

EXISTING CONDITIONS ASSESSMENT

1.1 Introduction

This initial element of the *Port Everglades Master Plan* (Plan) presents an assessment of existing conditions at the Port. The element first provides an overview of the regional setting and Port environs to establish the context of the master planning effort. It then proceeds with updated information relevant to the ultimate Plan recommendations, including:

- Land uses.
- Opportunities and constraints.
- Facilities inventory update.
- Projects influencing planning opportunities.
- Berthing analysis.
- Cargo capacity analysis.
- Container wharf operations.
- On-Port traffic circulation and parking analysis.
- Intermodal transportation network.
- Environmental considerations.

The information provided in this element reflects the Consultant Team's review of existing documents, one-on-one interviews with Port tenants and users, the input of the Port's senior staff, a series of meetings with stakeholders in the Port environs, public agency comments, and coordination with the Broward County Administration and municipalities located within the Port Everglades Development District.

1.2 Master Planning Context: Regional Setting and Port Environs

1.2.1 The Core South Florida Region

Port Everglades lies in Broward County, at the heart of the South Florida region. To the north is Palm Beach County; to the south, Miami-Dade County (see Figure 1.2-1). One-third of Florida's 17.9 million residents live in these three core South Florida counties. By 2030, they will be home to approximately 7.6 million people, 25 percent more than in 2005 (see Figure 1.2-2).

Figure 1.2-1
Core South Florida Region



Three Interdependent Counties. As each of these three South Florida counties has grown, their respective populations and economies have become increasingly linked. Palm Beach residents may work in Miami-Dade or travel there for cultural and recreational activities, or the reverse. Broward residents may have business connections in Palm Beach and friends and family in Miami-Dade. Businesses may have customers in all three counties and travel throughout the corridor to serve them. The result is that the three counties, despite distinct income and employment differences,¹ are now interconnected and interdependent. Recognizing the interdependence of these three counties, dispersed in linear fashion along the I-95 axis, the federal government merged them into one Metropolitan Statistical Area (MSA) in June 2003.

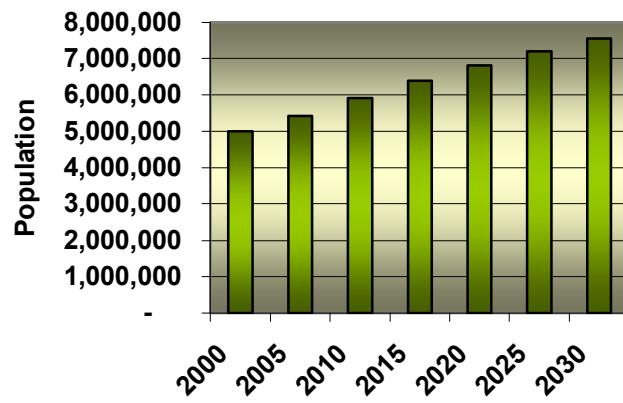
Together the three counties constitute the state's most populous region and the strongest trade and tourism economic engines in the state. Three-quarters of the state's international trade, which reached \$109.7 billion in 2006, flows through South Florida's three seaports – Port Everglades, the Port of Miami, and the Port of Palm Beach -- and three international airports – Fort Lauderdale-Hollywood International (FLL), Miami International, and Palm Beach International Airports. South Florida's seaports also accommodate 55 percent of the almost 15 million revenue cruise passengers cruising from Florida, a significant portion of whom fly to and from their cruises through the region's airports.

The region's multi-modal transportation system, including the Florida East Coast Railway (FEC), also facilitates other components of South Florida's tourism. In Broward County alone, which welcomed more than ten million visitors in 2005, the tourism industry generated \$36.2 million in tourist tax collections and a collective economic impact exceeding \$8.4 billion.

In addition to the three core South Florida counties, the Port's hinterland comprises a larger area that stretches across as many as 17 counties in the southern portion of the state. This larger population is discussed in the context of the cargo market assessment in Element 2.

¹ Per capita income in Florida averaged \$34,001 in 2005, whereas in Broward County, it averaged \$36,595 and in Palm Beach County, it averaged \$50,371, exceeding the state average by 7.6 and 48.1 percent, respectively. In Miami-Dade County, however, per capita income averaged \$31,347, 8.5 percent lower than the state average. Unemployment rates in Miami-Dade and Palm Beach Counties were 3.8 percent and 3.6 percent, respectively, in 2006, higher than the state's rate of 3.3 percent, whereas that in Broward County's was 3.1 percent, slightly lower than the state's rate. Source: *Enterprise Florida County Profiles, 2006, from the U.S. Department of Commerce, Bureau of Economic Analysis and U.S. Department of Labor, Bureau of Labor Statistics*.

Figure 1.2-2
South Florida Population Growth
2000-2030



Source: Office of Economic and Demographic Research,
The Florida Legislature, August 22, 2006.

A Global Business Presence. As of 2005, nearly 1,400 foreign-affiliated firms were located in South Florida, employing over 61,000 people.² Many of the multinational firms are transportation-oriented, including shippers, ocean carriers, cruise lines, airlines, freight forwarders, overnight delivery companies, and varied service providers.

Employment in the trade, transportation, and utilities sector alone accounts for more than 500,000 jobs in the three counties.³ Workers in this and other sectors cross county lines frequently, as cross county-line commuting in the region increased 59 percent between 1990 and 2000, whereas the working population increased by only 14 percent. With 40 percent more regional workers over the decade crossing county lines to reach their jobs, cross county-line commuting has thus increased 2.9 times faster than the number of workers.⁴ This trend has continued through today.

In addition to the specifically transportation-related firms located in South Florida, the region is home to firms from many other business sectors involved with regional and global commerce. These include banks, accounting firms, law firms, media companies, technology and computer companies, food producers, restaurant chains, and others. The region has also become a hub for the InternetCoast, a cluster of businesses, educational institutions, and organizations involved in e-commerce. Easy access to three international airports and three major seaports is said to be a factor in this growth.

Synergies among the region's seaports and airports, among their respective tenants and users, and among the warehousing, freight forwarding, trucking, and other trade-related companies that support maritime operations make consideration of this regional picture and the intermodal implications of growing regional connections an essential component of this Plan update. For example, several ocean carriers call at more than one South Florida port; several cruise lines sail from more than one port and use more than one airport for their passengers' flights; many of the area's freight forwarders, ship chandlers, and others serve two or more of the ports; and the FEC serves all three seaports.

² WorldCity Business, *Who's Here*, 2005 updates.

³ Enterprise Florida, 2004 data.

⁴ U.S. Census Bureau, 2000.

1.2.2 Broward County

Broward County, with its 31 municipalities as well as its unincorporated area, is the state's second most populous county. As shown in Table 1-2.1, in 2005, the County had 1.8 million people, 9.7 percent of the state's population. By 2030, the County's population is expected to reach 2.5 million, a 42 percent increase. Employment, which stood at almost 699,000 people in 2005, is expected to reach almost 945,000 by 2030, a 35 percent increase. While this growth is substantial, the rate is less than that experienced in recent decades, when South Florida was among the fastest growing regions of the state.

The population of Broward County became more diverse during the 1990s. In 1990, European ancestry was the most common. By 2000, a significant change occurred, West Indian and Central/South American Hispanics ranked among the top five for the first time. Populations of Puerto Rican, Cuban, Mexican, and Central/South American Hispanic descent have more than doubled since 1990, reflecting the increase in foreign-born residents from Latin America. This diversity and the cultural ties it represents with South Florida's trading partners are positive factors in enhancing the network of businesses supporting trade and tourism in Broward County and elsewhere in the region, the Port's primary hinterland.

According to Broward County's Department of Urban Planning and Redevelopment, all available lands in western Broward will be developed by 2030. Continued population growth will bring redevelopment to eastern Broward, where older areas have experienced some decline. Increased housing unit density in the eastern portion of the County will result in larger numbers of people residing there. Unlike population, however, employment is forecasted to continue in a slightly more westward direction.

These trends have twofold Plan significance. Increased quantities of consumer goods will be needed to serve the growing population and more vehicular traffic will be on the local and regional roadways over which Port traffic must also travel.

1.2.3 Port Everglades Overview⁵

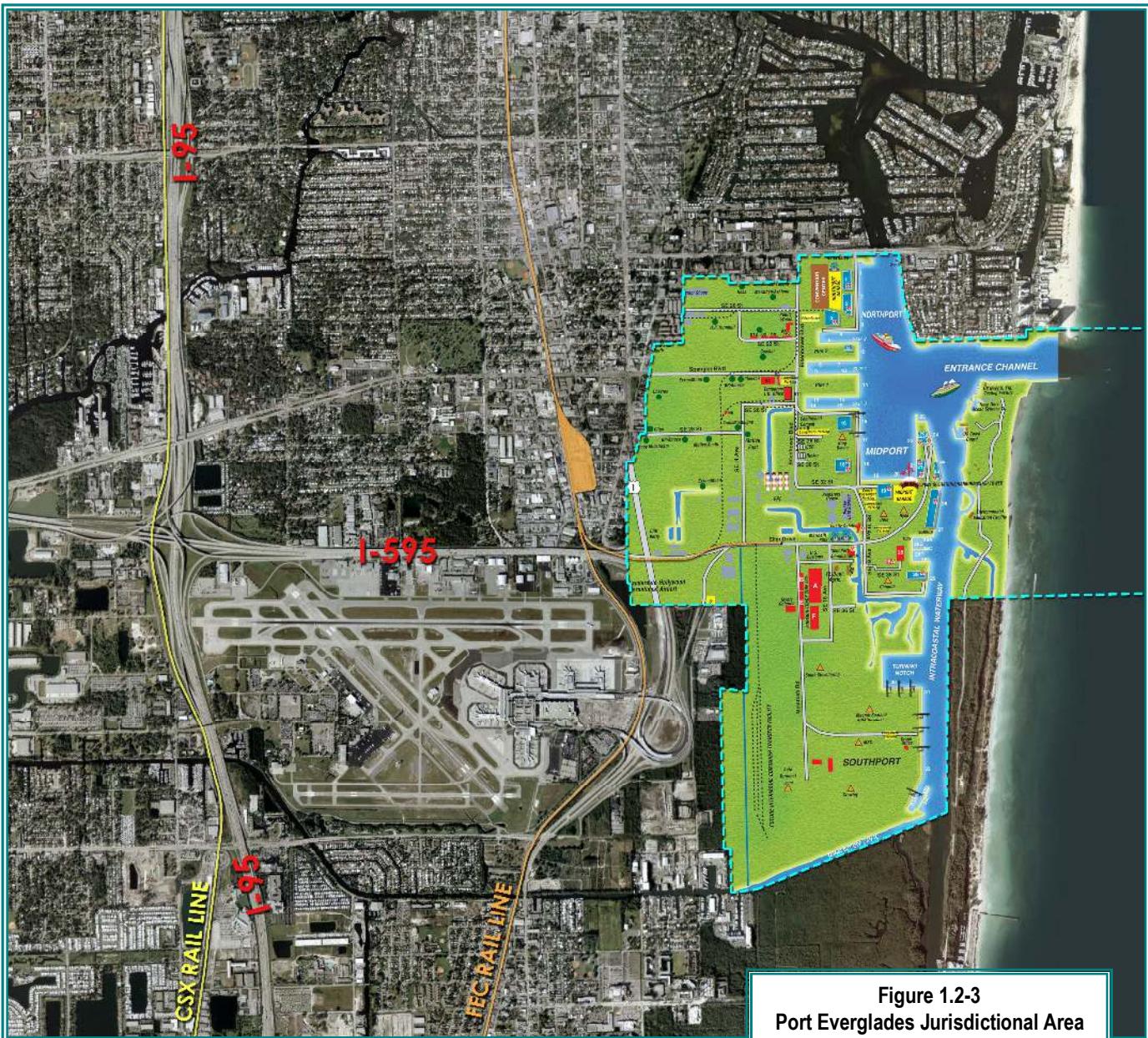
Port Everglades, portions of which are located in the Cities of Fort Lauderdale, Hollywood, and Dania Beach, and in unincorporated Broward County, encompasses an area of about 2,190 acres adjacent to the Intracoastal Waterway. The jurisdictional area of the Port and the surrounding area are shown in Figure 1.2-3 and the Port and its environs are shown schematically in Figure 1.2-4

Table 1-2.1 – Broward County Total Population and Employment in Selected Years

Date	Population	Employment
2000	1,623,018	651,360
2005	1,789,916	698,931
2015	2,117,038	797,284
2025	2,418,641	894,171
2030	2,548,303	944,445

Source: Broward County Planning Services Division, 2006.

⁵Unless otherwise indicated, the information in this section is based on FY 05/06 data.



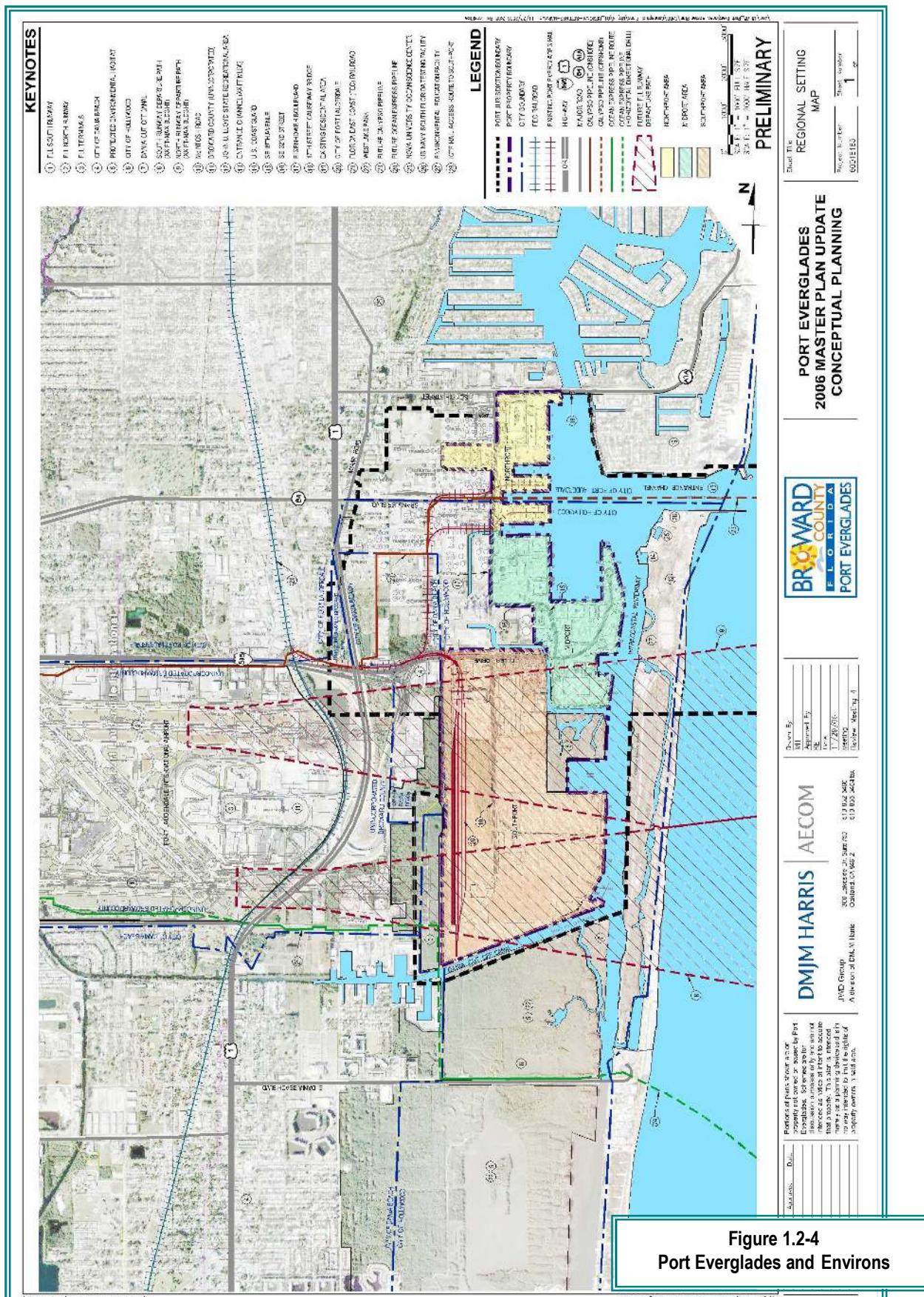


Figure 1.2-4
Port Everglades and Environs

With its containerized cargo, liquid and dry/neo- bulk commodities, and cruise activities, the Port is one of the most diversified in Florida. As discussed in Element 2, the Port's cargo and cruise operations are expected to grow significantly over the next several decades.

Port Everglades ranks among the top 12 U.S. container ports, moving more than 864,000 20-foot equivalent container units (TEUs) in Fiscal Year (FY) 05/06. This container throughput is expected to surpass 1 million TEUs in the next two to three years. The Port is pursuing aggressive strategies to deal with this projected growth, including the potential development of an intermodal complex to increase container capacity and the construction of a people mover to connect FLL with cruise ship facilities at the Port, as discussed later in this element.



In FY 05/06, the Port handled 26.6 million tons of cargo (2.6 million tons of exports and 12.5 million tons of imports as well as 11.4 million tons of domestic cargo, predominantly petroleum).⁶ The Port is the primary storage and distribution seaport for refined petroleum product in South Florida. Every day, about 12.5 million gallons of petroleum product are delivered on oceangoing tankers to Port Everglades for distribution to facilities in a 12-county area, including jet fuel to the area's three major airports and smaller regional airports.

Port Everglades estimates the economic impacts of its diverse operations include 27,528 direct, induced, and indirect jobs as well as an additional 160,576 related user jobs throughout the state, for a total of 188,203 jobs. The value of the Port's economic activities totals \$16.9 billion; these activities generate \$6.4 billion in total personal income and \$589 million in total state and local taxes. These estimates are taken from an economic impact report prepared in September 2007, by Martin Associates, a member of the Consultant Team; the complete report is contained in the Appendix.⁷

The Port's Foreign-Trade Zone No. 25 extends to several non-contiguous sites, including acreage in Davie, about six miles west of the Port, and farther west in the Miramar Park of Commerce. These off-Port locations help diversify and spread the economic opportunities and jobs generated by Port operations. Broward County is considering other sites for Foreign-Trade Zone designation.

In addition to its substantial cargo operations, Port Everglades also serves more than 40 cruise ships, which made more than 1,700 ship calls and embarked and disembarked 3.2 million multi-day and one-day cruise passengers in FY 05/06. With its continuing capacity expansion to serve industry growth, the Port expects to accommodate approximately 4.7 million cruise passengers per year in FY 10/11. Based on a recent survey, approximately 65 percent of these passengers fly through South Florida airports to and from their cruises.

⁶ Total does not add because of rounding.

⁷ Martin Associates, *The Local and Regional Economic Impacts of Port Everglades*, September 2007.

Port Terminals. Port Everglades is divided into three main areas: Northport, Midport, and Southport, whose current uses are as follows:

- **Northport** accommodates cruise ships and petroleum tankers as well as other break bulk and bulk ships.
- **Midport** is the Port's main cruise ship berthing area, but also accommodates both containerized and non-containerized cargo.
- **Southport** is the location planned for most of the Port's containerized cargo growth, including a proposed near-dock intermodal container transfer facility (ICTF) to move cargo directly from ship to rail car.

Port Access. The Port is located at the eastern terminus of I-595, which connects with I-95, Florida's Turnpike, and I-75, all components of the National Highway System as well as with other major arterials such as US 1, US 441 (SR 7), and SR 84. U.S. 1 also connects the Port with FLL, just a few minutes away. The proximity of and quick connection to this Airport are important components of the Port's cruise industry growth and reputation.

From the regional highway network, Port Everglades has three points of access:

- Eller Drive, which connects with I-595. This southernmost east-west access to the Port is the road most traveled by trucks headed to and from the Southport container facility and by buses and passenger vehicles headed to and from the Port's Midport cruise terminals.
- Spangler Boulevard, which is a continuation of SR 84, and enters the Port from the west, just to the north of the Midport area.
- Eisenhower Boulevard, which runs north and south, unlike the other two access roads, provides access to the Port from its northernmost edge, SE 17th Street/SR A1A. As the main entrance to the Northport area, this road serves the Broward County Convention Center, the 2,350-car Northport parking garage, and three of the Port's cruise terminals, including two that serve primarily one-day cruises.

In addition to Eller Drive, Eisenhower Boulevard, and Spangler Boulevard, the Port's major internal roads include SE 14th Avenue, SE 19th Avenue, McIntosh Road, SE 20th Street, and SE 28th Street.

Thousands of trucks and tankers carrying containers and petroleum enter and exit the Port by these roads every day in addition to vehicles carrying cruise ship provisions, cement, other building materials, and a variety of other commodities. These freight-carrying vehicles are joined on the roadway network by the hundreds of buses and automobiles carrying cruise passengers to and from FLL, local hotels, and elsewhere in the region.

At one time, these Port-related vehicles intermingled with those carrying tourists visiting the nearby restaurants, shops, hotels, and beaches; and, of course, with those carrying area residents. With the security concerns resulting from the events of 9/11, Port access has been restricted and the freedom with which non-Port-related vehicles used the Port as a convenient route has been curtailed. As discussed later in this document, current plans include carving out

the Convention Center from the Port's restricted area, construction of a "By-Pass Road" along Eisenhower and Spangler Boulevards, and other modifications to the Port's roads and security gates in conjunction with this initiative.

Improvements to Eller Drive and other Port roads have long been among the Port's top intermodal priorities. In addition to the ongoing expansion of its Southport area and the planned development of an ICTF, other intermodal road improvement projects include:

- A new intermodal bridge over the Florida Power and Light (FPL) Discharge Canal to reduce traffic on Eller Drive and directly connect the Midport and Southport areas of the Port within the security checkpoints.
- An overpass over Eller Drive to create a grade-separated rail crossing into the proposed ICTF in Southport.
- Improvements to and reconfiguration of McIntosh Road to support the Southport expansion and development.

With its growing cruise operations, the Port, in conjunction with the Florida Department of Transportation (FDOT) and the Broward County Aviation Department, is also conducting a People Mover system study, which is in the Project Development and Environmental (PD&E) phase. This study is assessing the best way to move the large numbers of cruise passengers who must be transported between FLL and the Port, particularly during peak weekend periods, and to enhance the on-Port movement of these passengers.

Section 1.10 discusses the current on-Port traffic circulation and parking.

Port Goals and Objectives. The 2001 *Port Everglades Master Plan* proposed a \$1 billion expansion to accommodate the growth expected by 2020.⁸ Subsequent to the publication of that Plan, the Port was required to implement an approximately \$40 million security program, which forced the postponement of many of the capital improvement projects identified therein.

Specific capital projects for the five-year planning horizon have been identified in the course of this planning process, which is intended to achieve the Port's goal to "consistently maintain, develop, expand, and modify the Port to meet service area needs, strengthen Broward County's economy, and enhance the region's multi-modal transportation network." As such, the planning process culminating in the development of this new Plan, is addressing many of the following Port objectives:

- Provide new container and other marine terminals, including planning for an ICTF.
- Improve intermodal connections (road and rail) to facilitate the transportation of cargo and provide competitive service.
- Expand cruise operations and construct new facilities.
- Expand roadway systems and parking facilities to support existing and increased cruise growth.

⁸TranSystems Corporation, *Port Everglades Master Plan*, August 2001.

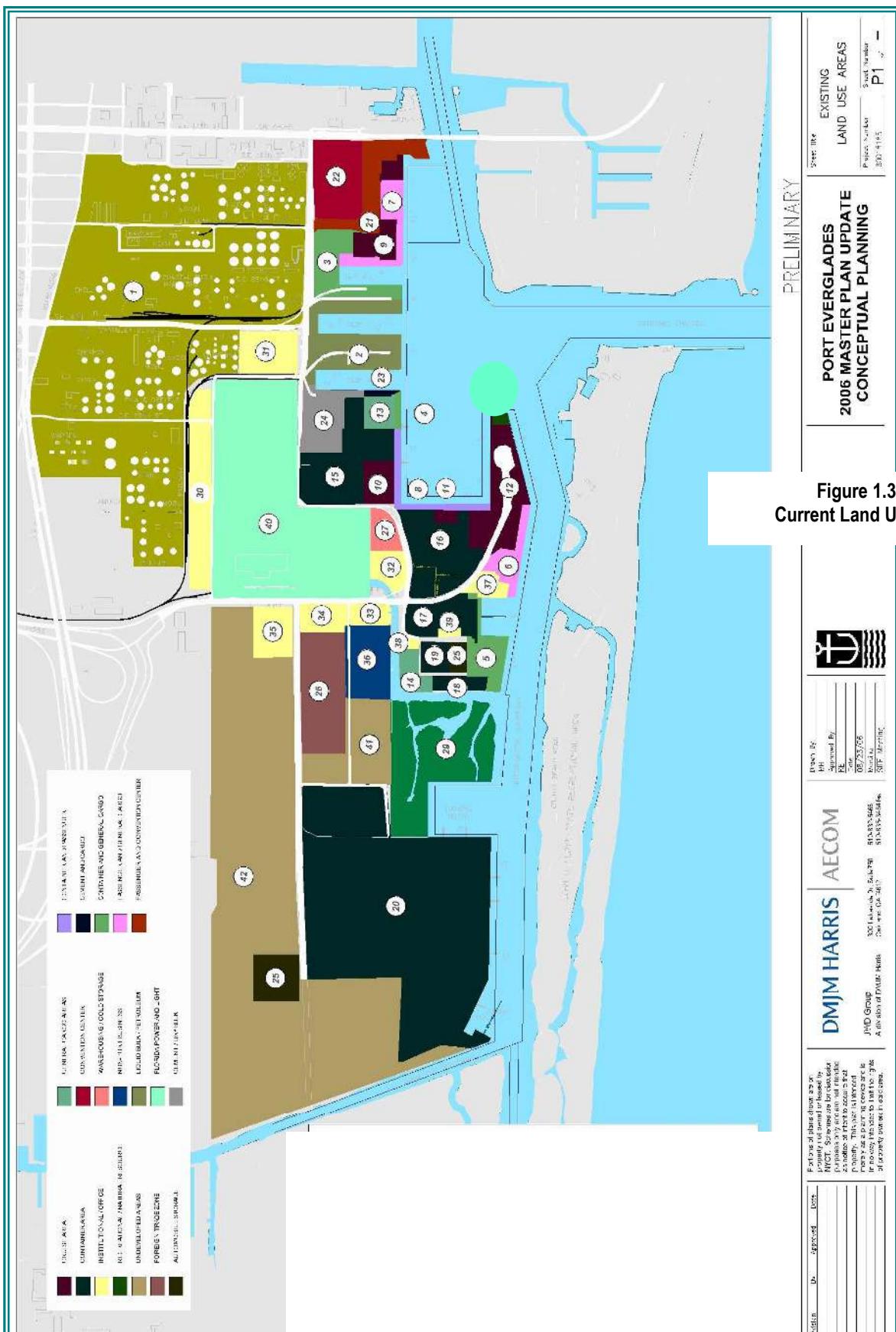
- Encourage Foreign-Trade Zone development (including noncontiguous zones).
- Expand the Port's role as a transshipment center for worldwide markets.
- Improve the petroleum-receiving system and operations.
- Pursue new trading opportunities and strengthen existing ties.

1.3 Land Uses

Current land uses within the Port's jurisdictional area are tabulated in Table 1.3-1 and illustrated in Figure 1.3-1.

Table 1.3-1
2006 Land Uses at Port Everglades
(Approximate Acreages)

<u>LIQUID BULK</u>		<u>CONVENTION CENTER AREAS</u>	
1. STORAGE AREA	328.0 ACRES	21. CRUISE AND CONVENTION	14.7 ACRES
2. BERTH AREA	24.0 ACRES	22. CONVENTION CENTER	18.3 ACRES
<u>CONTAINER AND GENERAL CARGO</u>		<u>OTHER CARGO AREAS</u>	
3. NORTHPORT	1.5 ACRES	23. CEMENT & GENERAL CARGO	0.9 ACRES
4. MIDPORT BERTH 16	1.0 ACRES	24. BULK CEMENT	13.4 ACRES
5. MIDPORT BERTH 29	9.5 ACRES	25. AUTOMOBILES	12.5 ACRES
<u>PASSENGER AND GENERAL CARGO</u>		<u>PROTECTED AREAS</u>	
6. MIDPORT BERTH 26	6.8 ACRES	26. FOREIGN-TRADE ZONE	18.3 ACRES
7. NORTHPORT BERTHS	8.4 ACRES	27. COLD STORAGE	6.2 ACRES
<u>PASSENGER AND CONTAINER CARGO</u>		29. MANGROVE PRESERVE	45.0 ACRES
8. MIDPORT BERTHS	4.9 ACRES	<u>OFFICE/INSTITUTIONAL AREAS</u>	
<u>PASSENGER AREAS</u>		30. OFFICE	14.7 ACRES
9. NORTHPORT BERTHS	8.4 ACRES	31. OFFICE	18.3 ACRES
10. TERMINAL 18	6.4 ACRES	32. PUBLIC SAFETY	14.7 ACRES
11. TERMINAL 19	1.4 ACRES	33. PORT ADMINISTRATION	18.3 ACRES
12. PIER 4	22.0 ACRES	34. OFFICE	6.5 ACRES
<u>GENERAL CARGO AREAS</u>		35. OFFICE	9.4 ACRES
13. BERTH 16	4.8 ACRES	36. DRY MARINA/FMP	16.0 ACRES
14. MIDPORT STORAGE	5.0 ACRES	37. SEABULK	3.8 ACRES
<u>CONTAINER CARGO AREAS</u>		38. OPERATIONS	1.0 ACRES
15. MIDPORT BERTHS 16/17/18	26.0 ACRES	39. OFFICE	0.9 ACRES
16. MIDPORT BERTHS 19/20	24.2 ACRES	40. FLORIDA POWER AND LIGHT	120.0 ACRES
17. MIDPORT BERTHS 28/29	11.5 ACRES	<u>UNDEVELOPED AREAS</u>	
18. MIDPORT BERTH 29	3.6 ACRES	41. CONTAINER MAINTENANCE	24.5 ACRES
19. MIDPORT BERTH 29	4.1 ACRES	42. SOUTHPORT EXPANSION	188.0 ACRES
20. SOUTHPORT	174.0 ACRES		



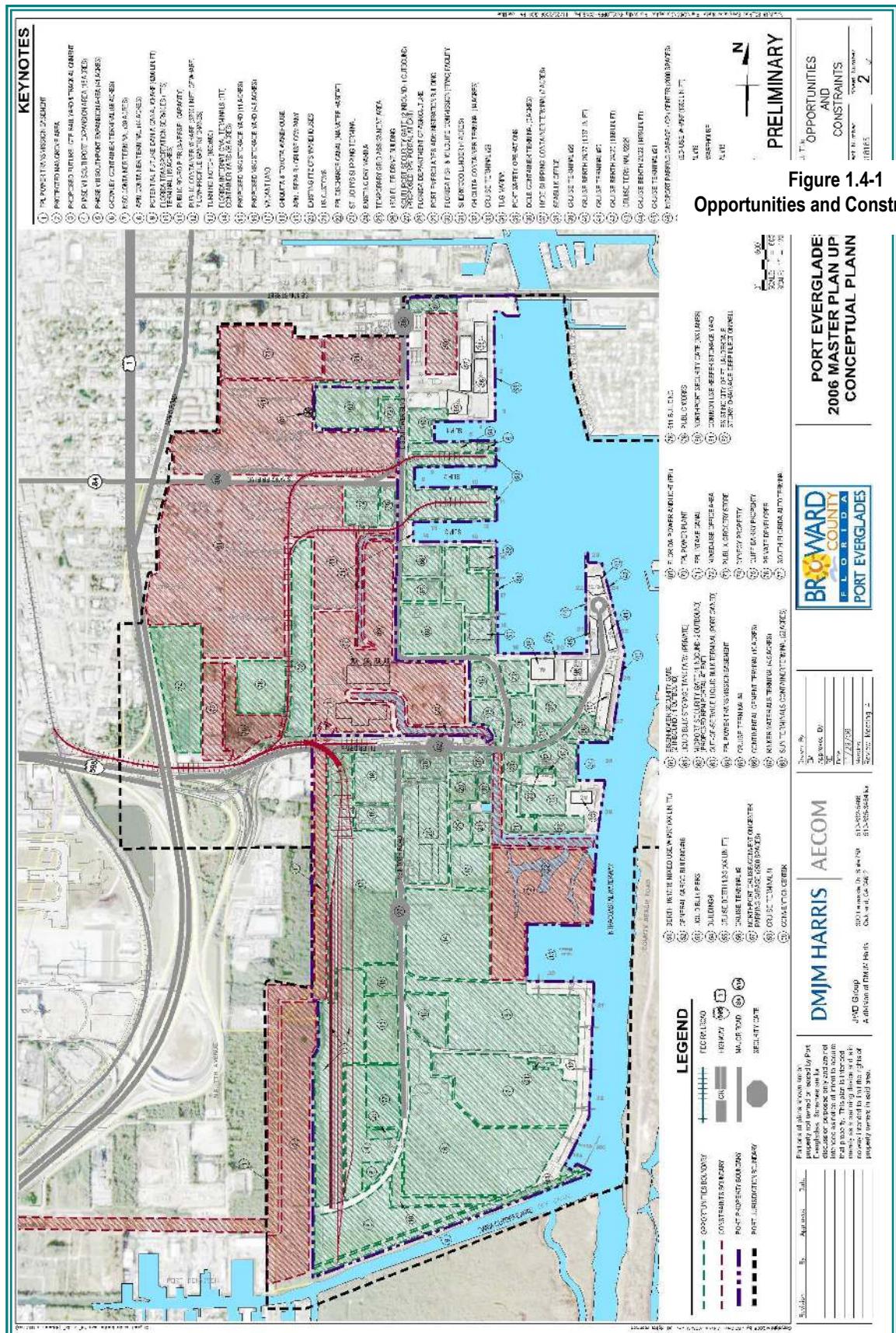
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1.4 Opportunities and Constraints

The Consultant Team prepared an Opportunities and Constraints Map to define the areas of the Port that were available for development and avoid the areas that were off-limits from future development. Opportunities are identified as areas or operations that may be subject to change during the life of the Plan. Throughout the course of the planning process, the Opportunities and Constraints Map was modified as new information or policy changes regarding the use of the individual properties were made available. In this way, the O&C Map became a living document used to guide decisions during project meetings.

Figure 1.4-1 represents the most recent Opportunities and Constraints Map developed during Phase I of the planning process. The major opportunities and constraints, as identified at the start of this planning process, are summarized in the narrative following Figure 1.4-1. Additional information reflecting the evolution of the process is provided in subsequent sections of this document.⁹

⁹ During the planning process, the conditions reflected in this section may have changed; the information presented reflects the situation during the Phase I analysis, unless otherwise noted.



1.4.1 Southport Container Terminals and Wharf Structures - Opportunity

Southport is the most recently developed portion of the Port. Most of the property has been implemented for modern container yards using “top-pick” equipment for light density stacking operations. A common public wharf structure is provided as a shared asset with low-profile gantry cranes to load vessels. Several Southport tenants have installed state-of-the-art gate complexes to collect transaction data accurately, reduce gate-processing times, and communicate with yard equipment. The leases are fairly flexible to allow for terminal boundary modifications and terminal redevelopment. In addition, most of the tenants are ready to modify the terminals to allow for higher density operations. A limited number of vacant parcels are available for consolidation and terminal development throughout this area. Southport is thus an important opportunity for future consideration.

1.4.2 Southport ICTF Rail Yard - Opportunity

The area of Southport directly west of McIntosh Road is currently vacant and a portion of it is designated as the future rail yard or ICTF. Preliminary planning has been conducted on the layout of the potential facility and further study is necessary. The Eller Drive Overpass, now in design, will provide a grade separation at U.S. 1 and Eller Drive, to accommodate future rail operations and avoid rail use blocking the Port’s main access point.

1.4.3 Port Administration Building and Miscellaneous Offices - Opportunity

A number of structures that are not water-dependent are located within the Southport and Midport areas. These include administrative offices (state and county), the Foreign-Trade Zone, freight consolidation warehouses, construction yards, private offices, and other support facilities. These structures were considered for potential relocation to other non-critical areas of the Port or consolidation outside of the Port.

1.4.4 Existing “Molasses Tanks” at Northport - Opportunity

At Northport, west of Eisenhower Boulevard, the Port owns the former molasses tank farm (land and tanks). This property and the steel tanks are important assets to be developed.

1.4.5 Southport Protected Environmental Area and FPL Power Line Easement - Constraint

Along the southwestern edge of the Port boundary lays a protected environmental area associated with the West Lake State Park Preserve, which parallels NE 7th Avenue. A series of FPL high-tension power lines also parallel this mangrove preserve. Efforts should be made to avoid these areas in planning infrastructure improvements.

1.4.6 Existing and Planned FLL Runway Configurations - Constraint

FLL’s flight arrival and departure patterns extend over portions of Southport and Midport. The flight paths restrict structure as well as vessel heights inside of the boundaries. Close coordination with the Broward County Aviation Department (BCAD) and the Federal Aviation Administration is necessary prior to implementation of any projects in these regions of the Port.

Port Everglades will need to file the appropriate FAA 7460-1 forms for approval when necessary. BCAD has indicated it will assist the Port with the process where needed.

1.4.7 Midport Terminal Areas - Opportunity

The Midport area consists of smaller non-contiguous lease areas that make efficient terminal operations difficult. Potential consolidation or relocation of the existing operations may provide new opportunities for expansion.

1.4.8 Midport Vacant Land Areas - Opportunity

The Midport area along the Port's western perimeter, near the intersection of Eller Drive and U.S. 1, includes some large tracts of fairly vacant and undeveloped land. Broward County has acquired one of these properties for potential development.

1.4.9 Florida Power and Light - Power Plant and Intake/Outfall Structures - Constraint

FPL facilities are located in Midport, west of Berths 16, 17, and 18. The power plant has been a fixture in the Port Development District for many years and is critical to providing power to South Florida. Cooling water for the power plant is drawn in from Slip 3 through an open canal and is expelled into an open canal that parallels Eller Drive east to SE 19th Avenue, where it crosses under Eller Drive and exits into the Intracoastal Waterway along the northern perimeter of the protected mangrove preserves. Manatees are attracted to the warm water in the FPL Discharge Canal.

1.4.10 Protected Mangrove Area at Turning Notch – Constraint

On the west side of the Intracoastal Waterway, between Southport and Midport, is a significant mangrove preserve protected by a perimeter rock dike. This area is a state-protected ecological preserve. In addition, a manatee preserve lies upriver within the FPL Discharge Canal in the vicinity of the existing dry boat storage facility. Any impacts on this area will require habitat mitigation and permitting, as discussed further in Section 1.12.

1.4.11 Slips 1 through 3 – Opportunity

The 2005 *Petroleum Sector Strategy Study*, prepared for the Port by Purvin & Gertz, identifies an opportunity to upgrade the loading arms and piping systems on the Port's petroleum piers. The study further identifies the need to study slip widths and vessel navigation requirements as the vessels that call at these facilities increase in size. Studies are necessary to determine safe vessel movements and berthing within the slips.

1.4.12 Northport Office Uses - Opportunity

Several buildings, including the Amman Building, in the Northport area, west of Eisenhower Boulevard and south of Spangler Boulevard, are used for offices. These buildings are available for potential acquisition, relocation, and/or demolition so that the property could be used for other water-dependent Port uses. The Customs House, which is listed on the National Register of Historic Places, needs to be restored or relocated to an off-port site, which would provide easy access for the public to visit.

1.4.13 Northport Liquid Bulk Storage Tanks - Constraint

The petroleum storage tanks in Northport and the surrounding areas are largely located on privately held property and relocation or consolidation of large areas were determined to be significantly cost prohibitive. Efforts were made to avoid these areas and limit future impacts on these properties.

1.4.14 Convention Center Uses - Constraint

The Broward County Convention Center and Northport Parking Garage are located in Northport, adjacent to SE 17th Street and Cruise Terminals 1, 2, and 4. Broward County has made significant investments in this Convention Center to create a world-class facility on the water. Facility expansion and the possible addition of a premier hotel site are being considered. Close coordination with the master planning initiatives of the Port and the Convention Center is required to resolve circulation, land use, and security issues.