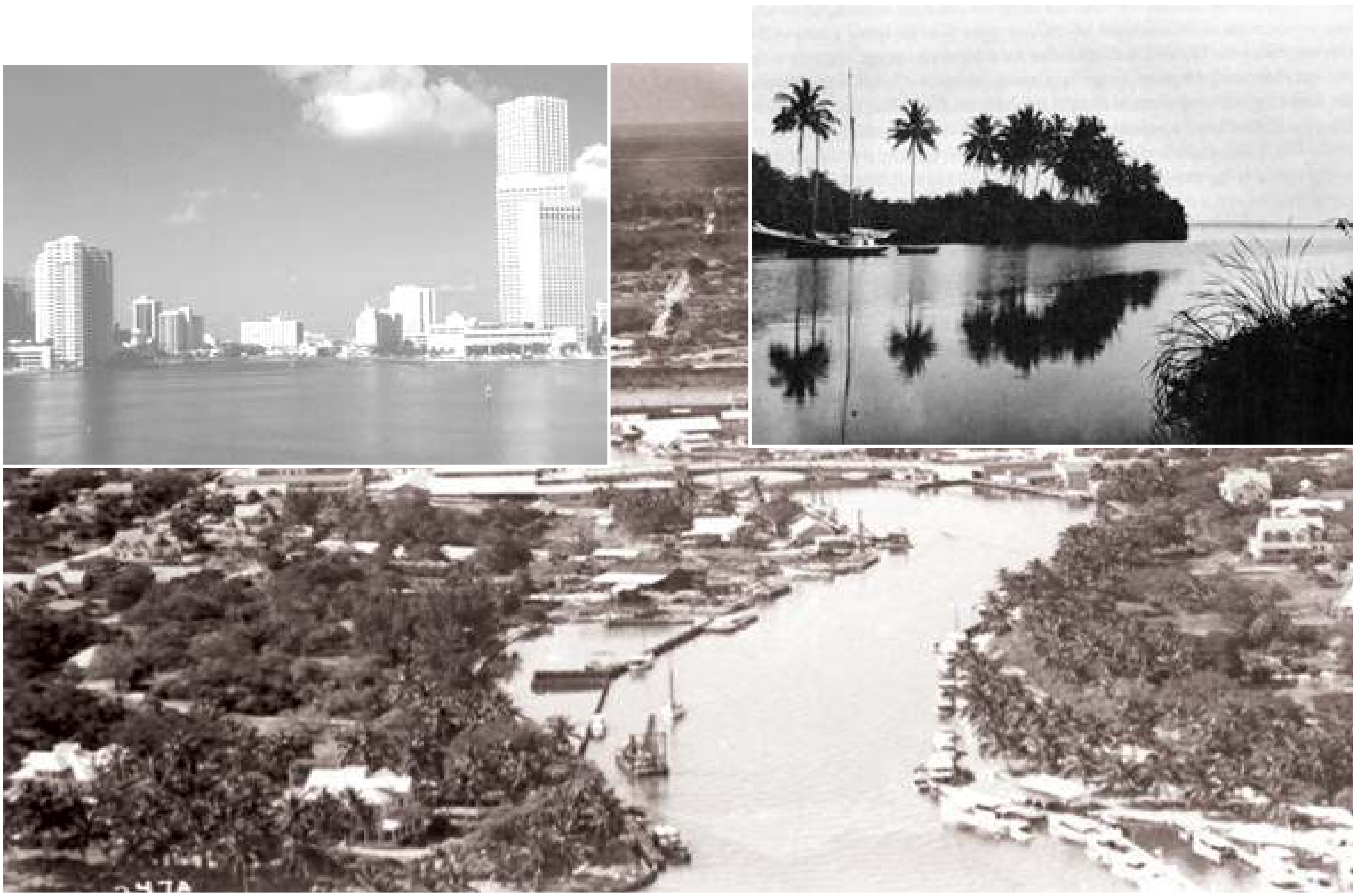
Miami River Marine Industry Economic Assessment and Profile



Prepared for:
The City of Miami

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Executive Summary

The *Miami River Marine Industry Economic Assessment and Profile* provides a current economic overview and description of the marine industry and related establishments within the City of Miami. The Miami River is an important physical and economic resource to the City of Miami and Miami-Dade County. The importance of the river to the City and County was first encapsulated in the 1992 *Miami River Master Plan.* Since the creation of the *Miami River Master Plan,* the City of Miami and Miami-Dade County have undergone a significant economic and social transformation. The Miami River has also experienced economic changes over the past two decades. Recent economic studies and reports document that much of the Miami River's marine industry and many of its jobs have moved to Broward County and waterborne commerce, which had peaked during the mid 1990s, has since experienced a declining trend.

The City of Miami must periodically update its economic database to ensure that future land use planning and policy are grounded on an objective analysis of current economic factors, conditions and trends. Specifically, Chapter 163.3177(6)(a), F.S. states "The future land use plan shall be based upon surveys, studies, and data regarding the area…". In fact, sound comprehensive planning must balance a number of important and often competing factors including orderly growth, expansion of the economic base, historical and environmental preservation, and quality design. As such, the *Miami River Marine Industry Economic Assessment and Profile* provides a current economic overview of the original study area described in the *Miami River Master Plan* and a detailed survey of the existing marine industry and related uses that were a significant focus of the plan.

The current economic assessment and profile determined that the Miami River is comprised of a diverse mix of land uses. Restricted Commercial (30 percent) comprises the largest percentage of land use followed by Industrial (15 percent) and Recreation (14 percent). However, an analysis of business license and business activity data more clearly demonstrates the scope of mixed-uses on the river including: retail (boat dealers, restaurants, merchant retailers), industrial (storage & warehouse, manufacturing, boat repair), residential (apartments and condos) and offices (administrative & professional).

A trend analysis of growth in Miami-Dade County's marine industry indicates significant losses from 2000-2006 in the total number of establishments and employees in many of the County's important marine industry sectors including boat building, inland water freight transportation, port harbor operations, marine cargo handling and navigational services to shipping. Employment losses were most significant in two industries, deep sea freight transportation (209 job losses) and ship building & repair (102 job losses), where the County also saw a slight increase in new establishments. This condition is indicative of an industrial sector that is undergoing a discernible level of restructuring and contraction.

The economic assessment of the marine industry specific to the Miami River provides a detailed profile and description of the leading marine and related industries within the corporate limits of the City of Miami. The economic assessment disaggregates the marine industries located on the Miami River to determine the leading industries in terms of number of establishments, employees, payroll and scope of business activities including annual sales. The economic assessment determined that the leading marine industry establishments on the Miami River within the City of Miami's corporate limits include the following three (3) industrial classifications:

Sector NAICS Code/Description	Industry NAICS Code/Description
71 – Art, Entertainment & Recreation	**483211** – Marinas
44 – Retail	**441222** – Boat Dealers
48 – Transportation & Warehousing	**483211** – Inland Water Freight Transportation

Marinas (10 establishments/86 employees), boat dealers (7 establishments/177 employees) and inland water freight transportation (3 establishments/36 employees) comprise the largest sector of the local marine industry in terms of number of establishments, employees, payroll and annual sales. Other marine industry establishments include two (2) freight transportation arrangement establishments and one (1) boat building establishment. In total, there are 24 licensed marine and related industries on the City of Miami portion of the Miami River employing 417 workers locally.

The economic assessment further determined that leading marine industry establishments on the Miami River are principally small businesses. In fact, 92 percent of these establishments employ less than 20 employees and 62 percent have only 1-4 employees. Expectedly, the majority of these marine industry establishments have annual sales of $700,000 and less.

A common thread running through all the economic studies and reports that have been prepared on the Miami River marine industry is the constant "change" in the composition of marine industry establishments. Change, including the loss of marine industry establishments, was initially reported in the 1992 *Miami River Master Plan*. Recent economic studies and reports concur that the composition of the Miami River's marine industry has changed in recent years and that there is room for improvement along the river from both an economic and environmental perspective. In fact, several studies cited that the largest part of the Miami River marine industry and many of its jobs, including ship building and repair and marinas, have relocated to Broward County. This economic assessment substantiates these claims and provides a current perspective on the future growth and expansion of the Miami River's marine industry. The assessment concludes that growth is limited due to the predominance of small industrial/commercial land parcels, including vacant industrial lands, and a general lack of physical and economic capacity to be successful in a highly competitive industry.

Despite the limited growth potential of the Miami River's marine industry, the independent commercial marine establishments located on the City of Miami's segment of the Miami River are significant to the City's economy and integral to the larger marine industry of

Miami-Dade County and South Florida. Together, marine and marine-related establishments along the City of Miami's segment of the river continue to function as a working waterfront providing cargo shipping services to shallow draft ports in the Caribbean Basin in addition to providing repair and sales services for boats and marine equipment. Maximizing the competitive advantage of this grouping of marine related establishments within the larger marine industry cluster of South Florida will require a more comprehensive economic analysis of their performance and growth opportunities within the region.

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I. Introduction

The Miami River is an important physical and economic resource to the City of Miami and Miami-Dade County. The importance of the river to the City and the County was first encapsulated in the 1992 *Miami River Master Plan.* The 1992 master plan was undertaken in order to: 1) consolidate in one summary document the existing and proposed projects, programs and ideas of many public agencies and private sector organizations that are working to improve the Miami River and it's environs; 2) relate all these in a comprehensive manner, fill in the missing pieces, resolve conflicts, and suggest priorities; and 3) provide a long-range vision and a short-range action agenda.

The first phase of the Miami River master planning effort was a detailed inventory and analysis of existing physical and economic conditions and projections for future growth. The final report from the initial phase was the 1986 *Miami River Economic Study* prepared by Zuchelli, Hunter and Associates, Inc. and Bermello, Kurki and Vera, Inc. The 1986 economic study served as the "data base" for the formulation of the 1992 *Miami River Master Plan* by the City of Miami Department of Planning, Building and Zoning.

Since the creation of the *Miami River Master Plan* in 1992*,* the City of Miami and Miami-Dade County have undergone a significant economic and social transformation. The Miami River has also experienced economic changes over the past two decades. Recent studies and reports note that much of the Miami River's marine industry and many of its jobs have moved to Broward County and waterborne commerce, which had peaked during the mid 1990s, has since experienced a declining trend.

The City of Miami must periodically update its economic database to ensure that future land use planning and policy are grounded on an objective analysis of current economic factors, conditions and trends. Specifically, Chapter 163.3177(6)(a), F.S. states "The future land use plan shall be based upon surveys, studies, and data regarding the area…". In fact, sound comprehensive planning must balance a number of important and often competing factors including orderly growth, expansion of the economic base, historical and environmental preservation, and quality design. As such, the *Miami River Marine Industry Economic Assessment and Profile* provides a current economic overview of the original "study area" described in the *Miami River Master Plan* and a detailed survey of the existing marine and related establishments.

II. Economic Assessment and Profile of the Local Marine Industry

A. Prior Economic Studies

As previously noted, the 1986 *Miami River Economic Study* prepared by Zuchelli, Hunter and Associates, Inc. and Bermello, Kurki and Vera, Inc. served as the "data base" for the formulation of the 1992 *Miami River Master Plan* by the City of Miami Department of Planning, Building and Zoning. However, since the completion of the master plan there have been a series of economic studies conducted that have attempted to measure the impact of the marine industry on the economies of the City of Miami, Miami-Dade County and Southeast Florida.

Two of the studies, the 2005 *Biscayne Bay Economic Study* by Hazen and Sawyer prepared on behalf of the South Florida Water Management District and a 2006 report entitled, *The Economic Development Impacts of Merrill Stevens Comprehensive Revitalization of the Miami River through the Modernization and Expansion of its Dry Dock Repair Facilities* prepared by the Washington Economics Group on behalf of Merrill-Stevens applied the IMPLAN model to measure the economic impact of the industry. IMPLAN and other economic models such as REMI are input/output (I/O) modeling systems that measure the direct, indirect and induced expenditures to determine the overall economic impact (effect) of an industry's activities. The I/O model is based on the theory that when new money enters a community through investment, revenues, or income, some of this money is re-spent one or more times in the local economy, thereby creating additional economic impact. This impact is most often measured in terms of employment or income. For example, a 100-person facility might have a total employment impact of 110 jobs in a community. In addition to the original 100 jobs, 10 additional jobs are supported throughout the community as a result of the spending of the business and its employees. In this example, the "employment multiplier" for that industry in that community would be 1.1 - the ratio of the total impact to the initial impact (110/100). IMPLAN estimates these impacts using specific data on what inputs are needed to produce the products or services for some 500+ industries, and community specific data on what industries are available locally from which to purchase those inputs. (Both of these data are available from secondary sources and are included in the model). Therefore, the multipliers for any given industry in any given location are unique, based on industry composition and geographic area. Further, the larger the area under examination, the larger the "multiplier effect" since there will be more opportunities to purchase inputs within the study area.

In the 2005 *Biscayne Bay Economic Study* the authors used the IMPLAN model to provide estimates for direct expenditures as a result of Miami River shipping industry spending, indirect expenditures as a result of services supplied to the companies, and induced expenditures as a result of the expenditures of the employees of the businesses affected by the shipping companies and their suppliers. The authors calculated that the Miami River shipping industry would generate an increase of $682 million in output, 6,106 jobs, $339 million in earnings, and $37.7 million in increased tax revenues. In the Merrill-Stevens study the authors applied the IMPLAN model to determine the economic impact of the planned expansion of the firm's dry dock repair facilities. The study calculated direct expenditures during the construction phase would amount to $55 million and create 642 jobs and $26 million in earnings. According to the report, Merrill-Stevens anticipates ongoing revenues of $90 million annually with 40 percent of its business activities devoted to the repair of mega yachts.

In a 2008 report entitled, *An Economic Analysis of the Miami River Marine Industry* by Florida Atlantic University (FAU) prepared on behalf of the Miami River Commission the authors note that the IMPLAN model "was competently applied to the 2005 *Biscayne Bay Economic Study* and that the economic assumptions used to make up for a lack of detailed data "appear reasonable in almost all cases." However, the report states that export elasticity of demand was incorrectly applied to "value" of exports rather than the "tons" of exports which resulted in an over estimate of the economic impacts of exports. It is significant to note that even with this correction, the FAU study calculates an annual contribution of $466 million in output, 4,168 jobs and $213 million in earnings which, according to the authors, "underscores the vital economic impact of the Miami River shipping industry on the Miami-Dade economy." For the purposes of this study, we are in general acceptance with the application of the IMPLAN model and the adjusted economic impacts found in the FAU analysis. This is based on the fact that the marine industry, in general, provides significant value-added and employment earnings in most locations where it is established. However, in order to gauge the relative performance of the marine industry it is important to disaggregate the industry into its separate industrial sectors. For example, ship building and repair typically provide the largest output in value-added and employment earnings but is concentrated in only a few establishments. Other sectors such as boat building and repair have more establishments and total employees but provide less than half the value-added of ship building and less employment earnings.

Another economic study includes a 2000 survey by Kenneth Lipner entitled, *Miami River Economic Study* prepared on behalf of the Miami River Commission which concluded that the non-shipping industry, including boat manufacturing and repair, had annual sales about equal to the sales of the shipping industry. The study found that the non-shipping industry also provides support to "commercial fishing, tour boats, boats that serve the cruise industry and mega yachts." Once again, the study's findings appear reasonable. However, any economic study of complementary and supporting industries should be performed as part of an industry cluster analysis that disaggregates the entire industry sub-sectors. This would include a complete profile of each non-shipping establishment to provide detailed data to measure the indirect effects to backward linked industries that supply the exporting shipping establishments.

A significant economic study was performed by Thomas J. Murray & Associates entitled, *Recent Growth, Current Activity, and Economic Impacts of Mega Yachts in South Florida 1997-2002, 2003*. The study was prepared for the Marine Industries Association of South Florida and the Broward Alliance. The study concluded that the U.S. ranked second in mega yacht construction and Southeast Florida "represented a significant cluster of professional services and talents necessary for the world's mega yacht industry." The study calculated direct, indirect, and induced impacts that result in a total increase of $576 million in output for the tri-county area with a total increase of 5,968 jobs and earnings of $276 million. It should be noted that the mega yacht industry is part of the larger ship building industry in Southeast Florida which is largely concentrated in Broward County. However, Merrill-Stevens' proposed expansion of its dry dock repair facilities on the Miami River to accommodate mega yacht repair has economic grounding based on the presence of this regional cluster.

In summary, recent economic studies and reports are in general agreement as to the economic viability of the Miami River's marine industry, particularly with respect to the shipping industry and related dependent exporting industries and non-shipping industries that support both ship building and repair along with other commercial and recreational uses. At the same time, the studies generally concur that the composition of the Miami River's marine industry has changed in recent years and that there is room for improvement along the river from both an economic and environmental perspective. Recent economic studies and reports, including those by the Miami River Marine Group, state that the largest part of the marine industry and many of its jobs have moved to Broward County. Efforts have been made in recent years to preserve the remaining shipping and related industries. In the aforementioned FAU report, *An Economic Analysis of the Miami River Marine Industry* the authors noted that waterborne commerce through the Miami River port had peaked during the mid 1990s but have experienced a declining trend in the last decade. The study points out that the decline was partly due to the "desire" of some port operators to switch to larger ships which required a lower depth channel. As a result, in 1995 Hyde Shipping moved its operations to Port Everglades in Broward County and in 2001 Bernuth Lines moved its operations to the Port of Miami.

The current study considers the findings from the various economic studies and reports that have been prepared since the completion of the 1992 *Miami River Master Plan.* These studies provide an understanding of the economic factors and conditions that have influenced both the growth and decline of the Miami River marine industry. The following analysis builds on these studies by developing a current economic assessment and profile of the specific industries and uses that operate on the river. It is hoped that a detailed assessment and profile of the marine industry will provide a clearer understanding of the planning and economic development issues of the Miami River.

B. Methodology

The economic assessment and profile begins with the same methodology that would be followed in a traditional economic based study but with a targeted focus on the local marine industry. The economic base of a community includes all of the production and distribution of goods and services that are both locally consumed and exported outside the community to other regions. Any economic activity that results in the sale of goods and services to customers outside the region is part of the "basic sector" of the local economy, while the production of goods and services consumed by the basic sector industries and by local households is referred to as the "non basic sector." The reason that the distinction between basic and non basic sector activities is considered important is that the basic sector generates those activities that bring additional dollars into a region (community) that can, in turn, be used for further growth. It is essential, therefore, that a community's basic industries be identified, categorized and analyzed to determine their potential for economic growth. It has been established in previous economic studies of the local marine industry that it is a basic sector of the local and regional economy due to its high input/output capacity, value-added and employment earnings.

A carefully constructed economic base analysis can help predict future employment growth or loss on the basis of changes in the basic sector. Economic base studies are commonly used in targeting (identifying) industries that have a high potential for economic growth. It is also an important economic development tool for the formulation of industrial retention strategies such as the existing marine industry. The first step in performing an economic base study is to define the region that constitutes the local economic base. The region can be a city, but is generally a larger scale such as a county due to the fact that it is important to capture the scope of the labor market area (LMA) and the spatial dimension of backward industry linkages that supply exporting firms. For the purposes of this study, the marine industry is first analyzed at a regional level (Miami-Dade and Broward Counties) and then drilled down to the Miami River. Once the economic region is defined, the next step is to identify the specific industries that comprise the region's economic base. This is done by categorizing all local industries according to the North American Industrial Classification System (NAICS).

C. Marine Industry Classifications

The U.S. Economic Census includes 20 sectors under the North American Industrial Classification System subdivided into 100 sub sectors (three-digit codes), 317 industry groups (four-digit codes), and, as implemented in the United States, 1,179 industries (six-digit codes). For the purposes of this study, the six-digit industry code is used which provides the highest level of industry description in terms of product or service. The listing of industries excludes NAICS 483112 - Deep Sea Passenger Transportation, which comprises establishments primarily engaged in providing deep sea transportation of passengers to or from foreign ports, and NAICS 488510 - Freight Transportation Arrangement, which comprises establishments primarily engaged in arranging transportation of freight between shippers and carriers. These establishments are usually known as freight forwarders, marine shipping agents, or customs brokers and offer a combination of services spanning transportation modes. NAICS 483112 industries include establishments such as cruise ship lines, while NAICS 488510 industries include international airports. For the purposes of this study, NAICS 488510 industries classified as "marine shipping agencies" are identified and profiled.

Marine industries cover a broad range of activities and enterprises. Including traditional activities and enterprises such as ship building, boat repair, shipping transport services and marinas but also include tourism and recreation and emerging industries such as aquaculture and marine biotechnology.

The following are the major sectors that comprise the Marine Industries classification:

- Commercial and Defense Shipbuilding (and servicing/refit/maintenance);
- Ship Repair;
- Super Yachts (construction/servicing/refit/maintenance);
- Recreational Vessels (construction/maintenance/fit out/charter/clubs);

- Marine Equipment Research and Development and Manufacture;
- Shipyard Operation;
- Marine Components Development and Manufacture;
- Marinas (Wet and Dry Moorings, Craft Maintenance) and Boating Infrastructure;
- Marine Environment Systems and Management (research, development, programs and installation);
- Marine Brokers and Retailers;
- Marine Engines (maintenance and distribution); and
- Services to Support the Marine Industries, including: education and training services, safety providers and marine insurance.

The following sectors are included in some definitions of the Marine Industries:

- Passenger Transportation Establishments;
- Commercial and Recreational Fishing; and
- Water-Based Tourism, Recreation and Leisure Operations

The marine industry in Miami-Dade County and Southeast Florida is largely comprised of the following NAICS six-digit code industries:

- Marine Cargo Handling
- Boat Building
- Boat Dealers
- Deep Sea Freight Transportation
- Marinas
- Ship Building & Repair
- Navigational Services to Shipping
- Port Harbor Operations
- Inland Water Freight Transportation

Florida Statute 9J-5.003 F.S. provides definitions for "water-dependent uses" and water-related uses" to be used in the Coastal Management Data and Analysis Requirements (9J-5.012(2)(a) of a local government's comprehensive plan. The definitions are as follows:

Water-Dependent Uses
Activities which can be carried out only in or adjacent to water areas because the use requires access to the water body for: waterborne transportation including ports or marinas; recreation; electrical generating facilities or water supply.

These uses and facilities require direct access to, or location in, marine or tidal waters and cannot be located inland. These include marinas, recreational and commercial fishing and boating facilities, waterfront dock and port facilities, shipyards and boat building facilities, and water-based recreational uses.

Water-Related Uses
Activities which are not directly dependent upon access to a water body but which provide goods and services that are directly associated with water-dependent or waterway uses, or a use in whose principal goods and services are derived from water-or

waterfront-dependent activities, or a principal portion of the goods or services it provides are designed to be used in connection with such activities.

According to the most recent U.S. Census *County Business Patterns*, boat dealers (298 est.) and marinas (140 est.) comprise the largest number of marine industry "water-dependent" uses in Miami-Dade and Broward Counties (Table 2.1). Marine cargo handling (4,060 employees) followed by boat dealers (1,804), boat building (1,392 employees) and marinas (987 employees) are the largest marine industry employers in the two counties.

Miami-Dade and Broward Counties differ, however, in the overall composition of establishments and number of employees within their respective marine industries. While both counties are largely comprised of boat dealers and marinas, Broward County has significantly more ship building & repair and boat building establishments than Miami-Dade County. On the other hand, Miami-Dade County has a greater concentration of deep sea freight transportation and port harbor operations establishments. Employment concentrations also differ between the two counties. Miami-Dade County, while having less boat building establishments than Broward County, employs significantly more employees within this industry.

Table 2.1: Major Marine Industries by Industrial Classification, 2006

Industrial Code Description	NAICS	Miami Dade County			Broward County		
		Number Employees	Annual Payroll ($1,000)	Number of Establishments	Number Employees	Annual Payroll ($1,000)	Number of Establishments
Ship Building & Repair	336611	52	$2,125	9	411	$16,995	29
Boat Building	336612	1,089	$36,650	24	303	$8,525	38
Boat Dealers	441222	572	$23,134	83	1,232	$53,621	215
Deep Sea Freight Transportation	483111	821	$46,297	27	250-499	$0	12
Inland Water Freight Transportation	483211	0-19	$0	3	8	$221	4
Port Harbor Operations	488310	250-499	$0	8	0-19	$0	3
Marine Cargo Handling	488320	2,762	$56,092	13	1,298	$29,234	10
Navigational Services to Shipping	488330	100-249	$0	28	156	$8,944	22
Marinas	713930	300	$8,392	45	687	$24,716	95

Source: U.S. Census, *County Business Patterns*, 2006

The current economic analysis includes County Business Pattern (CBP) industry data for Miami-Dade County for the years, 2000, 2004 and 2006 (most recent reporting year) to determine changes in employment, the number of establishments and annual payroll (Table 2.2). A trend analysis of growth in Miami-Dade County's marine industry indicates significant losses from 2000-2006 in the total number of establishments and employees in many of the County's important marine industry sectors including boat building, inland water freight transportation, port harbor operations, marine cargo handling and navigational services to shipping. Employment losses were most significant in two industries, deep sea freight transportation (209 job losses) and ship building & repair (102 job losses), where the County also saw a slight increase in new establishments. This condition is usually indicative of an industrial sector that is undergoing a discernible level of restructuring and contraction.

The CBP data substantiates the changes that have been cited in previous economic studies and reports with respect to the marine industry in Miami-Dade. Of particular significance is the reduction of establishments involved in boat building, inland water freight transportation, port harbor operations, marine cargo handling and navigational services to shipping. While the 2000-2006 trend analysis shows loss of establishments and employment in several key sectors of Miami-Dade County's marine industry, significant growth has occurred within other sectors of the industry including the number of new boat dealer and marina establishments. Employment growth has been most significant in marine cargo handling (819 job gain), boat building (287 job gain) and marinas (95 job gain).

The loss of employment in several key sectors in Miami-Dade County's marine/boatyard industry has been documented in previous economic studies and reports, including a recent report by the Miami River Marine Industry Group. The 1992 *Miami River Master Plan* noted that "ship and boat building and repair is the largest source of employment [Miami River] providing just under 1,000 jobs." The plan further noted that "commercial shipping with 545 jobs is the driving force on the river." The economic trend analysis indicates that while significant employment remains within these industrial sectors, loss of employment in ship building & repair, deep sea freight transportation and inland water freight transportation suggests an on-going transformation of the marine industry in Miami-Dade County and on the Miami River.

Table 2.2: Miami-Dade County Marine Industry Establishment/Employee/Payroll Growth Trends 2000-2006

Industrial Code Description	NAICS	2000			2004			2006		
		Number of Employees	Annual Payroll ($1,000)	Number of Establishments	Number of Employees	Annual Payroll ($1,000)	Number of Establishments	Number of Employees	Annual Payroll ($1,000)	Number of Establishments
Ship Building & Repair	336611	154	$5,193	6	20-99	$0	2	52	$2,125	9
Boat Building	336612	802	$24,759	31	500-999	$0	27	1,089	$36,650	24
Boat Dealers	441222	546	$15,592	64	564	$18,584	74	572	$23,134	83
Deep Sea Freight Transportation	483111	1,030	$38,255	24	800	$38,613	23	821	$46,297	27
Inland Water Freight Transportation	483211	20-99	$0	5	0-19	$0	2	0-19	$0	3
Port Harbor Operations	488310	518	$9,184	9	772	$16,241	8	250-499	$0	8
Marine Cargo Handling	488320	1,943	$46,562	16	2,158	$58,994	16	2,762	$56,092	13
Navigational Services to Shipping	488330	215	$11,136	33	76	$6,933	30	100-249	$0	28
Marinas	713930	205	$6,091	29	272	$7,747	42	300	$8,392	45

Source: U.S. Census, *County Business Patterns*, 2000, 2004, 2006.

III. Miami River Marine and Related Industries

A. Miami River Master Plan

The 1992 *Miami River Master Plan* attempted to address issues and opportunities on the river, and most importantly the "dynamic growth of shipping activity, persistent water pollution, crime, lack of authority to regulate foreign flag vessels, and revitalizations efforts in adjoining neighborhoods." The master plan provided both a "long-range and short-range action agenda" that would attempt to balance the growth of the maritime industry, environmental quality and land use and design. The plan recognized the Miami River as a "working waterfront" that should be preserved and that "scarce waterfront land should be reserved, wherever possible, for use by businesses that are dependent on a waterfront location or are essentially related to the maritime economy of the area." Environmental quality goals would be achieved by eliminating sources of water pollution with capital investments in sanitary and storm water sewer systems and improved regulations and enforcement. Contaminated sediments on the river bottom would need to be removed by environmentally safe dredging.

The master plan's vision for "land use and design" stated that the Miami River "should continue to accommodate a wide variety of land uses, including water-dependent marine businesses, private residences, public parks, institutions, offices, and hotels. All future development should maximize its orientation to and beneficial use of the riverfront."

The "goals" of the Miami River Master Plan included the following:

- Preserve the working waterfront
- Upgrade the image, safety and security of the river
- Improve the environmental quality of the river
- Increase public use of the river

The Miami River Master Plan defines the "structure of the marine industry." The plan notes that in the marine industry the primary functional classification of marine activity includes those that are "water-dependent operations that are absolutely linked to the water as a generator of business activity, and water-related businesses and activities which do not depend on the water to bring customers or products to their businesses though often serve establishments that are water-dependent."

B. Current Uses on the Miami River

The current economic assessment identified the current mix of uses on the Miami River utilizing both City of Miami Business License data and survey data from the U.S. Army Corps of Engineers Institute for Water Resources Navigation Data Center. Business license and survey data was then correlated with 2008 Claritas Industries data to classify each business establishment according to its six-digit NAICS code.

An analysis of business license and business activity data more clearly demonstrates the scope of mixed-uses on the river including: retail (boat dealers, restaurants, merchant retailers), industrial (storage & warehouse, manufacturing, boat repair), residential (apartments and condos) and offices (administrative & professional).

The economic assessment of the marine industry specific to the Miami River provides a detailed profile and description of the leading marine and related industries within the corporate limits of the City of Miami. The economic assessment disaggregated the marine industries located on the Miami River to determine the leading industries in terms of number of establishments, employees, payroll and scope of business activities including annual sales. The economic assessment determined that the leading marine industry uses/establishments on the Miami River within the City of Miami's corporate limits include the following three (3) industrial classifications:

NAICS 713930 – Marinas

NAICS code 713930 comprises establishments, commonly known as marinas, engaged in operating docks and/or storage facilities for pleasure craft owners, with or without one or more related activities, such as retailing fuel and marine supplies; and repairing, maintaining, or renting pleasure boats.

Index entries for NAICS code 713930 can include:

- Boating clubs with marinas
- Marinas
- Marine basins, operation of
- Sailing clubs with marinas
- Yacht basins
- Yacht clubs with marinas

NAICS 441222 – Boat Dealers

NAICS code 441222 includes establishments primarily engaged in 1) retailing new and/or used boats or retailing new boats in combination with activities, such as repair services and selling replacement parts and accessories, and/or 2) retailing new and/or used outboard motors, boat trailers, marine supplies, parts and accessories.

Index entries for NAICS 441222 can include:

- Boat dealers, new and used
- Boat trailer dealers
- Marine supply dealers
- Outboard motor dealers
- Power boat dealers sail boat dealers
- Used boat dealers

NAICS 483211 – Inland Water Freight Transportation

NAICS code 483211 comprises establishments primarily engaged in providing inland water transportation or cargo on lakes, rivers, or intracoastal waterways.

Index entries for NAICS code 483211 code can include:

- Barge transportation, canal (freight)
- Canal barge transportation (freight)
- Freight transportation, inland waters
- Intracoastal transportation of freight
- Lighterage (i.e. freight transportation except vessel supple services)
- River freight transportation
- Ship chartering with crew, freight transportation, inland waters
- Shipping freight, inland waters
- Towing services, inland waters

Table 3.1: Miami River Marine and Related Industries, City of Miami, 2008

Business ID Number	Business Name	Address	City	ZIP	NAICS Code	NAICS Description	Year of 1st Appearance	Number of Local Employees	Total Number of Employees
8.18E+08	UNITED MARINE INC	490 NW SOUTH RIVER DR	Miami	33128	336612	Boat Building	1984	7	7
8.19E+08	FLORIDA DETROIT DIESEL-ALLISON	2277 NW 14TH ST	Miami	33125	423830	Industrial Machinery/Equipment Merchant Whole.	1989	100	21,106
1.31E+08	C & F MARINE INC	2151 NW 12TH ST	Miami	33125	441222	Boat Dealers	1996	2	2
8.19E+08	DOCKSIDE MARINE ELECTRONICS	2215 NW 14TH ST	Miami	33125	441222	Boat Dealers	1998	6	6
3.08E+08	RIVER MARINE SUPPLY INC	260 SW 6TH ST	Miami	33130	441222	Boat Dealers	1987	10	10
9.42E+08	TRI COUNTY PROPELLER SVC	442 NW SOUTH RIVER DR	Miami	33128	441222	Boat Dealers	2002	2	2
2.1E+08	MERRILL-STEVENS DRY DOCK CO	1270 NW 11TH ST	Miami	33125	441222	Boat Dealers	2003	150	150
4.24E+08	MERRILL-STEVENS YACHTS	1270 NW 11TH ST	Miami	33125	441222	Boat Dealers	2002		
3.79E+08	ANTILLEAN MARINE	3160 NW 14TH ST	Miami	33125	441222	Boat Dealers	2005	7	7
2.55E+08	ANTILLEAN MARINE SHIPPING CORP	3038 TEOFILO BABUN DRIVE	Miami	33142	483211	Inland Water Freight Transportation	2005	22	22
2.35E+08	RIVER TERMINAL SVC INC	2199 NW SOUTH RIVER DR	Miami	33125	483211	Inland Water Freight Transportation	2003	8	8
3.89E+08	TRANSCARIBBEAN SHIPPING & DOCK	377 NW SOUTH RIVER DR	Miami	33128	483211	Inland Water Freight Transportation	2005	6	6

Table 3.1: Continued

Business ID Number	Business Name	Address	City	ZIP	NAICS Code	NAICS Description	Year of 1st Appearance	Number of Local Employees	Total Number of Employees
9.9E+08	BASSAS CARGO INTL	311 NW SOUTH RIVER DR	Miami	33128	488510	Freight Transportation Arrangement	2003	2	2
6.56E+08	SEA TERMINAL SVC INC	2956 NW NORTH RIVER DR	Miami	33142	488510	Freight Transportation Arrangement	2007	9	9
1.31E+08	BEST YACHT REPAIR INC	2535 NW 18TH TER	Miami	33125	713930	Marinas	1984	2	2
8.18E+08	ANCHOR MARINE	961 NW 7TH ST	Miami	33136	713930	Marinas	1984	3	3
1.31E+08	AUSTRAL INTERNATIONAL MARINA	2190 NW NORTH RIVER DR	Miami	33125	713930	Marinas	1984	2	2
2.1E+08	CAY MARINE SVC	501 NW SOUTH RIVER DR	Miami	33136	713930	Marinas	2002	18	18
4288254	NORSEMAN SHIPBUILDING CORP	437 NW SOUTH RIVER DR	Miami	33128	713930	Marinas	1984	30	30
4.94E+08	HARTMAN YACHT	511 SW 3RD AVE 1	Miami	33130	713930	Marinas	2000	14	14
2.43E+08	MIAMI YACHT & ENGINE WORKS	2100 NW NORTH RIVER DR	Miami	33125	713930	Marinas	2004	10	10
9.66E+08	HURRICANE COVE MARINA	1884 NW NORTH RIVER DR	Miami	33125	713930	Marinas	1997	3	3
6.23E+08	GANDARA MARINE	600 NW 7TH AVE	Miami	33136	713930	Marinas	2006	2	2
6.57E+08	LAS AMERICAS MARINE INC	501 NW SOUTH RIVER DR	Miami	33136	713930	Marinas	2007	2	2

Source: City of Miami, 2008, Claritas, 2008

According to 2008 Claritas Industries data, Marinas (10 establishments/86 employees), boat dealers (7 establishments/177 employees) and inland water freight transportation (3 establishments/36 employees) comprise the largest marine industries in terms of establishments, employees, payroll and annual sales. Boat dealer, Merrill Stevens (150 employees), is the largest employer on the river followed by Florida Detroit Diesel-Allison (100 employees) a marine-related industrial machinery/equipment merchant wholesaler. Other marine industry establishments include two (2) freight transportation arrangement establishments and one (1) boat building establishment. In total, there are 24 licensed marine and related industries on the City of Miami portion of the Miami River employing 417 workers locally.

The economic assessment further determined that leading marine industry establishments on the Miami River are principally small businesses. In fact, 92 percent of these establishments employ less than 20 employees and 62 percent have only 1-4 employees. Expectedly, the majority of these marine industry establishments have annual sales of $700,000 and less.

The 1992 *Miami River Master Plan* noted that certain sectors of the marine industry on the Miami River, including commercial shipping, "provide a significant number of jobs for unskilled workers, who are in increasing component of the City of Miami labor force." The study prepared by Innovative Development Resources, Inc., et al., *Miami River Market Study & Economic Impact Analysis* prepared for the City of Miami indicated annual salaries for several of the industries, including shipbuilding/repair ($35,791), water transportation ($34,553) and boat building ($31,034).

A further analysis of leading occupations within the marine industry for the Miami-Fort Lauderdale-Miami Beach MSA indicates a range of occupations and wages that substantiates the prior analyses included in the 1992 *Miami River Master Plan* and *Miami River Market Study & Economic Impact Analysis.* Occupational employment and wage estimates released by the Bureau of Labor Statistics (BLS) indicate a mean hourly wage of $15.17 for transportation and material moving occupations within the MSA and $14.26 for office and administrative support occupations related to cargo and freight agents (Table 2.5). Most employment (36,660 employees) is found within the laborers & freight, stock and material movers occupational title. The annualized pay based on a 40-hour work week would average $31,553 for transportation and material moving occupations and $29,660 for office and administrative support occupations. For both occupations, the mean wage is higher than the State of Florida but significantly less than the national averages for marine industry occupations.

Table 3.2: Leading Marine Industry Occupational Employment & Wage Estimates Miami-Fort Lauderdale-Miami Beach MSA, May 2007

Occupational Title	Total Employment	MSA Mean Wage	Florida Mean Wage	National Mean Wage
All Occupations	**2,368,270**	**$18.92**	**$17.91**	**$19.56**
Transportation & Material Moving (Major)	**148,950**	**$15.17**	**$13.93**	**$23.08**
Laborers & Freight, Stock, and Material Movers	36,660	$11.03	$10.80	$10.54
Sailors and Marine Oilers	2,830	$17.53	$17.78	$15.64
Ship Engineers	2,200	$31.21	$31.21	$28.98
Captains, Mates and Pilots of Water Vessels	1,860	n/a	n/a	$31.36
Motorboat Mechanics	860	$17.47	$17.79	$22.44
Motorboat Operators	120	n/a	$14.77	$17.04
Office & Administrative Support (Major)	**473,930**	**$14.26**	**$13.97**	**$16.03**
Cargo & Freight Agents	4,030	$16.97	$16.84	$18.64

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Employment & Wage Estimates*, May 2007.

C. Assessment of Current Uses on the Miami River

As previously noted, the current economic assessment identified the current mix of uses on the Miami River utilizing City of Miami Business License data which was then correlated with 2008 Claritas Industries data to classify each business establishment according to its NAICS codes. The analysis of business license and business activity data demonstrates the wide range of uses on the river including retail, industrial, office and residential uses. Significantly, the marine industry itself is comprised of a mix of industrial sectors including the following:

Sector NAICS Code/Description	Industry NAICS Code/Description
71 – Art, Entertainment & Recreation	**483211** – Marinas
44 – Retail	**441222** – Boat Dealers
48 – Transportation & Warehousing	**483211** – Inland Water Freight Transportation

The following is a complete listing of licensed businesses on the Miami River categorized by "business description." The categorized listing indicates that marine industry establishments comprise 34 percent of the licensed business operations on the Miami River followed by a mix of "other" business establishments (26 percent), residential (21 percent) and combined office & retail (19 percent).

Table 3.3: Licensed Businesses on the Miami River, City of Miami, 2008

Business	Business Description	Addresses
MARINE		
Austral Intern. Marina Corp.	Boat and Shipyard	655 West Flagler St # 201
United Marine Inc	Boat Building	490 NW South River Drive
C & F Marine Inc	Boat Dealers	2151 NW 12th Street
Dockside Marine Electronics	Boat Dealers	2215 NW 14th Street
Merrill-Stevens Dry Dock Co	Boat Dealers	1270 NW 11TH Street
Merrill-Stevens Yachts	Boat Dealers	1270 NW 11TH Street
Tri County Propeller Svc	Boat Dealers	442 NW S River Drive
River Marine Supply Inc	Boat Dealers	260 SW 6TH Street
River Cove Yacht Harbor	Boat marine ways and dry docks	2000 NW N River Drive
Martins Boat Storage	Boat repair	2490 NW Terrace
N R D Shipping and Marine	Boats marine ways and dry docks	1521 Alton Rd, Number 407
2000 MIA River Marina LLc	Boats marine ways and dry docks	300 Alton Rd # 303
Brisas del Rio Inc	Boats: Storage Basins and Sheds	1583 NW 24th Avenue
E&M Marine Corp Dba C&F Marine	Boats: Storage Basins and Sheds	2151 NW 12th Street
Hugh Martin	Boats: Storage Basins and Sheds	321 NE 3rd Street
Witt Kurtland	Boat Broker, ships and yachts	1270 NW 11th Street
Anchor Marine	Marinas	961 NW 7TH ST
Austral International Marina	Marinas	2190 NW N River Dr
Best Yacht Repair	Marinas	2535 NW 18TH TER
Cay Marine SVC	Marinas	501 NW S River Drive
Gandara Marine	Marinas	600 NW 7TH AVE
Hartman Yacht	Marinas	511 SW 3RD AVE
Hurricane Cove Marina	Marinas	1884 NW N River Dr
Norseman Shipbuilding Corp	Marinas	1884 NW N River Dr
Miami yacht and Engine Works	Marinas	2100 NW N River Dr
Antillean Marine Shipping Corp	Inland Water Freight Transportation	3038 Teofilo Babun Drive
River Terminal SVC Inc	Inland Water Freight Transportation	2199 NW S River Drive
Transcaribbean and Shipping Dock	Inland Water Freight Transportation	377 NW S River Drive
Bassas Cargo IntL	Freight Transportation Arrangement	311 NW S River Drive

Source: City of Miami Business Licenses, 2008

Table 3.3: Continued

Business	Business Description	Addresses
RESIDENTIAL		
1920 River Corp	Apartment houses	655 West Flagler St
BMJ Limited	Apartment houses	5560 Estate Oaks Circle
Intertel enterprises Inc	Apartment houses	PO BOX 660472
Leroy A Montoya, River Landing Associates, LTD	Apartment houses	10201 Hammocks Blvd, Apt 109
Weldel Apartments	Apartment houses	1007 Ferdinand St
Bermuda House Apartments	Apartment houses	1160 NW N River Drive
Manuel Rodriguez	Apartment houses	2660 NW N River Drive
Manuel Rodriguez	Apartment houses	2222 NW N River Drive
Manuel Rodriguez	Apartment houses	2216 NW N River Drive
Welder Apartments	Apartment Houses	1834 NW S River Dr
River Landing Associates	Apartment Houses	1600 NW N River Drive
Bermuda House Apartments	Apartment Houses	1160 NW N River Drive
River Runs South Condominiums	Condos	2415 NW 16th St Rd
Holmes Builders	Condos	1000-980 NW N River Drive
Private Condominiums	Condos	1740 NW N River Drive
Private Condominiums	Condos	1720 NW N River Drive
Private Condominiums	Condos	1700 NW N River Drive
Townhouse Complex	Townhouse Complex	1901 NW S River Drive

Business	Business Description	Addresses
OFFICE		
Haiti Shipping Lines Inc	Administrative Office	555 NW S River Drive
Miami Outdoor Advertising	Administrative Office	PO BOX 330097
Sea Merchants Line Inc	Administrative Office	2199 NW S River Drive
5th Street Terminal Inc	Administrative Office	555 NW S River Drive
Caribbean Ship Svc Inc	All Other Travel Arrangement/Reservation Services	555 NW South River Drive
Bruce Carlson	Architect	242 SW 5th Street
SYSKIND Carlson and Partners	Architects-firm, partnership, CO, PA, Corp	242 SW 5th Street
Tineo Group	Offices of Real Estate Agents and Brokers	243 NW S River Drive

Table 3.3: Continued

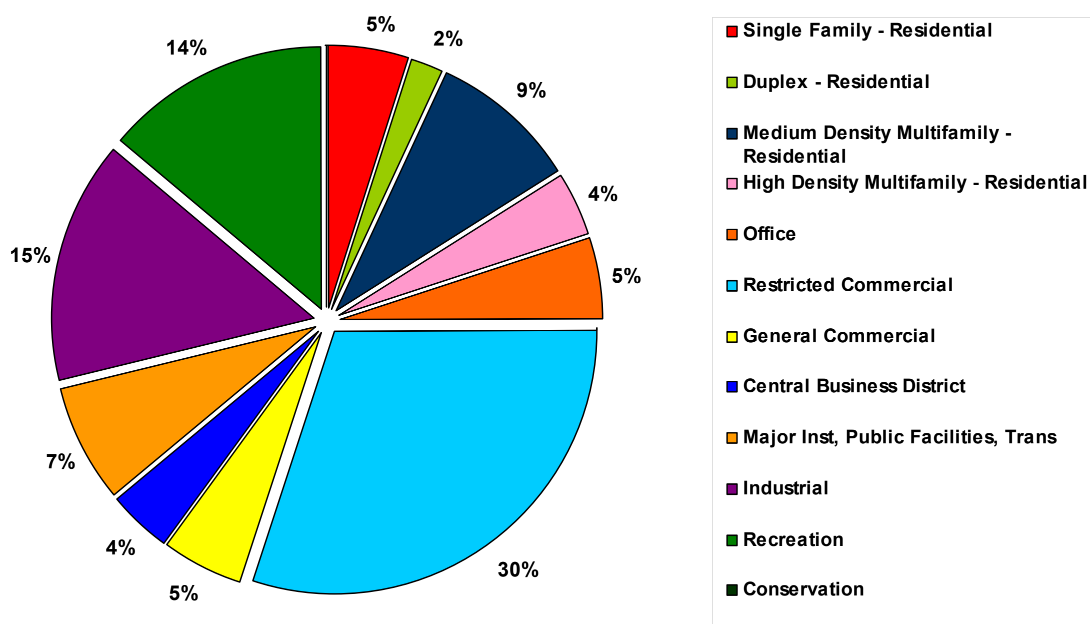
Business	Business Description	Addresses
RETAIL		
BASSAS Care	Merchant Retail	311 NW South River Drive
Adams Electrical Service Inc	Merchants Retail	242 SW 5th Street
Anchor Marine	Merchants Retail/ Vending Merchandise/ Repair or machine Service Power Tools	961 NW 7th St
Casablanca Fish Market	Fish Retail Dealer	404 NW North River Drive
Big Fish 2000, Inc	Restaurant	55 SW Miami Avenue Rd
Casablanca Seafood Bar/Grill	Restaurant	400 NW N River Drive
Finnegans River	Restaurant	401 SW 3rd Avenue
Garcia Sea Food and Fish Market	Restaurant	398 NW N River Drive

Business	Business Description	Addresses
OTHER		
City of Miami Riverside Center	City of Miami	444 SW 2nd Ave
Miami Bridge youth and family services	Dept of Children and Families	2810 NW S Rive Drive
Miami Fire Fighters Hall	Union	2980 NW S River Drive
MAHI shrine Holding Co	Mason Lodge	1500 NW N River Drive
MAHI shrine Holding Co	Mason Lodge	1480 NW N River Drive
Casa de los Sta Marta Ortig	Private Club	1815 NW N River Drive
Pastora Toledo	Storage, Warehouse	730 NW 7th Ave
Just Visions	Storage, Warehouse	1155 NW 26th St
Florida Detroit Diesel	Wholesale	2277 NW 14th St
Florida Detroit Diesel-Allison	Industrial Machinery/Equipment Merchant Whole.	2277 NW 14th Street
Adams Electrical SVC Inc	Motor and Generator Manufacturing	242 SW 5TH ST
Popeye Marina	Motor and Generator Manufacturing	830 NW 8TH ST RD
Hernandez Body Shop	Auto Body Shop	666 NW 5th St
Josefina Camps, J & D Auto Sales	Second hand dealer: motorized vehicles	700 NW 7th Avenue
The Best yacht Repairs	Service or Fuel Supplies	2535 NW 18th Terrace
Naranjo Welding Shops Inc	Manufacturers/OPER Power machines	600 NW 7th Ave
AR JETSKI SERVICES INC	Repair or Machine Service Power Tools	2115 NW 12th St
Phillips hardware Company	Coin-OPR Machine: vending merchandise	490 NW S River Drive
Cesar Rosario	Draftsman	242 SW 5th Street
Poole & Kent Co of Florida	Electrical Contractors	1781 NW N River Drive
TEXAS AQUATIC HARVESTING INC	Research & Development in Biotechnology	443 NW N River Dr
Ebsary Foundation Co	Site Preparation Contractors	2154 NW N River Dr

Source: City of Miami Business Licenses, 2008

The above mix of licensed business uses on the Miami River is representative of the mix of land use designations on the river. Land use percentages indicate that 30 percent of all properties are classified as Restricted Commercial, followed by Industrial (15 percent), Recreation (14 percent), and Medium Density Multifamily-Residential (9 percent).

Figure 2.1 Miami River Properties by Land Use Percentages



Source: City of Miami, 2008

D. Growth Capacity of the Miami River Marine Industry

The prior assessment indicates there are currently 28 City of Miami licensed marine related industry establishments on the Miami River (see Appendix for property descriptions). These establishments represent "water-dependent" uses as defined by Florida Statute 9J-5.003 F.S. These business establishments conduct "activities which can be carried out only in or adjacent to water areas because the use requires access to the water body for: waterborne transportation including ports or marinas; recreation; electrical generating facilities or water supply." Together, these establishments employ approximately 417 workers and typically average under $700,000 million in annual sales. Merrill Stevens (150 employees/$45 million annual sales) and Florida Detroit Diesel-Allison (100 employees/$17 million annual sales) are the two largest marine related establishments on the river.

In addition to the aforementioned 'water-dependent" marine related uses, there are approximately 15 licensed "water related" uses as defined by Florida Statute 9J-5.003 F.S. These establishments conduct "activities which are not directly dependent upon access to a water body but which provide goods and services that are directly associated with water-dependent or waterway uses, or a use in whose principal goods and services are derived from water-or waterfront-dependent activities, or a principal portion of the goods or services it provides are designed to be used in connection with such activities." Based on a review of the business descriptions of these establishments, these water related activities provide office and retail support to the river's water-dependent, marine related uses.

Marine industry studies, including those cited in this assessment, point toward an industry growth trend of bigger and more high tech shipbuilding and repair. The most significant trend has been in the growth of the "recession-proof" mega-yacht sector with yachts longer than 80 feet. While the mega-yacht industry is experiencing rapid growth, it is projected that the demand for dockage and service and repair facilities capable of handling these yachts will exceed supply. In fact, the proposed Merrill Stevens comprehensive dry dock ship facility on the Miami River is expected to serve the growing demand for the repair and retro-fitting of larger mega-yachts up to 250 feet in length. Merrill Stevens' proposed development will occupy 5 acres of land on both the north and south banks of the Miami River. The redevelopment of Watson Island in Biscayne Bay will also include increased mega-yacht dockage. The location of mega-yacht facilities within Port Everglades in Broward County is also in the planning stages. The adequacy of dock space, including wet storage space and sophisticated service facilities for mega-yachts, will ultimately determine Miami's competitiveness in this growing market sector.

Developing local capacity for competing in the growing mega-yacht sector of the industry will require a more comprehensive planning approach. Recent waterfront redevelopment on Watson Island in Biscayne Bay included mixed-use commercial and residential projects rather than just traditional commercial and industrial water-dependent uses. New facilities accommodating mega-yachts in South Florida often combine dockage and limited waterfront services with residences, restaurants, and commercial uses. The redevelopment plan for Watson Island included two large-scale hotels and related landside development with 48 slips along the waterfront and new dockage to attract additional mega-yachts to the region. While commercial and residential mixed-use development will diminish Watson Island's full potential for marine-related uses, a balanced mix of commercial uses has the potential of increasing the larger economic impact of the waterfront development. This potential was documented in the 2006 Report, *The Economic Development Impacts of Merrill Stevens Comprehensive Revitalization of the Miami River through the Modernization and Expansion of its Dry Dock Ship Repair Facilities* by the Washington Economics Group, Inc. The Merrill Stevens economic impact assessment addressed the "recurring annual impacts" after Phase I of Merrill Steven's new facility is operational. The authors of the report explained the economic benefits including: 1) travel and entertainment expenditures by mega-yacht crews while their ships are undergoing repair in the new facility; 2) travel and entertainment expenditures by high net worth mega-yacht owners or their representatives when they visit South Florida; and 3) expenditure on food, beverages, fuel and other supplies to provision the vessels following the completion of repairs and other work. Close proximity to these commercial, retail and entertainment venues, as is the case of Watson Island and Port Everglades, will increase the competitiveness and economic impacts of a mega-yacht marina.

Future growth and expansion of the Miami River's marine industry will also be dependent on other capacity issues. With the exception of Merrill Stevens and several other marine industry sites, the Miami River's land development potential is limited. Property descriptions of industrial and commercial marine facilities on the Miami River indicate that these establishments are predominantly small-scale marinas, boat dealers and inland water freight transportation businesses. In fact, approximately 70 percent of these facilities operate on parcels less than 1-acre in size (Tables 3.4-3.5). An assessment of "vacant" industrial and commercial land on the Miami River also indicates the predominance of small land parcels with little development potential.

Other capacity issues that will limit the growth and expansion of the Miami River's marine industry are those cited in a recent report by the International Council of Marine Industry Association (ICMIA). The report cites the following capacities: 1) hull cleaning and dry boat park facilities as potential value added generators for marinas; 2) security watch issues which are difficult to implement but indispensable in high quality service marinas; 3) public transport issues, an often neglected service though crucial to a marina if the port is remote from shops and trades; and 4) events and attractions within a wide scope that yachtsmen will appreciate, including such improvements as a welcoming club house, tourist and commercial facilities and nearby restaurants and bars.

Despite the limited growth potential of the Miami River's marine industry, the independent commercial marine establishments located on the City of Miami's segment of the Miami River are significant to the City's economy and integral to the larger marine industry of Miami-Dade County and South Florida. Together, marine and marine-related establishments along the City of Miami's segment of the river continue to function as a working waterfront providing cargo shipping services to shallow draft ports in the Caribbean Basin in addition to providing repair and sales services for boats and marine equipment.

Table 3.4: Miami River Marine Industry Establishments by Acreage

Business	Address	BLDG/ SQ.FT.	Type	Lot Acreage	License Status
Florida Detroit Diesel	2277 NW 14 ST	54,425	Industrial	5.53	Licensed
Antillean Marine Shipping/River Terminal Services/Sea Merchants Line, Inc.	2199 NW S RIVER DR	10,654	Industrial	3.57	Licensed
Dockside Marine Electronics	2215 NW 14 ST	6,125	Restricted Commercial	3.09	Licensed
Hurricane Cove Marina/Just Visions	1884 NW N RIVER DR	16,013	Restricted Commercial	2.70	Licensed
Merrill-Stevens Dry Dock Co.	1270 NW 11 ST	73,661	Industrial	2.18	Licensed
Ebsary Foundation Co.	2154 NW N RIVER DR	3,923	Industrial	1.68	Licensed
Hurricane Cove Marina	1884 NW N RIVER DR	0	Restricted Commercial	1.50	Licensed
Brisas del Rio Inc.	1583 NW 24 AVE	0	Restricted Commercial	1.26	Licensed
River Cove Yacht Harbor	2000 NW N RIVER DR	0	Industrial	0.92	Licensed
Norseman Shipbuilding Corp	437 NW S RIVER DR	12,063	Industrial	0.81	Licensed
Cay Marine SVC	501 NW S RIVER DR	3,669	Industrial	0.64	Licensed
Miami Yacht & Engine Works	2100 NW N RIVER DR	2,048	Industrial	0.58	Licensed
Martin's Boat Storage	2490 NW 18 TERR	2,019	Industrial	0.52	Licensed
AR Jet Ski Service Inc.	2115 NW 12 ST	2,610	Industrial	0.51	Licensed
Anchor Marine	961 NW 7 ST	15,014	Industrial	0.45	Licensed
Bassas Cargo International	325 NW SOUTH RIVER DR	0	Industrial	0.40	Licensed
Caribbean Ship Services Inc./5th ST. Terminal, Inc./Haiti Shipping Lines, Inc.	555 NW SOUTH RIVER DR	800	Restricted Commercial	0.30	Licensed
Bassas Cargo International	311 NW SOUTH RIVER DR	7,072	Industrial	0.27	Licensed
Tineo Group LLC.	243 NW S RIVER DR	3,654	General Commercial	0.26	Licensed
Transcaribbean Shipping & Dock	377 NW S RIVER DR	0	Industrial	0.21	Licensed
Best Yacht Repair Inc.	2525-2535 NW 18 TERR	2,331	Industrial	0.20	Licensed
E & M Marine Corp./C & F Marine Inc.	2151 NW 12 ST	1,842	Industrial	0.19	Licensed
Austral International Marina	2190 NW N RIVER DR	480	Industrial	0.18	Licensed
Tow Boat U.S.	151 NW S RIVER DR	0	Industrial	0.16	Unlicensed
NRD Shipping & Marine	450 NW N RIVER DR	5,128	General Commercial	0.16	Licensed
The Poole & Kent Co.	1810 NW N RIVER DR	0	Restricted Commercial	0.14	Licensed

Source: City of Miami, 2008.

Table 3.5: Miami River Vacant Industrial Land by Acreage

	Address	BLDG/SQ.FT.	Type	Lot Acreage
Vacant Industrial	2051 NW 11 ST	74,928	Industrial	3.24
Vacant Industrial	2621 NW 16 ST RD	9,701	Restricted Commercial	1.23
Vacant Industrial	517 NW S RIVER DR	20,128	Restricted Commercial	0.72
Vacant Industrial	745 NW 4 ST	3,467	Industrial	0.32
Vacant Industrial	422 NW NORTH RIVER DR	7,488	General Commercial	0.16
Vacant Industrial	412 NW NORTH RIVER DR	4,248	General Commercial	0.13
Vacant Industrial	125 NW S RIVER DR	3,260	Industrial	0.11

Source: City of Miami, 2008.

E. Miami River Dredging Plan

In 2002 the U.S. Army corps of engineers completed a *Dredged Material Management Plan* for the Miami River with a further economic analysis provided in the *2005 Supplement.* The dredging began in 2004 and according to recent reports approximately 40 percent of the project has been completed. The balance of the project is scheduled to be completed in early 2009. According to some local industry experts the dredging will be a boon to cargo haulers and the private shipping terminals that serve them for the shallow riverbed restricts the size of ships that call while others must limit their loads to avoid grounding.

The Army Corps of Engineer provided an assessment in the *2005 Supplement* of the benefits and costs of dredging the 5.5 mile Miami River from its current 11-foot depth to its original 15-foot federally authorized depth. In the previously cited final report entitled, *An Economic Analysis of the Miami River Marine Industry* prepared by the Florida Atlantic University the authors commented on the economic assessment noting that the "regional benefits from the ongoing operations of the improved port were not estimated, nor were the economic benefits of the dredging project to river-based recreational boating, boatyards, and marinas and other non-cargo related marine industrial activity. However, the aforementioned study did note that "positive environmental benefits were anticipated from the removal and appropriate disposal of contaminated sediment and increased sea grass beds at the mouth of the River."

IV. Conclusion

The independent commercial marine establishments located on the City of Miami's segment of the Miami River are significant to the City's economy and integral to the larger marine industry cluster of Miami-Dade County and South Florida. Together, marine and marine-related establishments along the City of Miami's segment of the river continue to function as a working waterfront providing cargo shipping services to shallow draft ports in the Caribbean Basin in addition to providing repair and sales services for boats and marine equipment**.**

The assessment profiles the marine establishments that are currently licensed to operate on the Miami River. The assessment determined that leading marine industry establishments on the Miami River are principally small businesses. In fact, 92 percent of these establishments employ less than 20 employees and 62 percent have only 1-4 employees. Expectedly, the majority of these marine industry establishments have annual sales of $700,000 and less. Marinas (10 establishments/86 employees), boat dealers (7 establishments/177 employees) and inland water freight transportation (3 establishments/36 employees) comprise the largest marine industries in terms of establishments, employees, payroll and annual sales. Other marine industry establishments include two (2) freight transportation arrangement establishments and one (1) boat building establishment. In total, there are 24 licensed marine and related industries on the City of Miami portion of the Miami River employing 417 workers locally.

The economic assessment identifies the current mix of uses on the Miami River utilizing City of Miami Business License data correlated with 2008 Caritas Industries data to classify each business establishment according to NAICS codes. The analysis of business license and business activity data demonstrates the wide range of uses on the river including retail, industrial, office and residential uses. In fact, the mix of licensed business uses on the Miami River is representative of the mix of land use designations on the river. Land use percentages indicate a mix of Restricted Commercial, Industrial, Recreation and Medium Density Multifamily-Residential uses.

The future growth and expansion of the Miami River's marine industry is limited due to the predominance of small industrial/commercial land parcels for both existing marine uses and vacant industrial lands. The competitiveness of many of these facilities is also limited due to their land development potential and general lack of support services such as commercial/retail and entertainment establishments, public transportation and to security issues.

An important finding of this assessment is that prior economic studies of the Miami River marine industry have principally relied on economic impact models that measure direct expenditures as a result of Miami River shipping industry spending, indirect expenditures as a result of services supplied to the companies, and induced expenditures as a result of the expenditures of the employees of the businesses affected by the shipping companies and their suppliers. As previously noted, the multipliers for any given industry in any given location are unique. The larger the area under study, the larger the "multiplier effect" since there will be more opportunities to purchase inputs within the study area.

While economic impact studies include valuable data on the overall performance and potential of an industry, their reliance on macro-geographic analysis and secondary data sources provide limited analysis on more localized industry or firm operations in terms of relative performance, competitiveness and growth prospects. A thorough economic analysis will apply a number of indicators using economic data to determine value-added, turnover, employment, wages and salaries, and growth potential based on competitiveness and niche market opportunities.

Appendix