan Statistical Area, with a population of 400,121. As the M-95 corridor

¹⁵ U.S. Department of Transportation, Federal Highway Administration, Freight Analysis Framework, http://www.ops.fhwa.dot.gov/freight/freight_analysis/faf/, January, 2012

under the AMH program progresses under MARAD, the port may wish to understand the future potential for growth of these cargos, as well as additional domestic cargos that could move through coastal trade under the Jones Act.

Table 7: USACE 2007 Cargo Data

Port	Commodity	Dom/Int'l	Imports/Exports	Year	Tons
Fort Pierce	All Commodities	Domestic	Imports	2007	250
Fort Pierce	All Commodities	Domestic	Exports	2007	2,000
Fort Pierce	All Commodities	Intl	Imports	2007	59,019
Fort Pierce	All Commodities	Intl	Exports	2007	58,522

Sorted by Federal Information Processing Standard (FIPS) codes for the six of the 67 counties in Florida were assigned to the Port of Fort Pierce as the lowest cost (L.C.) truck port and five were assigned as lowest cost (L.C.) rail port. All six counties are within the Freight Analysis Framework (FAF) Region 129. The FAF commodity origin-destination database includes tons and value of commodity movements among regions by mode of transportation and type of commodity.

Table 8: Florida Counties - Lowest Cost Truck and Rail Port Assignment to Port of Fort Pierce

FIPS-County	FAF Region	State	County Name	L.C. Truck Port	L.C. Rail Port
12043	129	FL	Glades	Port of Fort Pierce	Port of Palm Beach
12055	129	FL	Highlands	Port of Fort Pierce	Port of Fort Pierce
12055	129	FL	Indian River	Port of Fort Pierce	Port of Fort Pierce
12085	129	FL	Martin	Port of Fort Pierce	Port of Fort Pierce
12093	129	FL	Okeechobee	Port of Fort Pierce	Port of Fort Pierce
12111	129	FL	St. Lucie	Port of Fort Pierce	Port of Fort Pierce

The output of the model provides total commodity by international imports and exports for 2015 and 2020. The model incorporates the commodities, transportation mode, forecasts and routing parameters affecting the Port of Fort Pierce based on the port being either the low-cost truck or rail port for serving those counties listed above. The results of the model for the Port of Fort Pierce are presented in the below findings:

- This table is built up from county totals. The Port of Fort Pierce share of the Florida export and import market is in no case greater than 2 per cent.
- Five to six Florida counties geographically located in proximity to the Port of Fort Pierce present market growth for international imports/exports by 2015 and 2020; however, considering the commodity mix, the inflows and outflows from the above counties, the probability is that some commodities will not flow through the Port of Fort Pierce because of the current logistics framework. The inflows and outflows from the six counties explain the difference between USACE and FAF totals.

- International Exports Forecasts: 2015 – 407.1 million tons; 2020 – 432.5 million tons.
- International Imports Forecasts: 2015 – 606.9 million tons, 2020 – 659.2 million tons.

Table 9: Port of Fort Pierce - Base, Year 2015 - 2020 Import / Export Forecast by County

FIPS/ County	County Name	Low Cost Truck Port	Low Cost Rail Port	Int'l Exports Base	Int'l Imports Base	Int'l Exports 2015	Int'l Exports 2020	Int'l Imports 2015	Int'l Imports 2020
12043	Glades	PORT OF FORT PIERCE	PORT OF PALM BEACH	16.9	NA	32.4	NA	24.3	NA
12055	Highlands	PORT OF FORT PIERCE	PORT OF FORT PIERCE	60.5	102.1	100.1	116.6	104.5	121.0
12061	Indian River	PORT OF FORT PIERCE	PORT OF FORT PIERCE	47.5	143.2	73.5	85.5	147.3	165.1
12085	Martin	PORT OF FORT PIERCE	PORT OF FORT PIERCE	45.2	116.2	64.6	75.5	120.6	136.5
12093	Okeechobee	PORT OF FORT PIERCE	PORT OF FORT PIERCE	25.9	46.1	45.1	50.0	46.7	51.5
12111	St. Lucie	PORT OF FORT PIERCE	PORT OF FORT PIERCE	64.0	161.4	91.5	105.0	163.6	185.1
Port of Fort Pierce Totals				260.0	568.9	407.1	432.5	606.9	659.2
Florida Totals				24479.0	49050.0	31416.0	36405.0	45370.0	52230.0
Port of Fort Pierce % of Florida Totals				1.06%	1.16%	1.30%	1.19%	1.34%	1.26%

Port of Fort Pierce Operator / Potential User Focus Studies

Interviews were conducted with operators who currently are engaged in business activities at the Port of Fort Pierce or have operations utilizing related facilities to the port. In addition, interviews were held with several shipping lines currently using other Florida ports. These broad reaching personal interviews included FEC railroad, Tropical Shipping, Crowley Liner Service, Cracker Bay Boat Works, River Marine Inc./Moby Marine, McCulley Marine, Indian River Terminal Sea Freight, King Ocean, Frontier Line, Bernuth Line, Antillean Marine, Seaboard Marine, and Maersk Line. The key results in a focus group format mentioned by the parties are:

- Mega yacht facility could offer dry-docking and servicing support services
- Enhance the port to expand trade within the Caribbean Basin. Opportunities for growth may come from other Florida ports not having the space or facilities to accommodate smaller operators.
- Better rail connectivity to the FEC would enhance the port's operations and potential new markets and expansion, e.g., Cuba, Bahamas. Port of Fort Pierce is ideal for railcar on ferry.
- Expand Wal-Mart Distribution Center, Fort Pierce and the Caribbean
- Utilize Freeport to Fort Pierce to distribution center utilizing FEC rail
- Capitalize on domestic shipping/short-sea shipping
- Opportunities to accommodate shuttle ocean service to/from transshipment points, e.g., Freeport or new markets, e.g., Cuba linking into Wal-Mart Distribution Center (Fort Pierce), CVS Caremark Distribution Center (Vero Beach) and Tropicana Products Inc. (Fort Pierce).

Capital Improvements Needed to Achieve Key Goals

- Land acquisition
- New Port entrance in design stage
- Infrastructure construction

Spheres of Influence

- Hinterland served: St. Lucie, Indian River, Okeechobee, Highlands, Hendry, Glades and Martin Counties
- Trading partners: Caribbean basin, Bahamas, Far East and Europe

Recent Accomplishments

- Completion of Phase 1 Taylor Creek restoration
- Completion of Phase 11 shoreline stabilization
- Completion of design for Phase 11 spoils site construction

Table 10: Sampling of Smaller Size Shipping Lines Currently using Florida Ports

	Vessels in fleet can use 22ft. draft channel	Vessels in fleet can use 28ft. draft channel
Sea Freight	Yes	Yes
King Ocean	Yes	Yes
Frontier	Yes	Yes
Bernuth	Yes	Yes
Antillean Marine	Yes	Yes
SeaBoard Marine	No	Yes
Indian River Terminals	Yes	Yes
Tropical Shipping	No	Yes
Crowley Maritime	No	Yes
Maersk Line	No	No
MSC	No	No

Restoring the Port of Ft. Pierce to its published depth of 28ft. will increase the size and number of ships able to use the port

Existing Conditions

While there are some infrastructure concerns related to the Indian River Terminal site, it is important to note that, even with these limitations, the terminal is still thriving and, furthermore, that state funding may be available for alleviation of these infrastructure issues.

As noted on the attached image, the eastern one-third of the terminal is not currently paved and there are structural matters related to a primary pier (with the south wall deteriorating and the dock alongside unstable), as well as a deficient stormwater drainage installation and an overall lack of sufficient lighting to facilitate nighttime operations and ensure adequate security

Although the facility is a privately owned and operated terminal, the Indian River Terminal site is eligible for consideration for matched state funding for infrastructure and operating improvements and maintenance provided the following two conditions are met:

- 1) The Port master plan is updated to ratify shipping and port operations, and
- 2) The project(s) for which funding is sought are vetted and accepted by FSTED and FDOT, with assurance that the match is met.

Conclusion

The Port of Fort Pierce has a unique present opportunity to capitalize upon a combination of several factors and seize the opportunity to bring well-paying jobs and other economic benefits to the City of Fort Pierce and St. Lucie County. These factors include state, federal and private-sector trade-related initiatives, expansion of the Panama Canal and a critical mass of consumers, including tourists.

As detailed in this report, these and other factors point toward pursuit of establishment of the Port of Fort Pierce as a niche shipping port in a manner that is compatible with continuing efforts to advance mega-yacht and marina activities. Such developments would go hand-in-hand with enhancement of the new Florida Maritime Training Academy.

Furthermore, the Port of Fort Pierce is positioned to reap benefits from its deepwater port assets without compromise of St. Lucie County's treasured natural resources, including Indian River Lagoon. It is imperative that all engaged in the Port of Fort Pierce development efforts share in the commitment to environmental stewardship while taking well-thought-out measures to move the Port forward in finding its lucrative niche in Florida's No. 1 industry of international trade.

Appendix

A. Methodology Source Documents

- A Five-Year Plan to Achieve the Mission of Florida's Seaports, 2010/2011 – 2014/2015, Florida Seaport Transportation and Economic Development Council, March, 2011.
- Martin Associates, An Economic Analysis: Priority Seaport Projects to Expand Capacity, Enhance Competitiveness, Accelerate Economic Growth, and Create Well-Paying Jobs Statewide, Florida Seaport Transportation and Economic Development Council, February, 2011.
- Florida Chamber Foundation and Florida Department of Transportation, Florida Trade and Logistics Study, December, 2010.
- Florida Department of Transportation, Florida Seaport System Plan, Dec. 14, 2010.

In addition to the above reports, the Consultant incorporated findings from the following sources of information:

- Post, Buckley, Schuh & Jernigan, Inc., Port of Fort Pierce Master Plan "Executive Summary," 1989
- FAU/FIU Joint Center for Environmental & Urban Problems, Shaping the Seaport, 2002 Master Plan for the Port of Fort Pierce, 2002
- The White House Office of the Press Secretary, Executive Order 13534 - National Export Initiative, March 11, 2011.
- U.S. Commercial Service, U.S. Department of Commerce Boston, Mass., Presentation - New England Trade Development Summit, October 18, 2011.
- U.S. Department of Transportation, Maritime Administration in Consultation with the Environmental Protection Agency, America's Marine Highway - Report to Congress, April, 2011.
- MARAD DTMA1C10061, Final Report, American Marine Highway Design Project, October 28, 2011.
- River Marine Inc. / Moby Marine Interview, January 9, 2012. Interview notes by AECOM
- McCulley Marine Interview, Jan. 9, 2012. Interview notes by AECOM
- Indian River Terminal Interview, Jan. 12, 2012. Interview notes by AECOM

B. Baseline Information

A literature review of the below listed documents was completed to establish a baseline of information with regards to the market potential for the Port of Fort Pierce.

State of Florida Port, Trade and Logistics Studies

- A Five-Year Plan to Achieve the Mission of Florida's Seaports, 2010/2011 – 2014/2015, Florida Seaport Transportation and Economic Development Council, March 2011.
- Martin Associates, An Economic Analysis: Priority Seaport Projects to Expand Capacity, Enhance Competitiveness, Accelerate Economic Growth, and Create Well-Paying Jobs Statewide, Florida Seaport Transportation and Economic Development Council, February 2011.
- Florida Chamber Foundation and Florida Department of Transportation, Florida Trade and Logistics Study, December 2010.
- Florida Department of Transportation, Florida Seaport System Plan, Dec. 14, 2010.

FDOT 2012-2013 Legislative Summary

MULTIMODAL FREIGHT RELATED LEGISLATION

TOPIC	BILL NUMBER/STATUS	SUMMARY
Intermodal Logistics Center Infrastructure Support Program	HB 599 - Passed SB 1998 - Passed	Creates new Intermodal Logistics Center Infrastructure Support Program with up to \$5 million annual allocation. Purpose of program is to "provide funds for roads, rail facilities, or other means for the conveyance or shipment of goods through a seaport..."
Redirection of Trust Fund Revenues	SB 1998 - Passed	Redirects approximately \$200 million of vehicle licensing revenue back to the State Transportation Trust Fund. Approximately \$135 million is required to be used for "existing or planned strategic transportation projects which connect major markets within this state or between this state and other states, which focus on job creation, and which increase this state's viability in the national and global markets.
Intermodal Logistics Centers	HB 599 - Passed SB 1998 - Passed	Authorized "Intermodal Logistics Center" designation in SIS program. ILCs defined as "a facility or group of facilities serving as a point of intermodal transfer of freight in a specific area physically separated from a seaport whose activities relating to transport, logistics, goods distribution, consolidation, or value added activities are carried out and whose activities and services are designed to support or be supported by one or more seaports, as provided in s. 311.09, F.S., or an airport whose activities and services are designed to support the transport, logistics, goods distribution, consolidation, or value added activities related to airborne cargo deemed necessary to facilitate the economic development and growth of the state. Provides that ILCs located in or within 15 miles of RACEC area are exempt from transportation concurrency.
Freight Mobility and Trade Plan	HB 599 - Passed	Requires FDOT, in coordination with partners, to develop a Freight, Mobility and Trade Plan. The plan shall be delivered to the Governor and Legislature by July 1, 2013.
Freight Issue and Needs Emphasis in FDOT Plans	HB 599 - Passed	Requires that all FDOT plans give emphasis to freight issues and needs.
Strategic Intermodal System Highway Corridors	HB 599 - Passed	Requires FDOT to plan and develop SIS Highway Corridors to allow for high-speed and high-volume traffic movements within the state. Must be limited access and controlled facilities. Minimum amount allocated shall be \$450 million, can be existing projects in work program or newly identified projects.
Economic development transportation projects program	SB 1998 - Passed	The state's economic development transportation projects program is transferred from DEO to FDOT. FDOT must consult with DEO on project selection to identify projects that are "necessary to facilitate the economic development and growth of the state."

SEAPORT RELATED LEGISLATION

TOPIC

BILL NUMBER/STATUS

SUMMARY

Seaport Budget Line Item	HB 5001 - Passed	\$15,000,000 line item for Seaport - Economic Development (bond payment)
Seaport Budget Line Item	HB 5001 - Passed	\$10,000,000 line item for Seaport Access Program (bond payment)
Seaport Budget Line Item	HB 5001 - Passed	\$115,446,664 line item for Seaport Grants
Intermodal Grants Line Item	HB 5001 - Passed	\$91,013,006 line item for intermodal grants of which \$46,684,832 is for Seaport projects (includes SIB loans)
Port of Pensacola Infrastructure Improvements	HB 5001 - Passed	Transfers \$2,000,000 from the State Transportation Trust Fund to the Port of Pensacola for infrastructure improvements - funds come out of the former OTTED "Road Fund."
Ch 311 Retitled	HB 599 - Passed HB 1998 - Passed	Increases the minimum statutory amount of funding for the FSTED program from \$8 million to \$15 million. Projects funded on 50:50 match with rehab of wharves, berths, docks and bulkheads requiring 25% match. Also expands project eligibility to include data and analysis and plan development. Adds criteria to the FSTED council to consider when evaluating projects; updates criteria to be used by DEO and FDOT for consistency finding for FSTED projects; provides FDOT assesses FSTED projects for transportation impacts and economic benefits.
Strategic Port Investment Initiative	HB 599 - Passed HB 1998 - Passed	Creates Strategic Port Investment Initiative with minimum funding of \$35 million for projects that advance "state's goal of becoming a hub for trade, logistics, and export oriented activities..." Provides for coordination with DEO and Ports prior to FDOT making final project allocations.
Seaport Investment Program	HB 599 - Passed HB 1998 - Passed	New authorized revenue stream (intended as new bond program) of \$10 million for seaport projects in the adopted work program.
Seaport Stormwater Permitting	HB 599 - Passed	Authorizes seaports to provide for on or offsite stormwater treatment for water quality impacts caused by proposed port activity and requires a permit, and that causes or contribute to pollutions from stormwater runoff.
Seaport use of Mitigation Banks	HB 599 - Passed	Authorizes seaports to use a mitigation bank on projects that have met additional criteria for projects in surface waters and wetlands.
Statewide Seaport and Waterways System Plan	HB 599 - Passed	Requires FDOT, in coordination with partners, to develop a Statewide Seaport and Waterways System Plan.
Ferries	HB 599 - Passed	Authorizes ferries to be operated by joint agreement between public and private entities.
Expedited Permitting	HB 503- Passed	Provides expedited environmental permitting for an inland multimodal facility receiving or sending cargo through a Florida port.
Expedited Hearing	HB 599 - Passed HB 1998 - Passed	Provides that a challenge to an environmental resource permit shall be conducted within 30 days after a party files a motion for hearing.

BUFFER / PARK

- MULTI-USE PATH
- PARK
- AMPHITHEATRE
- PROMENADE / BOARDWALK
- RECREATIONAL BOAT DOCK

MARINE INDUSTRIAL (I2)

- CARGO - RO/RO
- INTERMODAL CONTAINER TRANSFER FACILITY
- BREAKBULK
- MEGA YACHT
- DRYDOCK
- SUPPORT FACILITIES

PUR / MIXED USE

- HOTEL
- CRUISE
- RETAIL
- RESTAURANT
- OFFICE

FINAL

COMPILATION OF DATA AND RECOMMENDATIONS FOR PORT OF FORT PIERCE MASTER PLAN UPDATE

SEPTEMBER 2013

Prepared for Florida Department of Transportation District Four



FDOT District 4
3400 Commercial Blvd.
Fort Lauderdale, FL 33309

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1. INTRODUCTION

The Florida Department of Transportation District Four (District) contacted the City of Fort Pierce and St. Lucie County to encourage them to update the Port of Fort Pierce Master Plan. The District informed them that typical Master Plans should be updated every five years and the current plan was adopted in 2002. In addition to the dated plan, the District informed the City and County staff that eligible costs for State Seaport/Intermodal funding for infrastructure in the 2002 plan was funded. Significant new resources have been allocated for seaports, and projects need to be documented in a plan. The District contracted with AECOM and local subconsultants to engage in a multiphase endeavor to determine market potential and public desires.

Phase I culminated in a June 2012 report on the Port of Fort Pierce's market opportunities and stakeholder input. This document, in addition to the Phase I report, provides resources for the community to consider in updating their plan. The document includes data and information based on input received at a community public workshop held Saturday, March 23, 2013, from 9 a.m. to 12:30 p.m.

The report proposes revisions to the 2002 Port of Fort Pierce Master Plan for consideration by the St. Lucie County Board of County Commissioners and the Fort Pierce City Commission. The revisions aim to stimulate economic development and jobs while identifying projects that could be submitted for Seaport/Intermodal funding requests to the State. In Phase I, it was determined that there is indeed a market for new cargo activity at the Port of Fort Pierce, so this Phase II report looks at the economic benefits and increases in land value if the port were to be partially or fully developed. In addition, this report contains a detailed examination of prospects for development of a maritime training facility in the City of Fort Pierce/St. Lucie County.

A key part of this study effort was a community public workshop, which attracted 157 participants, including 10 elected officials. As evidenced by the sign-in sheets attached as Appendix D, workshop participants represented a cross-section of residents, land owners, business and labor interests, and shipping and rail officials.

In addition to the workshop, which ensured broad-based public participation and support for Port of Fort Pierce Master Plan Update Phase II, several additional discussion group meetings with more focused participation were conducted, as follows:

PHASE II PORT OF FOR PIERCE 2013 MASTER PLAN UPDATE DISCUSSION GROUP MEETINGS

ORGANIZATION	DATE, TIME & LOCATION
St. Lucie County Presidents Homeowner Association	Date: Wednesday, March 13, 2013 Time: 10 a.m. Location: St. Lucie County Admin. Building, 3rd Floor, 2300 Virginia Ave., Fort Pierce, FL
St. Lucie County Chamber of Commerce	Date: Wednesday, March 13, 2013 Time: 4 p.m. Locations: 1850 SW Fountainview Blvd., Suite 201, Port St. Lucie, FL
Port of Fort Pierce Property Owners	Date: Wednesday, April 17, 2013 Time: 3 p.m. Location: Fort Pierce Maritime Training Room
St. Lucie County Presidents Homeowner Association	Date: Wednesday, May 8, 2013 Time: 10 a.m. Location: St. Lucie County Admin. Building, 2300 Virginia Ave., Fort Pierce, FL
Harbor Advisory Council meeting, focus group meeting	Date: Wednesday, May 15, 2013 Time: 3 p.m. Location: St. Lucie County Admin. Building, 2300 Virginia Ave., Fort Pierce, FL

The March 23 community public workshop was an interactive, charrette-style public work session to provide input into conceptual planning to present and conceptual options and finally, formulate consensus results.

The workshop facilitator created a master plan briefing document that defined the opportunities and constraints at the Port of Fort Pierce in three areas of impact expressed by the community in Phase I – these being the environment, community considerations and the economy – to set the stage for the planning exercise. The workshop facilitator took the participants on a virtual tour of the Port of Fort Pierce to provide a visual of the port footprint and existing conditions. Participants were also taken on a virtual tour of national and international ports to provide a visual experience of new and unique ports.

Four scenarios for future port use were presented, ranging from maintaining the site as is to using all the public and willing landowner acreage to accommodate a mix of uses. Participants were encouraged to focus on infrastructure such as roads, drainage, seawalls, berth and then on uses including cargo, passenger, recreational, commercial, education and any other use they desired.

This was an opportunity for participants to approach the planning exercise with expanded visions of new and enhanced uses at the Port of Fort Pierce. The process also gave planning work group members the opportunity to engage with others with vastly different opinions of how the Port of Fort Pierce should or could be developed. With the focus on infrastructure, the community evaluated opportunities as they evolved. Without infrastructure development, opportunities are limited.

The workshop attendees were randomly assigned to 12 planning groups and seated at tables where they worked for two hours to develop their collective vision and consensus for development at the port. This design provided the public with the optimum opportunity to vet challenges and opportunities for port development between individuals with opposing views. Each of the 12 planning groups presented the consensus port plan developed by its respective table team. The 12 final table team plans were submitted to the consulting team to analyze and present an overall consensus to the agencies.

The community participants should be commended for their active engagement in the process, which brought together individuals with clearly diverse opinions, yielding consensus averages based upon the mathematical synthesis of opinions. As a note of caution, such a consensus average solution may not necessarily bring about optimum results but rather may simply define a middle ground, which may or may not be tenable. City and County elected officials should also be commended as they came out and actively participated.

The workshop resolved in twelve plans that ranged from optimizing cargo operations at the existing eleven acres to port wide development. However, there appeared to be a general

consensus plan landing somewhere in the middle. Most importantly, the plans all included new and reconstructed infrastructure. Furthermore, it was noted that the port would capitalize upon opportunities if a more streamlined organizational structure were to be adopted to allow for active marketing of the port's potential.

Exhibit 1-1 delineates the numerous potential uses considered in the community public workshop process. The check marks (√) under each table team column denote that that team favored pursuit of such use, with the far right-hand column consisting of the total number of tables (out of 12) favoring such pursuit.

Exhibit 1-1: Workshop Results of Desired Uses – Checkbox Chart

Potential Land Use	Team 1	Team 2	Team 3	Team 4	Team 5	Team 6	Team 7	Team 8	Team 9	Team 10	Team 11	Team 12	Total # (out of 12)
CARGO TRANSFER & STORAGE facilities, including roll on/roll off wharfage, cranes, tank farm, warehousing, stacking, ICTF.	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	11
COMMERCIAL marine - marina, mixed working waterfront, retail shops, restaurants, dockage, liveaboard, fishing fleet.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	12
COMMERCIAL general- museum, restaurants, retail, non-waterside.			✓					✓			✓		3
CRUISE commercial including dockage, terminal, parking.	✓				✓		✓		✓				4
HOTEL and support facilities such as conference center, waterfront overlook.		✓	✓						✓		✓		4
LIGHT INDUSTRIAL mixed uses, support facilities.	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	10
MARINE SCHOOL building and support facilities such as conference center.	✓	✓		✓	✓	✓	✓	✓	✓	✓			9
PARK/RECREATION - open space to accommodate multi-use pathways, promenade/esplanade, lagoon overlook, festivals and outdoor entertainment, gardens, amphitheatre, etc.; non-active recreation.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	12
SHIPYARD / MEGA YACHT facilities- yacht and various marine vessel building and repair, maintenance; travel lift, floating drydock, or other dry docking method.	✓	✓			✓	✓	✓	✓	✓	✓	✓		9
OFFSITE AMMENITIES including hotel, retail shops, aquarium.	✓				✓								2
RESIDENCES non-condominium.												✓	1
Potential Infrastructure	Team 1	Team 2	Team 3	Team 4	Team 5	Team 6	Team 7	Team 8	Team 9	Team 10	Team 11	Team 12	Total # (out of 12)
INTERMODAL TRANSPORTATION links to off-site hubs, destinations via trolley, water taxi, bus, rail, kayak linkage.		✓			✓	✓	✓	✓					5
MISCELLANEOUS green technology, environmental learning center, artificial reef program research vessels, observatory.		✓		✓		✓	✓	✓				✓	6
PUBLIC ART - mural.								✓					1
RAILROAD enhancements: addition of, relocation or addition of track, sidings, spurs, addition of intersection for Southern travel, etc.	✓	✓	✓	✓	✓	✓	✓		✓				8
REFURBISH / REMOVE CONCRETE SILOS								✓					1
ROAD enhancements: Improve internal circulation to connect new uses, parking, complete 2nd Street construction, improve connections to regional system, Connect to US 1 via RR/Ave. O flyover bridge or tunnel.		✓	✓		✓		✓						4
SECURITY facilities - offices, surveillance, (aesthetic) barrier/buffer wall.						✓		✓				✓	3
STORMWATER MANAGEMENT planning and engineering (possible off site).		✓					✓						2
WATERFRONT enhancements: addition or rebuild of seawall or bulkheads for small to large vessels, dockage, mooring, boat ramps, wharfage, or pedestrian/multi-use paths.	✓	✓	✓	✓	✓	✓	✓		✓			✓	9

Exhibit 1-2, which follows, indicates the consensus averages regarding desire to pursue specific opportunities with certain amounts of acreage. The consensus indicates a clear desire to dramatically reduce the number of acres designated as planned unit redevelopment, sometimes referred to as planned urban redevelopment (PUR), while significantly increasing industrial use, nearly tripling the smaller amount of acreage for Right of Way and open space, and slightly increasing the commercial acreage.

Exhibit 1-2: Consensus Average

OPPORTUNITIES AND FEATURES	BASELINE			CONSENSUS AVERAGE		
	USE	ACREAGE	(%)	USE	ACREAGE	(%)
COMMERCIAL						
MARINA/MARINE COMMERCIAL	✓	59.9	20.7%	✓	52.6	18.1%
COMMERCIAL GENERAL	✓	2.75	0.9%	✓	3.7	1.3%
CRUISE / RIVER CRUISE			0.0%	✓	2.4	0.8%
MARITIME EDUCATION	✓		0.0%	✓	5.5	1.9%
SUBTOTAL		62.65			64.3	
INDUSTRIAL						
CARGO-REPAIR OR ENHANCE FACILITIES / INFRASTRUCTURE (MARINE INDUSTRIAL)	✓	15	5.2%	✓	34.5	11.9%
MARINE INDUSTRIAL (NON-CARGO)		16.2	5.6%	✓	16.5	5.7%
HEAVY INDUSTRIAL		0	0.0%	✓	1.3	0.4%
LIGHT INDUSTRIAL (NON-CARGO)	✓	31.5	10.9%		31.2	10.8%
YACHT / MEGA-YACHT SERVICING (SEE CITY'S MARINE COMMERCIAL, AND LIGHT INDUSTRIAL)			0.0%	✓	24.4	8.4%
SUBTOTAL		62.7			107.8	
PLANNED UNIT REDEVELOPMENT (INCLUDING MIXED USE)						
APMHI THEATRE / OTHER			0.0%	✓	1.7	0.6%
HOTEL			0.0%	✓	1.2	0.4%
MIXED USED / NON-RESIDENTIAL			0.0%	✓	18.8	6.5%
MIXED USED / PLANNED UNIT REDEVELOPMENT WITH HOUSING (a)	✓	90.6	31.2%	✓	6.2	2.1%
SUBTOTAL		90.6			27.8	
RIGHT OF WAY & OPEN SPACE						
LANDSCAPE BUFFER, PARKS & GREEN SPACE, MULTIPURPOSE PEDESTRIAN PATHS (a)		0	0.0%	✓	20.6	7.1%
RIGHT OF WAY	✓	11.5	4.0%	✓	11.5	4.0%
SUBTOTAL		11.5			32.1	
SUBMERGED LAND						
UNZONED OPEN WATER	✓	62.55	21.6%	✓	58.0	20.0%
TOTAL ACREAGE		290	100%		290.0	100%

Notes:

- (a) - Baseline acreage includes 20-acre county park property
- (b) - Included but off-port

ECONOMIC SUMMARY	BASELINE	CONSENSUS AVERAGE
JOBS		
MARINE INDUSTRIAL	658	1132
GENERAL COMMERCIAL	200	848
MARINE COMMERCIAL	159	140
PUR/MIXED USE	2563	2018
TOTAL JOBS	3580	4138
SALARY & PAYROLL		
AVERAGE SALARY	\$28,100	\$29,405
TOTAL PAYROLL (Millions)	\$100.60	\$121.69
TAXES		
ESTIMATED TAX BASE	\$1,582,754	\$2,152,297

Exhibit 1-3: Preferred acreage uses within the zoning categories

This further details the preferred acreage uses within the zoning categories, as expressed by the table teams.

OPPORTUNITIES AND FEATURES	BASELINE			Team 1		Team 2		Team 3		Team 4		Team 5		Team 6		Team 7		Team 8		Team 9		Team 10		Team 11		Team 12		CONSENSUS AVERAGE		
	USE	ACREAGE	(%)	USE	ACREAGE	USE	ACREAGE	USE	ACREAGE	USE	ACREAGE	USE	ACREAGE	USE	ACREAGE	USE	ACREAGE	USE	ACREAGE	USE	ACREAGE	USE	ACREAGE	USE	ACREAGE	USE	ACREAGE	USE	ACREAGE	(%)
COMMERCIAL																														
MARINA/MARINE COMMERCIAL	✓	59.9	20.7%	✓	37.5	✓	59.9	✓	56.9	✓	48.21	✓	59.9	✓	52	✓	37.5	✓	47.61	✓	51.8	✓	59.9	✓	59.9	✓	59.9	✓	52.6	18.1%
COMMERCIAL GENERAL	✓	2.75	0.9%	✓	2.75	✓	2.75	✓	2.75	✓		✓	4.75	✓	2.75	✓	2.75	✓	20.9	✓		✓	2.75	✓	2.75	✓		✓	3.7	1.3%
CRUISE / RIVER CRUISE			0.0%	✓	26.06							✓	1	✓		✓	1				1							✓	2.4	0.8%
MARITIME EDUCATION	✓		0.0%	✓	26.13			✓	3	✓	7.43	✓	5	✓	8	✓	12.63	✓	2		1	(b)		✓	1		✓	5.5	1.9%	
SUBTOTAL		62.65			92.44		62.65		62.65		55.64		70.65		62.75		53.88		70.51		53.8		62.65		63.65		59.9		64.3	
INDUSTRIAL																														
CARGO-REPAIR OR ENHANCE FACILITIES / INFRASTRUCTURE (MARINE INDUSTRIAL)	✓	15	5.2%	✓	79.4		20	✓	20	✓	104.48	✓	45	✓	15	✓	34.93			✓	47.7	✓	18	✓	9	✓	20	✓	34.5	11.9%
MARINE INDUSTRIAL (NON-CARGO)		16.2	5.6%				11.2	✓	14.7	✓	35.89			✓	17						14.7	✓	80.5	✓	16.7	✓	7	✓	16.5	5.7%
HEAVY INDUSTRIAL		0	0.0%							✓	15																✓	1.3	0.4%	
LIGHT INDUSTRIAL (NON-CARGO)	✓	31.5	10.9%			✓	31.5	✓	60.1			✓	22	✓	32	✓	51.02	✓	40.07	✓	32.4	✓	32.4	✓	32.4	✓	41.1	✓	31.2	10.8%
YACHT / MEGA-YACHT SERVICING (SEE CITY'S MARINE COMMERCIAL, AND LIGHT INDUSTRIAL)			0.0%	✓	62.4	✓	35					✓	53	✓	75	✓	29.93	✓	28.46				✓	9		✓	24.4	8.4%		
SUBTOTAL		62.7			141.8		97.7		94.8		155.37		120		139		115.88		68.53		94.8		130.9		67.1		68.1		107.8	
PLANNED UNIT REDEVELOPMENT (INCLUDING MIXED USE)																														
APMHI THEATRE / OTHER			0.0%			✓		✓		✓										✓			20		✓		✓	1.7	0.6%	
HOTEL			0.0%	(b)		✓	6													✓		8		✓		✓	1.2	0.4%		
MIXED USED / NON-RESIDENTIAL			0.0%			✓	33.75		40.5			✓	20		✓	26.5	✓	16.3	✓	25.85			✓	62.4		✓	18.8	6.5%		
MIXED USED / PLANNED UNIT REDEVELOPMENT WITH HOUSING (a)	✓	90.6	31.2%																			10.5			✓	63.8	✓	6.2	2.1%	
SUBTOTAL		90.6			0		39.75		40.5		0		20		0		26.5		16.3		44.35		20		62.4		63.8		27.8	
RIGHT OF WAY & OPEN SPACE																														
LANDSCAPE BUFFER, PARKS & GREEN SPACE, MULTIPURPOSE PEDESTRIAN PATHS (a)		0	0.0%	✓	20.56	✓	17.85	✓	20	✓	11.45	✓	8	✓	15	✓	19.69	✓	60.61	✓	23	✓	2.4	✓	22.8	✓	26.2	✓	20.6	7.1%
RIGHT OF WAY	✓	11.5	4.0%	✓	11.5	✓	11.5	✓	11.5	✓	11.5	✓	11.5	✓	11.5	✓	11.5	✓	11.5	✓	11.5	✓	11.5	✓	11.5	✓	11.5	✓	11.5	4.0%
SUBTOTAL		11.5			32.06		29.35		31.5		22.95		19.5		26.5		31.19		72.11		34.5		13.9		34.3		37.7		32.1	
SUBMERGED LAND																														
UNZONED OPEN WATER	✓	62.55	21.6%	✓	23.7	✓	60.55	✓	60.55	✓	56.04	✓	59.85	✓	61.75	✓	62.55	✓	62.55	✓	62.55	✓	62.55	✓	62.55	✓	60.5	✓	58.0	20.0%
TOTAL ACREAGE		290	100%		290		290		290		290		290		290		290		290		290		290		290		290		290.0	100%

Notes:
(a) - Baseline acreage includes 20-acre county park property
(b) - Included but off-port

ECONOMIC SUMMARY	Baseline	Team 1	Team 2	Team 3	Team 4	Team 5	Team 6	Team 7	Team 8	Team 9	Team 10	Team 11	Team 12	CONSENSUS AVERAGE
JOBS														
MARINE INDUSTRIAL	658	1,489	1,026	995	1,631	1,260	1,460	1,217	720	995	1,374	705	715	1,132
GENERAL COMMERCIAL	200	3,989	200	417	539	780	780	1,189	1,663	145	200	272	-	848
MARINE COMMERCIAL	159	100	159	151	128	159	138	100	127	138	159	159	159	140
PUR / MIXED USE	2,563	-	2,886	2,940	-	1,452	-	1,924	1,183	3,220	1,452	4,530	4,632	2,018
TOTAL JOBS	3,580	5,577	4,271	4,505	2,299	3,652	2,378	4,430	3,692	4,498	3,185	5,666	5,506	4,138
SALARY & PAYROLL														
AVERAGE SALARY	\$28,100	\$29,033	\$28,912	\$28,533	\$36,973	\$30,748	\$35,428	\$29,237	\$28,113	\$28,489	\$32,282	\$26,845	\$26,950	\$29,405
TOTAL PAYROLL (Millions)	\$100.60	\$161.92	\$123.47	\$128.53	\$85.00	\$112.29	\$84.26	\$129.51	\$103.80	\$128.15	\$102.83	\$152.12	\$148.39	\$121.69
TAXES														
ESTIMATED TAX BASE	\$1,582,754	\$2,640,643	\$2,085,390	\$2,051,460	\$2,533,564	\$2,312,903	\$2,368,872	\$2,170,005	\$1,592,256	\$2,008,261	\$2,396,823	\$1,836,901	\$1,830,485	\$2,152,297

Exhibit 1-4: Port of Fort Pierce Consensus Infrastructure Plan

Based upon the consensus average desires, the consultant team has developed the following consensus infrastructure plan (Exhibits 1-4 and 5) and consensus land use plan (Exhibit 1-6) to reflect these desires.

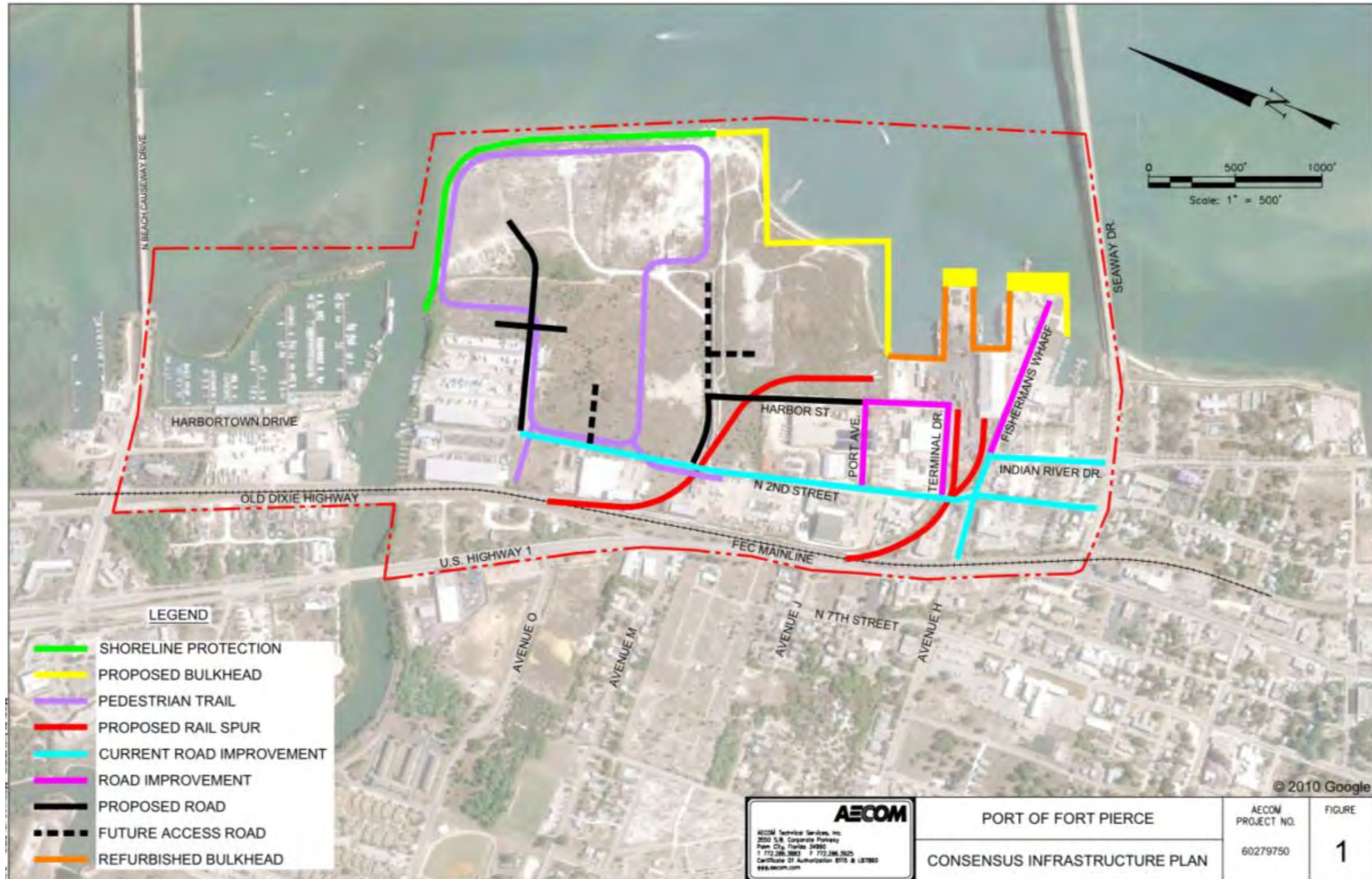
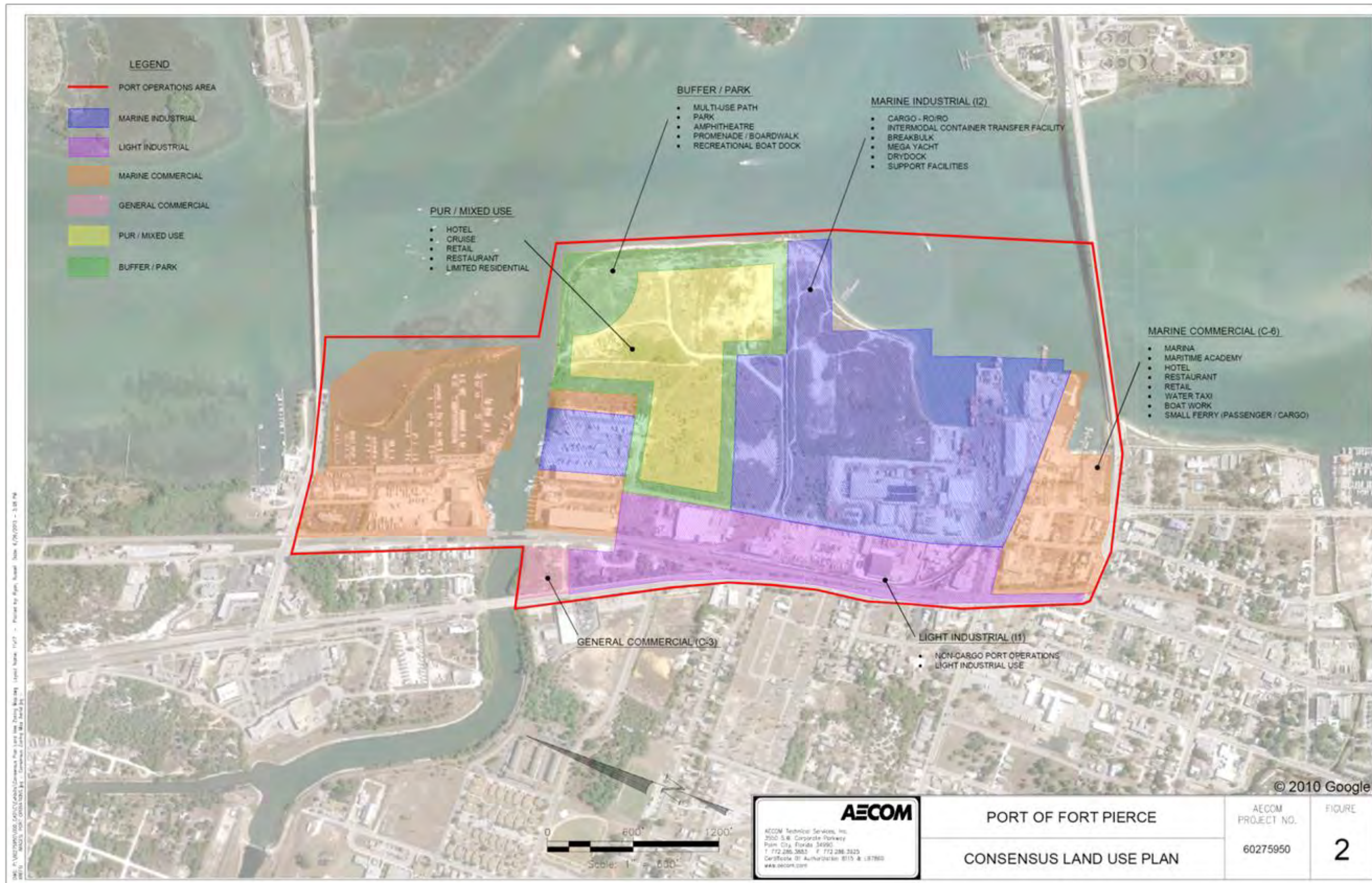


Exhibit 1-5: Infrastructure components recommended to implement the consensus plan

Infrastructure Element:	Specific Component:
Roadways	Complete 2 nd Street Project
	Improve Fishermen's Wharf
	Improve Terminal Drive
	Improve Harbor Street
	Improve Port Avenue
	Construct Harbor Street Extension and Loop to 2 nd Street
	Construct Road from 2 nd Street to Park Property
	Driveways to Access Adjoining Parcels (as necessary)
Railroad	Re-establish Railroad Spurs into Indian River Terminal
	Construct Additional Railroad Spur parallel to Harbor Street
Waterfront	Refurbish and Extend Existing Bulkheads (South)
	Construct Additional Bulkhead at City Marina (South)
	Construct Additional Bulkheads – 4 Segments (Mid-Port)
	Minimize Dredging that's Necessary for Use
	Construct Revetment / Shoreline Protection (North/Northeast)
Public Access / Use	Construct Multi-Use Path and Amenities in Green Buffer
	Construct Pedestrian Linkage along 2 nd Street to Downtown
	Construct Pedestrian Linkage to Old Dixie Highway / US 1
	Develop Park Infrastructure
Stormwater	Develop and Engineer Master Stormwater Management System for Port Property – Explore Offsite Alternatives
Water & Sewer	Coordinate and Install Improvements along with
	Corresponding Infrastructure Element

Exhibit 1-6: Port of Fort Pierce Consensus Land Use Plan



2. PERMITS REQUIRED

Permits and approvals required to implement the consensus and consensus infrastructure plans are likely to include:

<u>Plan Element:</u>	<u>Approving Authority:</u>
• Overall Master Plan Update	St. Lucie County / City of Fort Pierce
• Dredge and Fill Permits Minimum Required for Berths	US Army Corps of Engineers / Florida Department of Environmental Protection
• Stormwater Management System / Environmental Resource Permit	South Florida Water Management District
• Utility Improvements Water & Sewer	Florida Department of Environmental Protection / Fort Pierce Utility Authority
• RR Spur Crossing of 2 nd Street	Florida East Coast Railroad / St. Lucie County
• RR Upgrades	Florida East Coast Railroad
• Roadway Improvements	St. Lucie County / City of Fort Pierce
• Installation of Bulkhead and Shoreline Protection	St. Lucie County / City of Fort Pierce / US Army Corps of Engineers / Florida Department of Environmental Protection
• Pedestrian Linkage – Old Dixie Hwy or US 1	Florida East Coast Railroad / Florida Department of Transportation
• Pedestrian Linkage – 2 nd Street South	St. Lucie County / City of Fort Pierce

3. JOBS AND ECONOMIC IMPACTS

Exhibit 3-1 below shows projected impacts upon the local tax base based upon the consensus average desires for acreage redistribution. If the Master Plan were updated to include additional marine industrial uses the expanded economic base would return additional revenues to the community.

Exhibit 3-1: Tax Base (Current & Potential)

Tax Base (Current & Potential)

Type (Zoning)	Current								Consensus Plan (Potential)			
	Partially Built & Vacant (e)				Buildout (f)				Buildout			
	Acres	Average taxable value/ acre (a)	Average Tax/ acre (a)	Local tax revenue (annual) (a)	Acres	Average taxable value/ acre (a)	Average Tax/ acre (a)	Local tax revenue (annual) (a)	Acres	Average taxable value/ acre (a)	Average Tax/ acre (d)	Local tax revenue (annual) (a)
Commercial (General & Marine)	62.7	\$254,254	\$6,611	\$414,510	62.7	\$337,083	\$7,882	\$494,182	64.3	Ind	\$7,882	\$506,793
Planned Redevelopment (Mixed, Residential, Open Space) (b)	70.6	\$226,241	\$3,566	\$251,760	29.9	\$277,269	\$6,898	\$206,250	27.8	Ind	\$6,898	\$191,764
Industrial (Marine, Light, Heavy)	62.7	\$487,401	\$10,638	\$667,003	62.7	\$515,499	\$13,484	\$845,447	107.8	Ind	\$13,484	\$1,453,575
TOTAL				\$1,333,272				\$1,545,879				\$2,152,132

NOTES and ASSUMPTIONS

(a) 2011 assessed; includes ad valorem, plus non-ad valorem, taxes.

(b) For current planned urban redevelopment (PUR), subtracts county's 20-acre park which is exempt from tax from total acreage, but not total value. For current buildout, assumes development of 0.5 FAR, or one-half of the land would be taxable at the PUR tax rate.

(c) Buildout for PUR assumes 1/2 of land would be used as commercial/mixed use, and taxed as such.

(d) This is a conservative estimate of tax per acre, since it uses current tax per acre. Whereas it is expected that the tax per acre will increase along with with land value appreciation in a growing market. Ind - Indeterminable.

(e) For current built and vacant, average taxable value per acre is the average of such value for built and vacant lands, by zoning category, and including city/county-owned lands (whose taxable value is zero).

(f) For current buildout scenario, average taxable value per acre is the average of such value for built lands, by zoning category, and including the market value of city/county owned lands. Assumes the city/county lands would be sold or built, thus generating tax revenue.

From research of local real estate market, range of Industrial land per acre is \$50,000-\$100,000 current day; factors such as rail and water not included.

City and county (tax exempt) land are included in the Current "Partially Built & Vacant" scenario, but are omitted from the Current buildout and Consensus Plan Buildout scenario.

Current average taxable values were calculated by summing such data for vacant and built lands from the St. Lucie Property Appraiser within the Port Operations Area, sorting by zoning/land use, and dividing by acreage in each land use. Buildout assumes the average taxable values for only the built lands.

Florida ports have consistently proven to be significant economic drivers, producing better-paying jobs than other sectors, such as retail and service, and also, unlike many other sectors, leading to creation of indirect jobs in the communities they serve.

This should prove particularly important at present in St. Lucie County, where employment figures are backsliding, while Florida Seaport Transportation and Economic Development Council figures show that economic impacts, including jobs, related to port operations are remarkably rebounding from the depths of the recession.

Unemployment figures show that St. Lucie County unemployment in 2013 has increased from 9.4 percent in May to 10.1 percent in June to 10.3 percent in July.

As detailed in Exhibit 3-2, jobs in the marine/port/industrial and commercial realm tend to yield significant higher wages than the 2007-11 Fort Pierce median household income of \$31,000. The introduction to the table in Exhibit 3-2 points to the dramatic differences between relatively high-paying jobs related to marine, port, industrial and commercial activity and the comparatively low-paying jobs of the commercial, retail and hospitality sector.

As indicated therein, the average median annual salary for the jobs in the marine, port, industrial and commercial sector is \$50,522 – more than 1.6 times the median household income for Fort Pierce and approximately 1.06 times the median household income for Florida as a whole. Meanwhile the average median annual salary for the jobs in the commercial, retail and hospitality sector is only \$29,752 – less than the median household income for Fort Pierce, coming in at 96.3 percent, and significant less than the median household income for Florida, equating to just 62.2 percent of the statewide median.

Looked at another way, 91.7 percent of the job categories in the marine, port, industrial and commercial sector show average median annual salaries of more than the average household income for Fort Pierce, while just barely over half (52 percent) of the jobs of the commercial, retail and hospitality sector, show average median annual salaries of more than the average household income for Fort Pierce.

Exhibit 3-2: Job Title by Category

Job Title by Category	Median annual salary	Source (D)
MARINE/PORT/INDUSTRIAL & COMMERCIAL		
Motorboat Mechanics	\$18,949	FL- DEO (2011)
Transportation, Storage, and Distribution Managers	\$19,490	FL- DEO (2011)
Helpers--Electricians	\$22,859	FL- DEO (2011)
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$24,378	FL- DEO (2011)
Fishers/ Related Fishing Workers	\$25,590	US- BLS (2010)
First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand	\$26,686	FL- DEO (2011)
Captains, Mates, and Pilots of Water Vessels	\$26,853	FL- DEO (2011)
Outdoor Power Equipment and Other Small Engine Mechanics	\$28,683	FL- DEO (2011)
Dredge/ Construction/ Material Moving	\$30,800	US- BLS (2010)
Machinists	\$30,909	FL- DEO (2011)
Electrical Engineers	\$31,949	FL- DEO (2011)
Cargo Distribution/ Intermodal Logistics	\$32,499	(A)
Operating Engineers and Other Construction Equipment Operators	\$33,592	FL- DEO (2011)
First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers	\$34,091	FL- DEO (2011)
Electrical and Electronics Repairers, Commercial and Industrial Equipment	\$34,258	FL- DEO (2011)
Industrial Engineers	\$34,632	FL- DEO (2011)
Industrial Truck and Tractor Operators	\$35,048	FL- DEO (2011)
Maintenance Workers, Machinery	\$36,546	FL- DEO (2011)
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	\$36,920	FL- DEO (2011)
Cargo and Freight Agents	\$37,150	US- BLS (2010)
Truck Drivers, Heavy and Tractor-Trailer	\$37,627	FL- DEO (2011)
Excavating and Loading Machine and Dragline Operators	\$38,834	FL- DEO (2011)
First-Line Supervisors/Managers of Fire Fighting and Prevention Workers	\$38,917	FL- DEO (2011)
Marine Diesel Mechanics	\$40,850	US- BLS (2010)
Heating, Air Conditioning, Refrigeration Installers/Repair	\$42,530	US- BLS (2010)
Security Guards	\$43,597	FL- DEO (2011)
Electronic Equipment Installers and Repairers, Motor Vehicles	\$43,888	FL- DEO (2011)
Marine Firefighters	\$45,250	US- BLS (2010)
Water Transportation Occupations	\$46,610	US- BLS (2010)
First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle Operators	\$48,214	FL- DEO (2011)
Electricians	\$48,250	US- BLS (2010)
Electronics installers/ Repair	\$49,170	US- BLS (2010)
Structural Iron and Steel Workers	\$53,768	FL- DEO (2011)
Electronic Engineering Technicians	\$56,040	US- BLS (2010)
Helpers--Installation, Maintenance, and Repair Workers	\$56,202	FL- DEO (2011)
Laborers and Freight, Stock, and Material Movers, Hand	\$60,258	FL- DEO (2011)
Marine Engineering Professors	\$62,050	US- BLS (2010)
Industrial Engineering Technicians	\$63,246	FL- DEO (2011)
First-Line Supervisors/Managers of Office and Administrative Support Workers	\$64,896	FL- DEO (2011)
Welders, Cutters, Solderers, and Brazers	\$66,664	FL- DEO (2011)
Ship and Boat Captains	\$76,430	(B)
Marine Engineers/ Naval Architects	\$79,920	US- BLS (2010)
Electrical Engineers	\$87,180	US- BLS (2010)
Truck Drivers, Light or Delivery Services	\$95,139	FL- DEO (2011)
Mechanical Engineers	\$98,634	FL- DEO (2011)
Ship and Boat Captains, Mega yacht (100' plus)	\$150,000	(C)
Structural Metal Fabricators and Fitters	\$178,485	FL- DEO (2011)
Average of the Median Annual Salaries	\$50,522	

COMMERCIAL/ RETAIL/ HOSPITALITY		
Dishwashers	\$18,034	FL- DEO (2011)
Wait staff	\$18,330	US- BLS (2010)
Parking Lot Attendants	\$18,574	FL- DEO (2011)
Bartenders	\$18,680	US- BLS (2010)
Cooks, Fast Food	\$18,741	FL- DEO (2011)
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$18,824	FL- DEO (2011)
Bartenders	\$19,490	FL- DEO (2011)
Food Preparation Workers	\$20,114	FL- DEO (2011)
Cooks	\$20,260	US- BLS (2010)
Hotel, Motel, and Resort Desk Clerks	\$20,613	FL- DEO (2011)
Taxi Drivers and Chauffeurs	\$22,402	FL- DEO (2011)
Cooks, Restaurant	\$23,442	FL- DEO (2011)
Cooks, Short Order	\$25,210	FL- DEO (2011)
Office Clerks, General	\$26,125	FL- DEO (2011)
Receptionists and Information Clerks	\$26,520	FL- DEO (2011)
Chefs and Head Cooks	\$28,683	FL- DEO (2011)
First-Line Supervisors/Managers of Food Preparation and Serving Workers	\$31,138	FL- DEO (2011)
First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	\$32,344	FL- DEO (2011)
Sales and Related Workers, All Other*	\$32,635	FL- DEO (2011)
Office and Administrative Support Workers, All Other*	\$36,234	FL- DEO (2011)
First-Line Supervisors/Managers of Retail Sales Workers	\$39,894	FL- DEO (2011)
Lodging Managers	\$46,880	US- BLS (2010)
Food Service Managers	\$48,130	US- BLS (2010)
Sales Managers	\$102,752	FL- DEO (2011)
Average of the Median Annual Salaries	\$29,752	
HOUSEHOLD INCOME (2007-2011, Median)		
Ft. Pierce	\$30,896	US Census
Florida	\$47,827	US Census

NOTES

(A) Cargo Distribution/ Intermodal Logistics - \$32,499/ annual, per Cambridge Systematics, Inc. and Martin & Associates, Inc. "Multi-Modal Logistics Complex: Market & Economic Analysis," Presented to Inland Port Task Force, June 6, 2008, page 10.

(B) <http://www.recruiter.com/salaries/ship-and-boat-captains-salary/?id=ship-and-boat-captains&statewages=Florida>

(C) http://money.cnn.com/2004/05/03/pf/six_figs_five/

The challenge for Fort Pierce and St. Lucie County is to experience an economic transformation not only with more jobs but, moreover, more well-paying jobs – well-paying jobs that also generate additional induced and indirect employment in the region. Seaport and Maritime Industries could be achieved through port-related employment.

The ability of port-related jobs to result in twice as many additional induced jobs is further demonstrated in Exhibit 3-3, which notes that 1,132 direct jobs would be reflective of activity that would generate an additional 2,264 induced jobs, for a total of 3,396 direct and induced jobs.

Were these 3,396 jobs to be factored against the July 2013 unemployment figures per above, the unemployment rate in St. Lucie County would be reduced to approximately 7.6 percent, better aligning it with statewide and national rates. While it could not be expected that port-related activity would immediately produce such dynamic results, it should be considered that construction activity associated with rejuvenation of port activity could itself be transformational in more immediate job development.

Exhibit 3-3: Direct Jobs Estimate

Direct Jobs Estimate (a)

	Current				Consensus Plan	
	Built & Vacant		Potential Buildout		Potential Buildout	
Land Use (Zoning)	Acres	Jobs	Acres	Jobs	Acres	Jobs
Marine Industrial (b)	63	74	63	498	108	971
Commercial General (d)	3	0 (g)	3	203	4	269
Marine Commercial (includes marinas, cruise, school, restaurant) (c)	60	58	60	159	61	161
PUR/ Mixed Use (excluding open space) (d) (e)	60	5	59.8 (29.9) (f)	2,171	28	2,018
TOTAL		137		3,032		3,419

NOTES & ASSUMPTIONS

(a) Industrial sector estimate includes assumed direct and indirect jobs; other estimates are direct jobs only, meaning permanent jobs attributable to expanded Port operation. Temporary construction for capital improvements is not included.

(b) Marine Industrial- 10.5 jobs / acre per research of smaller comparable ports, a sum of direct and indirect jobs; IRT employs approximately 45 persons on 11.5 acres, which is estimated at 40% of capacity. Current developed industrial includes IRT, River marine, Oil, Egan, and Crackerboy. Crackerboy estimated at 7 current. Assumes some IND jobs at Harbortown including Whiticar. Current buildout assumes 5.4 jobs/acre averaged with 10.5 jobs/ acre, or 7.95 jobs/acre. Consensus plan buildout assumes the additional 45 acreage will be at 10.5 jobs/ acre. $(62.7 \times 7.95) + (45 \times 10.5) = 971$

(c) Zoning Category C-6. Marine commercial assumes Harbortown marine (regular, contract, and tenants) + restaurant/hospitality; Whiticar (tenant); Taylor Creek, Crackerboy, Fruit distributor, Captain's Galley which totals 2.66 jobs/acre

(d) Zoning Category C-3. Commercial General and Hospitality/ Mixed use jobs generation is estimated by assuming 0.50 Floor Area Ratio (development intensity), and one job generated per 300 square foot of developed area. For example, one acre assumed to generate $(.5)(43560) / 300 = 72.6$ jobs/ acre.

(e) Current PUR is largely vacant and not producing jobs, other than an estimated 5 jobs attributed to the reef restoration operation, which is a tenant. In the Consensus Plan future scenario, open space omitted since not presumed to generate jobs.

(f) Assumes that 1/2 of PUR would be developed for commercial/hotel/mixed use, thus generating one job per 300 square feet.

(g) The existing commercial general land is vacant.

For comparison, Treasure Coast (Martin, St. Lucie, Indian River Counties) employment in only the recreational marine industry estimated at 5,835-7,678 between 2005-2008.

SOURCES

1. Telephone conversation with Port of Fort Pierce tenants, May 2013.
2. Thomas J. Murray & Associates, Inc., "Florida's Recreational Marine Industry—Relative Growth and Economic Impact, 2005 - 2008" for MARINE INDUSTRIES ASSOCIATION OF FLORIDA, INC., October 2008.
3. Phase I Project report derived from Martin Assoc. Economic studies.
4. Chapin, Kaiser, and Godschalk (Urban land use planning, 1995) - rate of employees per acre. years ago the gross employment density in Charlotte ranged from 8.9 employees per acre in the outer, newer employment centers to 51 in the central business district. SOURCE: <http://www.cyburbia.org/forums/showthread.php?t=517>
5. Urban Areas- Policy, Planning, and Zoning Recommendations. Available at <http://www.crcog.org/publications/CommDevDocs/TCSP/VPSUrbanGenDist.pdf>, no date.

The following provides a further framework for understanding the importance of port-related jobs to a community's economic base:

A building block of any community is called "economic base." The economic base consists of local and internal demand activity (such as a grocery store providing food for local residents), and non-local, which is demand from beyond the city which causes it to thrive. Smart urban areas covet seaports since they provide industrial, non-local economic base. That means for each marine professional (like an engineer) who is earning above-average wages at the seaport, they are also consuming local goods and services (like the grocery store) which is more valuable for a healthy local economy.

In addition, maritime industries bring "industry clusters," which means other businesses which support the core businesses. Thus, ports supply:

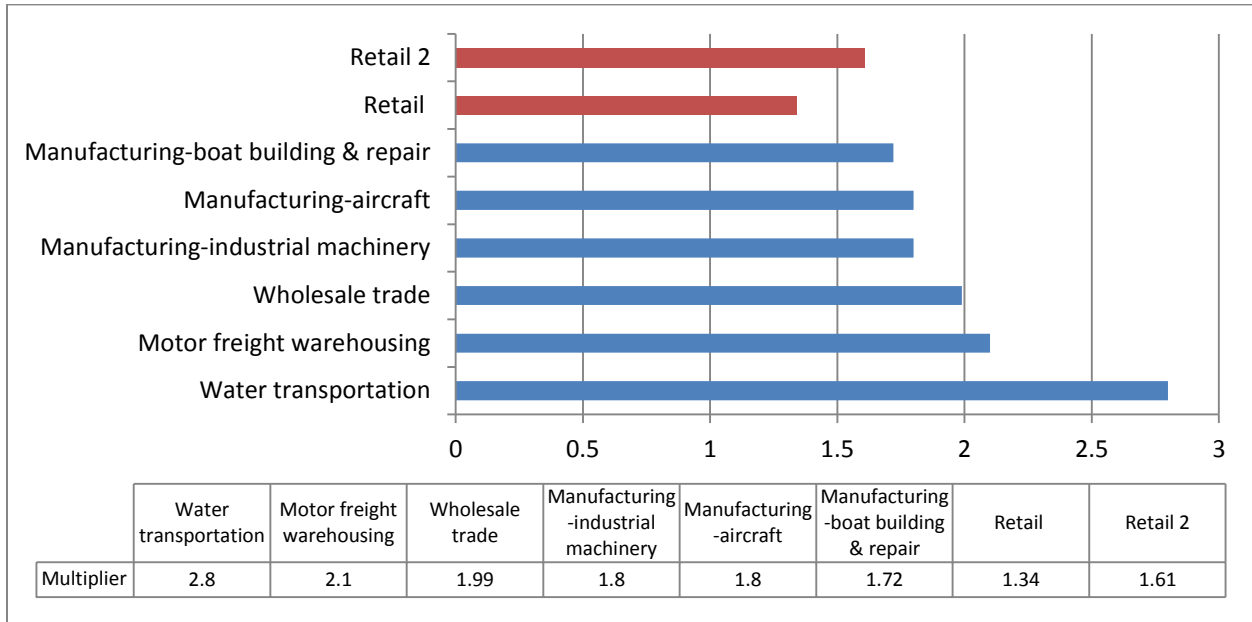
- 1) Jobs directly related to port activities,
- 2) Induced jobs (created by purchases of goods and services from those with direct jobs), and
- 3) Indirect jobs (created by purchases of goods and services by businesses supplying services at the port and businesses dependent upon the port for shipment and receipt of cargo).

Economic planners tally actual employment figures, and use complicated modeling and multipliers to estimate the anticipated number of direct, induced, and indirect jobs. While that type of analysis is beyond the scope of this report, research and modeling support some important general conclusions for St. Lucie County/Fort Pierce area policymakers:

- a. For every direct port job, another 0.86 induced jobs, plus another 0.75 indirect jobs could be created. Often this, multiplier is rounded to 2. Example: 100 direct jobs + 86 (or 100) induced + 75 (or 100) indirect = 261 (or 300) jobs created.
- b. Maritime jobs can have up to twice the economic value to the local community than do jobs generated in other port business lines (commercial, agriculture, etc.). This is believed to carry over to hospitality, commercial and retail sectors as well.
- c. Jobs multipliers show the desirability of port-related employment versus retail, as all the industrial-related jobs have higher multipliers.

The following is an example of such extrapolation for a port-related development:

Exhibit 3-4: Industry Multipliers



Source: Greater Duwamish Manufacturing and Industrial Center Plan at: <http://www.seattle.gov/neighborhoods/mpi/plans/duwa/Section4.pdf>

The bottom line is that ports are economic engines that bring jobs that are better paying than those in the retail/service sector and are sustained, and further that port jobs and port operations also create strong indirect and induced jobs in the community and region, something other sectors simply do not do.

4. VALUE OF A MARITIME TRAINING FACILITY

One of the considerations designated for study was the establishment of a State of Florida Maritime Academy at Port of Fort Pierce. In that regard, the following information is offered for consideration:

Value of a maritime training facility

There are seven maritime training academies in the United States, as shown on the map below. Each academy receives federal, state, local and private funding for development and operations, as well as grants for construction, special training programs and maritime officer training. The nearest one in southeast U.S. is in Texas, although there is a new state-of-the-art maritime training academy being built in Pascagoula, Mississippi to ensure that area's shipyards have a steady supply of skilled workers.



Exhibit 4-1: Maritime Training Academies in the United States

According to the American Association of Port Authorities, the amount of cargo shipped by water is expected to triple by the year 2020, especially with the advent of the opening of a larger Panama Canal in 2015 allowing mega ships to reach the U.S. from Asia in 24 hours and thus increasing vast quantities of cargo to East Coast U.S. Ports. Given the economic development

opportunities related to port activity nationally and in the state of Florida, there is a strong case for the development of a marine and port careers academy.

The Port of Fort Pierce is an underutilized asset in St. Luce County. With an updated port master plan, the port can become an economic generator for the region that will drive the need for trained personnel from management to handling of goods. A Maritime Academy is critical to helping build a strong workforce especially in the state of Florida where the state is surrounded by water. To see what economic impact of a Maritime Academy has on the local area, we take a look at what the California Maritime Academy has done as well as a Flight Training Academy in Vero Beach, Fl.

California Maritime Academy's (Cal Maritime) students enjoy a nearly 100 percent job placement rate. With an average time to graduation rate of four years, Cal Maritime students enter the workforce and begin contributing to the economy earlier than their counterparts. This too can happen at a Maritime Academy in Fort Pierce. California's maritime's economic impact on the Bay Area region and the State of California is enormous:

- Annual spending related to Cal Maritime (\$50 million) generates a total impact of \$77 million on the regional economy, and more than \$88 million on the statewide economy. This impact sustains more than 590 jobs in the region and statewide more than 740 jobs. Per year, the impact generates more than \$4.4 million in local and \$4.9 million in statewide tax revenue. Even greater—more than \$27 million of the earnings by alumni from Cal Maritime are attributable to their CSU degrees, which creates an additional \$122 million of industry activity throughout the state.

The Vero Beach Municipal Airport's major tenant is Piper Aircraft, an aircraft manufacturer, followed by Flight Safety International, a world renowned flight school. In addition to extensive flight training at the airport, business/corporate travel and air taxi/charter services are common activities at the airport. A majority of the airport's transient traffic includes fractional jet companies and flight training operations from other airports. All of the airport's tenants and flight activities are important to the airport's revenue streams and to the airport's economic impacts. The annual economic impact of Vero Beach Municipal Airport is associated with direct impacts that come from tenants/businesses located at the airport and construction projects that are undertaken by the airport or by on-site businesses. Indirect impacts are associated with spending from visitors. The airport's total annual economic impact:

Jobs	4,152
Total Economic Activity	\$355,567,300
Total Payroll	\$131,992,200
Multiplier Impacts.	\$151,102,400
Indirect Impacts	\$26,984,400
Direct Impacts	\$177,480,500

The State of Florida has 15 active large and mid-sized ports, including Port Everglades, Port Miami, Port Canaveral, Port of Palm Beach and Port of Jacksonville on the East Coast. The closest training facility for longshoremen is in Baltimore, and for a maritime/port career, the nearest facility is in Texas. The creation of a maritime and port careers academy can be an economic generator at the port and fulfill a need in the state and the nation, attracting national and international students/candidates. The influx of students will also have an economic ripple effect outside Port boundaries.

The Florida Maritime and Port Careers Academy at Fort Pierce (Academy) could provide training for those interested in maritime, transportation, distribution and logistics careers in a real-world setting. This type of training is needed in the state of Florida to develop and sustain the quality workforce to be competitive and emerging port industry that increasingly relies on technology to perform tasks that have historically been done manually. Intermodal training could also be provided in coordination with FEC Railway.

Port careers include:

- Customs and Border Protection – This role monitors all cargo that enters the country, searching for weapons that could harm our citizens and agricultural products carrying pests or contaminated by chemicals. The large Southeast Florida Ports see the need for many more agents in the future.
- Freight Forwarding and Customs Brokerages – A Freight Forwarder organizes shipments for individuals or corporations to get goods from the manufacturer or producer to a market, customer or final destination. Customs Brokerage is the process of “clearing” goods through customs barriers for importers and exporters.
- Longshoreman – This role is responsible for line handling, container inspections, mechanical technologies, large crane equipment to lift and transfer containers, cargo supervision, and management and equipment repairs.
- Marine/Port Operations – This role trains supervisors and operators to keep the port moving, interacting with ships carrying cargo into and out of the port and the people who need to bring their products to market, the people at the terminals who load and unload cargo, and the people who carry it to markets around the country, such as truckers and the railroads.
- Pilots – A state-licensed pilot is at the helm, steering massive ships from the sea into port.
- Truckers – This role moves cargo and containerized shipments, where the container can be directly loaded onto a truck chassis and driven in and out of the port.
- Tugboat Operations – In this career, the incumbent navigates vessels coming in and out of the port.

The Academy should be committed to taking a leadership position in developing standardized training and curricula for its students and the professional maritime community. The Academy can partner with maritime, defense, and homeland security organizations to develop statewide standards for homeland security exercises, evaluation, education, and training. International students would be welcome promoting diverse political and economic systems, business practices, and social customs. Students also can participate in semester or year-abroad programs at foreign institutions of higher education ranging from Great Britain and Mexico to Korea and China. Visiting professors from countries such as China and Russia would also enrich the campus curriculum with their expertise and fresh perspectives. This will give Fort Pierce and St. Lucie County more of a global position on the world scene.

The process to establish the Academy can be straightforward. The first step in the process is to identify a well-respected community person to serve as the coordinator to manage and keep the process on track. The following steps are critical to development of the Academy:

Identify Academy Advocates: The project needs a champion(s). Respected local and state elected officials, private business, International Longshoremen’s Association (ILA) and all others should collaborate. The advocates’ first job locally is to determine who is in charge and what local official or office has jurisdiction over the matter in question.

Establish a Blue Ribbon Committee: Following may be considered for inclusion on such a committee:

- Representative from St. Lucie County Commission
- Representative from City of Fort Pierce Commission
- Two representatives from International Longshoreman Association, (1) national, (1) local
- Representative from Indian River State College
- Representative from Work Force Development Board
- Two Local Community Advocates at large
- Representative from “Big Box” Retailers
- Representative from maritime trades (marinas, boat, and yacht works)

What is the Blue Ribbon Committee’s Role?

The Blue Ribbon Committee would create the business case for the Academy, determining the focus of the school, building the coalition in the community, developing public and private partners, and navigating through the process to get it established. This would include meeting with state and local officials to pitch the concept, as well as approaching federal elected officials to deliver the concept and seek funding.

Federal, state, local and/or private funding sources may be needed to capitalize the Academy. The Port of Fort Pierce's waterfront is a historic district thought of by many to be a model of a "Main Street City." The city is involved in many revitalization and urban development activities with an eye to maintaining its historic appeal. The Port of Fort Pierce is home to the Smithsonian Institute Marine Station, the St. Lucie County Regional History Center, the Manatee Observation and Education Center, the Harbor Branch Oceanographic Institution, and top-ranked Indian River State College. As a result, the Academy may be poised to apply for a variety of local, federal, state and private grants and loans.

Federal

U.S. Department of Transportation grants may be available for education and academy development and projects related to:

- Maritime Heritage Program: The Maritime Heritage Grants Program is a federal assistance program authorized by the National Maritime Heritage Act. It is a national competitive matching grants program, which provides funds for maritime heritage education and preservation projects designed to reach broad audiences and enhance public awareness and appreciation for the maritime heritage of the United States. State and local governments and private not-for-profit organizations are eligible to apply. The program is administered by the National Park Service and State Historic Preservation Offices. <http://www.nps.gov/maritime/grants.htm>
- Development and Promotion of Ports and Intermodal Transportation (20.801) St. Lucie County. <http://www.federalgrantswire.com/development-and-promotion-of-ports-and-intermodal-transportation.html>

State of Florida

- Work Force Florida Training Grants \$2 million/year
<http://www.workforceflorida.com/PrioritiesInitiatives/FundingOpportunities/TrainingGrants.php>
- State education and vocational training program funds
<http://www.rehabworks.org/programs.shtml>
- State Education Construction Loan/Grant
- Florida Department of Transportation 311.11 Seaport Employment Training Grant Program. <http://www.flsenate.gov/Laws/Statutes/2011/311.11>
- The Office of Tourism, Trade, and Economic Development, in cooperation with the Florida Seaport Transportation and Economic Development Council, shall establish a Seaport Employment Training Grant Program within the office. The office shall grant funds appropriated by the Legislature to the program for the purpose of stimulating and

supporting seaport training and employment programs which will seek to match state and local training programs with identified job skills associated with employment opportunities in the port, maritime, and transportation industries, and for the purpose of providing such other training, educational, and information services as required to stimulate jobs in the described industries. Funds may be used for the purchase of equipment to be used for training purposes, hiring instructors, and any other purpose associated with the training program. The office's contribution to any specific training program may not exceed 50 percent of the total cost of the program. Matching contributions may include services in kind, including, but not limited to: training instructors, equipment usage, and training facilities. (Application filing June 2014)

- The Trade Adjustment Assistance Community College and Career Training (TAACCT) program is authorized by Division B of the American Recovery and Reinvestment Act of 2009 (P.L. 111-152), and the Health Care and Education Reconciliation Act of 2010 provided the program with \$500,000,000 annually in fiscal years 2011-14 for competitive grants to eligible institutions of higher education. The program aims to improve education and employment outcomes for students attending community college and other higher education institutions, helping more Americans prepare to succeed in growing, high-skilled occupations. (Application filing June 2014) <http://www.doleta.gov/taaccct/>

St. Lucie County

- Economic development grants, land lease.
<http://florida.grantwatch.com/cat/8/economic+development+grants.html> (Florida general grants)
<http://www.stlucieco.gov/ed/incentives.htm> (St. Lucie County Specifically)

City of Fort Pierce

- Community Redevelopment Agency, enterprise zone funds, economic development grants.
<http://www.cityoffortpierce.com/Redevelopment%20Agency/FPRAindex.html>
<http://cityoffortpierce.com/Redevelopment%20Agency/Community%20Services/index.html>

International Longshoremen Association Local 1512 and International

- Construction and training program funds (loans and grants).
- Private Sector – Internships/Apprenticeships

Timetable

Bringing the Academy to fruition could be anticipated to be a multiyear process with, for example, a full 12 months to be expected between identification of advocates and sponsorship of a bill for funding to be introduced in the Florida Legislature. A strong community-wide commitment will be needed, as the process may be expected to be lengthy and demanding.

5. RECOMMENDED REVISIONS (UNDERLINED) TO THE 2002 PORT OF FORT PIERCE MASTER PLAN POLICIES

Goal 1 Responsibility for the Port

The overall responsibility for the management of the Port of Fort Pierce is vested by law with the St. Lucie County Commission and should be managed in the public interest of all the citizens of St. Lucie County.

Objective 1.1

St. Lucie County, working with the City of Fort Pierce, interested agencies and private property owners and consistent with the port enabling laws and the constitutional and statutory protections for the rights of existing private property owners, should ensure that the public interest and quality of life is protected when exercising public control of port property.

Policy 1.1.1

St. Lucie County shall explore and consider all options for the management and operations of the Port of Fort Pierce in cooperation with the municipalities and local officials. These discussions shall take place prior to December 2004 through either a task force or joint workshop of the elected officials.

Policy 1.1.2

St. Lucie County shall maintain the necessary oversight of the Port of Fort Pierce to ensure compliance with applicable state law governing deepwater ports and to guarantee the financial feasibility of any publicly funded infrastructure within the Port.

Policy 1.1.3

St. Lucie County shall determine whether to initiate actions necessary to acquire public ownership of those areas in the Port determined to be in the public interest

Policy 1.1.4

St. Lucie County shall coordinate with the City of Fort Pierce, other affected local governments, the Treasure Coast Regional Planning Council and the Florida Seaport Transportation and Economic Development Council (FSTED).

Policy 1.1.5

St. Lucie County, operating through its existing and future legal authorities, shall initiate discussions with the City of Fort Pierce, with other public agencies, and with the private business sector to create the legal agreements, memoranda of understanding, and joint planning agreements necessary to implement the goals, objectives, and policies of the Master Plan for the Port of Fort Pierce.

Goal 1B Land Use Map for the Port Of Fort Pierce

The Port of Fort Pierce shall establish a general master development map for the Port that establishes a general Port Planning Area boundary and a Port Operations Area boundary to provide elected officials, prospective investors, port facility developers, and the public a clear understanding of the physical location of the activities that could be accommodated in the Port of Fort Pierce. The general master development map for the Port of Fort Pierce is not to be used alone but rather in conjunction with the other development policies found in this plan and the applicable Local Comprehensive Plans for St. Lucie County and the City of Fort Pierce.

Objective 1b.1

The general master development map for the Port of Fort Pierce shall be as depicted in Figures F and F1. The land use activities shown in this general plan of development shall comply with applicable State, County and Municipal laws including the applicable Local Comprehensive Plans for St. Lucie County and the City of Fort Pierce, adopted pursuant to Chapter 163, Florida Statutes.

Policy 1b.1.1

The general land use classification is to be used to determine consistency between the General Master Development Map for the Port of Fort Pierce and the applicable local government comprehensive plan. The Port of Fort Pierce will coordinate with the City of Fort Pierce and St. Lucie County to determine whether the Port General Master Development Plan is consistent with the City and the County Comprehensive Plan Future Land Use designations for the Port Planning Area. To the extent any inconsistencies between the General Master Development Plan for the Port and the City or County Comprehensive Plans are identified, the Port of Fort Pierce will request that City or the County amend their Comprehensive Plans to ensure consistency.

Policy 1b.1.2

The Port of Fort Pierce shall support/seek development activities such as mega yacht construction and maintenance, commercial uses, marine research facilities, maritime academic and vocational uses, potential Bahamas cruise/ferry uses, intermodal and/or expansion of tourist/recreational uses, depending on market conditions.

Policy 1b.1.3

The Port of Fort Pierce shall support development of tourist, commercial and recreational uses primarily in the northern third of the undeveloped property in the Port Operations Area as shown in Figure F. This development shall be consistent with the adopted Local Comprehensive Plans for St. Lucie County and the City of Fort Pierce, including but not limited to the Future Land Use, Transportation and Coastal Management Elements. The City and County shall collaborate on consistency of land Use and Zoning designations that promote and encourage economic development within the Port Operations Area.

Policy 1b.1.4

All activities within the Port Planning Area shall comply with the applicable State and County laws and the applicable plans and regulations of the City of Fort Pierce or St. Lucie County including but not limited to, the adopted Future Land Use Maps of the Local Comprehensive Plans for St. Lucie County and the City of Fort Pierce, as depicted in the attached Figure G, G1 and G2.

Policy 1b.1.5

The Port of Ft Pierce shall continue to support limited cargo operations in the Port Operations Area, as described in Policy 2.1.2.

Policy 1b.1.6

By March 1st of each year, the Port of Fort Pierce shall submit to the County Administrator or his designee an updated five (5) year capital budget/improvement plan for the Port. To the extent that local funds are required to address a capital improvement need, the Board of County Commissioners shall be requested to provide the necessary funding to meet that need. Nothing in this policy shall be construed as to prohibit the Board of County Commissioners from requesting that the City of Fort Pierce, the Fort Pierce Community Redevelopment Agency, or any other appropriate agency or entity assist in funding one or more capital improvement project(s) within the Port Area since the Port Planning Area within the City Limits of Fort Pierce lies entirely within the Fort Pierce Community Redevelopment Area.

Policy 1b.1.7

Recognizing that the majority of the lands, excluding water and roadways, in the Port Planning Area, including the Port Operations Area, are not in public ownership, should the County acquire additional lands in the Port Operations Area, the Master Plan for the Port of Fort Pierce will be amended to reflect a revised capital improvements plan and the Port of Fort Pierce will request that the Board of County Commissioners make any necessary amendments to the St. Lucie County Comprehensive Plan and, if necessary, that the Fort Pierce City Commission make any necessary amendments to the Fort Pierce Comprehensive Plan to address all identified capital needs. Nothing in this policy shall be construed as to prohibit the Board of County Commissioners from requesting that the City of Fort Pierce, the Fort Pierce Community Redevelopment Agency, or any other appropriate agency or entity assist in funding one or more capital improvement project(s) within the Port Area since the Port Planning Area within the City Limits of Fort Pierce lies entirely within the Fort Pierce Community Redevelopment Area.

Goal 2 Port Activities

The quality of life for St. Lucie County residents will be strengthened and maintained by enhancing the economic viability, attractiveness, environmental quality, and social benefits associated with activities at the Port of Fort Pierce.

Objective 2.1

The Port of Fort Pierce should strengthen the economic development activities in the Port Operations Area by working with federal, state and local government, the private sector, and other interested parties to formulate an economic development plan by 2004 that will foster new jobs that exceed the County's average annual wage and enhance the community's prosperity.

Policy 2.1.1

The Port of Fort Pierce shall encourage the development, renovation and improvement of port facilities to maximize current potential, including rehabilitation and modernization of existing buildings consistent with the goals of the City of Fort Pierce downtown redevelopment plan. [The City of Fort Pierce downtown redevelopment plan should identify buffer and transitional uses between cargo uses and the downtown. Local plans should also reflect market absorption studies of hotel, commercial and recreational uses as multiple redevelopment plans including such uses and exceed projected demand will not attract development and will have a negative impact to existing uses.](#)

Policy 2.1.2

The Port of Fort Pierce will continue as a deepwater port ~~that will accommodate limited~~ cargo operations. New and reconstructed infrastructure that be constructed to attract development consistent with community goals including berthing and seawalls, efficient intermodal connections, ship to rail transfer facilities and roadway and drainage infrastructure. ~~Gentrification of cargo areas shall be emphasized and flexibility shall be retained in the Berth 1 area to allow either limited cargo operations or marine industries or a combination of both. All such uses shall be consistent with the general mix of uses described herein and compatible with adjacent land uses and natural resources.~~

Policy 2.1.3

Future public infrastructure improvements in the Port Planning Area will be made consistent with the Port Master Plan.

Policy 2.1.4

St. Lucie County, working with federal, state and local governments, the private sector, and other interested parties, may provide incentives for jobs that exceed the County's average annual wage. St. Lucie County, the City of Fort Pierce, Indian River Terminal and local economic development groups should establish a proactive campaign to approach developers and desired trade and market the Port Fort Pierce.

St. Lucie County, the City of Fort Pierce and Indian River College shall identify a blue ribbon panel to develop a path to establishing a Maritime Academy at the Port of Fort Pierce.

Policy 2.1.5

The Port of Fort Pierce, working with federal, state and local governments, the private sector, and other interested parties, will encourage port industries to develop job training programs and use the local workforce to the fullest extent possible.

Objective 2.2

The Port of Fort Pierce in cooperation with the City of Fort Pierce and other governmental bodies, shall assist in the development of high quality design standards to ensure that port facilities in the Port Operations Area are compatible with the use of the surrounding area in the City of Fort Pierce as downtown waterfront development.

Policy 2.2.1

The Port of Fort Pierce, in cooperation with other governmental bodies, the private sector, and other interested parties, should develop and maintain aesthetically pleasing public port facilities and landscaping to encourage new and expanded business development. Buffer zones could be identified and planned for significant landscaping that transition from industrial to local commercial uses.

Policy 2.2.2

The Port of Fort Pierce, in cooperation with other governmental bodies, should ensure that port facilities are aesthetically compatible to the extent feasible with ~~all newly renovated areas~~ of downtown Fort Pierce and other adjacent neighborhood areas and in compliance with the City of Fort Pierce regulations.

Policy 2.2.3

Existing activities within the Port of Fort Pierce Operations Area that are determined to be inconsistent with future uses of the Port should be identified and removed through the negotiated purchase of property or business, code enforcement activities, private/public partnerships, grants, other mechanisms by the appropriate unit of government, or eminent domain.

Objective 2.3

The Port of Fort Pierce, working with federal, state and local governments, the private sector, and other interested parties, shall maintain, increase, and promote marine industry and related scientific and commercial activities at the Port of Fort Pierce so there is no net loss of marine industry.

~~Policy 2.3.1~~

~~The Port of Fort Pierce, working with federal, state and local governmental bodies, the private sector, and other interested parties, shall accommodate water related marine activities such as mega yachts, restaurants, hotels, tall sailing vessels, boat service and repair yards, marina facilities, and related service activities within the Port Planning Area for the benefit of residents and visitors to the community.~~

~~Policy 2.3.2~~

~~The Port of Fort Pierce, working with federal, state and local governmental bodies, the private sector, and other interested parties, shall accommodate water related marine activities such as~~

~~mega yachts, marine research vessels, tall sailing vessels, restaurants, hotels, and related service activities within the Port Planning Area for the benefit of the residents and visitors to the community.~~

Policy 2.3.3

The Port of Fort Pierce, in cooperation with federal, state and local governmental bodies, the private sector, and other interested parties, shall protect, maintain, and promote marine industry activity from encroachment or displacement by incompatible land uses.

Policy 2.3.4

The Port of Fort Pierce, working with federal, state and local governmental bodies, the private sector, and other interested parties, shall encourage the location of additional marine science facilities in the Port Planning Area that are compatible with the Smithsonian and the Harbor Branch Oceanographic Institution.

~~Policy 2.3.5~~

~~The Port of Fort Pierce, working with other governmental bodies, the private sector, and other interested parties, shall encourage the location and development of a mega yacht facility that serves as the anchor tenant in the Port Operations Area.~~

Objective 2.4

The Port of Fort Pierce shall allow and support expansion of water-dependent recreational and ecotourism uses in the Port Planning Area.

~~Policy 2.4.1~~

~~The Port of Fort Pierce, working with federal, state and local governmental bodies, the private sector, and other interested parties, shall encourage recreational uses within the Port Planning Area.~~

Policy 2.4.2

The Port of Fort Pierce working with federal, state and local governmental bodies, the private sector, and other interested parties, shall maintain a public education and information program for the commercial and recreational boating activities on and adjacent to the Port Planning Area to alert and advise those users of the environmentally sensitive resources in the area.

Objective 2.5

The Port of Fort Pierce, in compliance with federal, state, and local laws, shall work with appropriate public safety entities to revise the port security management plan for the Port Operations Area by December 2003.

Policy 2.5.1

The Port of Fort Pierce shall use its best efforts to ensure that port security will protect port users and citizens from crime or terrorism concerns and prevent any increase in criminal activity or enterprises.

Policy 2.5.2

The Port of Fort Pierce, working with federal, state and local governmental bodies, the private sector, and other interested parties, shall develop a public education program for the port security management plan to ensure that the owners, users, other responsible parties, and members of the public understand port security.

Goal 3 Environmental Protection

The Indian River Lagoon is recognized as the most biodiverse estuary in North America and as an important component of the local economic base and the overall quality of life in the community. As such, the integrity of the Indian River Lagoon shall be protected by correcting any detrimental effects caused by current operations and ensuring long-term development and improvement activities are consistent with all local, state and federal environmental laws and regulations.

Objective 3.1

The Port of Fort Pierce, working with federal, state and local governmental bodies the private sector, and other interested parties, shall ensure the protection and restoration of the Indian River Lagoon and avoid future degradation of the Lagoon's ecological health due to port activities.

Policy 3.1.1

The Port of Fort Pierce, working with federal, state and local governmental bodies, the private sector, and other interested parties, will regulate discharges coming from port activities into the Indian River Lagoon to prevent air and water pollution in violation of any adopted federal, state, or local laws or regulations. [Berthing, seawall and drainage infrastructure will actively be pursued to eliminate existing runoff.](#) Existing port businesses should be retrofitted to reduce pollution in the Indian River Lagoon.

Policy 3.1.2

The Port of Fort Pierce, working through the Comprehensive Plans and Land Development Regulations of the appropriate local general purpose government, shall address excessive freshwater inflows originating from the Port Planning Area to minimize their impacts on estuarine salinity, consistent with guidelines being developed by the U.S. Army Corp of Engineers and the South Florida Water Management District in the Indian River Lagoon South Feasibility Study Draft (2001).

Policy 3.1.3

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, shall limit inputs of suspended materials, nutrient inflows, and toxic substances from the Port Planning Area into the Indian River Lagoon to state and federal approved limits.

Policy 3.1.4

The Port of Fort Pierce shall work with other governmental bodies, private interests, and other interested parties to enforce existing laws and prevent exotic invasive species from entering the Indian River Lagoon via ship's ballast and bilge water or cargo or any other method [including detrimental impacts of mega-yacht, marine industries and recreational boating uses.](#)

Policy 3.1.5

The Port of Fort Pierce will develop a port area maintenance program to ensure environmental compliance by the Port and for any activities occurring within the Port Planning Area.

Objective 3.2

The Port of Fort Pierce will work with other governmental bodies, the private sector, and other interested parties, to prevent detrimental effects on the Indian River Lagoon caused by port activities by supporting estuarine diversity and the protection, maintenance, and enhancement of the population of endangered and threatened species.

Policy 3.2.1

The Port of Fort Pierce shall work with other governmental bodies, private interests, and other interested parties to preserve and restore seagrass beds and mitigate any permitted losses to existing seagrass beds caused by port activities to the maximum extent possible.

Policy 3.2.2

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, shall protect endangered and threatened mammals, fish, reptiles, amphibians, and invertebrates from port activities in the Indian River Lagoon.

Policy 3.2.3

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, shall take appropriate actions to protect and conserve fin and shellfish resources in the Indian River Lagoon from damage due to port activities.

Objective 3.3

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, shall protect and maintain the existing natural coastal areas and resources within the Port Planning Area.

Policy 3.3.1

The Port of Fort Pierce, working with the Comprehensive Plan and Land Development Regulations of the appropriate local general purpose government, shall address maintenance and reduction of existing air quality emissions from Port activities to ensure that new emissions from the Port meet applicable air quality standards.

Policy 3.3.2

The Port of Fort Pierce, working with other governmental bodies and private interests, and other interested parties, shall create a scientific advisory committee, composed of researchers and managers from the Smithsonian Institute, Harbor Branch Oceanographic Institution, and other regional marine research institutions, to provide scientific advice on port operations and activities (commercial, industrial and recreational) that may impact the Indian River Lagoon.

Policy 3.3.3

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, will develop a list of best management practices for environmental protection which have been used successfully by other Ports to ensure efficient and effective management of port operation activities while providing environmental protection.

Policy 3.3.4

The Port of Fort Pierce, working with other governmental bodies and the private sector, and other interested parties, should encourage the use of an energy absorbing type system of bulkheading where possible to protect the natural coastline in the Port and surrounding area.

Policy 3.3.5

The Port of Fort Pierce, working with other governmental bodies, and the private sector, and other interested parties, will, by January 2006, identify, acquire (if necessary) and permit a permanent spoil disposal site for materials dredged from the Port Planning Area.

Objective 3.4

In keeping with the St. Lucie County Manatee Protection Plan (MPP), the Port of Fort Pierce will work with other governmental agencies and private interests to improve protection of the manatees and enforcement of existing related laws within the Port Planning Area.

Policy 3.4.1

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, will adjust future and proposed dock design and construction to be consistent with manatee protection measures.

Policy 3.4.2

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, will conduct maintenance dredging in the Port Planning Area in a manner that is consistent with manatee protection measures.

Policy 3.4.3

The Port of Ft. Pierce, working with other governmental bodies, private interests, and other interested parties, will conduct activities involving expansion of ship berths and maintenance of channels in a manner that is consistent with manatee protection measures in the Port Planning Area.

Policy 3.4.4

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, will conduct activities involving explosives in a manner that is consistent with manatee protection measures in the Port Planning Area.

Policy 3.4.5

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, will conduct activities involving sediment removal and disposal in a manner that is consistent with manatee protection measures in the Port Planning Area.

Policy 3.4.6

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, will protect and/or mitigate seagrass beds and submerged aquatic vegetation that serve as manatee habitat in the Port Planning Area.

Policy 3.4.7

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, will help to develop guidelines and establish an education program for crew procedures regarding observing and avoiding manatees when arriving and departing from docks in the Port Planning Area.

Goal 4 Public Access

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, shall enhance public access to the Port Planning Area.

Objective 4.1

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, shall develop an integrated open space system to provide public access between those portions in the Port Planning Area that are open to the public and the surrounding community.

Policy 4.1.1

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, shall facilitate public access to short-term parking.

Policy 4.1.2

The Port of Fort Pierce shall encourage unobstructed public access to designated public fishing areas.

Policy 4.1.3

The Port of Fort Pierce shall cooperate with and support efforts of other interested governmental bodies in providing access to unobstructed scenic views of the Indian River Lagoon.

Policy 4.1.4

The Port of Fort Pierce shall encourage the City, County, and State to improve and maintain an orderly network of streets and entrances to access port facilities.

Policy 4.1.5

The Port of Fort Pierce shall develop an integrated open space system along the waterfront of the Port Operations Area, with the exception of areas where such access would pose a safety or security concern or where it would interfere with approved port activities.

Policy 4.1.6

The Port of Fort Pierce shall encourage multi-use marine recreational activities, walkways, and multiuse paths within the open space system in the Port Planning Area and provide linkages with the network in Fort Pierce.

Goal 5 Emergency Management

The public will be protected in various emergency situations through cooperation between the Port of Fort Pierce and other governmental bodies to achieve maximum levels of safety and to restrict commerce of hazardous materials in the Port of Fort Pierce.

Objective 5.1

The Port of Fort Pierce, working with regional and state emergency management agencies, private interests, and other interested parties, shall identify new and existing procedures to ensure public safety in the event of a hurricane or other natural disaster.

Policy 5.1.1

The Port of Fort Pierce shall comply with the comprehensive emergency management plans of appropriate local general purpose government to ensure safe evacuation of the Port during times of hurricane or other disasters.

Policy 5.1.2

The Port of Fort Pierce shall work with the City of Fort Pierce and St. Lucie County to ensure that all development activities within the Port Planning Area, including the Port Operations Areas, are consistent with State of Florida's policies on development within areas identified as Coastal High Hazard Areas. New residential uses within areas designated as Coastal High Hazard as defined in Rule 9J-5, FAC., shall be discouraged.

Objective 5.2

The Port of Fort Pierce, working with other governmental bodies, shall comply and cooperate to ensure that adequate procedures are in place to respond to a hazardous material spill.

Policy 5.2.1

The Port of Fort Pierce shall comply with the processes of federal, state, and local governments for safe and expedient cleanup of hazardous spills.

Policy 5.2.2

The Port of Fort Pierce shall cooperate with governmental bodies to provide complete and timely information to the public in the event of a hazardous materials accident.

Goal 6 Landside Infrastructure

Landside and waterside infrastructure serving the Port of Fort Pierce should meet the Port's future requirements in a manner consistent with the abilities of the appropriate agencies to provide the services needed to support approved port activities.

Objective 6.1

The Port of Fort Pierce shall work with other governmental agencies to improve linkages between the Port facilities and intermodal transportation routes.

Policy 6.1.1

The Port of Fort Pierce, working with other governmental bodies, private interests, and other interested parties, should limit increased traffic congestion in the Port Planning Area and on roadways adjacent to the Port Planning Area consistent with the adopted levels of service in the Comprehensive Plan of the appropriate local general purpose government.

Policy 6.1.2

The Port of Fort Pierce should enhance and expand activities that tie the Port to the St. Lucie County Airport and coordinate with the Florida Department of [Economic Opportunity Community Affairs \(DCA\)](#), ~~the Governor's Office of Tourism, Trade, and Economic Development (OTTED)~~, Florida Department of Transportation (FOOT) and the Florida East Coast (FEC) Railroad, Tri-rail and other possible rail service, in order to encourage multimodal development, maximize intermodal transportation connections, and facilitate the continued economic growth, development, and vitality of St. Lucie County. Beginning in December 2003 and continuing annually thereafter, the Port of Fort Pierce shall prepare a State of the Ports Report to demonstrate to the public how activities of both facilities are furthering the quality of life of St. Lucie County residents.

Policy 6.1.3

The Port of Fort Pierce, working with other governmental bodies, should facilitate expansion of public transit to and from the Port Planning Area.

Goal 7 Navigational Channels

Navigation channels serving the port's maritime and recreational activities shall meet existing and limited future needs as outlined in this plan.

Objective 7.1

The Port of Fort Pierce shall maintain the maximum channel depth at 28 feet with its current width as identified on the Army Corps of Engineers' Project Condition Survey dated August 2001 (attached as Figure H).

Policy 7.1.1

The Port of Fort Pierce shall coordinate with the U.S. Army Corps of Engineers and the Florida Inland Navigation District to provide for the maintenance of the navigation channels, including location of spoil disposal sites.

Policy 7.1.2

The Port of Fort Pierce shall coordinate with the U.S. Coast Guard in the placement and maintenance of the navigational aids within the port area.

Policy 7.1.3

The Port of Fort Pierce, working with other governmental bodies, the private sector, and other interested parties, will, by January 2006, identify, acquire (if necessary) and permit a permanent spoil disposal site for materials dredged from the Port Planning Area.

Objective 7.2

The Port of Fort Pierce shall seek to improve the condition of Taylor Creek from the S-50. Spillway to the Intracoastal Waterway through maintenance dredging and water quality improvement projects.

Policy 7.2.1

The Port of Fort Pierce shall request that St. Lucie County include as part of its Capital Improvements Programs funding for the restoration and improvement of Taylor Creek through maintenance dredging and water quality improvement projects to supplement funds received from other agencies.

6. REPORT RECOMMENDATIONS

In summary, the following are recommendations of this report:

- Actively seek grants, funding partnerships and other funding to bring about infrastructure improvements at the earliest opportunity. Infrastructure funding could include that related to rail enhancements, roadway/bridge improvements, stormwater projects and other infrastructure on publically owned land and/or designated for public use. State funds are now available and action must be taken to avoid missing opportunities.
- The City of Fort Pierce and St. Lucie County consider amendment of their respective comprehensive plans to incorporate the consensus plan or other viable alternative. The City and County should compose and adopt consistent, if not identical, amendments to their respective comprehensive plans, and the City's Redevelopment Plan. Corresponding Land Development Code (City and County) revisions are anticipated.
- Provide for a permanent, full-time, dedicated Port Director. Such a position could be jointly funded by County and City and report to a select jointly appointed board. Such a position would enable direct marketing of Port of Fort Pierce to the shipping industry, and would provide professional seaport operations and management.
- Through the Harbor Advisory Committee, continue a dialogue with seaport land owners, key community groups, city and county governance. Such dialogue would build alliances, consider balanced recommendations and advance economic development.

APPENDICES

Appendix A. Reference Maps of Existing Conditions for Workshop Table Groups





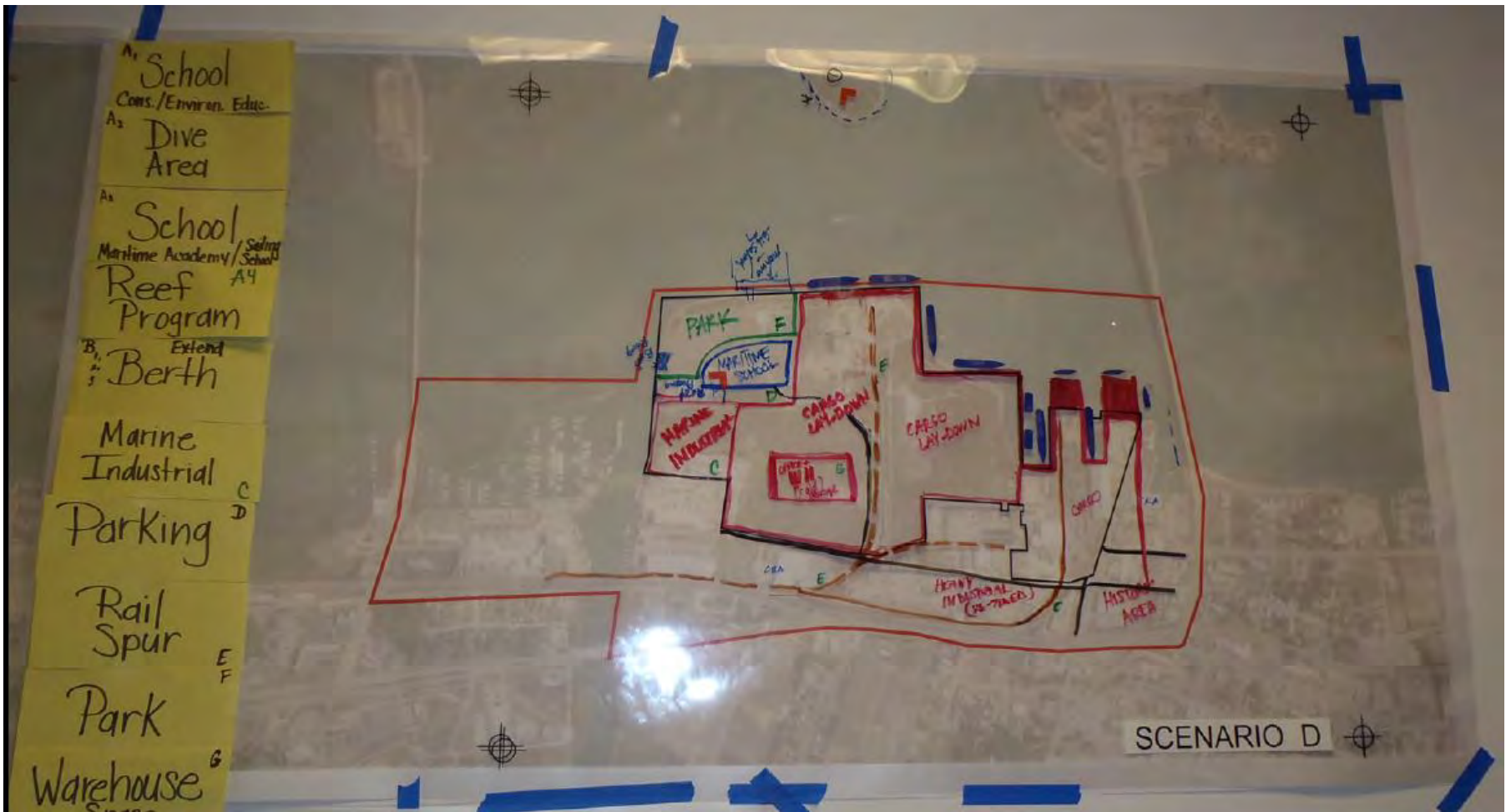
Appendix B. Table Drawings











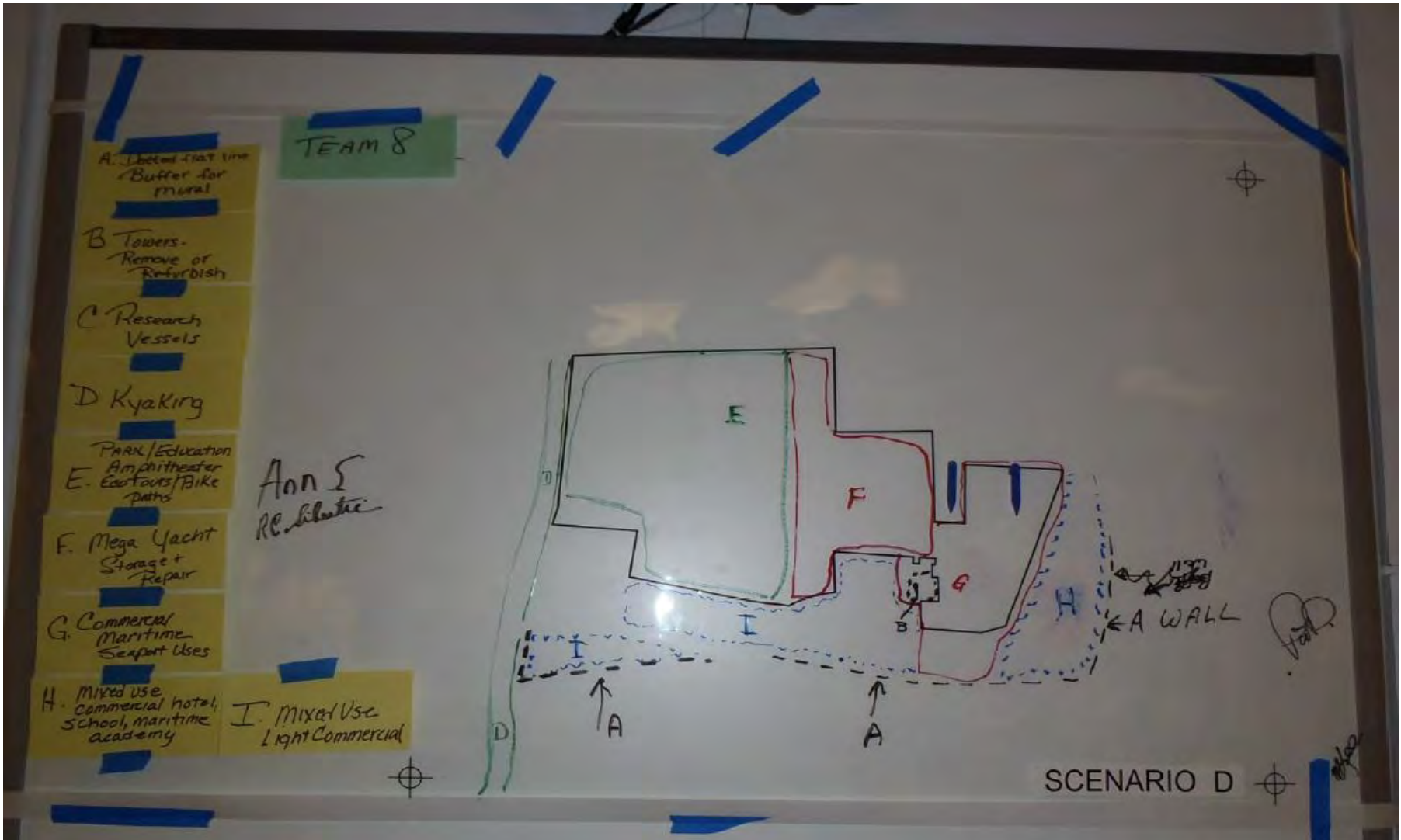












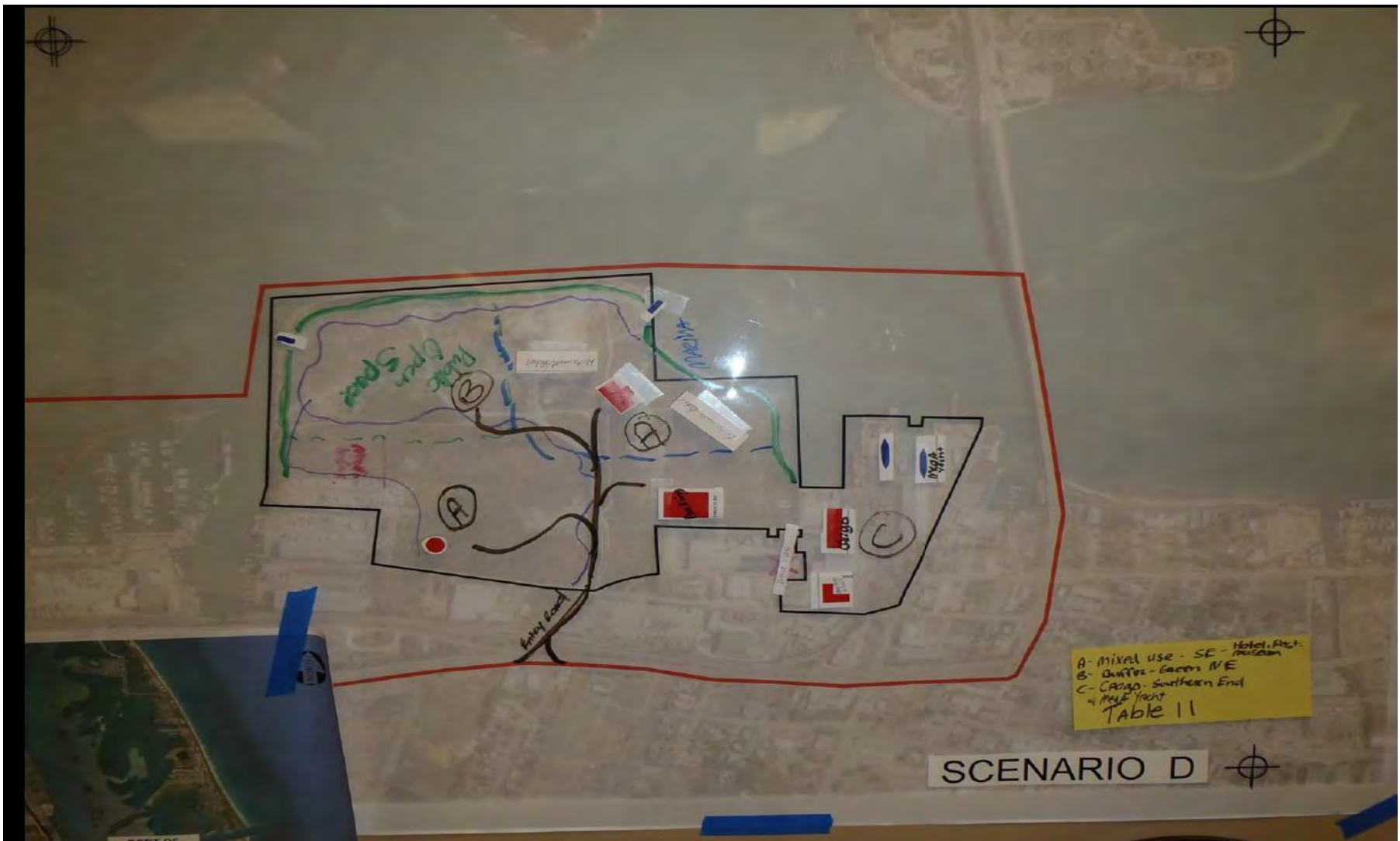






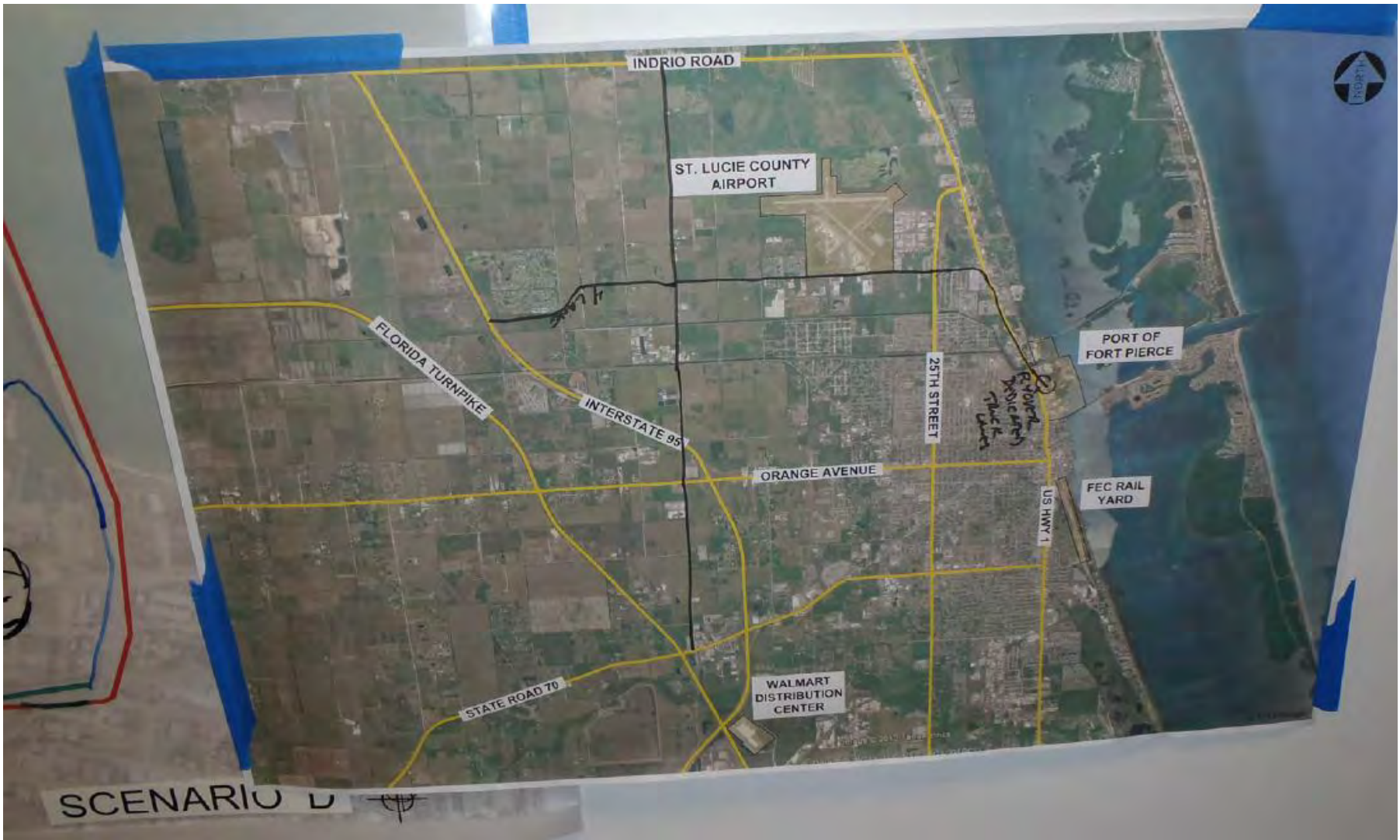













Appendix C. Port of Fort Pierce Meeting / Workshop Sign-In Sheets

March 23, 2013, Public Workshop Sign-In Sheet



Florida Department of Transportation Conducts Study (Phase II)
 Port of Fort Pierce 2013 Master Plan Update Workshop
 Havert L. Fenn Center * 2000 Virginia Ave. Fort Pierce
 Saturday, March 23, 2013 9:00 AM

Name	Affiliation	E-mail Address	Address	Phone Number
DON WEST	ST. LUCIE COUNTY	westd@stlucie.co.org	2300 VIRGINIA AVE FT. PIERCE.	(772) 462-1485
TOM PERONA	City Fort Pierce	tomperona@gmail.com		772 216 1293
Candace Walls	Congressman Murphy	Candace.Walls@mail.house.gov	121 SW Port St. Lucie Blvd Rm 187 PSL, FL 34984	772-336-2877
LARRY LEE, JR.	STATE REPRESENTATIVE	LLJASS@COMCAST.NET	4075 VIRGINIA AVE FT. PIERCE, FL 34981	772-461-6622
TOD MOWERY	SLC			
Kim Johnson	SLC BOCC		2300 Virginia Ave FT. PIERCE, FL	(772) 462-1467
Reggie Sessions	Fort Pierce	INALAWFL@aol.com	1304 N. 2 nd Fort Pierce	772 971 3958



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Name	Affiliation	E-mail Address	Address	Phone Number
Chris Dzadovsky	SLC BOCC	dzadovskyc@stlucicounty.org	2300 Virginia Ave FP 34988	772 462 1410
NICK MIMMS	City of Ft Pierce	nmimms@city-fipierce.com		772 467 3793
PAULA LEWIS	SLC - BOCC	lewispa@stlucereca.org		772-462-1406

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Name	Affiliation	E-mail Address	Address	Phone Number
Billy Gibson	MOTORIZED Kayak Adventures	motORIZEDkayak@ gmail.com	4686 SW Safford St PSL 34053	772 361-5329
Dave Aiken	CEMEX	daveaiken@cemexusa.com		561 371 7788
FAT SIMMONS		pslbluestar@aol.com	PSL	772 267 8358
Gerald Newberry			306 SW 30th St	772 940 1122
Mike Monti	FPSBA	dmonti@psa.com	1320 Bayside Dr	772 467 8885
MIKE WALDROP	Anchor Marine	mworldwide@ att.net	621 SE HIDDEN RIVER DR PSL 34953	772-873-2134
Britta Santana		britta.santana@ gmail.com	205 S 31st FP	971-3503

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Florida Department of Transportation Conducts Study (Phase II)
 Port of Fort Pierce 2018 Master Plan Update Workshop
 Havert L. Fenn Center * 2000 Virginia Ave. Fort Pierce
 Saturday, March 23, 2013 9:00 AM

Name	Affiliation	E-mail Address	Address	Phone Number
L. Kevin Stinnette	Conservation Alliance	stinckm@comcast.net	10303 S Indian R. Dr	720-336-7287
GEORGE L. JONES	CONSERVATION ALLIANCE	GEORGEJONESL@AOL.COM	1182 SE MELBAVUE P.S.L. 34952	772-380-2039
JOHNATHAN FERGUSON	Law Office of Jonathan A. Ferguson	fergusa-law@comcast.net	2366 S. Brocksmith Rd Fort Pierce, FL 34945	772-465-0729
Aubrey D. Lanier	Retired		FT. PIERCE, FL, LOT 188 2023 ST. LUCIE BLVD	704-466-5427
Palores H. Johnson	St. Lucie Waterfront Council	palores@stluciewaterfront.com	429 AV. 19th St FT. P. 34950	772-577-0821
Richard Ross	International Landowners Assn.	Rross@bellsofth.net	997 Se Blumard Ave TSL FL 34933	772-240-1144
Britton Wilson	SLC Planning			
JAMES BURKE	INDOPIZE KAYAKS + CONSERVATION ALLIANCE	JBURKE631@gmail.com	3206 S LAKEVIEW CRT FT PIERCE	638483119

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Florida Department of Transportation Conducts Study (Phase II)
 Port of Fort Pierce 2018 Master Plan Update Workshop
 Havert L. Fenn Center * 2000 Virginia Ave. Fort Pierce
 Saturday, March 23, 2013 9:00 AM

Name	Affiliation	E-mail Address	Address	Phone Number
Roy Whitehead	Fort Pierce Yacht Club	roywhitehead@aol.com	4029 Golf Course Rd	332-1732
Bob Russell	Fort Pierce resident	bobrussell@qline@gmail.com	1402 Nebraska 13A FT. P.	813 816-8243
James Pappas	Commissioner Fort P.			
Anthony Longano	FT Pierce Harbour Isle	ALongano2@AOL.com	12-302 Harbour Isle Dr. West Fort Pierce	(772) 618-7443 4893
Jill Keir Griffin	Griffith Law	griffith@tracocastlaw.com		772 776 789
Teresa Toulon	citizen		920 SE Seafair Ave	
ROGER SHARP	Fort Pierce C		8205 S INDIAN RIVER DRIVE	772-575-5787
Candice Sanchez	Sessions Law	Misaptiva@yahoo		
AnnMarie Loveridge	Fort Pierce	loveridges@comcast.net	2105 OAK DR. FORT PIERCE 34949	772-323- 7982

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Name	Affiliation	E-mail Address	Address	Phone Number
RICHARD L. GONZALEZ	(FIP) Florida IN(AAD)PORT	RICHARD@PINELOCH.COM		407256 8213
vt. martin	none			
Buzz Smyth	none	smyth5rld@aol.		772-201-8230
Ryan O'Connor	Seaboard Hotel	Ryan.O'Connor@TheSeaboard.com		772-595-0711
Barry Brennan	Cemex	Barry.S.Brennan@cemex.com		772-559-1500
Linda Hudson	Mayor City of FP	Linda		772-467-3025
Bill Wilcox	FTZ	bill.wilcox@earthlink.net		772-595-6368
BOB BANGERT	Holiday Inn	bbangert@jagmail.com		
PAUL DESBOROUGH	None	BLUENHARTO@AOL.COM		772 342 332 7240

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Name	Affiliation	E-mail Address	Address	Phone Number
Gwen Morris	Community	gmatmor@aol.com		(772) 461-5085
Mary Lee	Community			(772) 461-2557
Bobby Hopkins	Community	Vote.bobby.hopkins@aol.com		
CHARLES GRINYE	INTERNATIONAL	CITASGARA@GMAIL.COM PELLSOUTH.NET		772 229 9874
Beth McMillen	Marine Resources Council	council@marcrl.org		301 725-7775
Dennis Hanink	HBUI	dhanink@4501.faw.edu		772-242- 2306
Steve Meleski		EMEL246@ATT.NET	P.S.L	772 621 0870
Dan McArthur	River Marine	Danny@mbymarine.com	P.O. Box 466 Palm City, FL 34991	(305) 494-1392
MARION C. MATTHEWS	I.L.A.	MCMATTSR@yahoo.com	602 MI th 2 nd Street	(772) 519-4473

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Name	Affiliation	E-mail Address	Address	Phone Number
Raymond Jones	Florida East Coast Railway	Raymond.jones@fec.com	Miami, FL 33166 6875 NW 58th St	(305) 889-5641
MING Hopkins	Sea & Hangar	consultmy4@bellSouth.net	717 PONCE DE LEON CANAL GABLES FL	(305) 898 2851
MARTY BAUM	INDIAN RIVERKEEPER	INDIANRIVGUY@ YAHOO.COM	1192 NE FRANCES SE JENSEN BCH 34957	772.631.5827
Scott McCoy	AFCOM	Scott.McCoy@ AFCOM.com		954-401-2441
MARTY LAVEN	Marine Industries	marty.laven@ earthlink.net	2732 SUMMIT BLVD. FT. PIERCE FL 34942	772 466 0025
Ken Hern		Kenneth.hern@ATT.net	931 SW Susper Ave PSL 34953	772-343-0932
Regina Hurst	Citizen of FT P	reachhigherp@hotmail.com	813 N. 10th St FT Pierce, FL 34950	772-940-4656
Larry Jennings	Truck Star Systems	larryjennings369@ hotmail.com	369 NE camelot Dr. Port St Lucie, FL 34983	501-298-2106
Roy Derby	Citizen		619 S 5th St	

2



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Name	Affiliation	E-mail Address	Address	Phone Number
Robert C. Armstrong	Harbour Isle Resident	ohyw@comcast.net	29 Harbour Isle Dr W PH#2 Fort Pierce FL 34949	(772) 519-9159
Lewis Garrett	resident	lgarretterivnet.net	1216 D S Lakes End Dr Ft Pierce, FL 34982	772 359-7939
Greg M Ward	CONSULTING BUSINESS	wardgm@gate.net	P.O. Box 10441 Riviera Beach, FL 33419	561 863-1215
SHARI ANKER	CONSERVATION/ ALLIANCE	sranker@mac.com	2402 SE HARTON ST. PSL, FL 34952	772-335-3484
Michael G. Okash	ILA	Seasnakewmlle	115 Royal Palm Cir Largo, FL 33778	218-343-2009
Debbie Yeekee	Anchor Marine Equipment	msworldwide@att.net	621 SE Hidden River Dr PSL, FL 34983	305-978-3815
Rhett Lloyd	resident	perry.lloyd@gmail.com	1518 N Linnwood Cir Ft Pce, FL 34950	772 54 6615
Dyana Boyd Voss	Conservation Alliance Coast. P. Tours, Marine Cleanup Init.	dyanaboylvoss@gmail	323 Leeward #200 34949	772-628-0677
Jim Lambert		Jim and ruth207 @Gmail.com	207 Mouse Dr 34948	466-5749

1



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Name	Affiliation	E-mail Address	Address	Phone Number
Christina Bell	Property Owner			
Carmela Bell	"			
Rick Mintun	Citizen	RICK_MINTUN@YAHOO.COM	2451 S. JEFFERSON ST. FT. PIERCE	320 719 45
Ann SAUL - John McNamee	Citizen		2716 N. 45th St	772-466-5960
CLIFFORD HUGHLEY		chughley2@gmail.com	501 N. OCEANWOOD AVE WINTER HAVEN, FL 32789	954 446-5645
Tim O'Connell	Citizen	Timrealstate@yahoo.com	420 N 2nd ST FORT PIERCE	772 475 8845
Bill Pansiew	REPUBLICAN COUNCIL	SCGOPCHAIR@YAHOO.COM	1291 S. E. COUNTY RD PSL, FL	772 249, 0460
TOD MOWERY	COUNTY			
CRAIC MUNDT	COUNTY TAZ	LCMUNDT@BELLSOUTH.NET	5051 N. AZA FT. PIERCE FL 34949	772 465-2001

2



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Name	Affiliation	E-mail Address	Address	Phone Number
Paul Cume	Level Design South	bcume@leveldesignsouth.com	501 SE PDL BLVD PSL, FL 34984	772-924-267
Tom & BARB HOEFENER	CITIZEN	NA	FT. PIERCE	772-464-5078
THOMAS VAN ZONNEVELD	owner - Port of FT Pierce Property	SUNFIREGROUP@yahoo.com	251 SAGHL PALM LN INDIAN RIVER SHORES 32903	772-231-4000
Bill Thiess	St. Lucie Village	bthiess@fpa.com	2512 Lightwood Ln St. Lucie Village FL 34946	772-370-7504
James [unclear]	[unclear]			
Zeljko Kesall	U. of Florida	CKESWELL@UFL.EDU	373 Chamberlain FT. PALM, FL 34946	772-834-9062
Robyn Baker	ILA	N/A	333 Borr Cloughs	772-352-9083
Bob Poyner	land Owner	bpoyner@dnaworld.com	1900 Old Dixie Hwy Ft Pierce Com	772-465-7533
Mayorie Wilkin	Citizen	DJronHarris@Bellsouth.net	2930 SE Melanchia Blvd	772 3980260



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Name	Affiliation	E-mail Address	Address	Phone Number
CRAIG BREWER	SIT Ben	RC.BREWER@bellsouth.net	3702 Princeton way	467-9510
Tom Babcock		mrarealty@bellsouth.net	261 Marina Dr Ft Pierce, FL 34949	879-6552
S. K. PATEL	Dmc	spatel@dmcsc.com		386-304-6105
Greg D. Rose	NAB	greg@bethgospine.com	2074 W. Indulgent E21	561-746-6077
Martin E. Murphy	Property Owner	memsenior@aol.com	1602 N. 2 nd St	861-719-0117
Kathleen M. Armstrong	Resident	gkyle@bryson.com	52 Webster Lake Dr. West P402 Jensen Beach FL 34957	888-969-9586
Jim Withers	President/Council S. Hutchinson IS	JimWITHERS47@yahoo.com	10044 S. Ocean Dr #102 Jensen Beach FL 34957	772-708-6707
Susanne + Bill Clancy	CITIZEN'S FORT PIERCE	bselancy@aol.com	17300 DOU ET ALE FP 34982	954-932-1304
Sandra Cain	Property Owner	sanalmat@aol.com	784 Bent Creek Dr. Ft. Pierce FL 34947	772-579-3497

2



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Name	Affiliation	E-mail Address	Address	Phone Number
Tobi Schelin	resident North Beach	simply.schelin@gmail.com	248 Birini Dr Ft Pierce FL	772-332-0120
RONALD L. LOSTI	Resident of Okechobee	Ronwyo@wmconver.com	14255823B Okechobee FL	863-763-7993
Cardace Walls	Congre.			
Frannie Hutchinson	St Lucie Co BOCC			462 1951
KENNETH ROBERTS	PORT OF FT PIERCE			
Gary Webb	resident St Lucie	garywebb@comcast.net	501 S2 Capin Ten Port St. Lucie 34983	772-834-0164
Lynn Mims	Mims Construction Co	Lynn@mims construction.com	119 S. Pinehills Kel Orlando, Fla 32818 Ft. Pierce	407-298-6936
Cynthia O'Connell	Citizen	Cindi Realstate@yahoo.com	420 N 2 nd St Ft. Pierce	772-924-2911
R.C. SILVESTRI	ACTIVIST	RSILVESTRI@bellsouth.net	5708 BUCHANAN DR FT. P 34982	407-309-5165

1



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Name	Affiliation	E-mail Address	Address	Phone Number
Meghan Buckley	COSEE Florida	mbuckley@isc.edu	3209 Virginia Ave Fort Pierce, FL 34949	704-718-5384
Carol C. Herzog	Conservation Alliance of Florida	Gumbolimba.carol@ATT.net	2416 Gumbo Limbo Ln Jensen Beach, FL 34957	772-878-2066
Greg Morgan	Lucido & Perrot.	gmorgan@lucidoperrot.com	100 Ave A 2E	407 1301
Lenny Schelin		lennet.schelin@gmail.com	288 Bimini Dr Ft. Pierce FL 34949	772-971-3786
John Roxford	George V Assoc.	CJRoxford@gmail.com	550 W. Forest Trail Vero beach FL 32962	772 480 9639
MIKE PERRI	FPUA	ERIMIRREP@gmail.com	1137 CLUB DR Ft. P. 34982	772-519-0286
Mark Bryant			181962 SE Fallow Drive BSL FL 34983	772-353-0014
TEALXINORED	C.S. ZONE		1905 Wyo. Ave.	772/461/3994
Sandy Van Kirk		Stateside.dolphin54@att.net	631 D Pine Knoll DR Ft. Pierce	772-461-2127

1

hot.mail.com



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Name	Affiliation	E-mail Address	Address	Phone Number
Holly Thew	Property owner	hthew@earthlink.net	419 N. 2nd St.	772-801-9509
John Wolsiefer	Business and community	John.Wolsiefer@Yahoo.com	1625 THUMB POINT Fort Pierce	
Deloris Benjamin	Community Member	drb88116@aol.com	1908 Avenue P Ft. Pierce, FL 34950	
Marilyn Wangi Stumette	community member	marilyn.wangi.stumette@comcast.net	10303 S Indian Ruins Ft. Pierce 34982	772 236-7284
Cara Perry	FPU Harbor Branch	perryca@faw.edu	5600 US 1 N. Ft. Pierce FL 34946	772-242-2317
William McNeely Jr.	Environmental Sciences	William.mcneelyjr@gmail.com	2705 Sunrise Blvd Ft. Pierce FL 34982	772 465 9327
Howard Fein		hmfein@gmail.com	2461 SE Sepele Ave PSC, FL 34952	772 236 9755
Marnie Davis	Harmony Heights Community Center		4502 Matanzas Ft. Pierce, FL 34946	772-468-8314
PAULA LEWIS	SAC BOCC			

2



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Name	Affiliation	E-mail Address	Address	Phone Number
<i>[Signature]</i>		<i>Cinde@premiergolf.net</i>		772-201-3686
Pat Zucco		Zucco@Steeleingms.com		772-285-3091
Jim Oppenbarn		oppenbarnj@stlucieco.org	309 Roswood Dr. Ft. Pierce 34947	772-462-1713
<i>[Signature]</i>				772 708 0642
Linda Nunn		nunnco@bellsouth.net	1807 S. I.R.D.	708-4331
Sarah George	GeorgetAssociates	Sarahgeorge212@att.net	520 Means Ct Ft. Pierce, FL 34982	772-475-6934
JIM DRAGSETH		jimd@whitcor.com	Po Box 1107 SMALL, FL	772-287-2883
SUSAN SHARP		sharpflite@comcast.net	8205 S INDIAN RIVER DR FT PIERCE FL	772-595-5984
<i>[Signature]</i>			2081 N Feltheim FT PIERCE FL	

2



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Name	Affiliation	E-mail Address	Address	Phone Number
JOHN ARENA	SIERRA CLUB		1609 FABER CT F.P. 34949	461-4111
Kim Delaney	TCRPC	KDELANEY@TCRPC.ORG		
ROBERTO VALLETTA	FMTA	RVALLETTA@FMTA	18 FISHERMAN'S WHARF, FT PIERCE	772-468-8181
Edwina Rural			45W Matanzas Ave FP	
FRANK MOCKUS		MOCKUS99@yahoo.com	59 AQUARA DR	772-229-6275
Patty Barlow	Audubon	" "	89 AQUARA DR JANESVILLE, FL 34957	772-229-6275
STACY JOHNSON		RICKMFD12@AOL.COM	8405 S INDIAN RIVER DR FT PIERCE, FL 34982	772 237-4007
Linda Cox	StLucie Chamber	LWCOX@StLucieChamber.org	2937 W Midway Rd Fort Pierce FL 34981	772-595-9999
Amy Dahan	public	amydahan@yahoo.com	1805 Eucalyptus Trv Fort Pierce 34949	772 475-7564

1



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Name	Affiliation	E-mail Address	Address	Phone Number
CAROLE L. MUSHIER	South Beach Assoc	elmusk@bellsouth.net	1707 Rio Vista Dr #4 34949	461-0430
Arden Peck	"	apsck39@bellsouth.net	"	"
Mary Chapman	Hudson Valley Comm ORCA MRC			
Pat Pacitti	Pres Council HI	PATPA814@aol.com		772 201-1466
LARRY PELTON	EDC SLC	lpe@tm@yarrtedc.com		772-336-6250
LACE K. VITUNAC	CONSERVATION ALLIANCE OF SLC	LEMK@bellsouth.net	BL	772-419-7768
JACKSON, Gene	I.L.A.	gene@jacks96@slc.com		
MARCIA BAKER				
Kay L. Hill		kayhpelican@aol.com	9205 Indian River Dr	772-343-7490

2



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Name	Affiliation	E-mail Address	Address	Phone Number
Jay Warshawer	Alkand Banker	byeesana@yahoo	PO Box 2267 Ft Pierce FL 34949	216-9153
Leslie Olson	SLC Planning	olson@stluciers.org		402-1589

2



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Name	Affiliation	E-mail Address	Address	Phone Number
PAUL DEMARIANO	ATLANTIC PORT SERVICES	pauldemariano@ax.com	619 HARBOUR AVE ELLINGTON, FL 34922	813- 765-8587
Erica Ganzi		ericaganzi@gmail.com	5 Harbour Isle Dr #101 Ft. Pierce, FL 34949	727-417-5184
Camille S. Yates		yates_c@comcast.net	719 Georgia Ave Fort Pierce, FL	
206 W 20 St		206 W 20 St	Fort Pierce, FL 34947	940 308 7
Kathryn Hensley				
Ma Joire Harris	Dom. Minority Advocate	Ms. Ma. Joire Harris @jmharris	34 Worthington or 3705 Ave 7 Ft Pierce	772-475-6060 34947
Charles Suzann Vitune	—	VITUNE@ seilsvirt.net		

April 17, 2013, Property Owners Meeting Sign-In Sheet

<u>NAME</u>	<u>COMPANY</u>	<u>CONTACT INFO</u> (Phone &/or email)
Bob Poyner	Bernard Egan Co	b.poyner@one.world
KEN ROBERTS	INDIAN RIVER TERM	772-510-7797
Hans Van Zonneveld	Wallying LLC	772-231-4000
Charles Shaw	Taylor Creek Mar.	SAVFIELDGROUP@yahoo.com
Capt. Grin	Indian River Term	772-465-2663
DAN McArthur	RIVER MARINE	772 828 8123
Martin Murphy	Jamco, Inc	(305) 494-1392
Christina Bell		memsenior@aol.com
Carmella Bell		(561) 719-0117

APPENDIX B

FISHERMAN'S WHARF PLANNING STUDIES

Port of Fort Pierce Development Study II, Part 1: Identification of Candidate FSTED Grant Funded Projects for the Fisherman's Wharf Area



**PORT OF FORT PIERCE, FLORIDA
FDOT DISTRICT FOUR**



Port of Fort Pierce Development Study II, Part 1: Identification of Candidate FSTED Grant Funded Projects for the Fisherman's Wharf Area

Port of FT Pierce, Florida

Florida Department of Transportation | District 4



Prepared for:
Florida Department of Transportation
District 4
May 2016



Prepared by:
TranSystems

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The Purpose of the Second Phase of the Port of FT Pierce Development Study is to identify the facilities and infrastructure that should be Port-developed and maintained in the Fisherman's Wharf Area in order to attract and sustain the business operations of long term port tenants. Once identified and validated with FDOT and the Port, the infrastructure projects will be vetted and confirmed as viable candidate port infrastructure projects for selection as FSTED grant funded port infrastructure development projects. The Fisherman's Wharf Area is the southernmost portion of the Port's Operating Area, and its use has been envisioned as a transition zone between the more residential, retail and recreational character of the property to the south and the heavy industrial nature of the property to the north.

Specifically, the purpose of this second phase is to identify infrastructure projects on Port-controlled property in the Fisherman's Wharf Area that would be required to be provided by the Port of FT Pierce to attract and sustain the business operations of long term port tenants and be eligible for FSTED grant funding under the provisions of FS 311.07. The first step of this process –project identification - has been completed through a series of interviews with selected business owners, regional business leaders, port leadership and public officials. There is a significant range of opinions and views on the identification and relative feasibility of businesses that could be port tenants at Fisherman's Wharf. Nevertheless, even with the range of potential uses suggested by the interviewees that fit the envisioned transition zone, the specific infrastructure that the Port should provide and maintain is relatively clear and all identified projects would serve to attract and sustain virtually all of the port tenant land uses and business operations suggested.

This interim report goes as far as identification of the specific infrastructure projects that in our opinion are:

1. Required to be developed in order to attract and sustain long term port tenants who would engage in businesses appropriate to the specific location within the Port's Operating Area, producing revenues for the Port and having a positive economic impact on the region, and
2. Would be considered the Port's responsibility as opposed to capital infrastructure that would be considered of such a business-specific nature as to be the tenant's responsibility.

Our next steps will be:

1. Having validated the accuracy of our project identification with Port leadership and FDOT District 4, we will thoroughly vet each project for FSTED funding eligibility, and
2. those infrastructure projects, that have been validated by the Port of FT Pierce and the FDOT and determined to be eligible for FSTED funding, will be documented (scope/description of need, cost estimate and justification/positive economic impact) for FSTED grant applications.

The most desired and appropriate use(s) for the Port property contained within the footprint of property configuration – Fisherman’s Wharf Option 2, would provide the envisioned transition zone between the more heavy industrial area to the north of Fisherman’s Wharf Road and the more residential/retail and historically significant area to the south of Florida A1A. Potential uses, compatible with the concept of the transition zone include but are not necessarily limited to:

- Maintaining and improving the existing boat ramps and parking for cars/trucks and trailers east of Indian River Drive
- Improvement and extension of the existing “T” dock for berthing pleasure craft
- Development of a fueling facility on the T dock
- Along-side berthing for larger yachts
- Development of a permanent berth at the western end of the basin’s north bulkhead for a ferry or small cruise ship service or casino boat with proximate parking for visitors or passengers
- Sport fishing and boat supply retail
- Trailer boat storage
- Restaurant(s)
- A hotel to support sport fishing visitors and marina users
- A smaller scale cargo operation along the ICW bulkhead at the eastern end of Fisherman’s Wharf Rd.

As a landlord, the Port of FT Pierce would seek interest from potential business operators who would become long term tenants of the Port in order to lease property and operate business on Port property at Fisherman’s Wharf. Generally, landlord ports across the country provide major infrastructure for long term port tenants who range from restaurant and retail store operators, to cargo terminal operators and steam ship lines, stevedoring companies, cruise lines, charter companies, casino boats and cargo (value adding) processors. In many cases the Port will provide the waterfront infrastructure such as docks, piers and wharves, access channels and berths of adequate depth and structural capacity. Additionally, they will provide landside infrastructure such as area drainage systems, paving, lighting, parking and utilities.

The long term tenant, with an adequate lease term to amortize capital investment, will then assume responsibility for designing, building and maintaining structures particular to the business line they will pursue. There are numerous exceptions to this general arrangement between the public port and its long term tenant in which all infrastructure development both landside and waterside is assumed entirely by the port or the tenant. If such is the case, the assumption of responsibility for all infrastructure development is reflected in lease rates, minimum annual guarantees and operating fees such as dockage and wharfage.

In the case of the Port of FT Pierce, with very limited available capital for infrastructure investment, we recommend the provision of basic infrastructure that can be funded by state FSTED funding under FS 311.07. The term of leases and operating agreements with potential tenants must therefore be of sufficient duration to allow for full amortization of the tenant’s invested capital in business-specific infrastructure and facilities.

After reviewing the project criteria contained in FS 311.07 and the provisions made for port with operating revenues of \$5 Million or less (3 (b) 10.), it appears that the majority of the infrastructure projects identified in part IV of this report may be candidates for state funding under the FSTED program. Each project must support port activities that will create economic development opportunities, capital improvements and positive financial returns to the Port of FT Pierce.

The identification of interviewees and the notes taken during their interviews are included in this report as Appendix A.

1. All advocate the transition zone concept and envision a range uses. Nearly all interviewed agree that mega yacht maintenance & repair is not a good use of the Fisherman's Wharf Area (FWA).

2. Port, County and City leadership have indicated interest in entertaining a broad range of uses that correspond to the Port's Master Plan, its 2012 update and the public involvement charrettes conducted to identify the most desirable uses of the area. The Port of Fort Pierce Consensus Land Use Plan indicated the following potential uses for the Fisherman's Wharf Area:

- Marina
- Maritime Academy
- Hotel
- Restaurant
- Retail
- Water Taxi
- Boat Work
- Ferry, Passenger and Cargo Operations

3. Some of the interviewees strongly support the development of a port-operated marina with in-water slips, surface and structured boat storage and trailer parking. Those facilities would accommodate sport, tournament and commercial fishing as well as private boaters, looking for either in-water or dry boat storage. In turn, marina activity could attract the ancillary businesses that would support and complement these activities, such as a small hotel, restaurants, a deli and coffee shop, a convenience store, boating and fishing retail stores. They are split along predictable lines on the boat ramp. However, they agree that if it cannot be replaced in kind somewhere else in the Port's operating area, closing it may be politically untenable. Certainly, if it were preserved in place, the ramps can be expanded to provide three launching lanes, improved boat staging and more efficient parking.

4. Other interviewees advocate the operation of an island ferry for passenger and light cargo transport and a very small, high end and niche-serving cruise boat that serves a different clientele than the larger ships at JaxPort, Canaveral, Palm Beach, Everglades and Miami. Additionally, there has been the strong suggestion that the eastern end of Fisherman's Wharf Road and the berth on the ICW (Indian River) could serve as a barge berth for barge-carried cargo (such as building materials) to the Bahamas and other Caribbean islands and short-sea shipping of locally sourced materials and commodities. One location attribute that supports barge cargo operation is proximity to the FEC main rail line approximately 1,200 feet away from the FWA.

5. Our conclusions from the multiple interviews and information gathering efforts are:

a. The Fisherman's Wharf Area needs to function as a transition zone between the more residential, retail and recreational uses of the properties to the south and the heavy industrial uses of the properties to the north.

b. The location of the Fisherman's Wharf Area along the ICW, US 1 and the FL East Coast

Railways mainline make multiple uses identified in the Port of Fort Pierce Consensus Land Use Plan reasonable pursuits.

c. A well-considered mixture of uses that do not interfere with one another and to the greatest extent compliment and support one another should include development of infrastructure - facilities for:

i. A port or municipally operated marina

ii. Berthing for loading/unloading a passenger ferry and/or island cruise vessel

iii. A berth for a smaller cargo operation for barge or RO/RO vessel at the eastern end of Fisherman's Wharf Road

6. The specific infrastructure projects that emerge as Port responsibilities are:

a. Expanding and improving the boat launching/retrieval ramp.

b. Re-bulkheading the west and northern bulkheads as well as the 184' section on the Indian River for berthing and cargo operations.

c. Dredging the basin and maintaining the depth to not less than a navigable depth of 8' at MLW.

d. Paving and draining dedicated surface parking areas. Potentially building structured parking for daily and overnight customers.

e. Port Seagrass Survey (last performed in 2006) to support the basin dredging permits

The next step is confirmation of the identification of needed, port-provided infrastructure with the Port's leadership and FDOT, District 4. Then we will confirm eligibility for FSTED grant funding. Once confirmed as critically needed infrastructure projects and eligible for grant funding, TranSystems will assist the Port of FT Pierce in preparing project scopes, cost estimates and justifications for use in FSTD grant applications.

APPENDIX A INTERVIEWS

Interviewee

Don West

Nick Mims

Peter Jones

Peter Tesch

Terissa Aronson

Charlotte L. Bireley

Glenn Middlebrooks

Brian Paul

Harold “Buzz” Smyth

Vicky Tillman

Dean Kubitchek

Tom and Camie Sellin

Ken Blair

Tom Sheppard

Manuel Almira, PPM

John Williams

Business or Organization

ST Lucie County PW Director and Port Director

City Manager, City of FT Pierce

ST Lucie County Business Navigator

President, ST Lucie County EDC

President, ST Lucie Chamber of Commerce

Manager, ST Lucie Tourism & Venues

De Brooks Fishing Center

Inlet Hotel and Grill

Inlet Hotel and Grill

ST Lucie Outboard Marine

Manager, FT Pierce Marina

Treasure Coast Boat Rentals

Managing Director, Seven Kings Holdings and
Loggerhead Marinas

Operations Director, Loggerhead Marinas

Exec. Director, Port of Palm Beach

General Manager of Operations FEC Railway

Glenn Middlebrooks (De Brooks Fishing Center):

- Glenn thinks the boat launching ramp should be closed and moved to Moore's Creek or Taylor Creek. He, like Dean Kubitchek, believes the ramp has reached its life span and is "old and sorry." Replacement elsewhere in the Port is critical if the Port closes the ramp.
- The parking lot, currently dedicated to ramp users, could be converted to a more efficiently laid-out parking lot and entrance way into FW that would lead to a row of two or three waterfront restaurants along the north side of the basin.
- The bulkhead along the north side of the basin could be used for transient dockage.
- An island ferry or small cruise ship is a possibility, but a casino boat is not sustainable with the surrounding area demographics.
- Asked about mega yacht maintenance and repair, Glenn doesn't believe this use fits the concept of "transition zone". He believes mega yacht maintenance and repair (m&r) is viable but should be farther north in the Port's more industrialized operating area.
- He is pessimistic about the Port's viability as a cargo port since citrus has moved to Tampa and "we're too shallow and too small."
- He believes that the Bell property must be acquired to make anything new really feasible within the Port's operating area.
- He believes that whatever is developed as businesses at the FWA, needs to complement and support other development within the Port's operating area to the north.

Brian Paul and Harold "Buzz" Smyth (Inlet Hotel and Grill):

- Both believe (especially Brian) that sport fishing needs to be the major waterfront theme of the FWA with good docking facilities for a substantial charter fishing fleet.
- Buzz spoke of the idea of establishing a hospitality school in the Fort Pierce area.
- Buzz has considerable first-hand knowledge of mega yacht m&r and transient berthing. He doesn't believe that the FWA area is viable for mega yachts for security, privacy and navigational issues. They both believe that mega yacht m&r is feasible at the Port but farther north into the Port's operating area.
- Buzz believes that, before the Port can grow and start any significant new operations in its operating area, the waterfront from FWA north must be re-bulkheaded.
- Brian envisions not only sport fishing facilities but also restaurants, fish receiving, a seafood market, and hotel along the northern side of the basin and along the western side of the basin.
- Buzz showed and gave me the FW study and development plan done by himself, Greg

Boggs et al and the conceptual layout of Edgartown done by Lucido & Associates. Very good background and good ideas for uses of the area.

- Brian feels the highest and best use of the FWA is a comingling of commercial and sport fishing with the associated attraction of restaurants and a waterfront hotel.
- One element of the Lucido plan was the downtown connection for walkers and bikers that passes under the South Causeway Bridge. This pedestrian connection to downtown is very good and should be in the final use plan.
- Both believe that the existing boat ramp should be removed but caution that it must be replaced elsewhere.
- Given the area zoning, they say that height limit is 65' thus enabling structures built along the north side of the basin to effectively curtain the more unattractive areas to the north.
- There is no major hotel with “a flag on the water” because of the > 285 room requirement, but a true sport fishing center at the FWA might change the demand to meet the requirement.
- The ability to establish the FTZ within different areas of the Pot’s operating area is a definite advantage, but would not be applicable to the FWA if uses are predominantly as a sport and commercial fishing center.

Vicky Tillman (St. Lucie Outboard Marine Inc.):

- Vicky is against removing the ramp and believes that it does not have a water current problem and it is sufficient for the boaters’ needs.
- She believes that given the “best inlet” in the region, Ft. Pierce could become a tournament fishing center, and she believes FWA would be the right spot for the center.
- She believes that the tournament fishing venue could attract a hotel or B&Bs in the vicinity, probably to the west.
- She envisions the establishment of one or two new restaurants with a deli, coffee shop and convenience store as viable in the FWA.
- She advocates use of some of the area for a public park attracting the general public to the waterfront.
- She believes that the basin does need to be dredged and maintained to a navigable depth of 6 – 8 feet MLW .
- She advocates further exploration of permanently berthing the USCG Cutter, INGRAHM, along the western side of the north basin bulkhead as we laid out in the Option 2 conceptual plan.

- She cautioned that the FWA be kept solely for waterfront related purposes, i.e. do not let it become residential.

Tom and Camie Sellin (Treasure Coast Boat Rentals)

- Tom and Camie have a well-established bait, tackle and boat rental company located on Fisherman's Wharf.
- They are advocates of maintaining the sport fishing theme as the central attraction for the area.
- They support the improvement of the existing outdated boat launching facility and the development of more efficient parking for cars and trucks with boat trailers.
- They believe berthing facilities should be developed for sport fishing charter boats and agree that a boat fueling facility would be useful and attractive to boats "home-ported" at FW as well as those transiting the ICW.
- They agree that quick and efficient ocean access through the inlet is an attraction to sport fishing and they believe a quality restaurant that caters properly to charterers and boat crew as well as people looking for an excellent meal with an interesting water view is an effective draw to the area.
- While a hotel to accommodate charterers of the sport fishing boats is desirable, it is probably doubtful that a higher quality chain would invest because of the relatively small number of rooms that could be regularly occupied.

Ken Blair and Tom Sheppard (Seven Kings Holdings and Loggerhead Marinas)

- Ken and Tom have many years of very successful experience in boat repair and marina development and operations. They feel that closure of the boat launching ramp is not advisable.
- They do not see adequate space in the basin for a viable marina operation of substantial size, which is their business model; however, they saw viability as a smaller port or municipally operated ramp and marina.
- They are skeptical about a quality hotel making any commitment because of the room-night requirements.
- They agree that mega yacht m&r is viable at the Port, but it needs to be in a more secure and separated area farther to the north in the Port's Operating Area.
- They were positive about the sport fishing center concept but strongly cautioned that there must be some aspect of FW to attract fishing charter boats to home port at FW. Excellent bait and tackle suppliers is part of the equation but a top quality restaurant that caters to the hours and needs of the charterers and boat crews is equally important.

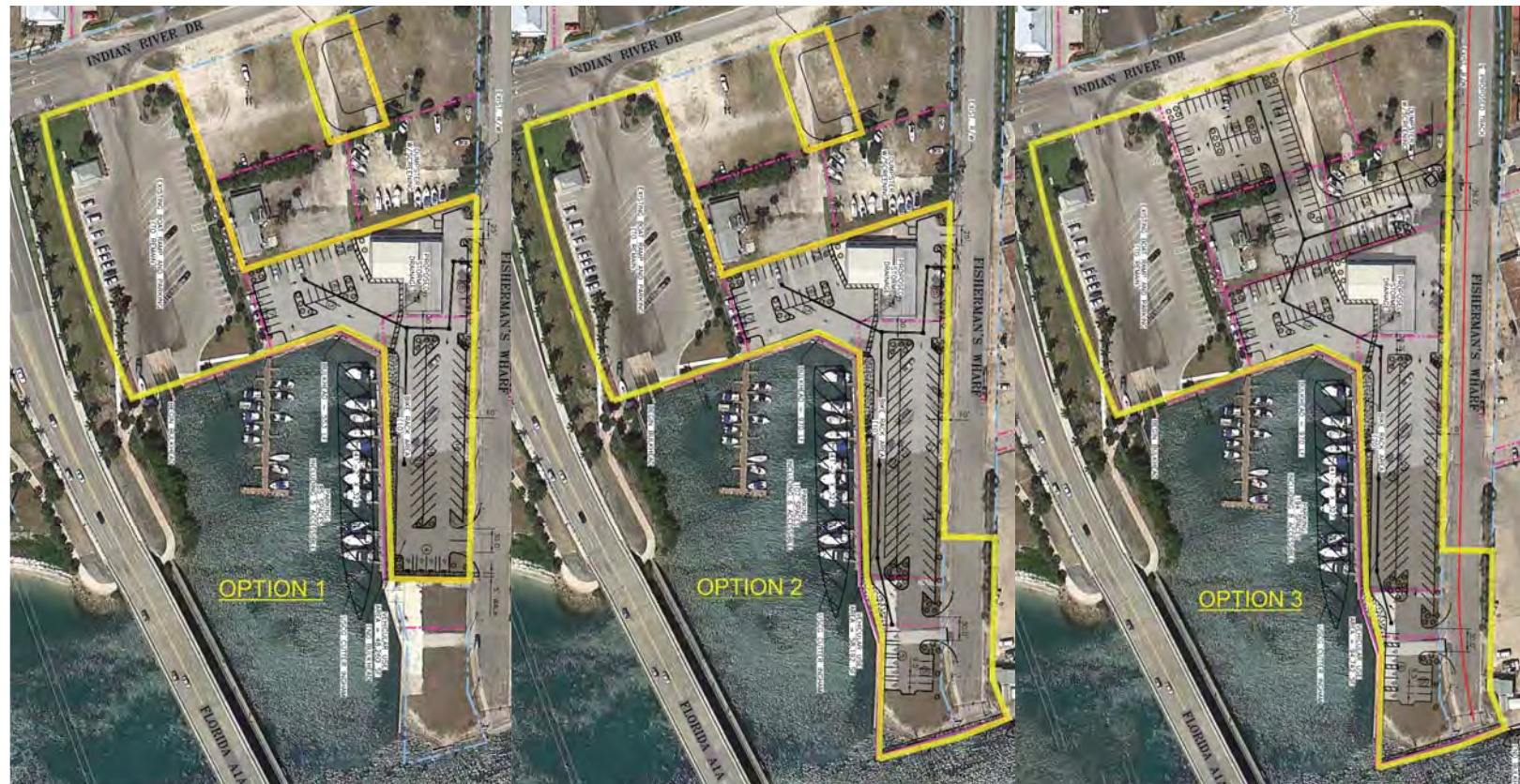
- Having refueling capability at the docks is very important to the charter fleet, as are pump-out facilities and potable water at the dock.
- Ken and Tom suggested adding another lane for boat launching and retrieval as well as longer finger piers for temporary staging. They also suggested the addition of surface parking for the ramp on the west side of Indian River Drive.
- They cautioned that ramp users need bathroom facilities and plenty of garbage capacity in the vicinity of the ramp and parking area(s).

Manny Almira (Executive Director, Port of Palm Beach)

- Manny has approximately 30 years of experience in the maritime industry with private steamship lines (carriers), at Port Everglades as the marketing director and for the last eight years as the Executive Director at the Port of Palm Beach.
- Given his experience with carriers and as a port director who deals with casino boat, ferry and cruise operations, I sought his input and opinions on the viability of commercial operations at the Port of Ft Pierce's Fisherman's Wharf Area.
- He believes that Ft Pierce is not a viable location for homeporting sustaining profitable operations of a casino boat and would strongly discourage such a pursuit.
- He agrees with many of the other interviewees that sport and commercial fishing would be a viable business pursuit. Manny presented some ideas for the Port's attracting and promoting these business lines.
- He also suggested approaching the USCG to explore developing part of the property for an active US Coast Guard station, given proximity to the Inlet, access to the ICW and space for landside facility development.
- Manny believes that Ft Pierce is an excellent location for mega yacht maintenance and repair but agreed that it needs to be located farther north in the Port's Operating Area, where there is adequate space and security.
- He believes that the basin's north bulkhead and the bulkhead at the end of Fisherman's Wharf Road on the ICW are viable berths for an island ferry operation. He offered that the key to attracting ferry passengers, residents of the Bahamas, to the US is "backland support" – meaning a possible port-sponsored or city-sponsored connection to shopping at such big box stores as Kmart, Target and WalMart or large discount automotive parts suppliers.
- He indicated that 72 hours advance notice is required for moving POVs on ferries out of the US and bringing cars into the US from foreign ports is even more cumbersome. Therefore, the ferry might move a limited number of vehicles in either direction, but they would be predominantly for passengers and relatively light cargo.

- He recommended collaboration with the Port of St. Petersburg, FL to explore the seasonal homeporting of a research vessel since St Petersburg has been successful with accommodating the USF marine research vessel He believes this could be a viable opportunity for the Port's Fisherman's Wharf Area.
- Manny believes that the Port of Ft Pierce could become the homeport for a cruise vessel; however, the physical restrictions of the Fisherman's Wharf area and the relative scarcity of other area attractions compared to Palm Beach, Ft. Lauderdale or Miami restrict any viability of a cruise operation at the Port of Ft. Pierce to a specific and otherwise unserved niche. Ft. Pierce could conceivably serve a small (150 passenger) very high end cruise ship doing off-the-normal-path cruises to the outer islands (Bahamas) and less frequented, more exotic ports in the Caribbean. Port Canaveral to the north and both Port Everglades and PortMiami to the south are much more focused on accommodating the largest cruise ships with passenger terminals and structured parking that are capable of moving thousands of cruise customers and accommodating hundreds of their cars. While not as profitable as homeporting the large cruise vessels, the Port of Ft. Pierce could capture this niche market that is underserved elsewhere in Florida.
- The size of the terminal's baggage laydown area is determined by the number of passengers being served. A very small cruise ship with a maximum capacity for 150 passengers could be easily accommodated by a 3,000 s.f. facility for baggage. Additional terminal space might be required by CBP; however a second or even third story could be added to the terminal to accommodate a passenger waiting area and a water-view restaurant, without exceeding the area's height restriction. Passenger parking is required with easy access to the terminal. Given the space restrictions of the Fisherman's Wharf area, consideration might be given to structured parking in the immediate vicinity of the terminal unless there could be a dedication of sufficient surface space for approximately 100 vehicles.

PRELIMINARY DESIGN AND COST ESTIMATES (PHASE 1) FISHERMAN'S WHARF DEVELOPMENT



**PORT OF FORT PIERCE, FLORIDA
FDOT DISTRICT FOUR**



PRELIMINARY DESIGN AND COST ESTIMATES (PHASE 1) FISHERMAN'S WHARF DEVELOPMENT PORT OF FT PIERCE, FLORIDA

Florida Department of Transportation | District 4



Prepared for:
Florida Department of Transportation
District 4
March 2015



Prepared by:
TranSystems

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APPENDIX C - LOCATIONS OF STANDARD PENETRATION TEST BORINGS AND AREA PAVING AND SITE DRAINAGE PRELIMINARY DESIGNS FOR OPTIONS 1, 2 AND 3	11
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Background

The subject site for this study is in St Lucie County within the Operating Area of the Port of Fort Pierce in an area of the Port known as Fisherman’s Wharf. The site is generally bounded on the south by Florida A1A, to the west by Indian River Drive and to the north by Fisherman’s Wharf Road. To the east are the Indian River and the Intra Coastal Waterway. Currently, the site is comprised of multiple underutilized parcels as follows and as shown in the Fisherman’s Wharf Area aerial at Appendix A:

<u>Owner</u>	<u>Size of Parcel</u>
River Marina Incorporated	.31 acres
River Marina Incorporated	.13 acres
Fort Pierce Redevelopment Agency	.82 acres
Fort Pierce Redevelopment Agency	.79 acres
Fishmonger Investors LLC	.46 acres
Carol J. Jenkins	.46 acres
St. Lucie County	.47 acres
St. Lucie County	.77 acres
City of Fort Pierce (boat ramp & parking)*	1.5 acres

* The City of Fort Pierce boat ramp parcel shows on the City aerial maps as being 12.6 acres; however, that includes property to the west of Indian River Road and outside the study area.

Property Options

TranSystems has reviewed three options or property configurations, Option 1, 2 and 3 as shown in Appendix B. Option 1 is the smallest in terms of acreage and totals approximately 3.11 acres. Option 2, the mid-sized property configuration, totals approximately 4 acres and includes approximately .44 acres at the eastern end of Fisherman’s Wharf Road. Finally Option 3, the largest in terms of acreage totals 6.15 acres.

Purpose

This feasibility analysis and comparative evaluation has been divided into two phases. The first phase is submitted herewith and was completed to provide preliminary design for paving and draining the site and providing new bulkhead from the northernmost boat ramp extending north and then turning east to the southeastern corner of the easternmost River Marina Inc. property. At that point the bulkhead turns over 90 degrees to the north northwest. This new section of bulkhead would be placed along the Indian River (ICW) and run north to the north side of Fisherman’s Wharf Road, providing approximately 184’ of potentially rail-served berth space on the ICW.

Interviews with various stakeholders from the City and County were performed and potential use data collected, two comprehensive field investigations were performed and geotechnical information from several borings was collected to provide design data. Consideration was given to existing businesses in the area in order to maximize the feasibility and constructability of the site paving and drainage design. The most practicable and feasible uses of the bulkhead were taken into account in determining the performance specifications and the design of the bulkhead sections. The preliminary civil and structural designs for the three property options

are presented in this report.

The preliminary design for each property option was then used to prepare opinions of probable development cost for each property configuration or option, and those estimates of cost are presented in this report as well. The overall, two-fold purpose of the first phase of this study is to prepare preliminary designs of what we considered to provide the most universally useful site surfacing, drainage and bulkhead and prepare development cost estimates for each of the three property options.

The second phase of this study is to perform a comparative evaluation of the three options to determine relative usefulness in terms of meeting stakeholders' expectations and the goals of the Port, City and County. A number of aspects will be evaluated to include: cost of development, market demand, potential revenue production and local employment opportunities, growth potential, permit-ability, and environmental and community impacts. The product of the second phase will be the recommendation for selection of a course of action that will develop the Fisherman's Wharf area of the Port of Fort Pierce in the highest and best manner for the region.

The design of the Fisherman's Wharf area, though preliminary in nature, envisions the continued use of the boat ramps and parking for cars and boat trailers in the vicinity of the existing ramps on City property in order to provide adequate parking for ramp users. Other areas within each property configuration option were selected for paving in order to accommodate a majority of the proposed uses such as the permanent berthing of a historic Coast Guard cutter that would be a maritime museum, retail stores that would sell boating and fishing supplies, restaurants and potential cargo operations using a berth on the ICW, and possibly an industrial spur extended out to the eastern end of Fisherman's Wharf Road from the FEC mainline several blocks to the west. Option 3 demonstrates the extension of the FEC rail spur from the King Marine Group property out to the eastern end of Fisherman's Wharf Road for potential rail to barge or ship cargo operations.

While the final design of the area will be driven by the highest and best uses of the property, market demand and stakeholder expectations, the preliminary paving and drainage design has a significant range of applicability and flexibility to accommodate future area use. The preliminary design of the paved areas, site drainage and new bulkhead have allowed for the estimation of probable development costs for comparison among the property configurations and the property uses that each configuration would accommodate.

The bulkhead design from the northernmost boat ramp to the point at which it turns approximately 30 degrees to the northeast is envisioned to accommodate the berthing of smaller pleasure craft and the base of a "T" dock for slipping smaller pleasure craft. In Options 2 and 3, the bulkhead from the northwest corner of the basin east to the southeastern corner of the easternmost River Marina Inc. parcel is designed to berth the historic Coast Guard cutter and provide wharf space for cargo operations with island "box boats" or along-side berthing for larger pleasure craft. The bulkhead section that borders on the Indian River (ICW) was designed to provide a 184 foot berth for small ship and barge operations, which might include cargo, ferry and casino boat operations. In Option 1 the bulkhead along the north side of the basin extends approximately 297' only to the eastern boundary of the Fort Pierce Redevelopment Agency property (.82 acres). In option 1 there is no bulkhead or berth on the Indian River (ICW).

The design of the pavement and site drainage for property configurations 1, 2 and 3 are at Appendix C. The preliminary design of the new bulkhead is at Appendix D.

Three separate cost estimates were developed for the three property configurations – Options 1, 2 and 3. As expected the development cost for the significantly smaller Option 1 (3.11 acres) is approximately \$2,841,000, including a 15% contingency. The development cost estimate for Option 2 is approximately \$5,835,000, including a 15% contingency. The development cost estimate for the largest property configuration of 6.15 acres in Option 3 is approximately \$10,792,000, including a 15% contingency.

The difference in the estimated cost of Option 2 versus the estimated cost of Option 1 is predominantly due to the additional bulkhead construction past the eastern boundary of the FORT Pierce Redevelopment Agency property (end point for the bulkhead in Option 1) to the southeastern corner of the River Marina Inc. property – a distance of approximately 230'. Also Option 2 differs from Option 1 in that it includes 184' of bulkhead to provide a serviceable barge and small ship berth on the Indian River (ICW).

Option 3 has considerably more site work, approximately \$2,250,000 more than in Options 1 and 2. Additionally, the industrial rail spur extension from the FEC mainline to the end of Fisherman's Wharf Road adds approximately \$1,895,000.

A more detailed breakdown of the estimated costs of development are found in synopsis form at Appendix E. Additionally the report provides even greater detail in a spreadsheet that supports the Opinion of Probable Costs.

APPENDIX A

AERIAL OF FISHERMAN'S WHARF STUDY AREA



FISHERMANS WHARF AREA

Printed: September 2014 1 in = 100 ft

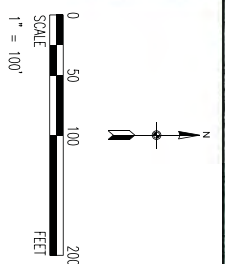
This map is a conceptual tool utilized for project development and is not intended to be used for technical purposes. Any information, including but not limited to software and data, received from City of Ft. Pierce is provided "AS IS" without warranty of any kind. Any information provided by this map to be used for purposes other than reference must be confirmed by field survey. Aerial photo taken 2012, City of Ft. Pierce Engineering Dept.



APPENDIX B PROPERTY CONFIGURATIONS (OPTIONS) 1, 2 AND 3



OPTION 1

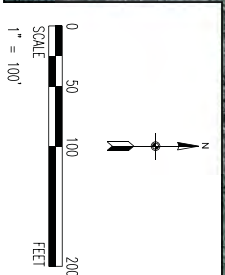


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FORT PIERCE, FLORIDA

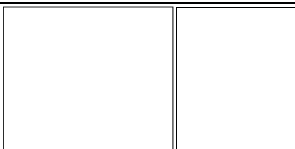
4500 SALISBURY ROAD, SUITE 440
JACKSONVILLE, FLORIDA 32216
PHONE: (904)245-6500
FAX: (904)245-6510
CA #7503



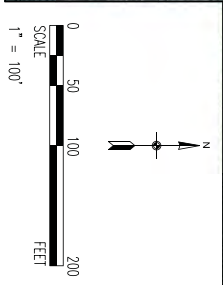
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SHEET NO:			
EXH-PT-02			

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FISHERMAN'S WHARF
FORT PIERCE, FLORIDA



4500 SALISBURY ROAD, SUITE 440
JACKSONVILLE, FLORIDA 32216
PHONE: (904)244-6500
FAX: (904)245-5510
CA #7503



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DATE: 3/10/2015	
DRAWN BY: MHW	
CHECKED BY: MHW	
SHEET TITLE:	

MARK	DATE	DESCRIPTION

FISHERMAN'S WHARF
FORT PIERCE, FLORIDA

TranSystems

4500 SALISBURY ROAD, SUITE 440
JACKSONVILLE, FLORIDA 32216
PHONE: (904)245-6500
FAX: (904)245-6510
CA #7593

APPENDIX C
LOCATIONS OF STANDARD PENETRATION TEST
BORINGS AND AREA PAVING AND SITE
DRAINAGE PRELIMINARY DESIGNS FOR OPTIONS
1, 2 AND 3



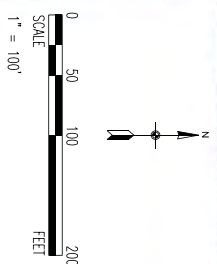
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OPTION 1	
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EXH-OPT-01	

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FISHERMAN'S WHARF
 FORT PIERCE, FLORIDA




 4500 SALISBURY ROAD, SUITE 440
 JACKSONVILLE, FLORIDA 32216
 PHONE: (904)245-6500
 FAX: (904)245-6510
 CA #7503



REVISIONS:

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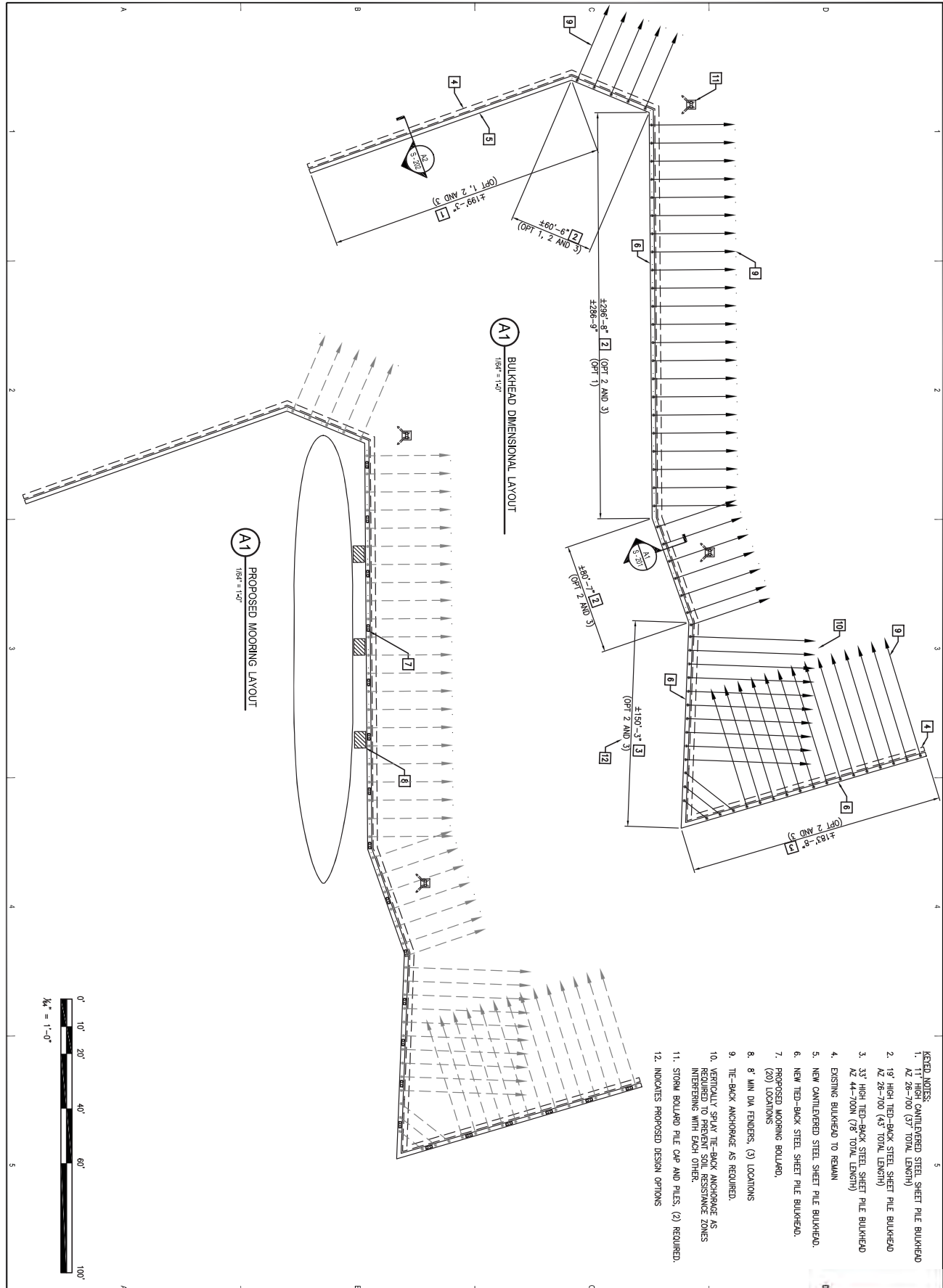
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 FORT PIERCE, FLORIDA

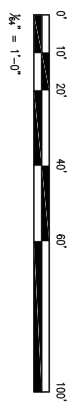
	4500 SALISBURY ROAD, SUITE 440 JACKSONVILLE, FLORIDA 32216 PHONE: (904)245-4500 FAX: (904)245-5510 CA #7503
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APPENDIX D

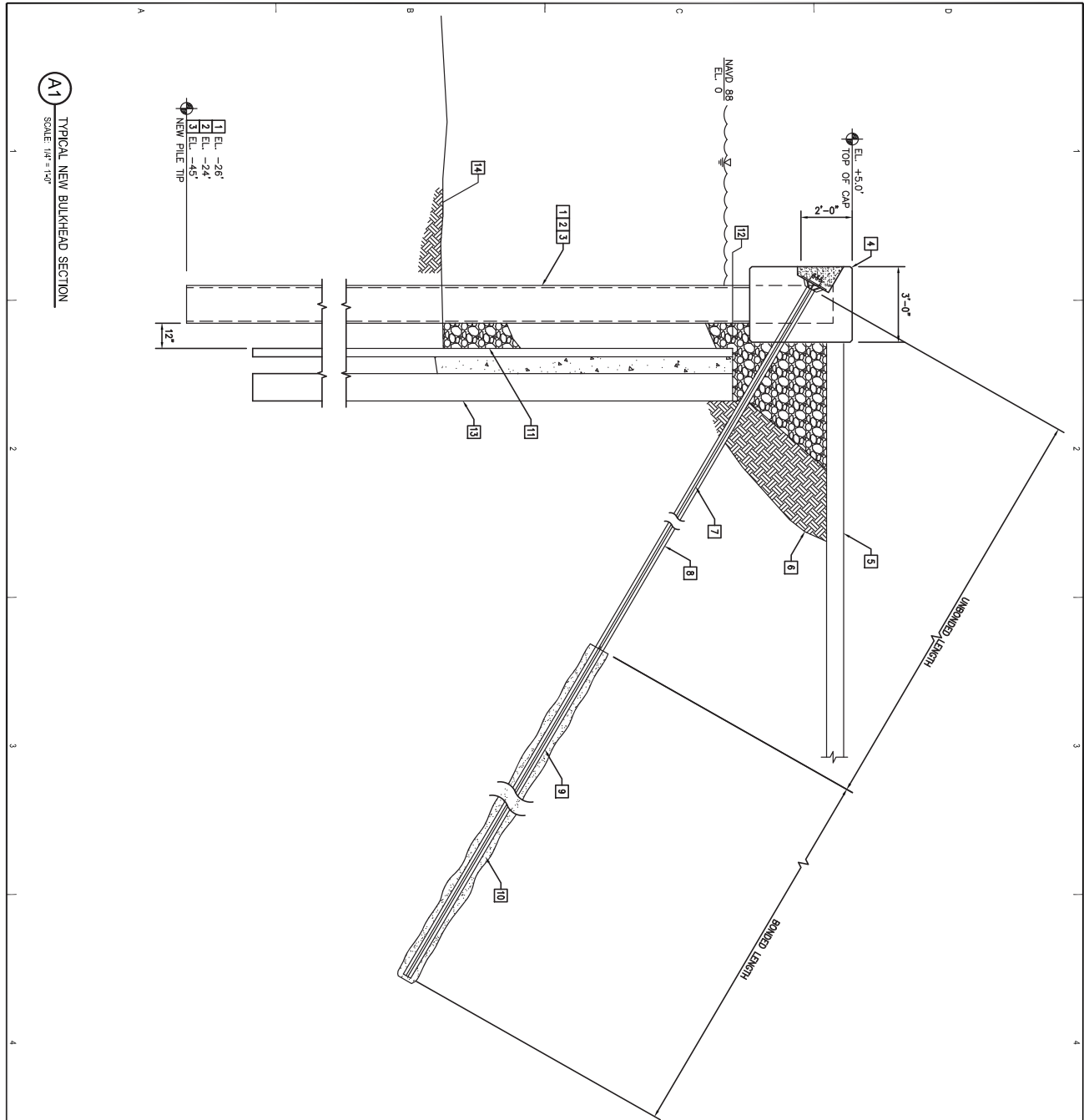
NEW BULKHEAD DESIGN



- KEYED NOTES:**
1. 11' HIGH CANTILEVERED STEEL SHEET PILE BULKHEAD AZ 28'-700 (37' TOTAL LENGTH)
 2. 19' HIGH TED-BACK STEEL SHEET PILE BULKHEAD AZ 28'-700 (43' TOTAL LENGTH)
 3. 33' HIGH TED-BACK STEEL SHEET PILE BULKHEAD AZ 44'-700 (78' TOTAL LENGTH)
 4. EXISTING BULKHEAD TO REMAIN
 5. NEW CANTILEVERED STEEL SHEET PILE BULKHEAD.
 6. NEW TED-BACK STEEL SHEET PILE BULKHEAD.
 7. PROPOSED MOORING BOLLARD, (20) LOCATIONS
 8. 8' MIN DIA FENDERS, (3) LOCATIONS
 9. TIE-BACK ANCHORAGE AS REQUIRED.
 10. VERTICALLY SPAY TIE-BACK ANCHORAGE AS REQUIRED TO PREVENT SOIL RESISTANCE ZONES INTERFERING WITH EACH OTHER.
 11. STORM BOLLARD PILE CAP AND PILES, (2) REQUIRED.
 12. INDICATES PROPOSED DESIGN OPTIONS



<p>PROJECT NO. 2504140000 DATE 3/20/15 DESIGNED BY: KLT DRAWN BY: MMD CHECKED BY: MMD</p> <p>SHEET TITLE: BULKHEAD LAYOUT PLAN</p> <p>SHEET NO. S-101</p>	<p>REVISIONS:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>MARK</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	MARK	DATE	DESCRIPTION																															<p>FISHERMAN'S WHARF</p> <p>FORT PIERCE, FLORIDA</p>	 <p>4500 SALESBURY ROAD, SUITE 440 JACKSONVILLE, FLORIDA 32216 PHONE: (904)245-6500 FAX: (904)245-6510 CA #7563</p>
MARK	DATE	DESCRIPTION																																		



(A1) TYPICAL NEW BULKHEAD SECTION
SCALE: 1/4" = 1'-0"

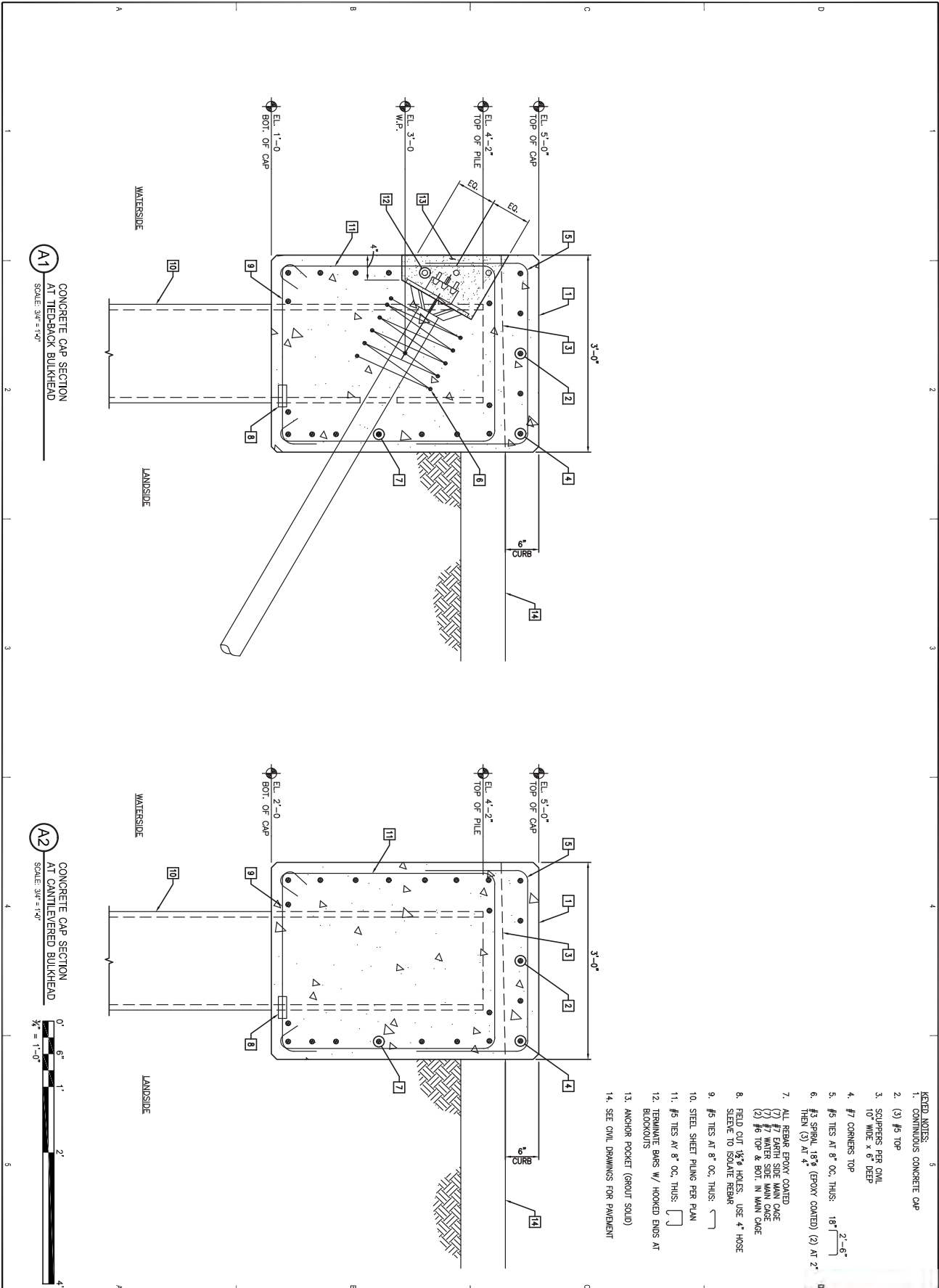


- KEYED NOTES:**
1. 11" HIGH CANTILEVERED STEEL SHEET PILE BULKHEAD - A2 28'-700 (37)
 2. 19" HIGH TIE-BACK STEEL SHEET PILE BULKHEAD - A2 28'-700 (43)
 3. 33" HIGH TIE-BACK STEEL SHEET PILE BULKHEAD - A2 44'-100N (78)
 4. CONTINUOUS CONCRETE CAP, SEE A1/S-202
 5. PAVING, SEE CIVIL
 6. CLEAN BACKFILL
 7. STEEL TENDONS
 8. CASING REQ'D DURING DRILLING TO PREVENT CANNING
 9. SOIL ANCHOR ASSEMBLY AT SPACING REQ'D TO PROVIDE DESIGN TIE-BACK FORCE (DOUBLE CORROSION PROTECTION)
 10. HOLE IN SOIL FILLED WITH CONCRETE GROUT AS REQ'D
 11. CLASS 57 COARSE AGGREGATE BACKFILL
 12. APPROXIMATE CUTLINE ELEVATION
 13. EXISTING CONCRETE BULKHEAD TO REMAIN
 14. APPROX. EXIST. MUD LINE, ELEV. VARIES
- [1]** DESIGN ELEV. -6.0'
[2] DESIGN ELEV. -14.0'
[3] DESIGN ELEV. -28.0'

SHEET PILE SECTION PROPERTIES

SECTION	WGT (lb)	HEIGHT (ft)	THICKNESS (in)	WALL THICKNESS (in)	AREA (sq ft)	WGT (lb/ft)	S _x (in ⁴ /ft)	S _y (in ⁴ /ft)
A2 28'-700	27.26	18.11	0.48	0.48	8.862	53.10	6.4	4.97
A2 44'-100N	27.26	19.89	0.48	0.391	12.28	43.83	8.19	8.04

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MARK	DATE	DESCRIPTION													



- KEYED NOTES:**
1. CONTINUOUS CONCRETE CAP
 2. (3) #5 TOP
 3. SCOPPERS PER CIVIL 10" WIDE X 6" DEEP
 4. #7 CORNERS TOP
 5. #5 TIES AT 8" OC, THUS: 18" $\left[\begin{array}{l} 2'-6" \\ 2'-6" \end{array} \right]$
 6. #3 SPIRAL, 18" (EPOXY COATED) (2) AT 2' THEN (3) AT 4'
 7. ALL REBAR EPOXY COATED
 - (1) #7 EXTERIOR SIDE MAIN CAPE
 - (2) #6 TOP & BOT. IN MAIN CAPE
 8. FIELD OUT $\frac{1}{8}$ " HOLES, USE 4" HOSE SLEEVE TO ISOLATE REBAR
 9. #5 TIES AT 8" OC, THUS: $\left[\begin{array}{l} \text{---} \\ \text{---} \end{array} \right]$
 10. STEEL SHEET PILING PER PLAN
 11. #5 TIES AT 8" OC, THUS: $\left[\begin{array}{l} \text{---} \\ \text{---} \end{array} \right]$
 12. TERMINATE BARS W/ HOOKED ENDS AT BLOCKOUTS
 13. ANCHOR POCKET (GROUP SOLID)
 14. SEE CIVIL DRAWINGS FOR PAVEMENT

<p>PROJ. NO. FISHMAN'S WHARF</p> <p>SCALE AS NOTED</p> <p>DATE 3/20/15</p> <p>DRAWN BY: MJC</p> <p>CHECKED BY: MJC</p> <p>SHEET TITLE:</p> <p>TYPICAL TIE-BEAM DETAILS</p> <p>SHEET NO. S-202</p> <p>OF</p>	<p>REVISIONS:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>MARK</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	MARK	DATE	DESCRIPTION										<p>FISHERMAN'S WHARF</p> <p>FORT PIERCE, FLORIDA</p>	<p>4500 SALISBURY ROAD, SUITE 440 JACKSONVILLE, FLORIDA 32216 PHONE: (904)245-6500 FAX: (904)245-6510 CA #7503</p>
MARK	DATE	DESCRIPTION													

APPENDIX E
OPINION OF PROBABLE DEVELOPMENT COSTS
FOR OPTIONS 1, 2 AND 3

FORT PIERCE
FISHERMANS WHARF



OPINION OF PROBABLE COSTS

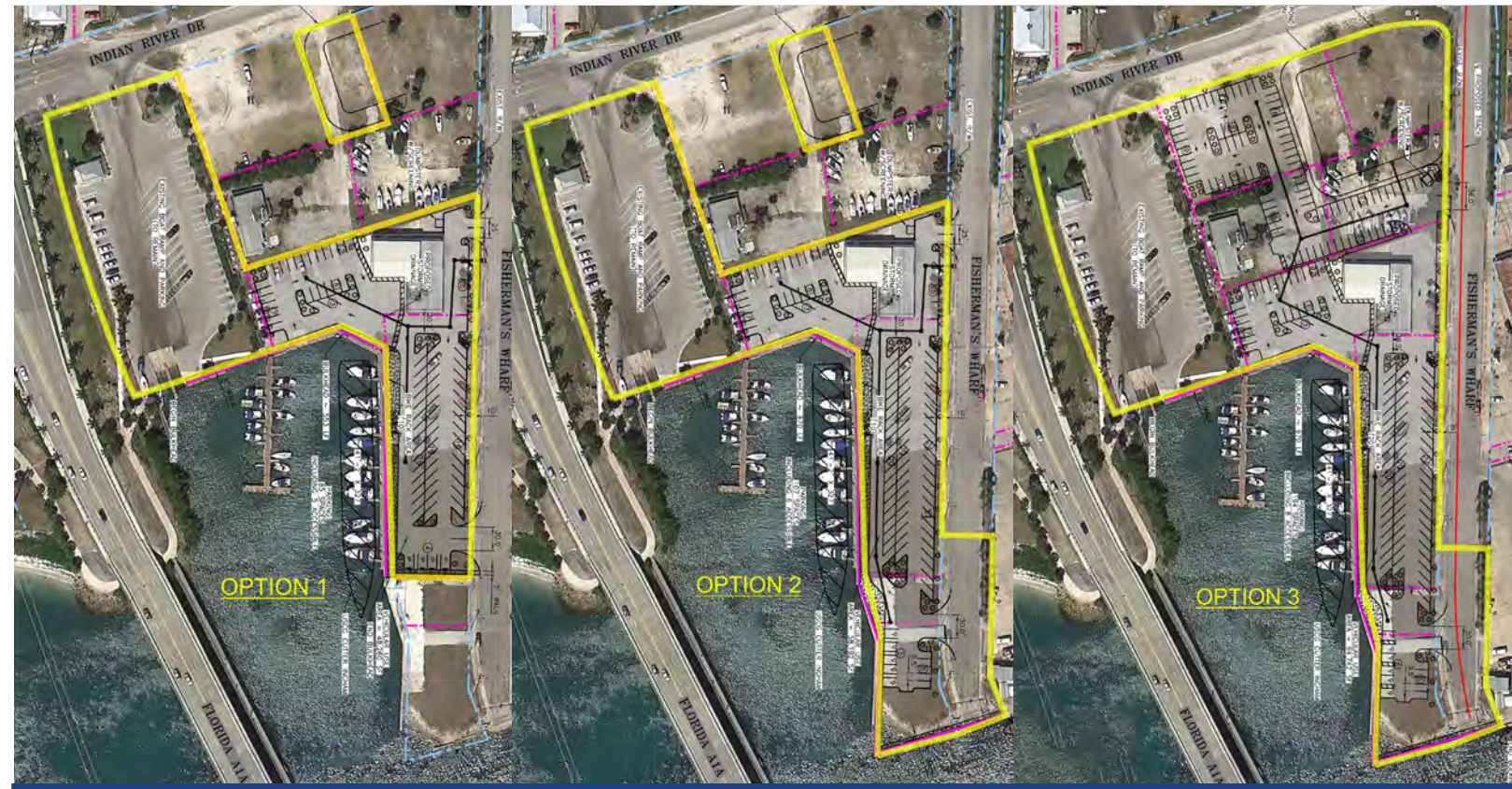
DESCRIPTION	COSTS		
	Option 1	Option 2	Option 3
CONSTRUCTION COST			
1- General Requirements	\$ 95,016	\$ 195,150	\$ 360,923
2 - Erosion Control	\$ 19,000	\$ 19,000	\$ 21,700
3 - Site Work	\$ 854,935	\$ 977,595	\$ 3,224,206
4 - Track	\$ -	\$ -	\$ 1,895,000
5 - Marine	\$ 1,501,468	\$ 3,882,167	\$ 3,882,167
Project Subtotal	\$ 2,470,420	\$ 5,073,912	\$ 9,383,996
Contingencies	15% \$ 370,560	\$ 761,090	\$ 1,407,600
Project Total	\$ 2,840,980	\$ 5,835,002	\$ 10,791,596
Note: Costs do not include: Dredging; Engineering, Survey & Environmental Design and Permitting; CEI			
By: TranSystems			
Date: 3/11/2015			

**FORT PIERCE - FISHERMANS WHARF
PRELIMINARY OPINION OF PROBABLE COSTS**

Contractor Construction Cost

Code	Title	Units	Unit Price	OPTION 1			OPTION 2			OPTION 3		
				Quantities	Item Cost	Total Cost	Quantities	Item Cost	Total Cost	Quantities	Item Cost	Total Cost
General Requirements												
1.00	General Requirements	LSUM			\$ 95,016			\$ 195,150			\$ 360,923	
1.01	Contractor Mobilization	%	1.00%	1	\$ 23,754		1	\$ 48,788			\$ 90,231	
1.02	Bonds and Insurance	%	1.00%	1	\$ 23,754		1	\$ 48,788			\$ 90,231	
1.03	General Conditions	%	2.00%	1	\$ 47,508		1	\$ 97,575			\$ 180,461	
Erosion Control					\$ 19,000			\$ 19,000			\$ 21,700	
2.00	Erosion Control	LSUM		1	\$ 19,000		1	\$ 19,000			\$ 21,700	
2.01	Silt Fence	LF	\$ 3.00	2,000	\$ 6,000		2,000	\$ 6,000			\$ 7,200	
2.02	Stabilized Construction Entrance	EA	\$ 1,500	2	\$ 3,000		2	\$ 3,000			\$ 4,500	
2.03	General Erosion Control	LSUM	\$ 10,000	1	\$ 10,000		1	\$ 10,000			\$ 10,000	
Site Work					\$ 854,935			\$ 977,595			\$ 3,224,206	
3.01	Site Preparation and Site Demolition	LSUM		1	\$ 48,348		1	\$ 79,290			\$ 92,291	
3.0101	Cleaning and Grubbing	ACRES	\$ 5,000	1.9	\$ 9,500		2.2	\$ 11,000			\$ 17,952	
3.0102	Flexible Pavement Removal	SY	\$ 5	5,056	\$ 25,278		5,056	\$ 25,280			\$ 31,333	
3.0103	Removal of Exist Concrete Pavement	SY	\$ 40	267	\$ 10,667		989	\$ 39,560			\$ 39,556	
3.0104	Curb Removal	LF	\$ 3	968	\$ 2,904		1,150	\$ 3,450			\$ 3,450	
3.02	Drainage	LSUM		1	\$ 44,900		1	\$ 62,175			\$ 77,965	
3.0201	Inlets, DT Bot, Type C, <10'	EA	\$ 3,000	5	\$ 15,000		7	\$ 21,000			\$ 24,000	
3.0201	Manholes, P-7, <10'	EA	\$ 3,500	1	\$ 3,500		1	\$ 3,500			\$ -	
3.0202	Mitered End Section, 18", 4:1	EA	\$ 1,000	0	\$ -		0	\$ -			\$ 1,000	
3.0202	18" Pipe	LF	\$ 55	480	\$ 26,400		685	\$ 37,675			\$ 52,965	
3.03	Earthwork	LSUM		1	\$ 99,830		1	\$ 111,648			\$ 206,236	
3.0301	Excavation	CY	\$ 8	6,131	\$ 49,048		7,056	\$ 56,448			\$ 92,688	
3.0302	Embankment	CY	\$ 12	4,232	\$ 50,782		4,600	\$ 55,200			\$ 113,548.44	
3.04	Pavement and Pavement Markings	LSUM		1	\$ 232,000		1	\$ 278,300			\$ 449,200	
3.0401	Optional Base, Base Group 11	SY	\$ 15	5,900	\$ 88,500		7,120	\$ 106,800			\$ 173,700	
3.0402	Asphalt	TN	\$ 100	1,380	\$ 138,000		1,660	\$ 166,000			\$ 270,000	
3.0403	Painted Pavement Markings	LSUM	\$ 3,000	1	\$ 3,000		1	\$ 3,000			\$ 3,000	
3.0404	Maintenance of Traffic	LSUM	\$ 2,500	1	\$ 2,500		1	\$ 2,500			\$ 2,500	
3.05	Curb, Concrete Pavements, and Sidewalks	LSUM		1	\$ 40,286		1	\$ 49,110			\$ 84,736	
3.0501	Concrete Curb, Type D	LF	\$ 25	1,485	\$ 37,125		1,770	\$ 44,250			\$ 79,875	
3.0502	Concrete Sidewalk	SY	\$ 5	632	\$ 3,161		972	\$ 4,860			\$ 4,861	
3.06	Guard Rail, Traffic Barriers and Signage	LSUM		1	\$ 5,750		1	\$ 5,750			\$ 5,750	
3.0601	Site Signage	LSUM	\$ 750	1	\$ 750		1	\$ 750			\$ 750	
3.0602	Monument Sign	LSUM	\$ 5,000	1	\$ 5,000		1	\$ 5,000			\$ 5,000	
3.07	Landscaping	LSUM		1	\$ 27,821		1	\$ 35,322			\$ 56,028	
3.0701	Trees	EA	\$ 400	45	\$ 18,000		60	\$ 24,000			\$ 40,000	
3.0702	Performance Turf, Sod	SY	\$ 3	1,274	\$ 3,821		1,274	\$ 3,822			\$ 4,778	
3.0703	Bushes	LF	\$ 15	400	\$ 6,000		500	\$ 7,500			\$ 11,250	
3.08	Electrical and Site Lighting	LSUM		1	\$ 350,000		1	\$ 350,000			\$ 350,000	
3.0801	Electrical & Lighting	LSUM	\$ 350,000	1	\$ 350,000		1	\$ 350,000			\$ 350,000	
3.09	Miscellaneous Site Items	LSUM		1	\$ 6,000		1	\$ 6,000			\$ 1,902,000	
3.0901	Bike Racks	EA	\$ 100	10	\$ 1,000		10	\$ 1,000			\$ 2,000	
3.0902	Dumpster Pad with Screening	LSUM	\$ 5,000	1	\$ 5,000		1	\$ 5,000			\$ 5,000	
Track					\$ -			\$ -			\$ 1,895,000	
4.00	Track	LSUM		1	\$ -		1	\$ -			\$ 1,895,000	
4.0100	Track (Rail, Ties, OTM)	LF	\$ 200		\$ -			\$ -			\$ 320,000	
4.0101	Ballast (12" x 12 Wide)	LF	\$ 40		\$ -			\$ -			\$ 64,000	
4.0102	Crossing Panels	LF	\$ 500		\$ -			\$ -			\$ 620,000	
4.0103	Turnout	EA	\$ 150,000		\$ -			\$ -			\$ 150,000	
4.0104	Excavation	CY	\$ 10		\$ -			\$ -			\$ 15,000	
4.0105	Crossing Warning System (Gate Arms)	EA	\$ 275,000		\$ -			\$ -			\$ 550,000	
4.0106	Underdrain	LF	\$ 25		\$ -			\$ -			\$ 80,000	
4.0107	Asphalt	TN	\$ 200		\$ -			\$ -			\$ 96,000	
Marine					\$ 1,501,468			\$ 3,882,167			\$ 3,882,167	
5.01	Type 1: 11' High Cantilevered Sheet Pile	LSUM		1	\$ 274,060		1	\$ 274,060			\$ 274,060	
5.0101	Steel Sheet Pile w/Coating	SF	\$ 39	5,180	\$ 202,020		5,180	\$ 202,020			\$ 202,020	
5.0102	Concrete	CY	\$ 900	62.22	\$ 55,998		62.22	\$ 55,998			\$ 55,998	
5.0103	Reinf. Steel - Longitudinal	LBS	\$ 0.90	7154.0	\$ 6,439		7154.0	\$ 6,439			\$ 6,439	
5.0104	Reinf. Steel - Transverse	LBS	\$ 0.90	337.7	\$ 304		337.7	\$ 304			\$ 304	
5.0105	Coarse Aggregate Backfill	CY	\$ 45	134.7	\$ 6,062		134.7	\$ 6,062			\$ 6,062	
5.0106	Clean Backfill	CY	\$ 25	129.5	\$ 3,238		129.5	\$ 3,238			\$ 3,238	
5.02	Type 2: 19' High Cantilevered Sheet Pile	LSUM		1	\$ 1,033,909		1	\$ 1,361,678			\$ 1,361,678	
5.0201	Steel Sheet Pile w/Coating & Anchors	SF	\$ 71.50	12,341	\$ 882,382		16,254	\$ 1,162,161			\$ 1,162,161	
5.0202	Concrete	CY	\$ 900	127.6	\$ 114,840		168.0	\$ 151,200			\$ 151,200	
5.0203	Reinf. Steel - Longitudinal	LBS	\$ 0.90	14,665.7	\$ 13,199		19,315.8	\$ 17,384			\$ 17,384	
5.0204	Reinf. Steel - Transverse	LBS	\$ 0.90	673.1	\$ 606		880.7	\$ 793			\$ 793	
5.0205	Coarse Aggregate Backfill	CY	\$ 45	361.0	\$ 16,245		475.5	\$ 21,398			\$ 21,398	
5.0206	Clean Backfill	CY	\$ 25	265.5	\$ 6,638		349.7	\$ 8,743			\$ 8,743	
5.03	Type 3: 33' High Cantilevered Sheet Pile	LSUM		1	\$ -		1	\$ 2,052,929			\$ 2,052,929	
5.0301	Steel Sheet Pile w/Coating & Anchors	SF	\$ 71.50	0	\$ -		26,130	\$ 1,868,295			\$ 1,868,295	
5.0302	Concrete	CY	\$ 900	0.00	\$ -		148.89	\$ 134,001			\$ 134,001	
5.0303	Reinf. Steel - Longitudinal	LBS	\$ 0.90	0.0	\$ -		17,118.5	\$ 15,407			\$ 15,407	
5.0304	Reinf. Steel - Transverse	LBS	\$ 0.90	0.0	\$ -		782.6	\$ 704			\$ 704	
5.0305	Coarse Aggregate Backfill	CY	\$ 45	0.0	\$ -		595.0	\$ 26,775			\$ 26,775	
5.0306	Clean Backfill	CY	\$ 25	0.0	\$ -		309.9	\$ 7,748			\$ 7,748	
5.04	Fender and Mooring	LSUM		1	\$ 193,500		1	\$ 193,500			\$ 193,500	
5.0401	Foam Filled Floating Fender	LSUM	\$ 2,000.00	3	\$ 6,000		3	\$ 6,000			\$ 6,000	
5.0402	Typical Mooring System	LSUM	\$ 2,500	21.0	\$ 52,500		21.0	\$ 52,500			\$ 52,500	
5.0403	Hurricane Piles Mooring Systems	LSUM	\$ 45,000.00	3.0	\$ 135,000		3.0	\$ 135,000			\$ 135,000	
TOTAL BASE TARGET COST:					\$ 2,470,420			\$ 5,073,912			\$ 9,383,996	

PORT OF FORT PIERCE FISHERMAN'S WHARF DEVELOPMENT STUDY



PORT DEVELOPMENT CASE STUDY SERIES
FDOT DISTRICT FOUR



PORT OF FORT PIERCE FISHERMAN'S WHARF DEVELOPMENT STUDY

PORT DEVELOPMENT CASE STUDY SERIES

Florida Department of Transportation | District 4



Prepared for:
Florida Department of Transportation
District 4
September 2015



Prepared by:
TranSystems

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APPENDIX B - PROPERTY CONFIGURATIONS - OPTIONS 1, 2 AND 3	10
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Background

The subject site for this study is in St Lucie County within the Operating Area of the Port of Fort Pierce in an area of the Port known as Fisherman’s Wharf. The site is generally bounded on the south by Florida A1A, to the west by Indian River Drive and to the north by Fisherman’s Wharf Road. To the east are the Indian River and the Intra Coastal Waterway (ICW). Currently, the site is comprised of multiple underutilized parcels as follows and as shown in the Fisherman’s Wharf Area aerial at Appendix A:

<u>Owner</u>	<u>Size of Parcel</u>
River Marina Incorporated	.31 acres
River Marina Incorporated	.13 acres
Fort Pierce Redevelopment Agency	.82 acres
Fort Pierce Redevelopment Agency	.79 acres
Fishmonger Investors LLC	.46 acres
Carol J. Jenkins	.46 acres
St. Lucie County	.47 acres
St. Lucie County	.77 acres
City of Fort Pierce (boat ramp & parking)*	1.5 acres

* The City of Fort Pierce boat ramp parcel shows on the City aerial maps as being 12.6 acres; however, that includes property to the west of Indian River Road and outside the study area.

Property Options

TranSystems has reviewed three options or property configurations, Option 1, 2 and 3, as shown in Appendix B that were suggested and provided by District 4. Option 1 is the smallest in terms of acreage and totals approximately 3.11 acres. Option 2, the mid-sized property configuration, totals approximately 4 acres and includes approximately .44 acres at the eastern end of Fisherman’s Wharf Road. Finally Option 3, the largest in terms of acreage, totals 6.15 acres.

Purpose

The objective of this land use study was first to identify the optimal uses possible and the infrastructure developments required for the three property configurations or options; then, establish weighted factors upon which to evaluate the three options. This evaluation process was initially a highly collaborative qualitative analysis which was translated into a quantitative evaluation by using numerical assessments of each evaluation factor applied to the three options. This translation enabled TranSystems to make a well-supported recommendation for the best property configuration and the optimal course for the development of the Fisherman’s Wharf area of the Port of Ft. Pierce.

The recommendation for Option 2, evaluated as the optimal configuration, was presented to a joint meeting of the County and City Commissions and the Port’s leadership. The reports and final recommendation were met with considerable enthusiasm and regarded as a catalyst that successfully accomplished, albeit small in scope and area, might serve to spark new interest and business development on other underutilized properties, both public and private, within the Port’s Operating Area.

The Port has followed up with applications through the Florida Ports Council and FSTED for grant funds for the design of a new bulkhead and the acquisition of the two River Marina Incorporated properties that would be acquired in Option 2.

This feasibility analysis and comparative evaluation was divided into two phases. The first phase was developed to provide preliminary design and an opinion of probable cost for paving and draining the site and providing new bulkhead from the northernmost boat ramp extending north and then turning east to the southeastern corner of the easternmost River Marina Inc. property. At that point the bulkhead turns approximately 90 degrees to the north northwest. This new section of bulkhead would be placed along the Indian River (ICW) and run north to the north side of Fisherman's Wharf Road, providing approximately 184' of berth space on the ICW. A specific design and cost estimate was developed for each of the three property configurations or options (Appendix C).

Interviews with various stakeholders from the City and County were performed and potential use data collected, two comprehensive field investigations were performed and geotechnical information from several borings was collected to provide design data. Consideration was given to existing businesses in the area in order to maximize the feasibility and constructability of the site paving and drainage design. The most practicable and feasible uses of tile bulkhead were taken into account in determining the performance specifications of the designed bulkhead sections. The preliminary civil and structural designs for the three property options were presented in the report to District 4 and the Port of Ft. Pierce.

The preliminary design for each property option was then used to prepare opinions of probable development cost and those estimates of cost were presented in the report as well. The overall, two-fold purpose of the first phase of this study is to prepare preliminary designs of what we considered to provide the most universally useful paving, drainage and bulkhead and prepare development cost estimates for each of the three property options.

The second phase of this study was to perform a comparative evaluation of the three options to determine relative usefulness in terms of meeting stakeholders' expectations and the goals of the Port, City and County. A number of aspects were evaluated in the second phase, to include: cost of development including the probable costs of private property acquisition, market demand, potential revenue production and local employment opportunities, growth potential, permit-ability, and environmental and community impacts. The product of the second phase was the recommendation for selection of a course of action that would develop the Fisherman's Wharf area of the Port of Ft. Pierce in the highest and best manner for the region.

The evaluation methodology was the comparison of the three development options presented in the Phase 1 Report of the Port of Ft. Pierce development study. Three property configurations were identified and a preliminary design for surfacing, draining and bulkheading was developed for each option or property configuration. Also submitted with the Phase 1 Report, were the opinions of probable development cost for each option. The probable development costs in the Phase 1 Report did not including the probable cost of private property acquisitions that would be involved in Option 2 or 3. The property acquisition costs were researched and included in the option evaluations in Phase 2.

In the second phase of the study, TranSystems, in collaboration with FDOT's District 4, the Port of Ft. Pierce, St. Lucie County and the City of Ft. Pierce, finalized and prioritized the evaluation

factors or criteria to be applied to and analyzed for each option in order to compare among the three and recommend a most viable or optimal development plan. The matrix evaluation of eight (8) evaluation criteria that were derived from the project goals and objectives, the Port of Ft. Pierce Master Plan Update, and extensive interviews with various project stakeholders is contained in Appendix D.

In collaboration with the District and the Port Director, the County and the City, the evaluation criteria have been weighted according to importance. The TranSystems team has evaluated each of the three options using the eight criteria and scored each on a scale of 1 to 9. A score of 1-3 corresponds to a poor evaluation, 4-6 indicates a midrange evaluation, and a score of 7-9 indicates a favorable evaluation. That score has been multiplied by the weight assigned to the criterion and a total score has been compiled for each option. The option with the highest overall score, Option 2, was determined to be the optimal development plan.

The regional transportation impact of the development of the Fisherman's Wharf is highly speculative at this point. The impact of business operations will not be calculable until there is more definition of the most probable uses of the property. TranSystems has researched the Port of Ft. Pierce Master Plan and conducted interviews with various stakeholders to include the City of Ft. Pierce, the Port and St. Lucie County to ascertain the most probable and desirable uses for the Fisherman's Wharf Area. Consideration was given to the most viable uses that would provide the greatest positive economic impact to the region and serve as a transition zone from the heavy industrial nature of the properties in the Port's Operations Area to the north and the historical, commercial and residential area to the south of Seaway Drive. The Port of Fort Pierce Consensus Land Use Plan indicated the following potential uses for the Fisherman's Wharf Area:

- Marina
- Maritime Academy
- Hotel
- Restaurant
- Retail
- Water Taxi
- Boat Work
- Small Ferry (Passenger/Cargo)

Recent interviews with stakeholders revealed that the most probable and desirable uses included:

- The maintenance and improvement of the existing boat ramps and parking for cars/trucks and trailers east of Indian River Drive
- Improvement and extension of the existing "T" dock for berthing pleasure craft
- Development of a fueling facility on the T dock
- Along-side berthing for larger yachts
- Development of a permanent berth at the western end of the basin's north bulkhead for the historical USCG cutter, a ferry or small cruise ship service or casino boat with proximate parking for visitors or passengers
- Sport fishing and boat supply retail
- Trailered boat storage
- Restaurant(s)
- Rail-served cargo operations for barges or smaller "island" cargo carriers

The next steps in the development of the Fisherman's Wharf area will include the identification of specific businesses with significant probability of becoming Port tenants and operating in the Fisherman's Wharf area. Once specific, candidate port tenants are identified, who have demonstrated a real inclination to operate in the subject port area, their business plans will be reviewed in a vetting process prior to development of long term leases, and operating agreements. Normally in the lease and operating agreement development process with public ports, the tenant will guarantee an annual throughput which may be in tons or units of cargo or a number of cruise passengers. This minimum annual guarantee or MAG can subsequently be translated into truck, bus and auto trips to and from the port, thus projecting the demands upon the regional transportation network, the resulting service levels and areas needing improvement.

Fisherman's Wharf is well situated for a small barge-rail operation at the east end of Fisherman's Wharf Road. Option 2 envisions the reconstruction of the bulkhead along the Intracoastal Waterway (ICW) to provide approximately 185' feet of berth on the ICW. This berth could be served by freight rail by extending the FEC industrial spur, which ends west of 2nd Street, approximately 1,600 feet to the eastern end of Fisherman's Wharf Road.

The Port now has a development plan which will be used as a foundation for the more specific development of Fisherman's Wharf. With a clear picture of the property configuration to be pursued and the identification of the most beneficial, appropriate and probable uses of the property, the port will shortly solicit indications of interest from potential tenants. In turn, those indications of interest will be reviewed and the business plans of the most appropriate future Port tenants will be thoroughly vetted. One aspect of those business plans will be the resulting generation of traffic from the property uses proposed. The predicted generation of vehicular traffic resulting from passengers, visitors, recreational boaters, cargo handling and etc. will identify the probable impacts upon the regional transportation network and service level deficiencies should they exist.

Increased passenger and cargo activity at any port will have an impact on the regional transportation network that carries cargo and passengers to and from the port. Therefore, it is imperative that facility and infrastructure development at the ports coincide with well-planned and designed enhancements to the regional surface transportation network. Without the close coordination of the planning and design of enhanced cargo and passenger handling capability at the ports with the FDOT's planning, design and development of sufficient surface access and egress for the movement of cargo and passengers to and from the port, neither will be successful.

The development of the Fisherman's Wharf area at the Port of Ft. Pierce is envisioned to involve some or all of the most desirable uses that were identified in the Fisherman's Wharf Development Study, completed earlier this year and listed in the previous section of this case study. District 4 has participated in the Port Master Plan and its 2012 update. The District has continued to work in a highly collaborative fashion to identify potential uses for the Fisherman's Wharf area with St. Lucie County, the City of Ft. Pierce and the Port.

The District Seaport Coordinator, the Freight and Logistics Coordinator and the Office of Modal Development have been closely involved in the identifying the optimal property configuration for the Fisherman's Wharf area, the planning and preliminary design of the area's basic infrastructure and the identification of the most desirable uses. This close District involvement will continue throughout the next phase of the area's development, in which potential tenants performing well defined operations will be identified and their proposed operations on the Port's property determined and evaluated for all facets of feasibility and financial viability. Integral to the evaluation of potential port tenants and their proposed operations is the estimation of the level of activity that will generate traffic or transportation network impacts.

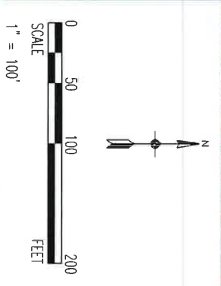
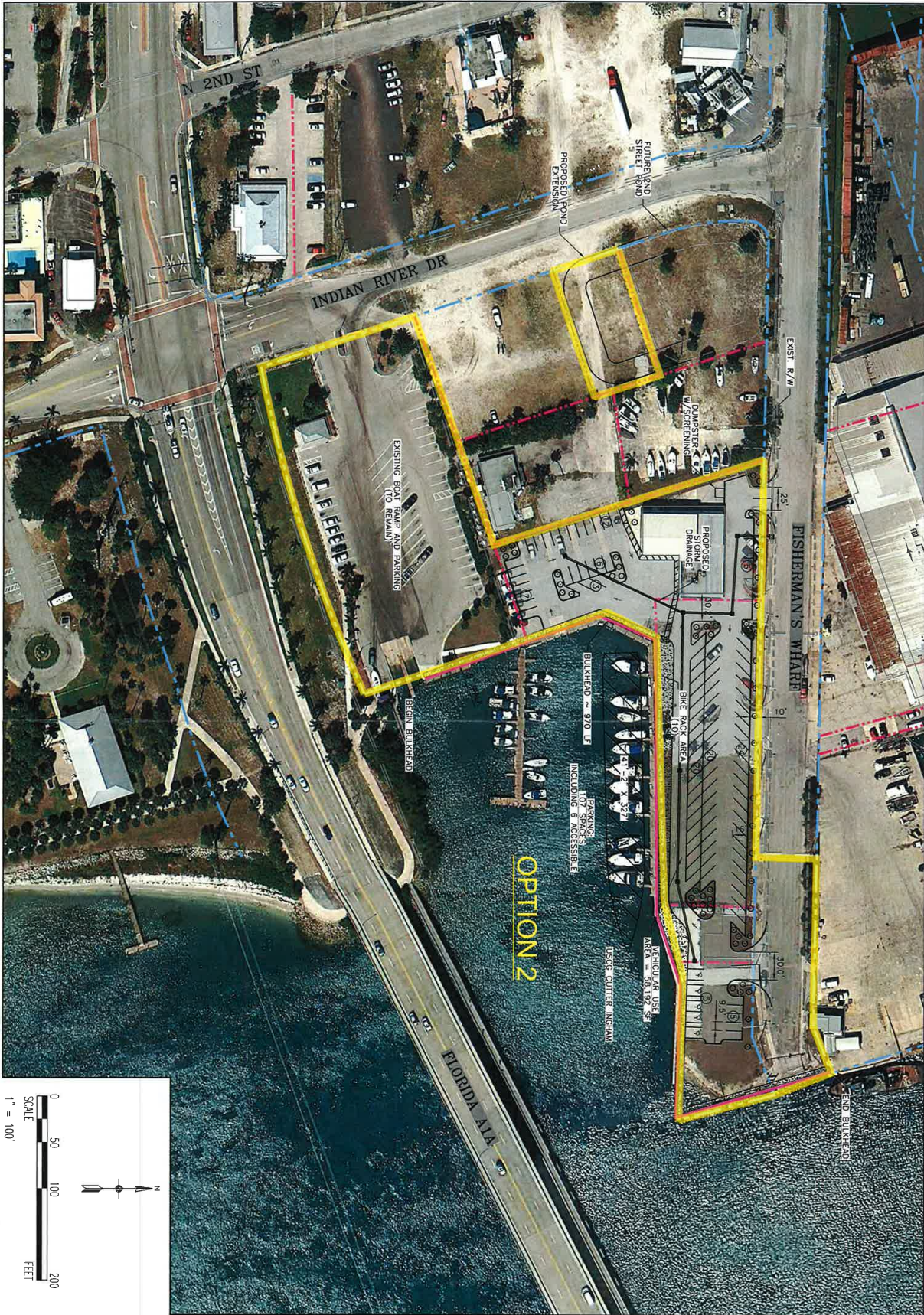
In summation, the integration of the District's Office of Modal Development, which began with the Port's Master Plan and its update, with the planning and design processes at the Port of Ft. Pierce is well established. This collaborative integration will ensure that the District understands the development intentions of the Port and has the information, familiarity and projected traffic data to plan, design and build a supporting transportation network that meets the community's needs.

APPENDIX A
AERIAL VIEW OF FISHERMAN'S WHARF,
PORT OF FORT PIERCE

APPENDIX B

PROPERTY CONFIGURATIONS

OPTIONS 1, 2 AND 3



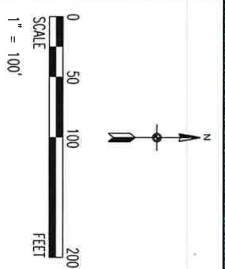
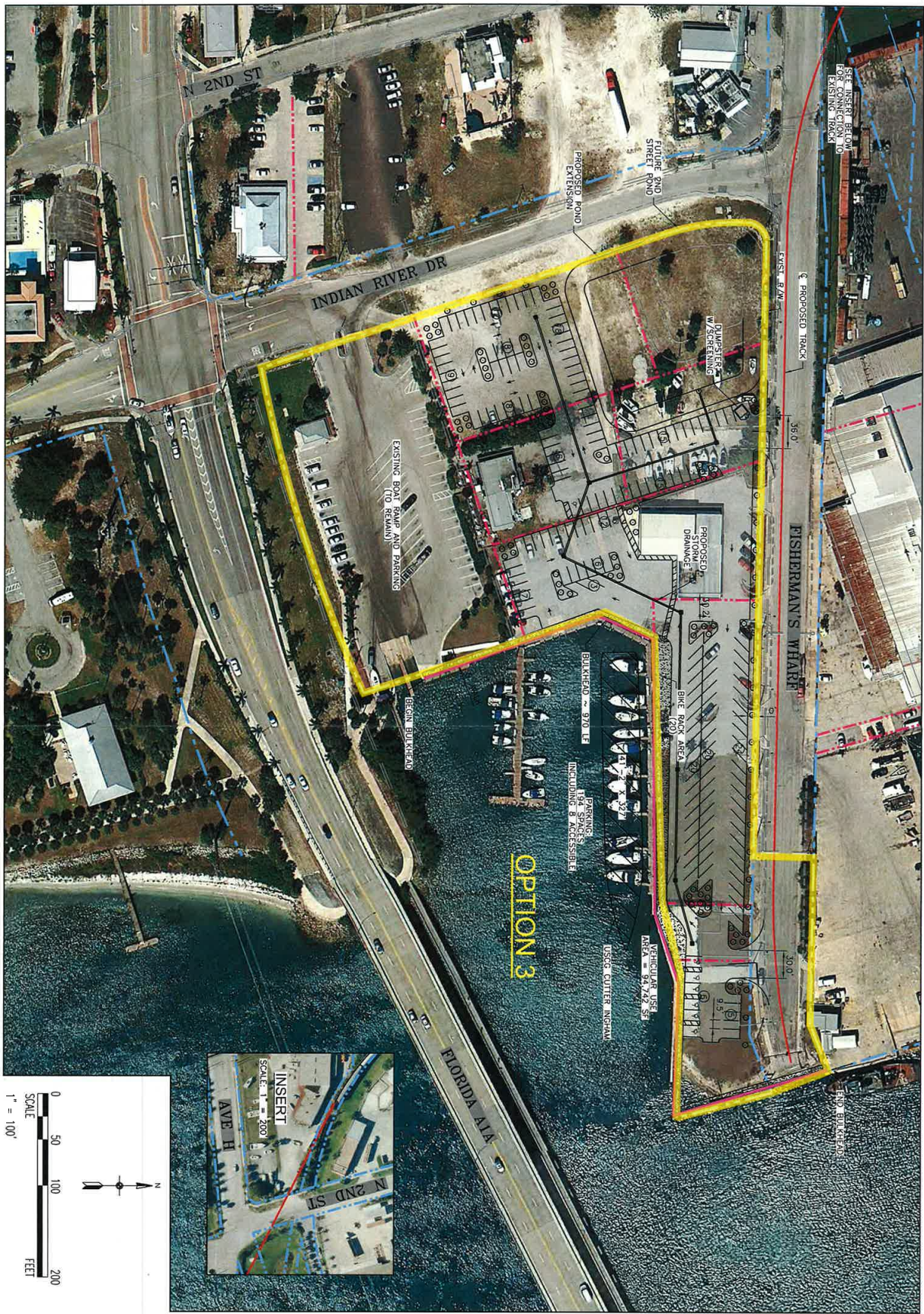
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 DATE: 11/11/2010
 DRAWN BY: JMW
 CHECKED BY: JMW
 DESIGNER: JMW
 DATE: 11/11/2010
 SCALE: 1" = 100'
 PROJECT: PORT OF FORT PIERCE

REVISIONS:

MARK	DATE	DESCRIPTION

FISHERMAN'S WHARF
 FORT PIERCE, FLORIDA

TRAN SYSTEMS
 4500 CALSBURY ROAD, SUITE 440
 JACKSONVILLE, FLORIDA 32216
 PHONE: (904)245-6500
 FAX: (904)245-6510
 CA #7503



PROJ. NO. 2018-0000	DATE: 01/10/18
DRAWN BY: NEW	CHECKED BY: NEW
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FISHERMAN'S WHARF AREA OPTION 3	
SHEET NO. EXH-OPT-03	OF

MARK	DATE	DESCRIPTION

FISHERMAN'S WHARF
FORT PIERCE, FLORIDA

TranSystems

4500 SALISBURY ROAD, SUITE 440
JACKSONVILLE, FLORIDA 32216
PHONE: (904)245-6500
FAX: (904)245-6510
CA #7503

APPENDIX C

OPINIONS OF PROBABLE COST OF DEVELOPMENT FOR OPTIONS 1, 2 AND 3

FORT PIERCE
FISHERMANS WHARF



OPINION OF PROBABLE COSTS

DESCRIPTON	COSTS		
CONSTRUCTION COST	Option 1	Option 2	Option 3
1- General Requirements	\$ 95,016	\$ 195,150	\$ 360,923
2 - Erosion Control	\$ 19,000	\$ 19,000	\$ 21,700
3 - Site Work	\$ 854,935	\$ 977,595	\$ 3,224,206
4 - Track	\$ -	\$ -	\$ 1,895,000
5 - Marine	\$ 1,501,468	\$ 3,882,167	\$ 3,882,167
Project Subtotal	\$ 2,470,420	\$ 5,073,912	\$ 9,383,996
Contingencies	15% \$ 370,560	\$ 761,090	\$ 1,407,600
Project Total	\$ 2,840,980	\$ 5,835,002	\$ 10,791,596

Note: Costs do not include: Dredging; Engineering, Survey & Environmental Design and Permitting; CEI

By: TranSystems
Date: 3/11/2015

Contractor Construction Cost

Title	Units	Unit Price	OPTION 1			OPTION 2			OPTION 3		
			Quantities	Item Cost	Total Cost	Quantities	Item Cost	Total Cost	Quantities	Item Cost	Total Cost
General Requirements					\$ 95,016			\$ 195,150			\$ 360,923
1.00	General Requirements	LSUM	1		\$ 95,016	1		\$ 195,150	1		\$ 360,923
1.01	Contractor Mobilization	%	1.00%	1	\$ 23,754	1	\$ 48,788	1	\$ 90,231		
1.02	Bonds and Insurance	%	1.00%	1	\$ 23,754	1	\$ 48,788	1	\$ 90,231		
1.03	General Conditions	%	2.00%	1	\$ 47,508	1	\$ 97,575	1	\$ 180,461		
Erosion Control					\$ 19,000			\$ 19,000			\$ 21,700
2.00	Erosion Control	LSUM	1		\$ 19,000	1		\$ 19,000	1		\$ 21,700
2.01	Silt Fence	LF	\$ 3.00	2,000	\$ 6,000	2,000	\$ 6,000	2,400	\$ 7,200		
2.02	Stabilized Construction Entrance	EA	\$ 1,500	2	\$ 3,000	2	\$ 3,000	3	\$ 4,500		
2.03	General Erosion Control	LSUM	\$ 10,000	1	\$ 10,000	1	\$ 10,000	1	\$ 10,000		
Site Work					\$ 854,935			\$ 977,595			\$ 3,224,206
3.01	Site Preparation and Site Demolition	LSUM	1		\$ 48,348	1		\$ 79,290	1		\$ 92,291
3.0101	Clearing and Grubbing	ACRES	\$ 5,000	1.9	\$ 9,500	2.2	\$ 11,000	3.6	\$ 17,952		
3.0102	Flexible Pavement Removal	SY	\$ 5	5,056	\$ 25,278	5,056	\$ 25,280	6,267	\$ 31,333		
3.0103	Removal of Exist Concrete Pavement	SY	\$ 40	267	\$ 10,667	989	\$ 39,560	989	\$ 39,556		
3.0104	Curb Removal	LF	\$ 3	968	\$ 2,904	1,150	\$ 3,450	1,150	\$ 3,450		
3.02	Drainage	LSUM	1		\$ 44,900	1		\$ 62,175	1		\$ 77,965
3.0201	Inlets, DT Bot, Type C, <10'	EA	\$ 3,000	5	\$ 15,000	7	\$ 21,000	8	\$ 24,000		
3.0201	Manholes, P-7, <10'	EA	\$ 3,500	1	\$ 3,500	1	\$ 3,500	0	\$ -		
3.0202	Mitered End Section, 18", 4:1	EA	\$ 1,000	0	\$ -	0	\$ -	1	\$ 1,000		
3.0202	18" Pipe	LF	\$ 55	480	\$ 26,400	685	\$ 37,675	963	\$ 52,965		
3.03	Earthwork	LSUM	1		\$ 99,830	1		\$ 111,648	1		\$ 206,236
3.0301	Excavation	CY	\$ 8	6,131	\$ 49,048	7,056	\$ 56,448	11,586	\$ 92,688		
3.0302	Embankment	CY	\$ 12	4,232	\$ 50,782	4,600	\$ 55,200	9,462	\$113,548.44		
3.04	Pavement and Pavement Markings	LSUM	1		\$ 232,000	1		\$ 278,300	1		\$ 449,200
3.0401	Optional Base, Base Group 11	SY	\$ 15	5,900	\$ 88,500	7,120	\$ 106,800	11,580	\$ 173,700		
3.0402	Asphalt	TN	\$ 100	1,380	\$ 138,000	1,660	\$ 166,000	2,700	\$ 270,000		
3.0403	Painted Pavement Markings	LSUM	\$ 3,000	1	\$ 3,000	1	\$ 3,000	1	\$ 3,000		
3.0404	Maintenance of Traffic	LSUM	\$ 2,500	1	\$ 2,500	1	\$ 2,500	1	\$ 2,500		
3.05	Curb, Concrete Pavements, and Sidewalks	LSUM	1		\$ 40,286	1		\$ 49,110	1		\$ 84,736
3.0501	Concrete Curb, Type D	LF	\$ 25	1,485	\$ 37,125	1,770	\$ 44,250	3,195	\$ 79,875		
3.0502	Concrete Sidewalk	SY	\$ 5	632	\$ 3,161	972	\$ 4,860	972	\$ 4,861		
3.06	Guard Rail, Traffic Barriers and Signage	LSUM	1		\$ 5,750	1		\$ 5,750	1		\$ 5,750
3.0601	Site Signage	LSUM	\$ 750	1	\$ 750	1	\$ 750	1	\$ 750		
3.0602	Monument Sign	LSUM	\$ 5,000	1	\$ 5,000	1	\$ 5,000	1	\$ 5,000		
3.07	Landscaping	LSUM	1		\$ 27,821	1		\$ 35,322	1		\$ 56,028
3.0701	Trees	EA	\$ 400	45	\$ 18,000	60	\$ 24,000	100	\$ 40,000		
3.0702	Performance Turf, Sod	SY	\$ 3	1,274	\$ 3,821	1,274	\$ 3,822	1,593	\$ 4,778		
3.0703	Bushes	LF	\$ 15	400	\$ 6,000	500	\$ 7,500	750	\$ 11,250		
3.08	Electrical and Site Lighting	LSUM	1		\$ 350,000	1		\$ 350,000	1		\$ 350,000
3.0801	Electrical & Lighting	LSUM	\$ 350,000	1	\$ 350,000	1	\$ 350,000	1	\$ 350,000		
3.09	Miscellaneous Site Items	LSUM	1		\$ 6,000	1		\$ 6,000	1		\$ 1,902,000
3.0901	Bike Racks	EA	\$ 100	10	\$ 1,000	10	\$ 1,000	20	\$ 2,000		
3.0902	Dumpster Pad with Screening	LSUM	\$ 5,000	1	\$ 5,000	1	\$ 5,000	1	\$ 5,000		
Track					\$ -			\$ -			\$ 1,895,000
4.00	Track	LSUM	1		\$ -	1		\$ -	1		\$ 1,895,000
4.0100	Track (Rail, Ties, OTM)	LF	\$ 200		\$ -		\$ -	1,600	\$ 320,000		
4.0101	Ballast (12" x 12" Wide)	LF	\$ 40		\$ -		\$ -	1,600	\$ 64,000		
4.0102	Crossing Panels	LF	\$ 500		\$ -		\$ -	1,240	\$ 620,000		
4.0103	Turnout	EA	\$ 150,000		\$ -		\$ -	1	\$ 150,000		
4.0104	Excavation	CY	\$ 10		\$ -		\$ -	1,500	\$ 15,000		
4.0105	Crossing Warning System (Gate Arms)	EA	\$ 275,000		\$ -		\$ -	2	\$ 550,000		
4.0106	Underdrain	LF	\$ 25		\$ -		\$ -	3,200	\$ 80,000		
4.0107	Asphalt	TN	\$ 200		\$ -		\$ -	480	\$ 96,000		
Marine					\$ 1,501,468			\$ 3,882,167			\$ 3,882,167
5.01	Type 1: 11' High Cantilevered Sheet Pile	LSUM	1		\$ 274,060	1		\$ 274,060	1		\$ 274,060
5.0101	Steel Sheet Pile w/Coating	SF	\$ 39	5,180	\$ 202,020	5,180	\$ 202,020	5,180	\$ 202,020		
5.0102	Concrete	CY	\$ 900	62.22	\$ 55,998	62.22	\$ 55,998	62.22	\$ 55,998		
5.0103	Reinf. Steel - Longitudinal	LBS	\$ 0.90	7154.0	\$ 6,439	7154.0	\$ 6,439	7154.0	\$ 6,439		
5.0104	Reinf. Steel - Transverse	LBS	\$ 0.90	337.7	\$ 304	337.7	\$ 304	337.7	\$ 304		
5.0105	Coarse Aggregate Backfill	CY	\$ 45	134.7	\$ 6,062	134.7	\$ 6,062	134.7	\$ 6,062		
5.0106	Clean Backfill	CY	\$ 25	129.5	\$ 3,238	129.5	\$ 3,238	129.5	\$ 3,238		
5.02	Type 2: 19' High Cantilevered Sheet Pile	LSUM	1		\$ 1,033,909	1		\$ 1,361,678	1		\$ 1,361,678
5.0201	Steel Sheet Pile w/Coating & Anchors	SF	\$ 71.50	12,341	\$ 882,382	16,254	\$ 1,162,161	16,254	\$ 1,162,161		
5.0202	Concrete	CY	\$ 900	127.6	\$ 114,840	168.0	\$ 151,200	168.0	\$ 151,200		
5.0203	Reinf. Steel - Longitudinal	LBS	\$ 0.90	14,665.7	\$ 13,199	19,315.8	\$ 17,384	19,315.8	\$ 17,384		
5.0204	Reinf. Steel - Transverse	LBS	\$ 0.90	673.1	\$ 606	880.7	\$ 793	880.7	\$ 793		
5.0205	Coarse Aggregate Backfill	CY	\$ 45	361.0	\$ 16,245	475.5	\$ 21,398	475.5	\$ 21,398		
5.0206	Clean Backfill	CY	\$ 25	265.5	\$ 6,638	349.7	\$ 8,743	349.7	\$ 8,743		
5.03	Type 3: 33' High Cantilevered Sheet Pile	LSUM	1		\$ -	1		\$ 2,052,929	1		\$ 2,052,929
5.0301	Steel Sheet Pile w/Coating & Anchors	SF	\$ 71.50	0	\$ -	26,130	\$ 1,868,295	26,130	\$ 1,868,295		
5.0302	Concrete	CY	\$ 900	0.00	\$ -	148.89	\$ 134,001	148.89	\$ 134,001		
5.0303	Reinf. Steel - Longitudinal	LBS	\$ 0.90	0.0	\$ -	17,118.5	\$ 15,407	17,118.5	\$ 15,407		
5.0304	Reinf. Steel - Transverse	LBS	\$ 0.90	0.0	\$ -	782.6	\$ 704	782.6	\$ 704		
5.0305	Coarse Aggregate Backfill	CY	\$ 45	0.0	\$ -	595.0	\$ 26,775	595.0	\$ 26,775		
5.0306	Clean Backfill	CY	\$ 25	0.0	\$ -	309.9	\$ 7,748	309.9	\$ 7,748		
5.04	Fender and Mooring	LSUM	1		\$ 193,500	1		\$ 193,500	1		\$ 193,500
5.0401	Foam Filled Floating Fender	LSUM	\$ 2,000.00	3	\$ 6,000	3	\$ 6,000	3	\$ 6,000		
5.0402	Typical Mooring System	LSUM	\$ 2,500	21.0	\$ 52,500	21.0	\$ 52,500	21.0	\$ 52,500		
5.0403	Hurricane Piles Mooring Systems	LSUM	\$ 45,000.00	3.0	\$ 135,000	3.0	\$ 135,000	3.0	\$ 135,000		
TOTAL BASE TARGET COST:					\$ 2,470,420			\$ 5,073,912			\$ 9,383,996

APPENDIX D

MATRIX EVALUATION OF OPTIONS 1, 2 AND 3

Development Option 1					
Evaluation Factor	Weight	Evaluation	Raw Score	Weighted Score	
1	Development Cost	9	The development cost for Option 1 includes all associated infrastructure development costs and the costs for dredging a new access channel and berth. Since no private or non-City / County owned properties would be required, there are no costs for successful private property acquisition. The total estimate of probable development costs for Option 1 is \$3,385,420.	8	72
2	Marketability	6	While the least expensive development option, the smaller property configuration of Option 1 is restrictive in terms of potential business development and thus has the least marketability of the three options. A significant portion of the property in Option 1 would remain for boat launching at the existing ramps and parking for cars, trucks and boat trailers. The Fort Pierce Redevelopment Agency parcels would provide space for retail activity, marina parking, and parking for visitors for the historic USCG vessel or passengers for a ferry, small cruise vessel or a casino boat that would use the newly constructed berthing facility (bulkhead) at the NW end of the basin. Option 1 would allow for the extension of the "T" dock with additional slips and a fueling operation at the end of the "T" dock. Finally, there might be the opportunity to build a multistory restaurant at the eastern end of the easternmost Fort Pierce Redevelopment Agency parcel; however, required parking might have priority depending on the use of the newly constructed north bulkhead.	3	18
3	Revenue Potential	5	Revenue potential for this evaluation is not provided in empirical format as calculating private cash flow generation, payroll taxes, ridership estimates, operating expenses, property taxes and other economic impact data at this level of analysis is not feasible. The rating of each alternative for revenue potential is based on the number of businesses that can be created and assumed reasonable profitability of each and the taxes that are assumed to be generated with each type of business. Based on the marketability research findings associated with this option there is potential for one new business supported by the construction of a new vessel berth and one new business created by the development of a multistory restaurant. The revenue generation potential associated with this option may vary dependent on resulting use of the improved bulkhead. Ridership numbers associated with the ferry or casino vessel concepts, and the revenue potential associated with said operations generate modest revenue for the land owner through parking fees, while the more significant revenue potential is generated through wharfage and dockage (berth lease) charged to the vessel operator, There is also potential for taxes collected through food and beverage sales and other business related taxes. The USCG Cutter alternative may provide revenue through taxes on retail and admission sales. However, long-term lease of the bulkhead to accommodate the USCG vessel should be considered as a revenue stream also. This option also includes the potential for tax revenues through food and	4	20
4	Employment	6	Employment estimates for Option 1 were calculated using industry standards for number of full-time employees per square foot of building space by industry type. Sources for this information were the Institute of Transportation Engineers, U.S. Department of Energy, and San Diego Association of Governments. For estimating the usable square footage for the use of the improved bulkhead, a range of employment creation is provided to capture the varying employment calculations anticipated by the three different alternatives uses (Ferry versus Casino vessel versus USCG vessel). For the Casino vessel alternative assumed usable space of 25,000SF and 1 employee per 140SF provides 178 employees. Casino vessel operations are highly customer service oriented businesses, and include gaming table employees, food and beverage, vessel operations and management. A ferry vessel service would employ less people than a casino vessel operation. Assuming the same usable space of 25,000SF for the ferry vessel and 1 employee per 700SF provides 35 employees. The assumed usable space of the USCG vessel is 5,000SF and 1 employee per 550SF provides 9 employees. For the multistory restaurant concept assumed usable space of 3,000SF and 1 employee per 134SF provides 22 employees. The	6	36
5	Expandability	5	The immediate expandability in response to business demand of Option 1 is negligible as all of the option's footprint would be in use. However, if demand for additional property for business expansion were in evidence and not simply speculative, the Port could move to acquire some or all of the private properties in the Fishermans Wharf Area in response to demand. Therefore, while not immediately expandable, the presence of potentially available and acquireable private properties that would support uses with quantifiable ROIs constitutes considerable expansion potential for prudent and appropriate uses.	7	35

Evaluation Factor	Weight	Evaluation	Raw Score	Weighted Score	
6	Permitting	2	The Fishermans Wharf Area is designated as a Marine Commercial District, C-6. The permitted uses for zoning district C6 include: vertical mixed-use buildings, government safety service facilities, parks and open space, bus shelters, above ground utility cabinets, a broad spectrum of eating and drinking establishments, bars and nightclubs, theaters, boat and equipment sales, offices, hotels and motels, educational establishments, research service and some marine-related industrial. Conditional uses include rail/bus terminals for passengers, marinas and boat livery, self-service storage, boat rentals and sales, vehicle storage, and processing of food and related products. The envisioned uses of the property in Option 1 do not appear to fall outside the permitted or conditional uses prescribed in Sec. 22-22, so long as vessel retail fueling operation is considered part of "marinas and boat livery" operations. All planned facilities that would be constructed were Option 1 to be implemented would require City permits for compliance with all applicable codes and requirements. The dredging of a new access channel and berth at the far north western end of the basin would require US Army Corps of Engineers permitting and review of the waterside construction plans and design (replacement of the deteriorated bulkheading).	8	16
7	Environmental Impact	4	The most significant environmental impacts associated with Option 1 would be associated with the dredging of a new access channel from the Indian River into the basin and the dredging of a berth for the historical USCG cutter, a ferry, a small cruise ship or a casino boat that would use the newly constructed bulkhead for berthing at the western end of the basin's north bulkhead. The designed bulkhead line replicates the existing line and would require no filling of submerged lands. It does not appear that the dredging will impact seagrass beds or valuable habitat in the basin. All environmental impacts will be identified in the process of obtaining a dredging permit from the US Army Corps of Engineers, Jacksonville District, Palm Beach Gardens Regulatory Section. A lesser impact might be increased vehicle emissions and noise as a result of the increased vehicular traffic of visitors, passengers and additional marina facility users. While the number of slips at "T" dock will be increased, they will only replicate those slips lost to berthing the historical USCG cutter, a ferry, a small cruise ship or casino boat. Therefore, the number of pleasure craft slipped in the basin will not increase. At this point in the planning process, it is anticipated that environmental impacts will not be significant.	8	32
8	Community Impact	6	The impact of Option 1 on the surrounding community would be the least of the three options. While potential environmental impacts would be smaller with the development envisioned in Option 1, the positive economic impacts would be on a smaller scale than those expected from Options 2 and 3. Option 1 does not develop the ability to perform a small cargo operation and development of an attraction like a new multistory restaurant is doubtful given the paucity of space without the addition of new properties.	3	18
Total Score			47	247	

Development Option 2

Evaluation Factor	Weight	Evaluation	Raw Score	Weighted Score
1 Development Cost	9	The development cost for Option 2 includes the costs of infrastructure development as reflected in the opinion of probable development costs, the costs for dredging a new access channel and berth and the estimated costs for successful acquisition for the additional private properties required for Option 2. The total estimated development cost for Option 2 is \$7,259,752.	5	45
2 Marketability	6	Option 2 does increase the size of the property configuration, adding the two River Marina INC parcels at the eastern end of the Fishermans Wharf Area and the easternmost 250 feet of Fishermans Wharf Road. The additional area for business development, gained by these property additions, does enhance marketability. The development of a multistory restaurant on the River Marina INC parcels is feasible as is the development of along-side yacht berthing along the additional 225 feet of newly constructed bulkheading on the southern boundaries of the River Marina INC pannels. The addition of the River Marina INC parcels and the eastern end of Fishermans Wharf Road to access a newly constructed 185 foot bulkhead along the Indian River provides viability to a small cargo operation.	6	36
3 Revenue Potential	5	Revenue potential for this evaluation is not provided in empirical format as calculating private cash flow generation, payroll taxes, ridership estimates, operating expenses, property taxes and other economic impact data at this level of analysis is not feasible. The rating of each alternative for revenue potential is based on the number of businesses that can be created and assumed reasonable profitability of each and the taxes that are assumed to be generated with each type of business. Based on the marketability research findings associated with this option there is potential for one new business supported by the construction of a new vessel berth, one new business created by the development of a multistory restaurant, and one additional business associated with the additional bulkhead construction for accomodating potential cargo operations. The suggested use for accomodating ferry or casino vessel service or for accomodating USCG vessel for the main improved bulkhead remains unchanged from Option 1. The feasibility of having sufficient footprint to accomodate a multistory restuarant is enhanced in this option. And the potential for revenue generation from cargo operations at the eastern end of Fishermans Wharf Road include wharage and dockage (berth lease) and related business and payroll taxes. The potential for tax revenue associated with implementing cargo operations is assumed to be relatively high for this alternaive. This option does not consider the ability to accomodate along-side yacht berthing as additional new business as this operation would likely be an extension of the existing marina operations. However, this expansion of the marina operations would generate revenue through taxes on lease revenues. This option is scored medium-high under these assumptions.	6	30
4 Employment	6	In additon to the emplement estimates identified for Option 1, Option 2 also includes employment creation from the establishment of cargo operations and expanded Yacht berthing. For the establishment of cargo operations employment estimates were calculated only considering local shoreside job creation in the form of stevedoring, line and cargo handling and management. Local job creation estimates also includes potential to employ local truckers and warehouse workers. Job creation further along the supply-chain at cargo transfer locations or final destinations are not considered here. Also, employment estimates for cargo operations are based on longshore labor (union) requirements typical for Florida ports. The resulting estimated employment potential to facilitate cargo operations is 16 employees. Additional employees anticipated through the expanded Yacht berthing is associated with existing marina operators and assume the additon of 1 employee. The resulting estimated employment potential for Option 2 is a range of 48-217 total employees depending on future use alterantive of the improved bulkhead.This option is scored high-moderate under these assumptions.	6	36
5 Expandability	5	Option 2 includes the addition of the two River Marina INC parcels and the eastermost 250 feet of Fishermans Wharf Road. These parcels would allow for the development of a multistory restaurant, along-side yacht berthing and the potential for development of a small cargo operation. The Port's ownership and control of these parcels would be a positive influence in attracting a restaurant operator and a cargo operator and thus enhance both marketability and expandability. However, given the cost of development, a more prudent strategy for such development would be to develop and execute a development and operating agreement with a restaurant operator and a terminal operator in advance of facility development. Should additional market demand be positively identified at an adequate ROI to support acquisition and facility development, either by the Port or as a 3P, the Port could pursue the successful acquisition of the Carol J. Jenkins and Fishmonger Investors properties as needed to address the demand.	8	40

Evaluation Factor	Weight	Evaluation	Raw Score	Weighted Score	
6	Permitting	2	The Fishermans Wharf Area is designated as a Marine Commercial District, C-6 and the waterside is designated A2. The permitted uses for zoning district C6 include: vertical mixed-use buildings, government safety service facilities, parks and open space, bus shelters, above ground utility cabinets, a broad spectrum of eating and drinking establishments, bars and nightclubs, theaters, boat and equipment sales, offices, hotels and motels, educational establishments, research service and some marine-related industrial. Conditional uses include rail/bus terminals for passengers, marinas and boat livery, self-service storage, boat rentals and sales, vehicle storage, and processing of food and related products. The property uses envisioned for development Option 2 appear to fall within either permitted or conditional uses contained in Sec. 22-22. The only potential exception that would probably require a conditional use but might conceivably require rezoning is the proposed light cargo operation at the eastern end of Fishermans Wharf across a newly constructed berth on the Indian River. The addition of the easternmost 250 feet of Fishermans Wharf Road might prove problematic requiring the division of the road in order to preserve access to the easternmost access point to the River Marina INC parcel to the north of the road. All planned facilities that would be constructed were Option 2 to be implemented would require City permits for compliance with all applicable codes and requirements. The dredging of a new access channel and berth at the far north western end of the basin would require US Army Corps of Engineers permitting and review of the waterside construction plans and design (replacement of the deteriorated bulkheading).	6	12
7	Environmental Impact	4	The environmental impact of Option 2 would be similar to the impacts associated with Option 1, most notably the dredging of an access channel and new berth, and add the potentially significant impacts of a small cargo operation at the far eastern end of the Fishermans Wharf Area. The addition of the two River Marina INC parcels and the easternmost 250 feet of Fishermans Wharf Road would provide capability to perform cargo operations across the newly constructed berth (bulkhead) on the Indian River, provide along-side berthing for several larger pleasure or sport fishing craft, and development of a multistory restaurant. These business enterprises would certainly increase the volume of passenger vehicle and truck traffic. The increased vehicular and truck traffic would create increased vehicular emissions, noise and some congestion. Additionally there would be some impacts from the vessels performing cargo operations at the east end of the area along the Indian River.	5	20
8	Community Impact	6	Option 2 would provide greater positive community impact than Option 1 in that it would provide greater employment and revenue generation potential for the Port. The addition of the River Marina INC parcels and the easternmost 250 feet of Fishermans Wharf Road would provide the additional opportunities for restaurant development, berthing for larger pleasure and sport fishing boats and the potential for cargo operations.	6	36
Total Score			48	255	

Development Option 3					
Evaluation Factor	Weight	Evaluation	Raw Score	Weighted Score	
1	Development Cost	9	The development costs for Option 3 include the costs of all infrastructure development as reflected in the Opinion of Probable Development Cost, the cost of dredging an access channel and berth, and the estimated cost of successfully acquiring the additional private properties that would constitute the proposed configuration of Option 3. The total estimated development cost for Option 3 is \$12,991,346.	2	18
2	Marketability	6	Option 3 includes the largest property configuration and thus is marketable for all of the most desirable uses. Even given the use of the northwestern corner of the property configuration for the planned stormwater retention pond, there is sufficient area for the full waterside development of renovated and improved boat launching facilities, an extended "T" dock with a fueling station at its end, a 300 foot berth for the historic USCG cutter, a ferry service, a small cruise ship or a casino boat, approximately 200 feet of along-side berthing along the new bulkhead on the southern border of the River Marina INC parcels and a small cargo operation at the bulkhead at the eastern end of Fishermans Wharf Road along the Indian River. The potential cargo operation has been enhanced by the inclusion of rail capability from the FEC mainline which would make a barge-rail operation feasible. There is adequate area for more than one boating and sport fishing retail establishment and two restaurants. Additionally, there is sufficient area for storage of trailerized boats and possibly, more profitable, dry boat storage, if the demand is not fully satisfied by similar facilities farther north in the Port's Operating Area. An aspect of marketability that is positively impacted by the Port's control of all of the properties within the Fishermans Wharf Area is the removal of potential for future incompatible uses that might result if portions of the area remain as privately held properties.	8	48
3	Revenue Potential	5	Revenue potential for this evaluation is not provided in empirical format as calculating private cash flow generation, payroll taxes, ridership estimates, operating expenses, property taxes and other economic impact data at this level of analysis is not feasible. The rating of each alternative for revenue potential is based on the number of businesses that can be created and assumed reasonable profitability of each and the taxes that are assumed to be generated with each type of business. Based on the marketability research findings associated with this option there is potential for one new business supported by the construction of a new vessel berth, one new business created by the development of a multistory restaurant, and one additional business associated with the additional bulkhead construction for accommodating potential cargo operations. The suggested use for accommodating ferry or casino vessel service or for accommodating USCG vessel for the main improved bulkhead remains unchanged from Option 1 & 2. The feasibility of having sufficient footprint to accommodate one or more multistory restaurants is enhanced in Option 3. The inclusion of the St. Lucie County property adjacent to Indian River Blvd., as well as the Fishmonger Investors and Carol J. Jenkins parcels provides space and the potential for a second boating - sport fishing retail opportunity and either surface trailered boat storage of possibly a "dry stack" for boat storage. The potential for revenue generation from cargo operations at the eastern end of Fishermans Wharf Road include wharage and dockage (berth lease) and related business taxes, is further enhanced by providing rail access to diversify the ability to accommodate various cargoes and emerging rail-barge services. This option does not consider the ability to accommodate along-side yacht berthing as additional new business as this operation would likely be an extension of the existing marina operations. However, this expansion of the marina operations would generate revenue through taxes on lease revenues. This option is scored high-moderate under these assumptions.	7	35
4	Employment	6	In addition to the employment estimates identified for Option 1 and Option 2, Option 3 also includes employment creation from expanded cargo operations through the introduction of rail service. Employment estimates for the introduction of rail service is based on service from an existing local freight railroad as part of a manifest train that serves multiple customers. Additional employees anticipated through the expanded cargo operations and introduction of rail service is assumed to be 5 employees. The resulting estimated employment potential for Option 2 is a range of 53-222 total employees depending on future use alternative of the improved bulkhead. This option is scored low-high under these assumptions.	7	42
5	Expandability	5	Option 3 includes the acquisition of the River Marina INC parcels, the easternmost 250 feet of Fishermans Wharf Road, the Fishmonger Investors property and the Carol J. Jenkins property as well as the ST Lucie County properties along Indian River Drive. Ownership and control of these properties would enhance the immediate marketability of the area and provide for more rapid expansion should market demand for those parcels not be imminent but follow as more immediate demands for other portions of the area are satisfied. While this option provides	7	35

Evaluation Factor	Weight	Evaluation	Raw Score	Weighted Score
6	2	<p>The Fishermans Wharf Area is designated as a Marine Commercial District, C-6 and Aquatic Zone A2. The permitted uses for zoning district C6 include: vertical mixed-use buildings, government safety service facilities, parks and open space, bus shelters, above ground utility cabinets, a broad spectrum of eating and drinking establishments, bars and nightclubs, theaters, boat and equipment sales, offices, hotels and motels, educational establishments, research service and some marine-related industrial. Conditional uses include rail/bus terminals for passengers, marinas and boat livery, self-service storage, boat rentals and sales, vehicle storage, and processing of food and related products. As with Options 1 and 2, it appears that all of the envisioned uses for the property under Option 3 would fall within the land uses permitted or classified as conditional for a Marine Commercial District. The only potential exception that would probably require a conditional use but might conceivably require rezoning is the proposed light cargo operation at the eastern end of Fishermans Wharf across a newly constructed berth on the Indian River. The addition of the easternmost 250 feet of Fishermans Wharf Road might prove problematic requiring the division of the road in order to preserve access to the easternmost access point to the River Marina INC parcel to the north of the road. Option 3 also envisions a freight rail extension from the FEC mainline to the berth at the eastern end of Fishermans Wharf Road. The rail-served cargo operation does not appear to be a permitted or conditional use under the designation of Marine Commercial District , C2, and would require consideration of rezoning or an added conditional use. All planned facilities that would be constructed were Option 3 to be implemented would require City permits for compliance with all applicable codes and requirements. The dredging of a new access channel and berth at the far north western end of the basin would require US Army Corps of Engineers permitting and review of the waterside construction plans and design (replacement of the deteriorated bulkheading).</p>	3	6
7	4	<p>Option 3 presents the greatest potential environmental impact. Option 3 would include all of the potential environmental impacts of Options 1 and 2. Option 3 differs from Option 2 in that it incorporates the acquisition and development of the Fishmonger Investors and the Carol J. Jenkins parcels as well as the St. Lucie County parcels adjacent to Indian River Drive. These additions provide for the ability to develop additional boating and sport fishing retail, one or more additional restaurants and either surface boat-on-trailer or dry boat storage. As noted in the environmental impact evaluation for Option 2, these activities would increase vehicular traffic and some truck traffic with the associated impacts of increased emissions, noise and congestion. Option 3 includes the development of a rail connection from the berth on the Indian River to the FEC mainline, a short distance away. Assuming the ability to position the rail alignment along the northern side of the existing Fishermans Wharf Road and slightly extending the south side of the road into adjacent properties, the interference created by at-grade crossings can be minimized. Nevertheless, the impacts of a rail service to provide cargo transport, while reducing truck traffic, will create localized environmental impacts to include noise, emissions (probably not as significant as truck emissions) and traffic interruption.</p>	3	12
8	6	<p>Option 3 would ultimately provide the greatest positive community impact. Option 3 envisions the immediate acquisition of the River Marina INC parcels, the Fishmonger Investors parcel, the Carol J. Jenkins parcel and the inclusion of the St. Lucie County properties adjacent to Indian River Drive. While the immediate use of all of the property included in Option 3 is highly speculative, its ownership and control by the Port would enhance marketability and expansion in the longer term. Thus when occupied and developed, the businesses leasing and operating on the properties would generate greater local employment and revenue than Options 1 or 2. This greater community impact should be qualified by the associated environmental impacts and the greater cost of development which includes the cost of successfully acquiring the properties, several of which may not develop either employment or revenue in the short term.</p>	7	42
Total Score			44	238