CONSERVATION/ COASTAL MANAGEMENT ELEMENT

October 2009

The Honorable John Peyton
Mayor

William B. Killingsworth
Director of Planning & Development

JACKSONVILLE PLANNING AND DEVELOPMENT DEPARTMENT
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CITY OF JACKSONVILLE

The Honorable John Peyton, Mayor

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INTRODUCTION

Pursuant to the requirements of Chapter 163, Part II, Florida Statutes (F.S.) and Chapter 9J-5, Florida Administrative Code (FAC), the City of Jacksonville adopted the 2010 Comprehensive Plan, which included a Conservation/Coastal Management Element, on September 1990. Section 163.3191, F.S. requires that the plan be updated periodically. Prior to the update of the plan, the local governments are required to prepare an Evaluation and Appraisal Report (EAR) on the adopted plan. The City of Jacksonville's first EAR was submitted to the Florida Department of Community Affairs (DCA) for review on September 1, 1997 and determined to be sufficient on October 31, 1997. The City of Jacksonville's second EAR was submitted to the DCA on October 1, 2008.

The first EAR for the 2010 Comprehensive Plan comprises the 1990-1995 period~~.~~ and. the second EAR comprises the 2000-2007 period. The second EAR identifies major issues of concern to Jacksonville residents, reviews implementation of the plan since the last EAR, assesses achievements, successes and shortcomings of the Plan, identifies necessary changes and provides updated population projections. ~~The EAR summarizes the condition of the element at the time of adoption of the 2010 Comprehensive Plan (1990) and the conditions at the time of preparation of the EAR (1995), analyzes the changes since adoption, identifies the success or failure in implementing the policies and recommendations in the plan and the reasons thereof, analyzes the impact of any unforeseen problems or opportunities presented, and identifies the mandatory statutory and rule changes since the adoption of the Plan. Based on this analysis, the report makes recommendations for revisions to update the Plan.~~

The update of the Conservation/Coastal Management Element, presented in the following pages, reflects ~~all the~~ changes recommended in the second EAR. ~~Objectives and policies requiring only one time action by the City, which have already been implemented and require no further action, have been deleted. Other more ongoing policies in which action recommended in the adopted plan has been completed but should continue, and policies which have been partially implemented, have been modified appropriately. Finally, some n~~New policies have been added as recommended in the EAR and mandated by updates to the Florida Statutes and Florida Administrative Code, including extending the planning time frame to 2030 and renaming the plan the 2030 Comprehensive Plan. Issue statements have been removed in an effort to streamline the element and to remove text not belonging in the Goals, Objectives and Policies Section of this document. Various editorial, organizational, and other appropriate agency or reference ~~organizational~~ name changes have been made as well.

In addition to the aforementioned revisions, the Background Report of this document has also been updated to support the amended Goals, Objectives and Policies.

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GOALS, OBJECTIVES AND POLICIES

GOALS, OBJECTIVES AND POLICIES

GOAL 1

Protect, conserve and appropriately manage the natural resources of the City in order to maintain or enhance environmental quality for present and future generations.

~~Issue:~~ ~~Compliance with National Air Quality Standards~~

~~Concentrations of the six criteria pollutants as designated by the Environmental Protection Agency (EPA) are monitored in Jacksonville. These pollutants are: ozone, sulfur dioxide, carbon monoxide, nitrogen dioxide, lead, and particulate matter. National Ambient Air Quality Standards (NAAQS) have been established which specify the acceptable limits of exposure for the general public for different time periods for these pollutants.~~

~~Jacksonville's major air quality problem involves ozone, or photochemical smog. The City now has attainment status for ozone, which was achieved in 1995. The ambient air monitoring network and the utilization of the Motor Vehicle Inspection Program are the main reasons for success.~~

~~A small portion of downtown Jacksonville near the shipyards was previously designated as a non attainment area for total suspended particulate (TSP) matter. Medical research, however, has determined that only very small particulate matter poses any health threat and the TSP ambient air standard has been replaced with a standard for particulate matter less than 10 microns in diameter, called PM_{10}. Two years of past monitoring data indicate that Jacksonville will not be in violation of the PM_{10} standard.~~

~~All of Jacksonville is unclassified for sulfur dioxide ($S0_2$). Although no exceedances of the NAAQS for $S0_2$ have been recorded in Jacksonville since 1982, computer modeling projects that exceedances could occur under certain meteorological conditions. To become classified as attainment, it will be necessary to reduce $S0_2$ emissions to the point that computer modeling, projects no exceedances under any circumstances.~~

~~Jacksonville is in compliance with all other air pollution standards.~~

Objective 1.1 Continue efforts to maintain compliance with current ~~or~~ and future National Ambient Air Quality Standards.

Policies 1.1.1

The ~~Air and Water Quality Division (AWQD)~~ Environmental Quality Division (EQD) shall gather data regarding ambient air concentrations of all criteria pollutants in the City, and shall continue to maintain and operate, in accordance with EPA/the Florida Department of Environmental Protection (DEP) criteria, an ambient air quality monitoring network.

1.1.2
In support of maintaining the NAAQS for ozone, the ~~AWQD~~ EQD shall continue to compile an emissions inventory of pollution sources and their respective contributions to ozone on a schedule prescribed by the State Implementation Plan (SIP).

1.1.3
The ~~AWQD~~ EQD shall continue to maintain the PM_{10}, monitoring network in accordance with the DEP and Environmental Protection Agency (EPA) siting requirements. Further, the ~~AWQD~~ EQD shall ~~initiate~~continue to maintain the PM $_{2.5}$ monitoring network on the schedule finalized by EPA.

1.1.4
The ~~AWQD~~ EQD shall continue the process of annually compiling an air quality data summary for criteria pollutants for comparison with the NAAQS.

1.1.5
In conjunction with DEP the ~~AWQD~~ EQD shall continue to enforce rules/standards to control emissions sources in order to comply with NAAQS.

1.1.6
The ~~AWQD~~ EQD shall determine the total and relative contributions to air pollution by sources in Jacksonville via completion of a comprehensive biennial emissions inventory.

1.1.7
The ~~AWQD~~ EQD shall process state permits for the operation of air pollution sources, and ensure via inspections/testing, that said sources comply with their respective permit conditions.

1.1.8
~~Upon redesignation of attainment for SO_2, t~~The ~~AWQD~~ EQD will continue to monitor the ambient air for SO_2 and implement the SO_2 plan, as contained in the SIP.

Objective 1.2 Prevent air quality deterioration caused by growth and traffic congestion from causing NAAQS violations through participation in the Development of Regional Impact (DRI) permitting process and through participation in the Technical Coordinating Committee (TCC) of the ~~Metropolitan~~ Transportation Planning Organization (~~M~~TPO) for the Jacksonville Urbanized Area.

Policies 1.2.1
The ~~AWQD~~ EQD shall evaluate the air quality impact analysis in each DRI application for a project located in the City and in any sub-DRI projects that are required to provide such analyses. When the analyses show that the additional impact of the proposed

project may cause or contribute to a violation of the NAAQS, the applicant shall be required to mitigate the adverse impact.

1.2.2
When the potential for later phases of a project to cause or contribute to a violation of the NAAQS cannot be determined at the time of application for a DRI permit, the applicant shall be required to perform additional air quality analyses at such time as necessary data is available and demonstrate that no violations of the NAAQS are projected before proceeding with those phases.

1.2.3
The ~~AWQD~~ EQD shall utilize existing modeling and/or ambient air monitoring to determine the number and locations of transportation network links and intersections identified as having increasing concentrations of carbon monoxide approaching NAAQS, and recommend consideration of abatement measures to the TCC of the MPO. Such assessment will be made at least every four years.

1.2.4
The ~~AWQD~~ EQD shall provide information regarding the air quality implications of traffic congestion and downtown parking to the public and to the TCC in order to encourage parking in the periphery, utilization of mass transit, car and van pooling, and other transportation management strategies to reduce air pollution.

Objective 1.3 Continue to r~~R~~educe the emissions from the storage, handling, and transportation of gasoline to the levels achievable through the implementation of Stage I Reasonable Available Control Technology (RACT) requirements ~~and evaluate the economic feasibility of requiring Stage II RACT requirements~~.

Policies 1.3.1
The ~~AWQD~~ EQD shall continue routine inspections of service stations, tanker trucks, and petroleum tank farms to ensure compliance with Stage I requirements.

1.3.2
The ~~AWQD~~ EQD will continue to implement the expanded Stage I Reasonable Available Control Technology (RACT) requirements throughout Jacksonville.

Objective 1.4 Reduce emissions of odorous compounds which may be injurious to human, animal, or plant life or to property or which may unreasonably interfere with the comfortable enjoyment of life or property by ensuring source compliance with Chapter ~~526~~376, Ordinance Code~~,~~ and the Rules of the Environmental Protection Board (EPB)~~, and the Odor Attainment Plan~~.

Policy~~ies 1.4.1~~
~~The AWQD EQD shall continue to implement all the requirements of the Odor Attainment Plan by the dates specified in the Plan.~~

1.4.2~~2~~1
Using an annual ranking of odor sources by citizen complaints, the ~~AWQD~~ EQD shall determine whether odorous emissions and citizens annoyance levels are being reduced. If reductions are not being obtained ~~AWQD~~ EQD shall review existing regulations and activities for effectiveness and determine whether additional regulations or actions are required.

~~The City shall continue to support the St. Vincent Medical Center study of lung cancer rates in Duval County.~~

Objective 1.5 As sufficient data and risk assessments become available regarding emissions and health effects of toxic and miscellaneous air pollutants, develop strategies to reduce emissions from identifiable sources of harmful pollutants.

Policies 1.5.1
The ~~AWQD~~ EQD shall adopt by reference all rules limiting emissions of toxic and miscellaneous pollutants adopted by DEP within 1 year of the effective date of such rules.

1.5.2
The ~~AWQD~~ EQD shall continue enforcement of State/federal regulations relative to asbestos, maintain analytical capabilities to identify asbestos fibers in support of enforcement activities, and conduct at a minimum, the number of asbestos inspections required by the annual US EPA 105 Work Plan.

1.5.3
The ~~AWQD~~ EQD will continue to permit, monitor, and enforce open burning throughout Jacksonville.

Objective 1.6 Provide information to the general public and improve public awareness concerning local and global air pollution problems and the effects of citizens' actions in creating or resolving them.

Policies 1.6.1
The ~~AWQD~~ EQD shall continue to provide public information regarding local air pollution concentrations daily through the Pollutant Standards Index.

1.6.2
The ~~AWQD~~ EQD shall provide summaries of air pollution data to the EPB on a three to four year basis.

1.6.3
The ~~AWQD~~ EQD shall continue to provide information to the press and to civic and

citizen's groups regarding global issues such as upper atmospheric ozone layer depletion, global warming, acid rain, etc.

~~Objective 1.7~~ The City shall promote the practice of efficient utilization and ~~extraction of mineral resources.~~

~~Policies 1.7.1~~
~~The City shall require that new applications for mineral resource extraction be reviewed by the Planning and Development Department and AWQD~~ EQD for adverse ~~environmental and land use impacts.~~

~~1.7.2~~
~~The City shall continue to implement regulations necessary to ensure adequate conservation, appropriate use and protection of areas suitable for extraction of minerals.~~

~~1.7.3~~
~~The City, through the Land Development Regulations and the Development of Regional Impact (DRI) process, shall require that all applications for mineral resource extraction contain a reclamation program which requires the re-establishment of the form and function of an appropriate land cover, as well as the implementation of all reclamation programs.~~

GOAL 2

Preserve, conserve, appropriately use, protect and improve the quality and quantity of current and projected water resources, including waters that flow into estuarine waters or oceanic waters, estuarine waters, groundwater and other waters in the City. The City shall require that all water conservation options be fully explored and employed for new development.

~~Issue:~~ Water Quality Standards, Monitoring and Compliance

~~Water quality criteria specify concentrations of water constituents which, when not exceeded, protect the aquatic organisms, aquatic ecosystems, and prescribed water uses with an adequate degree of safety against common pollution sources and biological disruption measurable by set protocols. Such criteria may not directly address all pollutants nor do they directly regulate effects on habitat, also critical to productivity. Factors which are detrimental to water quality include industrial, commercial and residential wastewater disposal, agricultural and urban stormwater runoff, dredging, filling, channelization, shoreline modification, and shipping-related activities.~~

~~Water quality classifications are developed by the State to protect the actual or projected uses of the water. Thus, monitoring of the ambient surface water and groundwater quality criteria provides a quantitative yardstick to measure the condition of~~

~~our waters and their suitability for publicly designated uses.~~

~~The Water Quality Attainment Plan adopted by the City Council, outlines general goals and objectives to be considered in meeting the attainment of water quality standards in Jacksonville.~~

Objective 2.1 Surface water, including estuarine water, and groundwater of the City shall meet water quality standards contained in Rule ~~17-3~~62-302, F.A.C., and benthic habitat shall be of a quality to satisfy the objectives of Rule ~~17-3~~62-302, F.A.C.

Policies 2.1.1
The City shall continue to implement programs, ordinances and rules in accordance with Chapter 360, Ordinance Code.

2.1.2
The City shall monitor water quality and develop new water quality standards and/or treatment criteria where State standards and criteria are not adequate to protect water quality.

2.1.3
EQD shall participate in the publication of the annual report of the lower St. Johns River Initiative. This report summarizes current ecological issues for the river, restoration plans and successes to date.

2.1.4
~~AWQD~~ The Ambient Water Quality Section of EQD shall ~~conduct a biological assessment of one major tributary of the St. Johns River per year~~ continue to monitor and assess the water quality of the tributaries of the St. Johns River on a quarterly basis within Duval County. This assessment will include identification and inventory of ~~benthic habitat~~ littoral zone problem areas and a plan and implementation schedule to improve each problem area.

2.1.5
The City shall maintain a Groundwater Recharge Area Protection Program to achieve protection of the City's groundwater aquifer recharge areas as identified in the program.

2.1.6
In order to protect the groundwater resources, the installation of all wells shall comply with permits and/or rules and regulations of all local, State, SJRWMD, and federal regulatory agencies.

2.1.7
The ~~AWQD~~ EQD and the JEA shall continue the cooperative groundwater quality testing and level monitoring program with the USGS and SJRWMD and expand the

monitoring locations to include both prime recharge and prime recharge buffer areas, within one (2~~1~~) years after identification of such areas.

2.1.8
The Environmental Protection Board (EPB) shall not lower its adopted current water quality classifications in Jacksonville. The ~~AWQD~~ EQD shall conduct a ~~triennial~~ review of water quality standards and water quality classifications every five (5) years to ensure that the water quality goals of the City are met.

2.1.9
The City will prohibit, in areas determined to be prime Floridan Aquifer recharge lands, industrial activities, septic tank use in subdivisions, and commercial activities utilizing or producing hazardous materials as identified by the Florida Department of Environmental Protection.

2.1.10 A
~~The City shall continue to utilize its authority under Chapter 366, Ordinance Code to enforce water shortage emergencies declared by the SJRWMD. The City shall continue to recommend water shortage emergencies be declared when local conditions warrant following the procedures of Chapter 366, Ordinance Code.~~ The City shall ensure that its Ordinance Code implements the landscape irrigation provisions in SJRWMD Rule 40C-2.042(2), F.A.C. and does, in any other manner, regulate the consumptive use of water.

2.1.10B
The City shall cooperate with SJRWMD, in accordance with the SJRWMD Water Shortage Plan, during declared water shortage emergencies by conserving water resources and by assisting with enforcement of water shortage emergency declaration, orders, and plans.

~~2.1.11~~
~~The City will continue to coordinate with the FDEP and SJRWMD on implementing the Total Maximum Daily Loads (TMDL) program, the lower St. Johns River Comprehensive Restoration Plan and other relevant programs for the lower St. Johns River by actively participating in interagency meetings and work groups, by coordinating monitoring, assessment and enforcement programs, by submitting contracts for work on the City portion of the lower basin, and by revising and commenting on revised SWIM plans.~~

2.1.1~~2~~1
The ~~AWQD~~ EQD will continue to coordinate with DEP through the Specific Operating Agreement regarding authority delegated by DEP to ~~AWQD~~ EQD for regulatory activities and other specific programs within Duval County.

~~Issue:~~ ~~Wastewater Reuse and Disposal~~

~~Surface water and groundwater in Jacksonville receive waste loads from both domestic sewage (through point discharges from treatment plants and non-point seepage from septic tank systems), and industrial wastewater derived from manufacturing, oil and fuel storage, chemical handling, pulp and paper processes, etc. Increased growth has placed additional demands on our waters, land, and treatment and disposal systems.~~

Objective 2.2 The City shall require the proper disposal and reuse of wastewater~~, and encourage wastewater reuse.~~ for all non-sanitary purposes where connections are available.

Policies 2.2.1
The City shall continue to identify and prioritize septic tank problem areas and shall revise, when appropriate, regulations governing the design, location and maintenance of septic tanks.

2.2.2
The City shall require the proper disposal of wastewater in accordance with Objective 1.2 and its supporting policies in the Infrastructure Element Sanitary Sewer and EPB Rule 3.

2.2.3
Permitting and enforcement of point sources of pollution shall be performed by ~~AWQD~~ EQD and the DEP per local program agreement, to ensure that water quality standards are met, including those standards requiring a water-quality based effluent limitation based on assimilative capacity of the receiving body of water, and including the groundwater criteria of Rule 17-3, F.A.C., for wastewater effluent discharged to the ground. The standards will be reviewed upon completion of the Assimilative Capacity Study currently underway jointly with the ~~AWQD~~ EQD, SJRWMD, and DEP.

2.2.4
Inspection and compliance sampling of point sources by DEP and ~~AWQD~~ EQD shall be carried out at least annually.

2.2.5
All uses of reclaimed water shall be in accordance with applicable rules of the Florida Department of Environmental Protection and other regulatory agencies having jurisdiction. The City shall ~~implement the wastewater reuse ordinance~~ comply with all reuse requirements as outlined in Chapter 752 of the Ordinance Code (Jacksonville Reuse of Reclaimed Water Program), the supporting policies in the Infrastructure Element Natural Groundwater Aquifer Recharge and Potable Water Sub-Elements, and in compliance with the City's consumptive use permit issued by SJRWMD.

~~Issue:~~ ~~Stormwater Management and Non-Point Pollution Sources~~

~~As agriculture and urban development covers more and more land area, wastewater treatment and control of stormwater drainage are increasingly important aspects of our water quality improvement programs. More surface area covered translates to faster runoff rates and increased pollution loads with less land available for absorption and filtration.~~

~~Stormwater runoff is the most significant surface water quality problem in the City and is the largest obstacle to water quality attainment in the future. Sediment from disturbed lands carried into the City's streams by runoff accounts for 60-90% of the sediment loading. Runoff from dairy lands contributes large amounts of bacteria and nutrients into the water. Urban runoff is the largest source of inorganic toxins in our waters. Lawns, streets, roofs, parking lots, and other surfaces of urban areas collect a variety of noxious pollutants. The runoff from the typical American city during the first hour of a storm may carry many more pollutants than that same city's untreated sewage would carry during the same period. The concentration of heavy metals in urban runoff may be 10 to 100 times that of sanitary sewage. In addition, herbicides, pesticides, fungicides, fertilizers and other chemicals are widely dispersed in the urban environment.~~

~~The City's Master Stormwater Management Plan will identify an optimum mix of regional treatment, on-site treatment and upland practices for existing and new development for each sub-basin in Jacksonville.~~

Objective 2.3 Reduce the potential for water quality degradation from stormwater runoff.

Policies 2.3.1
Increase cooperation with the SJRWMD in the permitting of new, urban non-point sources of pollution by taking the following actions:

A. The City will implement SJRWMD rule changes as set out in Chapter 40C-42, F.A.C., regarding more stringent treatment standards for stormwater facilities discharging to water quality limited streams.

B. The City shall provide the SJRWMD with copies of the "Duval County Surface Water Quality Summary Report."

2.3.2
~~By 1999, AWQD and the Public Works Department (PWD) shall adopt regulations to control construction-based erosion in City construction projects, and shall revise City maintenance programs to minimize water quality impacts.~~ The City shall require new development to adhere to the erosion and sediment controls for construction sites set forth by the Water Quality Branch (WQB) of the EQD. Construction sites will be inspected by the City's Nonpoint Source Section to ensure minimal impacts of erosion

on water quality of the City.

2.3.3
~~By 2000, the City will finish the Master Stormwater Management Plan to the detailed basin level.~~ The City will continue to update the Master Stormwater Management Plan (MSMP) and coordinate with the Water Sewer Expansion Authority (WSEA) to ensure that the necessary stormwater system infrastructure is in place within the 22 targeted septic tank phase-out areas.

2.3.4
The Public Works Department shall continue to implement non-structural stormwater best management practices (pavement sweeping, etc.) in existing areas where stormwater retrofitting is proposed in the Master Stormwater Management Plan.

2.3.5
The City will continue to maintain the inventory of herbicides and pesticides used on City owned or maintained areas, including those used to control mosquitoes. ~~By 1999, an assessment of alternatives to chemical use will be prepared, with the intent of reducing chemical pesticide use by at least 50% by the year 2000.~~

2.3.6
The City will require implementation of Best Available Treatment designs achieving no less than 30% total nitrogen reduction for urban retrofit projects and promote new projects to achieve no net increase in nutrient runoff from pre-existing conditions.

2.3.7
The City will require the use of "River Friendly" BMPs, as published in the *Florida Green Industries: Best Management Practices for Protection of Water Resources in Florida* and outlined in Chapter 366, Ordinance Code. This will include the establishment of new, "Florida Friendly" turf and landscapes and the care of existing turf and landscapes, including construction activities, irrigation, nutrient management, and pest management.

~~Issue:~~ Dredging and Dredged Material Disposal for Navigation and Port Facilities

~~Dredging and dredged material disposal are necessary in order to maintain channel depths for port traffic as well as recreational boating and commercial fishing. This activity removes bottom sediment which has accumulated as a result of sewage and industrial discharges, upland runoff, erosion, and other natural processes. The controlled periodic removal of this material is preferential to allowing vessel traffic to continually re-suspend the material in the water column by traversing shallow areas. Detrimental effects of dredging activities can include bottom habitat disruption, turbidity in the water column, re-entertainment of toxins that have been sequestered in the sediments, sedimentation downstream, and burial of wetlands by spoil material.~~

~~The re-entertainment of toxins in the sediments is potentially fatal to larval and juvenile stages of fish and shellfish, and can also affect developmental sequences, lower disease resistance, or reduce growth rates. Many of the toxins sequestered in the bottom sediments of the St. Johns and its tributaries in the Jacksonville area are mutagenic or teratogenic. These include PCBs, hydrocarbons, heavy metals and pesticides.~~

~~Approximately 611,680 cubic meters of sediment a year are dredged from the lower 20 miles of the St. Johns River alone. Much of this dredged material has been placed on small islands or parcels of land adjacent to the channel. Erosion provides an opportunity for the dredged material to be re-introduced into the channel, thereby increasing turbidity and sedimentation problems. Historically, dredged material disposal and roadway construction have separated salt marshes to the north from the St. Johns River, restricting circulation and reducing the natural flushing action of the tide. Dredged material has and can sometimes be utilized for beach renourishment, landfill cover, and other positive benefits.~~

~~Improperly managed dredged material disposal sites (DMDS) can be a prolific source of salt marsh mosquitoes in Jacksonville, comparable to the flooded high marsh areas in periods of high astronomical tides (September and October).~~

Objective 2.4 The City shall, in coordination with the Jacksonville Port Authority (JPA), the Jacksonville Planning and Development Department (JPDD), ~~AWQD~~EQD, the Florida Inland Navigation District, and the U. S. Army Corps of Engineers, develop a plan for dredging-related activities for the navigational channel terminal facilities and access channels. This plan will be made a part of the overall master plan for the port, referred to as the "Jaxport Master Plan", which comprises Part 3 of this element. This dredging plan shall provide for the protection of environmental resources while allowing for dredging and related activities necessary to maintain an operational port. This plan may be called "The Plan for Dredging and Dredged Material Disposal for Navigation and Port Facilities", and will hereinafter be referred to as the "Dredging Plan".

Policies 2.4.1

The City will comply with the "Dredging Plan" and will make use of ~~By 2000, the Jacksonville Port Authority, in conjunction with other port facilities, shall develop and adopt a "Dredging Plan" in coordination with the AWQD, which at a minimum, addresses~~ seasonal impacts on sensitive life stages of finfish and shellfish; protection of endangered species, threatened species and species of special concern; disposal of dredged materials, including site selection, spoil leachate and runoff control; compensation and mitigation of habitat loss; and BMPs during dredging and disposal to preclude water quality violations.

2.4.2

The City of Jacksonville and JPA will identify revenue sources within their respective

budgets to assist in the implementation of the "Dredging Plan" for the maintenance of the St. Johns River navigation channel and public port facilities. The City and JPA will also identify other potential funding sources (State or Federal). The funds may be utilized for development of the plan, the acquisition of spoil areas, special disposal techniques, mitigation, and transportation of spoil material away from the river.

2.4.3
Six months after a Dredging Plan prepared by the JPA is approved by ~~AWQD~~ EQD, the City of Jacksonville, through a Memorandum of Agreement with JPA, Corps of Engineers (COE), DEP and individual dredging operators, will ensure that all contract dredging activities shall follow the dredging plan and otherwise be in compliance with the dredging plan. Twelve months after the Dredging Plan is approved, EPB will adopt local pollution control rules regulating port and navigation dredging and request that DEP implement those regulations under the provisions of the local pollution control statute. ~~AWQD~~ EQD will request that DEP give direct notice of permit applications.

2.4.4
Upon completion of the final Dredging Plan, the City shall amend the Future Land Use Map series (FLUMs) by designating those areas which are appropriate and necessary for spoil disposal.

2.4.5
The City will ensure that all dormant dredged material disposal sites (DMDS) are managed to reduce mosquito production and achieve the maximum available volume by compaction of the retained material, thus retarding the rate of construction of new sites required for channel maintenance.

~~Issue: Shipyard and Vessel Maintenance Impacts~~

~~Shipyard activities often are responsible for serious water quality impacts. Lack of proper containment of air, water, sand, and grit blasting materials and paint, rust, and metal particles result in entry of these materials into the river. The anti-corrosive and anti fouling paints being removed are toxic to marine life, and often contain high levels of heavy metals. Practices must be improved to ensure protection of water and sediment quality in marine maintenance/construction areas.~~

~~Objective 2.5 The EQD shall develop a program for management of vessel construction, repair and maintenance areas to prevent water and sediment contamination comply with the Clean Vessel Act of 1992.~~

~~Policies 2.5.1~~
~~EQD shall review maintenance standards and BMPs for ship repair facilities and determine their applicability for the City of Jacksonville.~~

~~**2.5.2**~~

~~EQD shall develop a list of special maintenance problem pollutants and EPB shall establish restrictions on their use and disposal.~~

~~**2.5.3**~~

~~EQD will continue to review literature and federal, state and local regulations related to the manufacture, sale, distribution and use of tributyltin (TBT) antifouling paint to determine whether standards are adequate to protect the City's Aquatic environment. If not, EQB will consider adoption of local standards.~~

Issue: Management of Chemical and Petroleum Releases

~~There are approximately 10,000 above ground storage tanks and 7,000 underground petroleum storage tanks in the City. EPA estimates that one in every four underground petroleum storage tank systems is leaking or will be leaking within five years. No estimate is available for leakage in above-ground tanks. Aging gasoline storage tanks are increasing in numbers and station owners are either unaware of leaking tanks or do not get alarmed over small losses in their inventory. Improperly abandoned tanks and piping contribute to groundwater contamination. In some situations the conditions of groundwater movement at the site of a leaking tank are such that contamination of drinking water wells can occur within days.~~

~~On March 1, 1989, a program was begun by the new Hazardous Materials Activity of AWQD to inspect underground petroleum storage tanks (including piping) for leakage. This program includes inspection of abandoned tanks and new installations.~~

~~There is a wide range of materials which are commonly used by households and small businesses which pose special problems when discarded improperly in the environment. Some are immediately poisonous in small quantities. Others may cause adverse health effects only after 20 years of exposure. Small quantities of hazardous materials can contaminate large quantities of water. As much as 400 tons of hazardous materials are improperly disposed of annually in the City landfills and sewer systems that are not designed and/or permitted to accept hazardous waste. The problem is the lack of either a hazardous waste collection facility for short term storage and transfer, or a treatment, storage, and/or disposal facility (TSDF). There is no such County or State facility in Northeast Florida. A County collection facility for Jacksonville would be required to receive, store, and ship hazardous wastes from households and businesses which generate between 0 - 100 kilograms per month. This collection facility would assure an environmentally safe disposal of the hazardous waste collected from these virtually unregulated generators. A State TSDF could perform multiple functions, i.e., neutralization, recycling, incineration, and some types of disposal. Disposal of high-risk materials would require proper packaging and shipment to an EPA approved disposal facility.~~

~~AWQD's new Hazardous Materials Activity will concentrate in the following areas to~~

~~complement the State or federal programs:~~

~~1. Response to hazardous materials incidents.~~
~~2. Compliance monitoring of hazardous waste generators.~~
~~3. Compliance monitoring of underground petroleum storage tanks.~~
~~4. Local PCB regulation and inventory of sources.~~
~~5. Hazardous waste dump site monitoring.~~

~~EPB Rule 7 was adopted in June, 1990 and addresses spill plans and releases or willful discharges. Areas, which remain to be addressed, are above-ground chemical and petroleum tanks and marine fuel terminals.~~

Objective ~~2.6~~ 2.5 The City shall reduce the potential for ~~water~~ contamination of water and other natural resources as a result of chemical spills.

Policies ~~2.6.1~~ 2.5.1
The City shall inspect facilities with underground petroleum storage tanks on an annual basis to ensure compliance with Rule 17-61, F.A.C.

~~2.6.2~~ 2.5.2
The City shall continue to inspect facilities with above-ground storage tanks of petroleum or hazardous chemicals every two years to ensure compliance with DEP and the Fire Marshal's requirements.

~~2.6.3~~ 2.5.3
~~By 1998, the~~ The staff of the Hazardous Materials Activity of ~~AWQD~~EQD shall participate in the inventory and assessment program as an element of the Division's Waste Reduction Assistance (Pollution Prevention) Program ~~report to the EPB and City Council~~ in order to evaluate ~~on~~ hazard assessment, safety requirements, emergency response and coordination of response, and financial responsibility for potential chemical and petroleum spills related to port and vessel activities, and shall recommend adoption of new local regulations or other measures where appropriate, leading to protection of water quality and natural resources.

~~2.6.4~~ 2.5.4
The City will take action to recover City funds used to contain and/or remediate spills, and for restoration of the contaminated environment. The City has amended Chapter 365, Ordinance Code, addressing the Hazardous Waste and Spill Mitigation Trust Fund. Billing to recover City funds will be according to existing procedures.

Objective ~~2.7~~ 2.6 The City shall continue to implement its hazardous waste management program for the proper storage, recycling, collection, transfer and disposal of hazardous wastes in order to protect natural resources.

Policies ~~2.7.1~~ 2.6.1
The City's Solid Waste Division and ~~AWQD~~ EQD shall continue a public education program on the proper disposal of potentially hazardous materials to reduce the amount of these materials entering the solid waste stream.

~~2.7.2~~ 2.6.2
The City shall continue the permanent local "amnesty days" program to facilitate proper collection and disposal of household hazardous wastes, as well as hazardous wastes from conditionally exempt small quantity generators (0 -100 kg/mo).

~~2.7.3~~ 2.6.3
The City shall continue to operate a local household hazardous waste collection center. The City will assist the State in attempting to locate a treatment, storage, and disposal facility (TSDF) in Northeast Florida, by evaluating any potential sites in Duval County.

~~2.7.4~~ 2.6.4
The ~~AWQD~~ EQD shall inventory and inspect all commercial and industrial hazardous waste generators on an annual basis.

~~2.7.5~~ 2.6.5
Equipment known to contain PCBs, such as transformers and capacitors, shall continue to be identified, located, and inspected by ~~AWQD~~ EQD. The ~~AWQD~~ EQD shall monitor each item including any leakage or spills, until the item is disposed of properly.

~~2.7.6~~ 2.6.6
The City shall review the DEP criteria for evaluating the environmental hazards of old dump sites within the City and recommend modifications where necessary. The City shall update the existing list, and analyze and rank the known sites of City-involved contamination for priority cleanup. Following this ranking, the City will develop a remediation action plan for these sites.

~~2.7.7~~ 2.6.7
The City of Jacksonville's EQD shall serve as contract manager for the Florida Petroleum Cleanup Program within Duval County for as long as the State funds the program, estimated as 30 years more.

~~Issue:~~ Protection of Estuarine Marshes and Riverine Wetlands

~~Wetlands are extremely beneficial in their ability to provide several natural functions. Their role in maintaining water quality is vital to Jacksonville's river systems. Wetlands mitigate the effects of pollutant laden urban runoff upon the receiving water bodies by acting as pollution filtration systems, trapping sediment and debris and removing heavy metals, pesticides, and other toxic substances. This is the result of the assimilative capacity of the vegetation, the detrital microbial population and the benthic microorganisms, and the absorptive and adsorptive capacity of the soils.~~

~~Removal or destruction of natural vegetation disrupts natural filtration processes which protect water quality. Cumulative impacts of small wetland losses can be very significant to riverine systems. Rising sea levels will further limit marsh and wetland areas.~~

~~Wetlands which are contiguous to tributaries and primary river channels are just as much a part of a river as the water itself. All rivers need wetlands; urban rivers need wetlands more than any other river.~~

Objective ~~2.8~~ 2.7 The City shall protect the hydrological and ecological benefits of flood plain areas, such as water quality, fish and wildlife habitat, and prevention of downstream flooding.

Policies ~~2.8.1~~ 2.7.1
The City shall continue to define the surface hydrology of the area to determine flood plain vulnerability and sensitivity, and will determine appropriate protection measures.

~~2.8.2~~ 2.7.2
A land acquisition program for appropriate flood plain areas to be purchased shall continue to be included in the City's Special Management Areas Program, with funding provided through The Preservation Project Jacksonville.

~~2.8.3~~ 2.7.3
The City shall protect appropriate floodplain areas for the public benefit and restore degraded floodplain areas by:

A. Land acquisition or conservation easement acquisition;
B. Regulation, including setbacks, buffer zones, designated wildlife corridors, low density zoning, performance standards and open space requirements; and
C. Incentives, including tax benefits and transfer of development rights.

~~Issue:~~ Flood Plain Management

~~Extensive flood plain areas exist in the City due to the slight elevations of land above sea level and the relatively flat topographic relief of the land surface. Flood plain areas exist around the St. Johns River and its tributaries as well as around coastal lagoon and salt marsh systems.~~

~~In addition, there are large areas within Jacksonville's interior, which experience periodic flooding. These flood prone areas are generally the result of flat, poorly drained land where accumulated rainfall runs in a sheet flow or ponds on the surface.~~

~~Flood plain areas, if left undisturbed, provide valuable assets for man. They protect uplands from the erosion and flooding caused by overflowing waterways and serve as~~

~~storage areas for increased stormwater runoff from the upland areas.~~

~~Wetlands associated with streams play an important role in flood control by providing storage, slowing flood waters, reducing flood peaks, and increasing the duration of the flow. Other hydrologic functions include shoreline anchoring and erosion control, and groundwater recharge and discharge.~~

~~While it may be technically possible to replace some of the flood protection functions for a limited time through structural improvements, the costs for initial construction and continual maintenance are not economical in the long run. Removal of portions of land from use as a flood plain area will shift those flood waters to another area, thus causing more flooding or new flood problems elsewhere.~~

~~Flood plains also perform certain invaluable ecological functions which cannot be duplicated by man. Flood plain areas and their surrounding riparian habitat provide the most productive and the most critical habitat for a variety of fish, wildlife, and plant species. The periodic inundation of flood plain areas provides an essential link in the transport and cycling of nutrients.~~

~~The City has a Flood Plain Regulation contained in Chapter 652, Ordinance Code. The regulation addresses construction and building codes within the certain zones as determined by the Flood Insurance Rate Maps (FIRM) developed by the Federal Emergency Management Agency (FEMA). The intent of the Flood Plain Regulation is to limit or minimize damage to structures caused by flooding and to avoid contamination of waters by waste disposal systems.~~

~~The hydrological and ecological benefits to be gained by protection and proper management of flood plain areas can be further addressed through land use planning and land development regulations.~~

Objective ~~2.9~~ 2.8 The City shall reduce the rate of soil erosion caused by land development and other human activities in areas known to have experienced soil erosion problems.

Policy ~~2.9.1~~ 2.8.1
~~AWQD~~ EQD shall continue to inspect land development sites and construction sites permitted by other agencies during all phases of construction and post construction for compliance with required erosion and sediment control plans.

Objective 2.9 The City shall promote the practice of efficient utilization and extraction of mineral resources.

Policies 2.9.1
The City shall require that new applications for mineral resource extraction be reviewed by the Planning and Development Department and ~~AWQD~~ EQD for adverse environmental and land use impacts.

2.9.2
The City shall implement regulations necessary to ensure adequate conservation, appropriate use and protection of areas suitable for extraction of minerals.

2.9.3
The City, through the Land Development Regulations and the Development of Regional Impact (DRI) process, shall require that all applications for mineral resource extraction contain a reclamation program which requires the re-establishment of the form and function of an appropriate land cover, as well as the implementation of all reclamation programs.

GOAL 3

Manage, preserve and enhance viable native ecological communities in order to protect and improve the functions of natural systems and the distribution, productivity and diversity of native plants, animals and fisheries, particularly those species which are endangered, threatened, of special concern, or have high ecological, recreational, scientific, educational, aesthetic, or economic value.

~~Issue:~~ ~~Data Gathering~~

~~Jacksonville lacks current comprehensive inventories and maps of sensitive natural resources. Most vegetative cover maps of the City are based on 1975 and 1990 aerial photography. Wildlife habitat estimates were made from 1976 and 1978 data. Considerable land development has occurred since that time.~~

Objective 3.1 To develop a current high-quality database on vegetation and wildlife within the City.

Policies 3.1.1
The City will meet with the SJRWMD to set up a timeline to complete the Wetlands Vegetation Inventory and to determine the type of assistance needed to complete the project. The City will then provide the necessary assistance as requested by SJRWMD.

3.1.2
The ~~Mayor's Joint Oversight Commission~~ Parks Advisory Board on the Preservation Project shall regularly assess environmentally sensitive lands, including those in the Special Management Areas Program and other Environmentally Sensitive Lands identified per Policy 4.1.9. The Commission, through its staff, will evaluate those lands and make recommendations to the Mayor for purchase and management. Attention shall be given to identifying areas that have suffered environmental damage and show promise for restoration to all or part of their past productivity.

3.1.3
The City shall~~, by 2000, complete a computerized~~ utilize its computerized Geographic Information System (GIS) ~~with the capacity~~ to map and analyze natural resource conditions.

3.1.4
The City shall provide appropriate assistance to the University of Florida Biological Diversity Project for Duval County in exchange for an inventory database. The City shall also work in cooperation with the U.S. Department of Forestry to determine the natural inventory of Duval County lands by photo interpretive methods.

~~Issue:~~ ~~Public Education~~

~~Public awareness and environmental education are crucial to the success of the City's conservation and protection programs. Understanding of the City's native plant communities and wildlife species and their requirements will promote protection efforts. These voluntary efforts are essential to our environmental resources.~~

Objective 3.2 Increase the public knowledge of environmental problems, solutions and goals of the City, especially in relation to environmentally sensitive areas, native Florida wildlife, listed species, and their habitat.

Policies 3.2.1
The City shall assist the Florida Department of Community Affairs, the Florida Fish and Wildlife Conservation Commission, and the U.S. Fish and Wildlife Service in developing an education program to increase public knowledge of the existence, habitat, and survival requirements of this area's native wildlife, including listed species and other rare Florida animals. The City shall continue efforts to educate the public, landowners, developers, and agency representatives on the wildlife and wildlife habitat of Northeast Florida, including good management practices for native species and vegetative communities.

3.2.2
The City will assist the Duval County School Board with the inclusion of a significant organized environmental education program such as Project Wild sponsored by the Florida Fish and Wildlife Conservation Commission FFWCC, in the curriculum of the Duval County public schools.

3.2.3
The City shall continue to support staff within ~~AWQD~~ EQD to increase public knowledge and awareness of local environmental issues such as the St. Johns River cleanup, non-point pollution, air quality and air toxins, hazardous materials disposal, wetlands values, native species, rule changes, and new regulatory requirements. This staff will continuously work with other public agencies, environmental organizations, the Duval County School Board, and the Jacksonville Chamber of Commerce to facilitate the

public education process.

~~Issue:~~ Conservation and Protection of Native Plant Communities

~~Jacksonville's original forest cover has been drastically altered by successive cuttings since the eighteenth century. In the continually expanding urban areas, little remains of the original vegetation. Coniferous forests dominate the undeveloped land area. Most of the remainder of upland forests is in pine plantations. Only about two percent of the total upland forested area, is dominated by hardwoods. Mixed forests located on wetlands and very poorly drained sites cover about 15 percent of the county. Upland forests and mixed forest, comprise the major terrestrial wildlife resources, especially for deer. Shrub and brushland, along with less intensively managed agricultural land, such as pastures and old fields, form the next most important wildlife resources. These areas can be well suited for large populations of game bird species. Wildlife species are important components of the modified and more natural communities in the area.~~

~~Protection and management of viable communities of Jacksonville's remaining native plants and wildlife habitat is highly desirable. Management strategies will include land acquisition, incentives to landowners, and regulatory mechanisms.~~

Objective 3.3 The City shall conserve, appropriately use, protect and manage environmentally sensitive lands (native plant communities and wildlife habitat) to maintain the natural ecological community types and sustainable populations of wildlife native to the City.

Policies ~~3.3.1~~

~~The City has established The Preservation Project Jacksonville to continue to acquire environmentally sensitive lands.~~

~~3.3.2~~3.3.1

The Preservation Project Jacksonville shall continue to consider the acquisition of environmentally sensitive lands in order to preserve at least one example of each native plant community occurring in the City so that each will remain a viable ecological community.

~~3.3.3~~3.3.2

The City shall promote wildlife preservation and conservation of natural systems and the long-term maintenance of natural systems through such means as establishing wildlife sanctuaries, refuges, riverine preserves, wildlife management areas, parks and open space by buying or acquiring other interests in the land.

~~3.3.4~~3.3.3

The City shall encourage landowners and developers to protect or preserve ~~listed species, native plant communities, including viable tracts of native communities~~ Environmentally Sensitive Lands within developments, where feasible. Developers will

be informed, through development review processes, and provided options for preservation of these areas.

~~3.3.5~~3.3.4
The City will continue to inform landowners and developers of the availability of technical assistance from State and federal fish and wildlife agencies concerning the on-site status of the following native communities: beach dunes and coastal strands, dry prairies, maritime hammocks, scrubs, shell mounds, sand hills, mesic flatwoods.

~~3.3.6~~3.3.5
The City shall continue to ensure the preservation of native habitat vegetation during land development activities, either through maintenance of natural vegetation on any project site, or through the planting of native vegetation. 50% of all plantings incorporated in an approved landscape plan for any project site after development consists of native vegetation suitable to that site, and by requiring that at least 60% of all post development vegetation is indigenous to the City.

~~3.3.7~~3.3.6
The City has amended the Jacksonville Landscape and Tree Protection Regulations to increase the penalties for violation thereof, which penalties include mitigation, jail sentences, severe fines and withholding of building and development permits.

~~3.3.8~~3.3.7
The City shall implement the programs specified in the Wetlands Policies, Special Management Areas and Environmentally Sensitive Lands Policies in this element in order to ensure the protection and restoration of the ecological functions of wetlands.

~~3.3.9~~3.3.8
The Planning and Development Department shall encourage innovative site planning techniques such as clustering of development to preserve unique natural site features.

3.3.9
The Planning Department, in coordination with EQD and the Recreation and Community Services Department, shall provide an annually updated list identifying and prioritizing Special Management Areas and Environmentally Sensitive Lands for acquisition when funds are available. This list will include and give priority to Special Management Areas that are not publicly owned and will be provided to the Preservation Project Jacksonville for review.

Objective 3.4 The City will protect, conserve and appropriately use native ecological communities shared with or adjacent to State and federal lands and other local governments.

Policies 3.4.1
The City shall develop a process by which to protect unique communities located along

the City's border by enforcing land use and development regulations with regard thereto.

3.4.2
The City shall, with the appropriate counties, meet as necessary to discuss upcoming land development projects that would have an impact on native ecological communities in more than one jurisdiction.

3.4.3
The City shall cooperate with and assist adjacent local governments to assure compliance with all State and federal regulations pertaining to endangered and rare species living in such "shared" ecological systems, by meeting as necessary to discuss any new State or federal regulations.

~~Issue:~~ Protection of Wildlife

~~There are numerous listed and non-listed species of plants and animals occurring in Jacksonville which require special protection efforts. Many factors may cause the need for a species to be listed as threatened or endangered, but the principal factors are associated with human impacts and species habitat destruction.~~

~~State-listed species of special interest to the City include the wood stork, burrowing owl, red-cockaded woodpecker, Florida black bear, gopher tortoise, Florida pine snake, eastern indigo snake, Sherman's fox squirrel, bald eagle, West Indian manatee, southern lip fern, spoonflower, needle palm, Florida hartwrightia, and Bartram's ixia.~~

Objective 3.5 Protect and manage endangered and threatened species and species of special concern so there is no reduction in numbers of species that are found in the City and no significant loss of population size. Conserve and protect the functional values of areas of native wildlife habitats which require special protection efforts.

Policies 3.5.1
The City shall continue programs for the protection of listed and non-listed species of interest as part of The Preservation Project Jacksonville, ~~and~~ the Special Management Areas Program and other Environmentally Sensitive Lands designated per Policy 4.1.9.

3.5.2
Following the production of the environmentally sensitive lands ~~natural resource map~~ database, a study will be completed, to analyze the data obtained to determine what regulatory programs are needed to protect listed plants and animals and other wildlife. The study will include a specific review of those plant species listed by the State of Florida, which are not also federally listed plant species to determine whether they require additional protection. Upon completion of the study, the 2030~~10~~ Comprehensive Plan shall be amended to reflect the data and analysis and the goals, objectives and

policies shall be reviewed for consistency with the additional information, and if necessary, be appropriately amended.

3.5.3
The City shall continue to establish additional Conservation land use designations and/or ordinances or rules as needed to conserve and protect sustainable populations of listed animal species and other significant wildlife, federally listed plant species and those state-listed plant species as determined in the referenced study. Where compatible uses are allowed, mitigation may be required on or off-site to help compensate for adverse impacts. Positive incentives, as described in Policy 3.3.~~6~~7 will be part of this regulatory program.

The City will continue to review agency regulations and best management practices of silviculture and agriculture operations to determine whether these operations are adversely impacting those species referenced in Policy 3.5.2 and the upland habitats listed in Policy 3.3.~~6~~7. The City will request assistance in this review from the Division of Forestry and wildlife agencies. If detrimental impacts are occurring, ~~AWQD~~ EQD shall implement EPB rules for agriculture and silviculture BMPs which specifically include practices for the protection of these species and upland communities.

In addition, the City shall monitor the Division of Forestry's review of the best management practices as they relate to wildlife and propose amendments to the 2030~~10~~ Comprehensive Plan based on the review by the Division of Forestry.

3.5.4
The City shall continue to implement a program which: (1) defines those areas of native wildlife habitat in need of special protection efforts but not otherwise subject to regulation and protection by State and U.S. agencies and (2) requires either preservation of a portion of the wildlife habitat in need of special protection or equivalent preservation by means of on-site or off-site mitigation. The program shall include provision for transfer of land use density credits from those areas being preserved to areas of the site proposed for development, and other compensation measures as appropriate. The Land Development Regulations will be subsequently amended. This policy does not preclude additional regulatory and incentive measures for the conservation and management of wildlife habitat and native plant communities from being developed per policy 3.3.~~6~~7.

3.5.5
The City shall maintain a land development review process for the assessment and protection of listed species and their habitat, which shall apply to issuance of development permits and land clearing, excluding bona fide silvicultural and agricultural activities. Projects which contain areas identified for protection shall be required to incorporate creative project designs through utilization of such measures as clustering, mixed land use designations and transfer of development rights programs. For purposes of Policy 3.5.5, the term listed species shall be limited to listed animal species as defined in the Definitions Section of this Element.

A. All proposed developments or land clearing, with the exception of bona fide silvicultural or agricultural activities, which are located on all or part of a parcel or contiguous parcels of land containing 50 acres or more under common ownership ~~on the effective date of the 2010Comprehensive Plan~~ shall be reviewed by the City to determine if the site contains listed species.

B. A listed species survey shall not be required for:

1. lands depicted on the most recent Land Cover Map published by the St. Johns River Water Management District (SJRWMD) to be:

a. barren land
b. agriculture
c. urban land
d. transportation and utilities, and/or
e. tree plantations

2. areas identified as wetlands where a listed species survey was required through other local, State, regional or federal regulations or programs or those wetlands which will be protected in their natural state through such regulations or programs.

The City reserves the right to modify the land cover designation of any site where reliable information available to the City indicates that the land cover is different than the land cover depicted on the most recent Land Cover Map published by the St. Johns River Water Management District (SJRWMD). Before the City modifies the land cover designation on any site, the property owner and the SJRWMD shall be given an opportunity to comment on the reliability of the information provided. Failure of the SJRWMD to provide their comments within a 30 day period from the date of mailing shall be considered an acquiescence that the information provided is reliable. To the extent the Land Cover Map is inconsistent with an on site inspection or survey, the survey controls.

C. The City shall make a determination as to whether or not the proposed development or land clearing, not otherwise exempt from the provisions of Policy 3.5.5, is located in an area which contains listed species requiring the procedures set forth in Paragraph E of this Policy.

1. The City shall review its database, which shall consist of Land Cover Maps, known occurrences of listed species, and results of properly conducted surveys.

a. If the database does not reflect any known occurrences of listed species on the site and the site contains only exempt land cover, then the protection measures of Paragraph E of this Policy shall not apply.

b. If the database indicates that the development or land clearing site contains listed species, then the protection measures of Paragraph E of this Policy shall apply.

c. If the database indicates nonexempt land cover is present on the development or land clearing site, the protection measures of Paragraph E of this Policy shall be applied as follows:

1. If the survey shows a listed species, then the provisions of Paragraph E of this Policy applies (see chart titled Proposed Development or Land Clearing located in the Wildlife Inventory and Analysis section).

2. If the survey does not show a listed species, then the provisions of Paragraph E of this Policy do not apply.

3. An applicant may provide a listed species survey conducted by the FFWCC, USFWS, or a professionally qualified private consultant in accordance with Paragraph 1 of this Policy, to amend the database.

4. The City may grant exemptions from the survey requirements and the protection measures of Paragraph E of this Policy in individual cases where reliable information available to the City indicates that the proposed development or land clearing contains no listed species or habitat for listed species. Before the City grants an exemption from survey or protection measures, the FFWCC and the USFWS shall be given an opportunity to comment on the reliability of the information provided. Failure of the FFWCC and the USFWS to provide their comments within 30 days from the date of mailing shall be considered an acquiescence that the information provided in reliable.

5. An applicant may accept the database without conducting a survey and comply with the protection measures of Paragraph E of this Policy.

6. For purposes of this Policy, the results of a properly conducted survey are considered more conclusive than the database if conducted by the provisions of Paragraph 1 of this Policy.

The City reserves the right to verify any information submitted by an applicant.

D. The land encompassed in the listed species survey shall be as follows:

1. For proposed developments or land clearing, not otherwise exempt, containing 50 acres or more, the entire area to be developed or cleared shall be surveyed.

2. For proposed developments or land clearing, not otherwise exempt, containing less than 50 acres, which are part of a parcel or contiguous parcels of land containing 50 acres or more which was under common ownership on the effective date of the 2010 Comprehensive Plan, a minimum of 50 acres shall be surveyed inclusive of the proposed development area to be cleared. However, no land owner will be required to survey land they do not own.

E. When a site proposed for development or land clearing is determined to contain listed species, those listed species and their habitat shall be protected in a manner which ensures the achievement of Objectives 3.3 and 3.5 and related policies, unless the proposed development or land clearing is otherwise exempt from the provisions hereof. The method of protection required by the City shall be determined on a case by case basis and shall be directly related to: the number and types of listed species present or presumed to be present on the site as determined by Paragraph C of this Policy; the size, type, quality and location of habitat; the life cycle needs supplied by the habitat, i.e., nesting, roosting, breeding, foraging, etc.; the size of the habitat in relation to the size of the site proposed for development or land clearing; the location of the site and the habitat in relation to existing or proposed wildlife corridors, Special Management Areas and other Environmentally Sensitive Lands designated as per Policy 4.1.16, Conservation land use designated properties; lands upon which a conservation easement already exists.

1. The City shall require a habitat management plan which demonstrates how the listed species will be protected from the impacts of the proposed development or land clearing. The plan must be prepared by a qualified professional, reviewed by the FFWCC or USFWS and approved by the City prior to the City

issuing a development order. The FFWCC or the USFWS must complete this review within 30 days from the date of mailing. Failure of the FFWCC or the USFWS to provide their review within the 30 day period shall be considered an acquiescence that the management plan is acceptable. Under the requirements of a habitat management plan, the landowner may be required to protect up to 10% of the total gross acreage of the site proposed for development or land clearing.

2. When the City determines that alternative off site measures will provide equivalent or better protection to achieve Objectives 3.3 and 3.5 and their related policies, then in lieu of the requirements of Subsection 1 above, the City may require one of the following; i) a monetary contribution to a trust fund for the acquisition of environmentally sensitive areas, or ii) off site mitigation measures such as species relocation which must be approved by the FFWCC or the USFWS, or other State or federal agency with jurisdiction over the species to be protected or iii) land acquisition within or adjacent to existing or proposed wildlife corridors or areas within the region with existing habitat for the listed species to be protected or iv) contribution to the Northeast Florida Regional Mitigation Park and/or the Preservation Projects Jacksonville (PPJ). The monetary contribution shall provide funds sufficient to replace or the land to be dedicated shall replace the habitat functions of the acreage that would otherwise be protected under Subsection 1 above, off site mitigation shall emphasize the need to satisfy habitat requirements for listed species. Monetary contributions to a trust fund for land acquisition pursuant to this policy shall be applied first to the acquisition of sites known to contain viable populations of listed species.

3. Listed species preservation or mitigation imposed upon a site by a federal, State, or regional agency are presumed to satisfy Objectives 3.3 and 3.5 and related policies, and the City shall incorporate the restrictions imposed by those other agencies into any development order issued for the site.

4. The protection measures of this Policy 3.5.5 shall not apply to the Florida Panther (Felis Concolor Coryi) and the Florida Black Bear (Ursus Americanus Floridanus) because of (i) the extremely large home range; (ii) the difficulty of defining precise habitat needs; (iii) the inclusion of other policies in this Conservation/Coastal Management Element which address acquisition or incentive programs to establish wildlife corridors for far ranging species; and (iv) the identified habitat area which is located in areas encompassed by low density land uses of one dwelling unit per 40

acres to one dwelling unit per 100 acres.

F. For the purpose of this policy, "protect" or "protection" shall mean preservation by the creation, acquisition and enforcement of conservation easements in the manner provided by Section 704.06, F.S. This shall be accomplished through~~;~~: a conservation easement, dedicated to the City, or to a public or non-profit conservation agency or organization or by virtue of designation of the protected area as Conservation on the Future Land Use Map series (FLUMs). For purposes of a Conservation designation on the FLUMs, final development orders, when issued, will identify protected areas to be designated as Conservation. The next ensuing amendment of the Future Land Use Element by the City will incorporate on the FLUMs such protected areas designated as Conservation. The area on site required for protection may, in part, be satisfied by other requirements if the protected area is the same community type required for protection. A conservation easement, dedication or Conservation designation in the Future Land Use Element shall, by the terms as reflected in the easement, dedication or amendment to the Future Land Use Element, take into consideration the listed species which are subject to protection measures. The City has the final authorization for the decision to accept or reject a particular conservation easement. Acceptance of dedications of such land or easements shall emphasize the need to satisfy habitat requirements for listed species. The City shall refine its procedure for accepting conservation easements. Conservation easements may be released only when it is shown by competent substantial evidence that the purpose for such easement was dedicated, has been completed or is no longer capable of being accomplished because no other listed species utilize the site. The Land Development Regulations shall not require a landowner to be responsible for ongoing management plan requirements other than the protection as defined above.

G. The listed species information and copies of all listed species surveys, as well as City determinations, shall be maintained in a central location by the City and shall be available to the public for inspection.

H. The listed species surveys required by this Policy shall be conducted using methods approved by the FFWCC or USFWS for those species in the list below for which the site contains habitat which may be utilized by those species. In addition to the following species, all other listed species found on the site shall be reported.

Sherman's Fox Squirrel
Red Cockaded Woodpecker
Burrowing Owl

Bald Eagle
Gopher Tortoise
Southeastern American Kestrel
Florida Pine Snake
Eastern Indigo Snake
Florida Gopher Frog
Woodstork
Florida Mouse
Rookeries containing listed species

For purposes of this Policy, the results of a properly conducted survey are considered more conclusive than the data base. A properly conducted survey must address: i) species listed in the data base for which verified sightings by a qualified person have been recorded for that site, and ii) species for which the on-site habitat is particularly valuable. The City shall reserve the right to perform its own properly conducted survey to verify the landowners survey.

I. Properties which have previously been subject to the provisions of Paragraph E of this Policy shall not again be subject to those provisions, even if those properties are being cleared or developed in parcels that are smaller than the original parcel which was subject to those provisions.

3.5.6
The provisions of Policy 3.5.5 shall not apply to bona fide silvicultural or agricultural activities on those lands where such activities were existing on or prior to the effective date of the 2010 Comprehensive Plan or new bona fide silvicultural and agricultural activities in areas otherwise exempt in Paragraph B of Policy 3.5.5. Bona fide silvicultural or agricultural activities shall be defined as good faith commercial or domestic silvicultural or agricultural use of the land, any determination of which shall consider the following:

(i) The specific agricultural or silvicultural use of the land;

(ii) The length of time the land has been so utilized;

(iii) Whether the use has been continuous;

(iv) Consideration of whether the purchase price paid is three or more times the agricultural assessment placed on the land;

(v) Size of the tract as it relates to the specific agricultural or silvicultural use;

(vi) Whether such land is subject to a lease, and if so, the effective length, terms and conditions of the lease;

(vii) Absence of pending applications for development permits;

(viii) The classification placed upon such lands by the Property Appraiser pursuant to Section 193.461, Florida Statutes;

(ix) Merchantability of the silvicultural or agricultural product;

(x) Whether an indicated effort has been made to care sufficiently and adequately for the land in accordance with acceptable commercial agricultural or silvicultural practices applicable to the product involved;

(xi) Such other factors as may from time to time become applicable.

To the extent a final determination is made that land clearing activities do not constitute bona fide silvicultural or agricultural activities and are not otherwise exempt from Policy 3.5.5, the provisions of Policy 3.5.5 shall be applicable to such activities.

A. For purposes of Policy 3.5.6, "silvicultural or agricultural use of the land" shall mean all necessary farming and forestry operations which are normal and customary for the area, such as natural seeding, direct seeding, control burning, preparation of land management plans, site preparation, clearing, fencing, contouring to prevent soil erosion, soil preparation, plowing, planting, harvesting, construction of access roads, creation of fire lanes and placement of bridges and culverts conducted in accordance with applicable rules of the St. Johns River Water Management District.

B. Bona fide silvicultural and agricultural activities shall be required to comply with all provisions of the Silvicultural "Best Management Practices" Manual published by the Florida Division of Forestry, Department of Agriculture and Consumer Services.

<u>Objective 3.6</u> The City shall promote through acquisition or incentives the establishment of carefully selected and designed wildlife corridors connecting viable habitat in order to allow the survival of far ranging species and prevent the isolation of natural communities and their gene pools. This process will be developed in cooperation with the Florida Fish and Wildlife Conservation Commission, the U.S. Fish and Wildlife Service, the Department of Environmental Protection, the St. Johns River Water Management District, Department of Agriculture and Consumer Services, and affected landowners.

Policies 3.6.1
The City shall develop incentives such as tax credits or other measures for the incorporation of wildlife corridors in the management of agriculture and silviculture

lands.

3.6.2
The establishment of wildlife corridors shall be a primary consideration in the prioritization of land for acquisition.

3.6.3
The City shall implement procedures for the City Council at the request of the landowner, to designate or qualify lands as being environmentally endangered so as to encourage the preservation of such lands through: (i) the conveyance of such environmentally endangered lands to the City or to the Board of Trustees of the Internal Improvement Trust Fund, or (ii) the imposition of a conservation easement or other restrictive covenant upon such environmentally endangered lands whereupon the City shall consider the value of the lands so conveyed or restricted in setting the ad valorem assessment for such environmentally endangered lands in accordance with the provisions set forth in Section 193.501, F.S. (1989).

Objective 3.7 The City shall implement and update ~~an area-specific~~ the Manatee Protection Plan, as approved by the State on June 24, 1999, in order to ensure both immediate and long-term plans for manatee and manatee habitat protection including enforced speed limits, careful siting and design of boat facility and port facilities, and changes in boating equipment.

Policies 3.7.1
The City shall review the motorboat speed zones previously adopted to protect the manatee. Enforcement of such zones will be coordinated with the FF&WCC, the USFWS, the FDEP and the JSO Marine Unit. To ensure that enforcement is adequate and consistent, at least annually the Jacksonville Waterways Commission shall agenda a meeting with these agencies to review the motorboat speed zones, enforcement efforts, boat facility siting criteria, educational opportunities and innovative technology.

3.7.2
Port expansion and construction activities shall not proceed without consideration of modifications of construction activities, and if necessary, mitigation of any threats to the survival of manatees or any other listed species.

3.7.3
All new port facilities shall be designed to prevent the crushing of manatees between vessels and docking structures. Existing port facilities shall be evaluated as to their potential for causing injury to manatees and recommendations concerning retrofitting with fenders or other features to minimize the hazard to manatees shall be made.

3.7.4
The City shall continue to meet with the Manatee Coordinator of the U.S. Fish and Wildlife Service and the DEP, and provide informative brochures and signs to increase

public awareness and compliance with laws protecting manatees and other listed species. The brochures will be distributed at boating stores, bait shops, etc. Signs will be placed at all public boat ramps in the vicinity of areas known to be frequented by manatees.

3.7.5
The City shall update the Manatee Protection Plan by 2011. In preparing updates to the Manatee Protection Plan, the City shall consider alternative methods for reduction in watercraft-caused Florida manatee mortality, including those contained in the Florida Manatee Recovery Plan. Alternatives to be considered shall also include development of an education and awareness program for the marine industry similar to those used for the North Atlantic Wright Whale, adoption of manatee procedures to be followed by port stakeholders, and development of a placard to be given to all vessel captains entering the port. ~~innovative measures to protect the manatee, such as, but not limited to, requiring propeller guards~~.

Issue: Fisheries

~~The St. Johns River, Ft. George River, and Nassau River estuaries support an abundant and varied fish community. There is an active sport fishery for numerous freshwater and marine species. Shrimping and crabbing are the predominant commercial activities, and some oysters are commercially harvested from a small area in the northeastern section of the City. In 1996, the DEP closed the shellfish harvesting areas of Duval County for a number of reasons. The areas will remain Class II waters for shellfish propagation but not for harvesting.~~

~~Recent declines in various fisheries populations have been reported in the City. Both commercial and sports fishermen have reported declines in catch per unit effort. Annual landings of blue crabs in the City have severely declined, and the populations of commercial size white and brown shrimp are decreasing, apparently due to a decrease in suitable nursery grounds.~~

~~Estuarine areas, creeks, swamps, and marshlands are major nursery and feeding grounds for most species of fish and wildlife that are important to this area, including numerous species taken by commercial and recreational fishermen from adjacent Atlantic Ocean coastal waters.~~

~~Although the lower St. Johns River is one of the most developed estuarine areas in Florida, there is a relative deficiency of information on its biological conditions compared to other Florida estuaries. Because of the importance of the area's seafood industry, increased knowledge is needed of the fishery resources within the City and man's impact on them.~~

~~Since at least the early 1980s, the City has been plagued with periodic outbreaks of an unexplainable diseased fish problem called Ulcerative Disease Syndrome (UDS) which~~

~~produces deep lesions on various species of fish. This disease sometimes affects up to 80 - 90 percent of commercial fishermen's catch, and obviously seriously impacts their livelihood. This same disease is also occurring in North Carolina and other areas along the southern Atlantic coast. DEP funded a 2-year study in 1987-88 but the research was hindered by a low incidence of diseased fish during the study period, and the results were inconclusive as to the cause of the disease.~~

Objective 3.8 **The City shall institute programs to support the protection, management, and improvement of local fisheries and fish habitat in order to increase ecological, recreational, scientific, educational, aesthetic, and economic values and therefore make Jacksonville a more desirable place to live and work.**

Policies 3.8.1
The ~~AWQD~~ EQD shall implement programs, ordinances, and rules as described in the water quality section of this element in order to protect and improve water quality to provide appropriate habitat for healthy populations of fish and wildlife.

3.8.2
The City shall participate through the SWIM Act and other programs to recommend and receive funding for fisheries habitat improvement efforts in the lower St. Johns River basin.

3.8.3
The ~~Parks,~~ Recreation and Community Services ~~Entertainment~~ Department shall continue to study and implement management techniques to improve recreational fishing opportunities in the area's rivers, streams, and estuaries. State and federal fisheries management agencies will be asked to participate in the implementation of the management techniques. The City shall continue to cooperate with the FFWCC and the U.S. Fish and Wildlife Service in the Jacksonville Urban Pond Project to provide freshwater recreational fishing opportunities through intensive management.

3.8.4
The City shall protect its shellfish beds and potential shellfish harvesting areas from pollution. ~~The City will endeavor to conduct a DEP approved study plan that will allow the Duval County shellfish beds to be reopened, and remain open. By 1999, the City shall develop an intergovernmental agreement among the City, Nassau County, DEP, and other appropriate agencies to conduct a joint study designed to identify sources of unacceptable bacteria levels, and develop strategies to eliminate these sources in an effort to reopen areas for harvesting.~~

3.8.5
As part of the Special Management Areas Program, the ~~AWQD~~ EQD shall encourage and support the lower St. Johns River SWIM Plan efforts to ensure that valuable grassbeds and nursery areas utilized by fish species important to commercial and recreational fishing in the City are identified and mapped. The City will assist the

SJRWMD in development of protection strategies for submerged aquatic vegetation in Duval County.

3.8.6
The City shall continue to support the concept of establishing a regional fisheries resource center for Northeast Florida. This Center will be established with the primary goal of developing applied management strategies to improve the overall fisheries industry in Jacksonville. The City may assist in such efforts as coordinating site selection, recruiting talented personnel, and acquiring funding through grants and other means.

3.8.7
The ~~AWQD~~ EQD will continue to aggressively pursue inclusion of significant aquatic biological studies in the SWIM Plan for the Lower St. Johns River.

GOAL 4

To achieve no further net loss of the natural functions of the City's remaining wetlands, improve the quality of the City's wetlands resources over the long-term and improve the water quality and fish and wildlife values of wetlands.

~~Issue:~~ Impact on Wetlands

~~Of the nearly 840 square miles of area in the City, about 23 percent is classified as wetlands which require protective conservation and protection measures. About two-thirds of wetlands is in forested or swamp vegetation. Much of the rest is comprised of the extensive saltwater marshlands of the Nassau and St. Johns River estuaries. These wetland areas have suffered extensively from development pressure. In some areas of the City, very little remains of the original marshlands. Wetlands encroachment remains a major issue for growth management in Jacksonville.~~

Objective 4.1 The City shall protect and conserve the natural functions of its existing wetlands, including estuarine marshes. In order to achieve this objective and its associated policies, the City shall continue to work with the applicable regional, state and federal agencies charged with these regulatory responsibilities.

Policies 4.1.1
The City of Jacksonville has identified three categories of wetlands, as more specifically depicted on Maps C-3 and L-5:

- Category I wetlands shall mean those wetlands classified as Saltwater Marshes;
- Category II wetlands shall mean those wetlands classified as Riverine/Estuarine; and
- Category III wetlands shall mean those wetlands not classified as Category I or II wetlands.

4.1.2

The wetlands designation on the land cover and classification maps published by the St. Johns River Water Management District (SJRWMD) and Maps C-3 and L-5 shall serve as a conceptual indicator of wetlands, saltwater marshes, and riverine/estuarine marshes. The delineation and determination of these areas shall be in accordance with SJRWMD rules. The delineation of wetlands on any proposed development shall be determined prior to the issuance of development orders which permit site alteration.

4.1.3~~1~~

The following performance standards shall apply to all development, except public utilities and roadways, permitted within Category I, II, and III wetlands: ~~permitted land uses within Salt Water Marshes, Riverine/Estuarine Wetlands and All Other Wetlands as depicted on Map C-3 (same as the adopted Map L-5 of the Future Land Use Element) shall be limited to the following land uses and associated standards, provided such use is consistent with the Future Land Use Map series (FLUMs).~~

~~A) Within Salt Water Marshes, the following land uses are permitted:~~

~~(1) Conservation uses, provided the following standards are met:~~

(a) Encroachment

Encroachment in ~~the salt water marsh~~ Category I, II, or III wetlands is the least damaging ~~to the marsh~~ and ~~that~~ no practicable on-site alternative exists; and

(b) No net loss

Development is designed and located in such a manner that there is no net loss to the wetland functions including but not limited to:

i the habitat of fish, wildlife and threatened or endangered species,

ii the abundance and diversity of fish, wildlife and threatened or endangered species,

iii the food sources of fish and wildlife including those which are threatened or endangered,

iv the water quality of the wetland, and

v the flood storage and flood conveyance capabilities of the wetland; and

(c) Floodplain protection

Buildings are built at an elevation of sufficient height to meet the designated flood zone standards as set forth by the Federal Emergency Management Agency. The design must be in conformance with Chapter 652 (Floodplain Regulations) of the Ordinance Code; and

~~(d) Dredge and fill~~

~~Dredging or filling of the salt water marshes shall not exceed more than 5% of the marsh on site; and~~

~~(e)~~(d) Stormwater quality

In the design and review of developments which will discharge stormwater into the ~~salt water marsh~~ Category I, II, or III wetlands the following performance standards shall be used to protect water quality ~~in the marsh~~:

~~i Stormwater runoff shall be subjected to best management practices prior to discharging into natural or created mitigation wetlands. Best management practices shall mean a practice, or combination of practices determined by the local government to be the most effective, practical means of preventing or reducing the amount of pollution generated by the development to a level compatible with Florida Surface Water Quality Standards found in Chapters 17-301 and 17-302, F.A.C.~~

~~ii No site alteration shall result in violation of State and local water quality standards caused by siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention of filtering capability of wetlands.~~

~~iii No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.~~

~~iv All site alteration activity shall provide for such water retention, filtration, and settling structures, and flow attenuation devices as may be necessary to ensure that the foregoing standards and requirements are met.~~

i Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 40C-4 or 40C-40, F.A.C. or a stormwater permit issued pursuant to Chapter 40C-42, F.A.C., provides assurances necessary for compliance with subsections (i) - (iv) above provided the stormwater management system is constructed in accordance with the permit~~.~~; and

~~v~~ii Regular monitoring and maintenance program on an annual basis

for the performance of stormwater treatment systems~~; and~~

~~(f)~~(e) Septic tanks

Septic tanks, drainfields and/or greywater systems are located outside the ~~salt water marsh~~ Category I, II , or III wetland area and not within 75 feet of the mean high water line of tidal bodies or within 75 feet of any wetland unless the Duval County Health Department grants a variance for a hardship case pursuant to the provisions of Section 381.0065, F.S. Where public utilities are available, development is required to connect to these facilities; and

~~(g) Vegetation~~

~~All native salt water marsh vegetation outside the development area is maintained in its natural state; and~~

~~(h)~~(f) Hydrology

The design of the fill shall include measures to maintain the wetlands hydrology of the site.

4.1.4
Public utilities and roadways located in Category I, II, or III wetlands shall be subject to the requirements of (a), (b), and (d) as noted in the performance standards outlined in Policy 4.1.3 above.

4.1.5
The permitted uses within Category I and II wetlands shall be limited to the following land uses and associated standards, provided such use is consistent with the Future Land Use Map series (FLUMs):

(1) Conservation uses, provided the following standards are met:

(a) Dredge and fill
Dredging or filling of the Category I and II wetlands shall not exceed more than 5% of the wetlands on-site; and

(b) Vegetation
For Category I wetlands:
All native vegetation outside the development area is maintained in its natural state

For Category II wetlands:
No more than 10% of the arial extent of the vegetation outside the development area may be altered or removed; and

(2) Residential uses, provided the following standards are met:

(a) Density/Dredge and fill

Where lots, except for lots of record as defined in the Future Land Use Element, are located totally within the wetlands:

i density shall not exceed one (1) dwelling unit per five (5) acres; and

ii buildings shall be clustered together to the maximum extent practicable; and

iii dredging or filling shall not exceed 5% of the wetlands on-site; and

(b) Vegetation

For Category I wetlands:
All native vegetation outside the development area is maintained in its natural state

For Category II wetlands:
No more than 10% of the arial extent of the vegetation outside the development area may be altered or removed; and

~~(b) Encroachment~~

~~Encroachment in the salt water marsh is the least damaging to the marsh and that no practicable on-site alternative exists; and~~

~~(c) No net loss~~

~~Development is designed and located in such a manner that there is no net loss to the wetland functions including but not limited to:~~

~~i the habitat of fish, wildlife and threatened or endangered species,~~

~~ii the abundance and diversity of fish and wildlife and threatened or endangered species,~~

~~iii the food sources of fish and wildlife~~

~~including those which are threatened or endangered,~~

~~iv the water quality of the wetland, and~~

~~v the flood storage and flood conveyance capabilities of the wetland; and~~

~~(d) Floodplain protection~~

~~Buildings are built at an elevation of sufficient height to meet the designated flood zone standards as set forth by the Federal Emergency Management Agency. The design must be in conformance with Chapter 652 (Floodplain Regulations) of the Ordinance Code; and~~

~~(e) Stormwater quality~~

~~In the design and review of developments which will discharge stormwater into the salt water marsh the following performance standards shall be used to protect water quality in the marsh:~~

~~i Stormwater runoff shall be subject to best management practices prior to discharging into natural or created mitigation wetlands. Best management practices shall mean a practice, or combination of practices determined by the local government to be the most effective, practical means of preventing or reducing the amount of pollution generated by the development to a level compatible with Florida Surface Water Quality Standards found in Chapters 17-301 and 17-302, F.A.C.~~

~~ii No site alteration shall result in violation of State and local water quality standards caused by siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention of filtering capability of wetlands.~~

~~iii No site alteration shall allow water to become a health hazard or contribute to~~

~~the breeding of mosquitoes.~~

~~iv All site alteration activity shall provide for such water retention, filtration, and settling structures, and flow attenuation devices as may be necessary to ensure that the foregoing standards and requirements are met.~~

~~Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 40C-4 or 40C-40, F.A.C., or a stormwater permit issued pursuant to Chapter 40C-42, F.A.C., provides assurances necessary for compliance with subsections (i) - (iv) above provided the stormwater management system is constructed in accordance with the permit.~~

~~v Regular monitoring and maintenance program on an annual basis for the performance of stormwater treatment systems; and~~

~~(f) Septic tanks~~

~~Septic tanks, drainfields and/or greywater systems are located outside the salt water marsh and not within 75 feet of the mean high water line of tidal water bodies or within 75 feet of any wetland unless the Duval County Health Department grants a variance for a hardship case pursuant to the provisions of Section 381.0065, F.S. Where public utilities are available, development is required to connect to these facilities; and~~

~~(g) Vegetation~~

~~All native salt water marsh vegetation outside the development area is maintained in its natural state; and~~

~~(h) Hydrology~~

~~The design of the fill shall include measures to maintain the wetlands hydrology of the site.~~

(3) Water-dependent and water-related uses ~~located within the Port of Jacksonville~~, provided the following standards are met:

~~(a) Encroachment~~

~~Encroachment in the salt water marsh is the least damaging to the marsh and that no practicable on-site alternative exists; and~~

~~(b) No net loss~~

~~Development is designed and located in such a manner that there is no net loss to wetland functions, including but not limited to:~~

~~i the habitat of fish, wildlife and threatened or endangered species,~~

~~ii the abundance and diversity of fish, wildlife and threatened or endangered species,~~

~~iii the food sources of fish and wildlife including those which are threatened or endangered,~~

~~iv the water quality of the wetland, and~~

~~v the flood storage and flood conveyance capabilities of the wetland; and~~

~~(c) Floodplain protection~~

~~Buildings are built at an elevation of sufficient height to meet the designated flood zone standards as set forth by the Federal Emergency Management Agency. The design must be in conformance with Chapter 652 (Floodplain Regulations) of the Ordinance Code; and~~

~~(d) Stormwater quality~~

~~In the design and review of developments which will discharge stormwater into the salt water marsh the following performance standards shall be used to protect water quality in the marsh:~~

~~i Stormwater runoff shall be subjected to best management practices prior to discharging into natural or created~~

mitigation wetlands. Best management practices shall mean a practice, or combination of practices determined by the local government to be the most effective, practical means of preventing or reducing the amount of pollution generated by the development to a level compatible with Florida Surface Water Quality Standards found in Chapters 17-301 and 17-302, F.A.C.

ii No site alteration shall result in violation of State and local water quality standards caused by siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention of filtering capability of wetlands.

iii No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.

iv All site alteration activity shall provide for such water retention, filtration, and settling structures, and flow attenuation devices as may be necessary to ensure that the foregoing standards and requirements are met.

Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 40C-4 or 40C-40, F.A.C. or a stormwater permit issued pursuant to Chapter 40C-42, F.A.C., provides assurances necessary for compliance with subsections (i) - (iv) above provided the stormwater management system is constructed in accordance with the permit; and

(e) Septic tanks

Septic tanks, drainfields and/or greywater systems are located outside the salt water marsh and not within 75 feet of the mean high water line of tidal bodies or within 75 feet of any wetland, unless the Duval County Health Department grants a variance for a hardship case

~~pursuant to the provisions of Section 381.0065, F.S. Where public utilities are available, development is required to connect to these facilities; and~~

~~(f)~~ (a) Vegetation

For Category I wetlands:
All native vegetation outside the development area is maintained in its natural state

For Category II wetlands:
No more than 10% of the arial extent of the vegetation outside the development area may be altered or removed; and

~~All native salt water marsh vegetation outside the development area is maintained in its natural state; and~~

~~(f)~~ (b) Boat facilities siting and operation

Boat facilities are further subject to Objectives 10.1, 10.2, 10.3, 10.5 and 10.6 and their related policies of this element.

~~(h) Hydrology~~

~~The design of any fill shall include measures to maintain the wetlands hydrology of the site.~~

(4) Access to a permitted use, ~~provided the following standards are met:~~ subject to the requirements of (a), (b), and (f) as noted in the performance standards outlined in Policy 4.1.3 above.

~~(a) Encroachment~~

~~Encroachment in the salt water marsh is the least damaging to the marsh and that no practicable on-site alternative exists; and~~

~~(b) No net loss~~

~~Development is designed and located in such a manner that there is no net loss to the wetland functions including but not limited to:~~

~~i the habitat of fish, wildlife and threatened or endangered species,~~

~~ii the abundance and diversity of fish and wildlife and threatened or endangered~~

~~species,~~

~~iii the food sources of fish and wildlife including those which are threatened or endangered,~~

~~iv the water quality of the wetland, and~~

~~v the flood storage and flood conveyance capabilities of the wetland; and~~

~~(c) Hydrology~~

~~The design of any fill shall include measures to maintain the wetlands hydrology of the site.~~

(5) Any use which can be shown to be clearly in the public interest, ~~provided the following standards are met:~~ subject to the requirements of (a), (b), (d) and (f) as noted in the performance standards outlined in Policy 4.1.3 above.

~~(a) Encroachment~~

~~Encroachment in the salt water marsh is the least damaging to the marsh and that no practicable on-site alternative exists; and~~

~~(b) No net loss~~

~~Development is designed and located in such a manner that there is no net loss to the wetland function including but not limited to:~~

~~i the habitat of fish, wildlife and threatened or endangered species,~~

~~ii the abundance and diversity of fish and wildlife and threatened or endangered species,~~

~~iii the food sources of fish and wildlife including those which are threatened or endangered,~~

~~iv the water quality of the wetland, and~~

~~v the flood storage and flood conveyance capabilities of the wetland; and~~

~~(c) Stormwater quality~~

~~In the design and review of developments which will discharge stormwater into the salt water marsh the following performance standards shall be used to protect water quality in the marsh:~~

~~i Stormwater runoff shall be subjected to best management practices prior to discharging into natural or created mitigation wetlands. Best management practices shall mean a practice, or combination of practices determined by the local government to be the most effective, practical means of preventing or reducing the amount of pollution generated by the development to a level compatible with Florida Surface Water Quality Standards found in Chapters 17-301 and 17-302, F.A.C.~~

~~ii No site alteration shall result in violation of State and local water quality standards caused by siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention of filtering capability of wetlands.~~

~~iii No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.~~

~~iv All site alteration activity shall provide for such water retention, filtration, and settling structures, and flow attenuation devices as may be necessary to ensure that the foregoing standards and requirements are met.~~

~~Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 40C-4 or 40C-40, F.A.C. or a stormwater permit issued pursuant to Chapter 40C-42, F.A.C., provides assurances necessary for compliance with subsections (i) - (iv) above provided the stormwater management system is~~

~~constructed in accordance with the permit.~~

(6) For Category II wetlands only, silvicultural uses are allowed, provided the following standards are met:

Best Management Practices: Silviculture

Such activities are conducted in compliance with the provisions of the "Silvicultural Best Management Practices Manual", as may be amended, published by the Florida Division of Forestry, Department of Agriculture and Consumer Services.

~~B) Within Riverine/Estuarine Wetlands, the following uses are permitted:~~

~~(1) Conservation uses, provided the following standards are met:~~

~~(a) Encroachment~~

~~Encroachment in the riverine/estuarine wetlands is the least damaging to the wetlands and that no practicable on-site alternative exists; and~~

~~(b) No net loss~~

~~Development is designed and located in such a manner that there is no net loss to the wetland functions including but not limited to:~~

~~i the habitat of fish, wildlife and threatened or endangered species,~~

~~ii the abundance and diversity of fish, wildlife and threatened or endangered species,~~

~~iii the food sources of fish and wildlife including those which are threatened or endangered,~~

~~iv the water quality of the wetland, and~~

~~v the flood storage and flood conveyance~~

capabilities of the wetland; and

(c) Floodplain protection

Buildings are built at an elevation of sufficient height to meet the designated flood zone standards as set forth by the Federal Emergency Management Agency. The design must be in accordance with Chapter 652 (Floodplain Regulations) of the Ordinance Code; and

(d) Dredge and fill

Dredging or filling of riverine/estuarine wetlands does not exceed more than 5% of the wetlands on site; and

(e) Stormwater quality

The following performance standards are used to protect water quality in the riverine/estuarine wetlands in the design and review of developments which will discharge stormwater into wetlands:

i Stormwater runoff shall be subjected to best management practices prior to discharging into natural or created mitigation wetlands. Best management practices shall mean a practice, or combination of practices determined by the local government to be the most effective, practical means of preventing or reducing the amount of pollution generated by the development to a level compatible with Florida Surface Water Quality Standards found in Chapters 17-301 and 17-302, F.A.C.

ii No site alteration shall result in violation of State and local water quality standards caused by siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention of filtering capability of wetlands.

iii No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.

iv All site alteration activity shall provide for such water retention, filtration and settling structures, and flow attenuation devices as may be necessary to ensure that the foregoing standards and requirements are met.

Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 40C-4 or 40C-40, F.A.C. or a stormwater permit issued pursuant to Chapter 40C-42, F.A.C., provides assurances necessary for compliance with subsections (i) - (iv) above provided the stormwater management system is constructed in accordance with the permit

v Regular monitoring and maintenance program on an annual basis for the performance of stormwater treatment systems; and

(f) Septic tanks

Septic tanks, drainfields and/or greywater systems are located outside the riverine/estuarine wetlands and not within 75 feet of the mean high water line of tidal bodies or within 75 feet of any wetland, unless the Duval County Health Department grants a variance for a hardship case pursuant to the provisions of Section 381.0065, F.S. Where public utilities are available, development is required to connect to these facilities; and

(g) Vegetation

No more than 10% of the arial extent of the riverine/estuarine vegetation outside the development area may be altered or removed;

~~and~~

~~(h) Hydrology~~

~~The design of the fill shall include measures to maintain the wetlands hydrology of the site.~~

~~(2) Residential uses, provided the following standards are met:~~

~~(a) Density/Dredge and fill~~

~~Where lots, except for lots of record as defined in the Future Land Use Element, are located totally within the riverine/estuarine wetlands,~~

~~i density shall not exceed one (1) dwelling unit per five (5) acres; and~~

~~ii buildings shall be clustered together to the maximum extent practicable; and~~

~~iii dredging or filling shall not exceed 5% of the riverine/estuarine wetlands on-site.~~

~~(b) Encroachment~~

~~Encroachment in the riverine/estuarine wetlands is the least damaging to the wetlands and that no practicable on-site alternative exists; and~~

~~(c) No net loss~~

~~Development is designed and located in such a manner that there is no net loss to wetland functions, including but not limited to:~~

~~i the habitat of fish, wildlife and threatened or endangered species,~~

~~ii the abundance and diversity of fish, wildlife and threatened or endangered species,~~

~~iii the food sources of fish and wildlife~~

~~including those which are threatened or endangered,~~

~~iv the water quality of the wetland, and~~

~~v the flood storage and flood conveyance capabilities of the wetland; and~~

~~(d) Floodplain protection~~

~~Buildings are built at an elevation of sufficient height to meet the designated flood zone standards as set forth by the Federal Emergency Management Agency. The design must be in accordance with Chapter 652 (Floodplain Regulations) of the Ordinance Code; and~~

~~(e) Stormwater quality~~

~~In the design and review of developments which will discharge stormwater into the riverine/estuarine wetlands the following performance standards shall be used to protect water quality in the wetlands:~~

~~i Stormwater runoff shall be subjected to best management practices prior to discharging into natural or created mitigation wetlands. Best management practices shall mean a practice, or combination of practices determined by the local government to be the most effective, practical means of preventing or reducing the amount of pollution generated by the development to a level compatible with Florida Surface Water Quality Standards found in Chapters 17-301 and 17-302, F.A.C.~~

~~ii No site alteration shall result in violation of State and local water quality standards caused by siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention of filtering capability of wetlands.~~

iii No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.

iv All site alteration activity shall provide for such water retention, filtration, and settling structures, and flow attenuation devices as may be necessary to ensure that the foregoing standards and responsibilities are met.

Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 40C-4 or 40C-40, F.A.C., or a stormwater permit issued pursuant to Chapter 40C-42, F.A.C., provides assurances necessary for compliance with subsections (i) - (iv) above provided the stormwater management system is constructed in accordance with the permit.

v Regular monitoring and maintenance program on an annual basis for the performance of stormwater treatment systems; and

(f) Septic tanks

Septic tanks, drainfields and/or greywater systems are located outside the riverine/estuarine wetlands and not within 75 feet of the mean high water line of tidal water bodies or within 75 feet of any wetland, unless the Duval County Health Department grants a variance for a hardship case pursuant to the provisions of Section 381.0065, F.S. Where public utilities are available, development is required to connect to these facilities; and

(g) Vegetation

No more than 10% of the areal extent of the native riverine/estuarine vegetation outside the development area may be altered or removed;

~~and~~

~~(h) Hydrology~~

~~The design of the fill shall include measures to maintain the wetlands hydrology of the site.~~

~~(3) Water-dependent and water-related uses, provided the following standards are met:~~

~~(a) Encroachment~~

~~Encroachment in the riverine/estuarine wetlands is the least damaging to the wetlands and that no practicable on-site alternative exists; and~~

~~(b) No net loss~~

~~Development is designed and located in such a manner that there is no net loss to the wetland functions including, but not limited to:~~

~~i the habitat of fish, wildlife and threatened or endangered species,~~

~~ii the abundance and diversity of fish, wildlife and threatened or endangered species,~~

~~iii the food sources of fish and wildlife including those which are threatened or endangered,~~

~~iv the water quality of the wetland, and~~

~~v the flood storage and flood conveyance capabilities of the wetland; and~~

~~(c) Floodplain protection~~

~~Buildings are built at an elevation of sufficient height to meet the designated flood zone standards as set forth by the Federal Emergency Management Agency. The design must be in accordance with Chapter 652~~

~~(Floodplain Regulations) of the Ordinance Code; and~~

~~(d) Stormwater quality~~

~~In the design and review of developments which will discharge stormwater into the riverine/estuarine wetlands, the following performance standards shall be used to protect water quality in the wetlands:~~

~~i Stormwater runoff shall be subjected to best management practices prior to discharging into natural or created mitigation wetlands. Best management practices shall mean a practice, or combination of practices determined by the local government to be the most effective, practical means of preventing or reducing the amount of pollution generated by the development to a level compatible with Florida Surface Water Quality Standards found in Chapters 17-301 and 17-302, F.A.C.~~

~~ii No site alteration shall result in violation of State and local water quality standards caused by siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention of filtering capability of wetlands.~~

~~iii No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.~~

~~iv All site alteration activity shall provide for such water retention, filtration and settling structures, and flow attenuation devices as may be necessary to ensure that the foregoing standards and requirements are met.~~

~~Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 40C-4 or 40C-40, F.A.C. or a~~

stormwater permit issued pursuant to Chapter 40C-42, F.A.C., provides assurances necessary for compliance with subsections (i) - (iv) above provided the stormwater management system is constructed in accordance with the permit.

v Regular monitoring and maintenance program on an annual basis for the performance of stormwater treatment systems; and

(e) Septic tanks

Septic tanks, drainfields and/or greywater systems are located outside the riverine/estuarine wetlands and not within 75 feet of any wetland, unless the Duval County Health Department grants a variance for a hardship case pursuant to the provisions of Section 381.0065, F. S.

(f) Vegetation

No more than 10% of the areal extent of the native riverine/estuarine wetlands vegetation outside the development area may be removed.

(g) Boat facilities siting and operation

Boat facilities are further subject to Objectives 10.1, 10.2, 10.3, 10.5 and 10.6 and their related policies of this element.

(h) Hydrology

The design of any fill shall include measures to maintain the wetlands hydrology of the site.

(4) Silvicultural uses, provided the following standards are met:

Best Management Practices: Silviculture

~~Such activities are conducted in compliance with the provisions of the "Silvicultural Best Management Practices Manual", as may be amended, published by the Florida Division of Forestry, Department of Agriculture and Consumer Services.~~

~~(5) Access to a permitted use, provided the following standards are met:~~

~~(a) Encroachment~~

~~Encroachment in the riverine/estuarine wetlands is the least damaging to the wetlands and that no practicable on-site alternative exists; and~~

~~(b) No net loss~~

~~Development is designed and located in such a manner that there is no net loss to the wetland functions, including but not limited to:~~

~~i the habitat of fish, wildlife and threatened or endangered species,~~

~~ii the abundance and diversity of fish, wildlife and threatened or endangered species,~~

~~iii the food sources of fish and wildlife including those which are threatened or endangered,~~

~~iv the water quality of the wetland, and~~

~~v the flood storage and flood conveyance capabilities of the wetland; and~~

~~(c) Hydrology~~

~~The design of any fill shall include measures to maintain the wetlands hydrology of the site.~~

~~(6) Any use which can be shown to be clearly in the public interest provided the following standards are met:~~

(a) Encroachment

Encroachment in the riverine/estuarine wetlands is the least damaging to the wetlands and that no practicable on-site alternative exists; and

(b) No net loss

Development is designed and located in such a manner that there is no net loss to the wetland functions, including but not limited to:

i the habitat of fish, wildlife and threatened or endangered species,

ii the abundance and diversity of fish, wildlife and threatened or endangered species,

iii the food sources of fish and wildlife including those which are threatened or endangered,

iv the water quality of the wetland, and

v the flood storage and flood conveyance capabilities of the wetland; and

(c) Stormwater quality

In the design and review of developments which will discharge stormwater into the riverine/estuarine wetlands the following performance standards shall be used to protect water quality in wetlands:

i Stormwater runoff shall be subjected to best management practices prior to discharging into natural or created mitigation wetlands. Best management practices shall mean a practice, or combination of practices determined by the local government to be the most effective, practical means of preventing

~~or reducing the amount of pollution generated by the development to a level compatible with Florida Surface Water Quality Standards found in Chapters 17-301 and 17-302, F.A.C.~~

~~ii No site alteration shall result in violation of State and local water quality standards caused by siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention of filtering capability of wetlands.~~

~~iii No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.~~

~~iv All site alteration activity shall provide for such water retention, filtration and settling structures, and flow attenuation devices as may be necessary to ensure that the foregoing standards and requirements are met.~~

~~v Regular monitoring and maintenance program on an annual basis for the performance of stormwater treatment systems.~~

~~Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 40C-4 or 40C-40, F.A.C. or a stormwater permit issued pursuant to Chapter 40C-42, F.A.C., provides assurances necessary for compliance with subsections (i) - (v) above provided the stormwater management system is constructed in accordance with the permit.~~

~~(d) Hydrology~~

~~The design of any fill shall include measures to maintain the wetlands hydrology of the site.~~

4.1.6

~~C) Within all other wetlands, the following land uses are permitted:~~ The permitted uses within Category III wetlands shall be limited to the following land uses and associated standards, provided such use is consistent with the Future Land Use Map series (FLUMs)

(1) Any use not otherwise listed below, provided all of the basic requirements outlined in Policy 4.1.3 above ~~following standards~~ are met:

~~(a) Encroachment~~

~~Encroachment in the wetland is the least damaging to the wetland and that no practicable on-site alternative exists; and~~

~~(b) No net loss~~

~~Development is designed and located in such a manner that there is no net loss to the wetland functions including, but not limited to:~~

~~i the habitat of fish, wildlife and threatened or endangered species~~

~~ii the abundance and diversity of fish, wildlife and threatened or endangered species~~

~~iii the food sources of fish and wildlife including those which are threatened or endangered~~

~~iv the water quality of the wetland and~~

~~v the flood storage and flood conveyance capabilities of the wetland; and~~

~~(c) Floodplain protection~~

~~Buildings are built at an elevation of sufficient height to meet the designated flood zone standards as set forth by the Federal Emergency Management Agency. The design must be in accordance with Chapter 652 (Floodplain Regulations) of the Ordinance Code; and~~

~~(d) Stormwater quality~~

~~in the design and review of developments which will discharge stormwater into all other wetlands the following performance standards shall be used to protect water quality in the wetlands:~~

~~i Stormwater runoff shall be subjected to best management practices prior to discharging into natural or created mitigation wetlands. Best~~

~~management practices shall mean a practice, or combination of practices determined by the local government to be the most effective, practical means of preventing or reducing the amount of pollution generated by the development to a level compatible with Florida Surface Water Quality Standards found in Chapters 17-301 and 17-302, F.A.C.~~

~~ii No site alteration shall result in violation of State and local water quality standards caused by siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention of filtering capability of wetlands.~~

~~iii No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.~~

~~iv All site alteration activity shall provide for such water retention, filtration and settling structures, and flow attenuation devices as may be necessary to ensure that the foregoing standards and requirements are met.~~

~~v Regular monitoring and maintenance program on an annual basis for the performance of stormwater treatment systems.~~

~~Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 40C-4 or 40C-40, F.A.C. or a stormwater permit issued pursuant to Chapter 40C-42, F.A.C., provides assurances necessary for compliance with subsections (i) - (v) above provided the stormwater management system is constructed in accordance with the permit.~~

~~(e) Septic tanks~~

~~Septic tanks, drainfields and/or greywater systems are located outside the wetland area and not within 75 feet of the mean high water line of tidal bodies or within 75 feet of any wetland, unless the Duval County Health Department grants a variance for a hardship case pursuant to the provisions of Section 381.0065, F.S. Where public utilities are available, development is required to connect to these facilities; and~~

~~(f) Stormwater treatment~~

~~Where certain types of isolated wetlands (small, degraded cypress domes, wet prairies or bayheads) are considered for integration into stormwater management systems, hydroperiods and stage elevations shall match the appropriate wetland community, and provide for first flush diversions.~~

~~(g) Hydrology~~

~~The design of any fill shall include measures to maintain the wetlands~~

~~hydrology on the site.~~

~~(2)~~(a) Silvicultural uses, provided the following standards are met:

Best Management Practices: Silviculture

Such activities are conducted in compliance with the provisions of the "Silvicultural Best Management Practices Manual", as may be amended, published by the Florida Division of Forestry, Department of Agriculture and Consumer Services.

~~(3)~~(b) Agricultural uses, provided the following standards are met:

Best Management Practices: Agriculture

Such activities are to be in compliance with Chapter 40C-44, F.A.C.

~~(4)~~(2) Any use that can be shown to be clearly in the public interest, ~~provided the following standards are met:~~ subject to the requirements of (a), (b), (d) and (f) as noted in the performance standards outlined in Policy 4.1.3 above.

~~(a) Encroachment~~

~~Encroachment in the wetland is the least damaging to the wetland and that no practicable on-site alternative exists; and~~

~~(b) No net loss~~

~~Development is designed and located in such a manner that there is no net loss to the wetland functions, including but not limited to:~~

~~i the habitat of fish, wildlife and threatened or endangered species,~~

~~ii the abundance and diversity of fish, wildlife and threatened or endangered species,~~

~~iii the food sources of fish and wildlife including those which are threatened or endangered,~~

~~iv the water quality of the wetland, and~~

~~v the flood storage and flood conveyance capabilities of the wetland; and~~

~~(c) Stormwater quality~~

~~In the design and review of developments which will discharge stormwater~~

~~into all other wetlands the following performance standards shall be used to protect water quality in the wetlands:~~

~~i Stormwater runoff shall be subjected to best management practices prior to discharging into natural or created mitigation wetlands. Best management practices shall mean a practice, or combination of practices determined by the local government to be the most effective, practical means of preventing or reducing the amount of pollution generated by the development to a level compatible with Florida Surface Water Quality Standards found in Chapters 17-301 and 17-302, F.A.C.~~

~~ii No site alteration shall result in violation of State and local water quality standards caused by siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention of filtering capability of wetlands.~~

~~iii No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.~~

~~iv All site alteration activity shall provide for such water retention, filtration and settling structures, and flow attenuation devices as may be necessary to ensure that the foregoing standards and requirements are met.~~

~~v Regular monitoring and maintenance program on an annual basis for the performance of stormwater treatment systems.~~

~~Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 40C-4 or 40C-40, F.A.C. or a stormwater permit issued pursuant to Chapter 40C-42, F.A.C., provides assurances necessary for compliance with subsections (i) - (v) above provided the stormwater management system is constructed in accordance with the permit.~~

~~(d) Hydrology~~

~~The design of any fill shall include measures to maintain the wetlands hydrology on the site.~~

4.1.7

High intensity wetlands surveys shall be submitted for all land use amendments where City data indicates potential existence of wetlands on the subject site. Rezonings and site plan applications shall include high intensity wetlands surveys where City data indicates potential existence of wetlands on the subject site and where there is a high potential for wetland impact. For the purposes of this policy, a high intensity wetlands survey shall include the location, type(s), size, quality and functional value of all wetlands located within the boundaries of the application site. Land Use amendments to the Conservation Future Land Use Category are exempt from this requirement.

4.1.8

The City reserves the right to modify the wetland designation on any parcel where reliable information becomes available to the City such as a jurisdictional determination, Uniform Mitigation Assessment Method (UMAM) analysis, or permit issued by the SJRWMD depicts such area different than depicted on the overlay map Map C-3. A UMAM analysis resulting in a score of 4 or less for each of the three categories of indicators of wetland function: location and landscape support, water environment, and community structure, shall result in reclassification of Category I and II wetlands to Category III.

Before the City modifies the designation on any parcel for any reason other than a jurisdictional determination, UMAM analysis, or permit issued by the SJRWMD, the property owner and the SJRWMD shall be given an opportunity to comment on the reliability of the information provided. Failure of the property owner or SJRWMD to provide their comments within a thirty (30) day period from the date of mailing shall be considered an acquiescence that the information provided is reliable. To the extent the wetlands map is inconsistent with an on-site inspection or survey, the survey supersedes the wetlands map. However, any modification to the wetland designation shall be consistent with state and federal regulations and permits.

~~4.1.2~~

~~Public utilities and roadways located in Salt Water Marshes, Riverine/Estuarine Wetlands or All Other Wetlands shall be subject to the following performance criteria:~~

~~A. Encroachment~~

~~Encroachment in the wetlands is the least damaging and that no practicable on-site alternative exists; and~~

~~B. No net loss~~

~~Designed and located in such a manner that there is no net loss to the wetland functions including but not limited to:~~

~~i the habitat of fish, wildlife and threatened or endangered species,~~

~~ii the abundance and diversity of fish, wildlife and threatened or endangered species,~~

~~iii the food sources of fish and wildlife including those which are threatened or endangered,~~

~~iv the water quality of the wetland, and~~

~~v the flood storage and flood conveyance capabilities of~~

~~the wetland;~~

~~C. Stormwater quality~~

~~In the design and review of public utilities and roadways which will discharge stormwater into salt water marshes, riverine/estuarine wetlands or all other wetlands the following performance standards shall be used to protect water quality in the wetlands:~~

~~i Stormwater runoff shall be subjected to best management practices prior to discharging into natural or created mitigation wetlands. Best management practices shall mean a practice, or combination of practices determined by the local government to be the most effective, practical means of preventing or reducing the amount of pollution generated by the development to a level compatible with Florida Surface Water Quality Standards found in Chapters 17-301 and 17-302, F.A.C.~~

~~ii No site alteration shall result in violation of State and local water quality standards caused by siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention of filtering capability of wetlands.~~

~~iii No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.~~

~~iv All site alteration activity shall provide for such water retention, filtration, and settling structures, and flow attenuation devices as may be necessary to ensure that the foregoing standards and requirements are met.~~

~~v Regular monitoring and maintenance program on an annual basis for the performance of stormwater treatment systems.~~

~~Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 40C-4 or 40C-40, F.A.C. or a stormwater permit issued pursuant to Chapter 40C-42, F.A.C., provides assurances necessary for compliance with subsections (i) – (iv) above provided the stormwater management system is~~

~~constructed in accordance with the permit.~~

4.1.9

The City of Jacksonville shall modify the Land Development Regulations as follows in order to protect water quality and preserve natural wetland functions:

- The City shall require new development to provide a 15 foot minimum upland buffer between developed areas contiguous to Category I and II Wetlands;
- The City of Jacksonville shall require a Low Maintenance Zone (LMZ) to be established between developed areas contiguous to any pond, stream, water course, lake, wetland or seawall in accordance with Chapter 366, Part 6, Ordinance Code;
- All buffers shall be measured from the St. Johns River Water Management District (SJRWMD) or Florida Department of Environmental Protection Wetland jurisdictional line;
- Buffers shall consist of Florida Friendly Landscape plants or ground cover which is planted and managed in order to minimize the need for fertilization, watering and mowing;
- The aforementioned minimum buffers are required, except for those circumstances where an averaging of the buffer width, because of an unavoidable buffer reduction, achieves a greater overall upland buffer width;
- Buffers are not required for wetlands permitted for filling; and
- In all cases, the applicable buffer shall be depicted on all site plans, development plans, and other documents submitted to authorize the review for development.

The City shall allow administrative approval by the Director of Planning for the purposes of unavoidable wetlands impacts upon finding that all of the following criteria are met:

a. All required valid and unexpired permits from state and federal regulating agencies have been issued and are provided with the Development application or will be made a contingency for approval.
b. The request is limited to one of the following:
    1. A road crossing;
    2. Public infrastructure and utility crossings or rights-of-way that are related to transmission or conveyance of a service;
    3. A driveway on a Legal Lot of Record to a single-family residence;
    4. Reasonable access to waterways; and
    5. Circumstances where there could be no reasonable use of the property.
c. Administrative approval shall not be allowed for self-created hardships such as, but not limited to:
    1. Placing a road crossing, utility crossing, rights-of-way, driveways, or other features in wetlands instead of uplands for the sole purpose of providing additional upland area for Development.

Marinas, public access including riverwalks and boardwalks, and structures necessary for the public health and safety are exempt from the buffer requirements and administrative approval procedure.

4.1.3~~3~~10
In determining whether an encroachment in the wetland is the least damaging to the wetland and that no practicable on-site alternative exists, the City shall evaluate the following prior to the issuance of a final development order:

(a) the land use category according to the Future Land Use Map series (FLUMs) and existing zoning of the site and surrounding parcels; and

(b) alternative designs which could accomplish the purposes of the development including the encroachment on the wetland of such alternative designs; and

(c) the wetland functions being served by the area proposed to be encroached upon.

4.1.411
Mitigation shall be considered only as a last resort, and only if ~~the City determines~~ it is determined that encroachment in the wetland is the least damaging alternative and no practicable on-site alternative exists. Such mitigation activities should replace similar habitat and function, and shall result in no net loss of wetland functions and shall be subject to all applicable local, State and Federal permitting and regulations. ~~Preservation of upland habitat may be considered in certain instances if deemed appropriate by the City but shall not result in a net loss of wetland functions.~~

~~The City shall use the following guidelines to estimate the extent of wetland preservation, enhancement, restoration and/or creation which may mitigate for the destruction of a unit of wetland. The actual extent of wetland mitigation may be more or less depending on City evaluation of site and regional conditions.~~

~~The following ratios apply to wetland preservation, restoration and enhancement proposals:~~

~~A. Mitigation ratios for wetland preservation proposals are based upon the quality of the wetlands to be encroached and the quality of the preserved wetlands. The mitigation for encroachment in low quality wetlands through preservation of high quality wetlands will require the lowest ratio, while mitigation for encroachment in high quality wetlands through preservation of low quality wetlands will require the highest ratio. For encroachments in salt marshes and riverine/estuarine wetlands the ratios shall range from 10:1 to 100:1. For encroachments in other wetlands the ratios~~

shall range from 5:1 to 25:1. Ratios may also be established for preservation of valuable upland habitat as provided for in Policy 4.1.7 of this Element.

B. Mitigation ratios for wetland enhancement and restoration is based upon the quality of the wetlands to be encroached, quality of wetlands to be enhanced, and the functional value of the enhancement proposed. For encroachments in salt marshes or riverine/estuarine wetlands, the enhancement ratios shall be 5:1 to 20:1. For encroachments in other wetlands the ratios shall be 2:1 to 15:1.

The following ratios shall apply to wetland creation proposals:

A. ***Salt Water Marshes*** - Mitigation for salt water marshes shall be at a ratio of 1.5:1 to 2:1. Ratios may be higher if the creation of salt water marshes depends on natural recolonization.

B. ***Riverine/Estuarine Wetlands*** - Mitigation for riverine/estuarine wetlands shall be at a ratio of 2:1 to 5:1 depending on site specific conditions. Ratios may be higher if the creation of riverine/estuarine wetlands depends on natural recolonization.

C. ***All Other Wetlands*** - Mitigation for all other wetlands shall be at a ratio of 1.5:1 to 2:1. Ratios may be higher if the creation of wetlands depends on natural recolonization.

The ratios for wetland creations are based, in part, upon temporary loss of wetland habitat while the created wetland is in early succession. The ratios may be adjusted by providing assurance that the created wetland replaces the habitat functions of the wetland which is lost; this assurance is most easily achieved by the creation of wetlands prior to wetland loss. The ratios may also be adjusted when wetland creation is combined with other mitigation proposals such as upland buffer areas adjacent to wetlands, conservation easements, wetland enhancement proposals or other alternative mitigation. In no case may the creation of wetlands replace valuable upland habitat.

For wetlands which have only a man-made direct hydrologic connection to a stream, other watercourse or impoundment or wetlands where prior work has adversely altered the hydroperiod of the wetland, the ratios will be less than the

guidelines stated above. Wetlands created by off site activities conducted in violation of State or local rules will not be considered as wetlands for mitigation purposes.

4.1.5 The City shall develop a process for the evaluation of wetland functions and values in determining the type and form of mitigation to best achieve no net loss of wetlands.

4.1.6

The City shall require the following information prior to the issuance of a final development order for the assessment of the wetland proposed to be encroached:

A. A description of the type and function of the wetland being altered including area, vegetative community and hydrologic regime.

B. A list of all federal and State listed species designated as endangered or threatened, or species of special concern which utilize the wetland.

C. Topographic information and soils classification for the existing wetland.

D. A description of the proposed system and its impact on the wetland, e.g., areal extent of fill or excavation or change in hydroperiod of drainage practices.

The following information is required to describe the wetland community to be created or enhanced as a result of the mitigation activity:

A. A description of the area and location of the mitigation area.

B. A description of the species to be planted and the plant densities.

C. A description of the source of plants and mulch.

D. A description of the proposed hydroperiod.

E. A description of the effects of the proposed mitigation on the local and regional environment and faunal diversity of the area.

F. A description of the monitoring and maintenance methods to be employed.

~~**4.1.7**~~

~~The City shall consider wetland mitigation proposals on a case-by-case basis. Mitigation can consist of wetland preservation, enhancement, restoration or creation, or in certain circumstances, may include placement of conservation easements on wetlands or contiguous upland areas. The City may consider the preservation of upland habitat, adjacent to preserved or enhanced wetlands, as mitigation where the uplands serve environmental functions associated with wetlands for species which do not spend their entire life cycle in the wetland habitat. Wetland creating means the construction of a functional wetland in what was an upland area.~~

~~**4.1.8**~~

~~The City shall require that wetland mitigation restore the type of functions lost due to the construction in wetlands, i.e. habitat or fish and wildlife, water quality, flood storage, etc. Generally, the preferred mitigation is preservation, enhancement, restoration or creation of the same type of wetland and/or preservation of uplands which provide habitat associated with the type of wetland impacted. There may be situations where it is appropriate to mitigate a different type of wetland to improve the local or regional environment. The City may consider such proposals when the application has clearly demonstrated the benefit to the local or regional ecosystem.~~

4.1.~~9~~12

The City shall consider cumulative impacts when reviewing proposals for construction within wetlands.

In deciding whether to grant or deny a development order for construction in wetlands which will affect wetlands, the City shall consider:

A. The impact of the development for which the development order is sought.

B. The impact on developments which are existing, under construction, or for which land development orders have been previously issued.

C. The impact of developments which are under review, approved, or vested pursuant to Section 380.06, F.S., or other developments which may reasonably be expected to be located within wetlands based upon applications for final development orders pending at the time of the review.

4.1.~~10~~13

The City's Environmental Protection Board (EPB) established pursuant to Chapter 73, Ordinance Code, shall have the authority to promulgate appropriate rules by which it may exempt or waive specific provisions of Policies 4.1.1 - 4.1.~~9~~12 above for i) developments with alternative designs which can be shown to be the least damaging and that no practicable on-site alternative exists and which results in no net loss of the wetland functions, ii) public facilities/utilities/roadways or iii) in the case of hardships.

The EPB shall uphold the policies of the City of Jacksonville's 2030~~2010~~ Comprehensive Plan. Any waiver granted by the Environmental Protection Board shall be a development order or permit subject to challenge under Section 163.3215, F.S. In determining exemptions or waivers, the EPB rules shall consider the following:

A. wetland functions being served by the wetland proposed to be impacted, including, but not limited to:

   i the habitat of fish, wildlife and threatened or endangered species,

   ii the abundance and diversity of fish, wildlife and threatened or endangered species,

   iii the food sources of fish and wildlife including those which are threatened or endangered,

   iv the water quality of the wetland, and

   v the flood storage and flood conveyance capabilities of the wetland; and

B. compliance with the following stormwater quality standards which are used to protect water quality in wetlands in the design and review of developments which will discharge stormwater into the wetland:

   i Stormwater runoff shall be subjected to best management practices prior to discharging into natural or created mitigation wetlands. Best management practices shall mean a practice, or combination of practices determined by the local government to be the most effective, practical means of preventing or reducing the amount of pollution generated by the development to a level compatible with Florida Surface Water Quality Standards found in Chapters 17-301 and 17-302, F.A.C.

   ii No site alteration shall result in violation of State and local water quality standards caused by siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention of filtering capability of wetlands.

   iii No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.

   iv All site alteration activity shall provide for such water retention, filtration, and settling structures, and flow attenuation devices as may be necessary to ensure that the foregoing standards and requirements are met.

4.1.~~11~~14
The City shall assess and evaluate the success or failure of the 2030~~2010~~ Comprehensive Plan to protect the natural functions of wetlands as part of the evaluation and appraisal report required pursuant to Section 163.3191, F. S. The City shall amend the 2030~~2010~~ Comprehensive Plan as needed, including reformulated objectives, policies and standards to protect the natural functions of the wetlands.

4.1.15
The City of Jacksonville currently has a freshwater wetlands mitigation bank known as Loblolly in the southwest quadrant of the City. The City shall consider, by 2015, establishing additional mitigation banks that will offer the ability to create, restore, enhance, and preserve wetlands and/or other aquatic resources to provide opportunities to mitigate for impacts to wetland resources throughout the City of Jacksonville. Consideration shall include saltwater marsh mitigation and incorporation of Preservation Project Jacksonville (PPJ) lands for preservation or restoration of wetlands. As part of the program, the City shall establish a system of incentives to encourage developers to utilize the City's mitigation banking program.

4.1.16
The Planning and Development Department shall coordinate with EQD and the Recreation and Community Services Department to evaluate and recommend lands for designation as "Environmentally Sensitive Lands (ESL)". Lands types for consideration into this system are as follows:

A. The St. Johns River and its tributaries;
B. Salt Marshes;
C. Riverine and floodplain wetlands;
D. Bald Cypress and other wetlands;
E. Buffer areas and wetlands associated with the St. Johns River and its tributaries;
F. Special Management Areas after evaluation to remove impacted or high probability of impact by development;
G. Parklands and preserves used for passive recreation which should also include areas owned by the Federal Government, State, City, and trust lands;
H. High valued environmental areas that are not publically owned;
I. Coastal beach and dune areas;
J. Listed species;
K. Unique native plant communities; and
L. Preservation Project Jacksonville lands.

4.1.17
The Planning Department, Recreation and Community Services Department, EQD, and the Real Estate Division of the Public Works Department shall synthesize acquisition data for sites determined to be Environmentally Sensitive Lands (ESLs) into a database managed and maintained by the Planning Department.

4.1.18
The Planning Department shall track the ESL acquisition information provided by contributing City departments via the database referenced in Policy 4.1.17. A corresponding map shall be created and updated as new information is provided.

4.1.19
The City shall sponsor placing "Environmentally Sensitive Lands" into Conservation land use category and zoning district and/or conservation easement, where there is a willing property owner.

Objective 4.2 The City shall maintain management and protection strategies for those contiguous and isolated wetlands which have particular ecological values for the City. Particular ecological values may include, but not be limited to, habitat utilized by listed species or other significant populations of wildlife, ecologically productive areas, water purification functions, or flood control.

Policies 4.2.1
Every ~~By 2000, and each~~ three years ~~thereafter~~, the City ~~will~~ shall continue to identify those contiguous and isolated wetlands which have particular ecological values for the City. These lands will be included for consideration in the ESL areas pursuant to Policy 4.1.16.

4.2.2
For those areas identified under Policy 4.2.1 which are also potential candidates for the Surface Water Improvement and Management (SWIM) program, the City shall aggressively pursue inclusion in the program by the SJRWMD and the preservation project Jacksonville (PPJ) program.

~~**4.2.3**~~
~~For each area initially identified in Policy 4.2.1, the City will develop a management plan under the Special Management Areas program by 2000. Such plans shall ensure the protection of the functions and values of the wetlands such as water purification, nursery areas, physical barriers, flood control, habitat, and ecological productivity. Each Special Management Area plan shall consider the need for acquisition, recreation potential, buffer areas, changes in land use designation, density and construction of septic tanks, vegetation removal, and other matters as appropriate. The management plans for those areas identified in Policy 4.2.1 will be implemented by 2001. In addition, regulation of dredging and filling by State and federal agencies shall be reviewed for adequacy. Incentives for protection and management of these areas, such as The Preservation Project Jacksonville, conservation easements, ad valorem tax relief, and Transfer of Development Rights, shall also be considered in each plan.~~

4.2.43
The City will continue to carry out its responsibilities under the current DEP Nassau River-St. Johns River Marshes Aquatic Preserve Management Plan, and will be an

active participant in any subsequent revisions to the Plan.

4.2.~~5~~4
The City shall forward all development proposals adjacent to aquatic preserves to the DEP and the National Park Service for its review and comment.

4.2.~~6~~5
The City shall continue coordination with the SJRWMD for:

a. the review and comment on all wetland resource aspects of all proposed permits to be issued by the SJRWMD within the City of Jacksonville.

b. review of all wetland resource aspects of all permits issued by the SJRWMD within the City of Jacksonville for the purpose of creating a database of information based upon the City's wetland categories including, but not limited to:

   i. number of existing acres of wetlands according to Map C-3 of this Element (same as the adopted Map L-5 of the Future Land Use Element) within each drainage basin within the City.

   ii. number of acres of wetlands within each drainage basin within the City by category being impacted by permits issued by the SJRWMD.

   iii. number of acres, location and type(s) of mitigation.

   iv. mapping of existing wetlands, mitigation areas including mitigation parks, conservation easements, lands within the conservation land use category, special management areas, etc.

   v. coordinating, exchanging and annual sharing of information collected in sections i - iv above with the SJRWMD, Department of Community Affairs and other interested parties.

c. developing a method of coordination of acquisition and/or mitigation to Special Management Areas designated pursuant to Objective 5.1 and related policies.

Objective 4.3 The City shall regulate land development activities in wetlands so as to complement and not duplicate existing wetland protection programs of the Florida Department of Environmental Protection DEP , St. Johns River Water Management District (SJRWMD) and the U.S. Army Corps of Engineers (USACOE).

Policies 4.3.1
The City's ~~Regulatory and Environmental Services Department (RESD)~~ Environmental and Compliance Department shall review all DEP, SJRWMD and USACOE dredge and fill, management and storage of surface waters and stormwater permit applications within the City and comment where appropriate. The ~~RESD~~ Environmental and Compliance Department shall review and comment on all permit applications which involve locally adopted standards involving such matters.

4.3.2
The City shall require all applications for final development orders to include a listing of those Florida Dredge and Fill, U.S. Dredge and Fill and Florida Management and Storage of Surface Waters permits that will be required for the site. All applications for final development orders shall include a delineation of all existing jurisdictional wetlands on-site. All permits shall be submitted prior to the final approval of the development plan.

4.3.3
The City's wetland protection program shall not duplicate existing federal, State, or water management district programs. Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 373, F.S., a dredge and fill permit pursuant to Chapter 403, F.S., or a dredge and fill permit pursuant to the Federal Clean Water Act provides the assurances necessary that the encroachment, no net loss, stormwater treatment, hydrology, cumulative impacts and mitigation standards have been complied with but shall not include assurances as to the permitted land uses within each wetland classification or the following related standards (i) septic tanks, (ii) dredge and fill percentage, (iii) density, (iv) vegetation and (v) boat facilities siting and operation, which the City shall review independently.

4.3.4
The City will meet as necessary with adjoining counties, municipalities, and the Northeast Florida Regional ~~Planning~~ Council (NEFR~~P~~C) to review applications for any development, including stormwater discharge, which may adversely impact the quality of estuaries within the jurisdiction of more than one local government.

Objective 4.4 The City shall consider incentives and other market-based programs to protect high functional valued wetlands and environmentally sensitive lands that are critical to the health of the City's waterways and water quality.

Policies 4.4.1
The City shall encourage the placement of all watercourses, water bodies, buffer areas, and wetlands having high functional values to be placed in a Conservation land use category, Conservation zoning district and/or conservation easement as part of an application for a land use amendment, rezoning and/or site plan approval process.

4.4.2
The Property Appraiser shall have the right to revoke "Wastelands or Wetlands Assessment" status on the amount of wetlands permitted for alteration on a property.

4.4.3
The City shall act as applicant for property owners who voluntarily place their high functional valued wetland into the Conservation land use category and/or Conservation zoning district.

4.4.4
The City shall consider density bonuses and/or cluster development in appropriate areas of the City to encourage placement of high functional wetlands and other environmentally sensitive lands to Conservation.

GOAL 5
The City shall manage and protect unique or environmentally sensitive environments by establishing special management areas.

Objective 5.1 The City of Jacksonville shall continue its Special Management Areas program after the City's 2030~~10~~ Comprehensive Plan is found in compliance by the Department of Community Affairs (DCA).

Policies 5.1.1
The City recognizes environmentally sensitive lands within the City previously recognized by other governmental action. These areas are portions of the: the Nassau River-St. Johns River Marshes Aquatic Preserve, the Julington Creek/Durbin Creek Peninsula, the Northeast Florida Regional Mitigation Park (gopher tortoise preserve), Cedar Swamp, and the Timucuan Ecological and Historic Preserve. Upon adoption of the 2010 Comprehensive Plan, these five areas were ~~will be~~ designated as the first "Special Management Areas" for the City. Individual management plans, including Land Development Regulations and acquisition, were ~~will be~~ developed for portions of the areas to protect the unique features of each area. These plans are identified in Policy 5.1.8. ~~and implemented no later than six (6) months after the City's 2010 Comprehensive Plan is found in compliance by the Department of Community Affairs.~~

5.1.2
The ~~AWQD~~ EQD and the Planning and Development Department will annually report to the City Council any additional areas to be considered as Special Management Areas, including those wetland areas identified in Policy 4.2.1, with an analysis of special features requiring protection, and shall develop draft ordinances designed to protect the special features of each Special Management Area. Ordinances may include, but not be limited to, waste disposal, physical setbacks, stormwater management, hazard mitigation, wetlands protection and protection of vegetation. If the Special Management Area plan is not approved by the City within 10 months of its introduction, the plan will be reviewed by ~~AWQD~~ EQD and the Planning and Development Department for

possible modifications prior to the next annual Special Management Area report to the City Council.

5.1.3
The City shall continue to support the ~~Special Management Area designation with a~~ Department of Environmental Protection's (DEP) management plan to protect the health and productivity of the St. Johns River-Nassau River Marshes Aquatic Preserve.

5.1.4
The City has established The Preservation Project Jacksonville to continue to acquire, through purchase, donation or other methods, environmentally sensitive areas or interests in land other than fee simple for protection and recreation purposes. Money from the Preservation Project Jacksonville should be used in part as match money for State and federal acquisitions within the Special Management Areas.

5.1.5
The City shall continue to prepare a land acquisition priority list updated annually, consisting of those areas designated for acquisition in the land use plans for Special Management Areas.

5.1.6
The City shall continue public acquisition of sensitive wetland areas adjacent to the rivers and tributaries in the City as described and identified in the Special Management Areas Program.

5.1.7
The Parks Advisory Board will assist the Recreation and Community Services Department by assessing community needs, identifying sources for funding and partnerships, and serving as a communication tool between management, staff, and residents.

5.1.8
The City shall defer management of the "Special Management Areas" to the appropriate conservation agencies as listed:

A. Northeast Florida Mitigation Park (Branan Field Wildlife and Environmental Area; Managing Agency – Florida Freshwater & Wildlife Conservation Commission (FFWCC)
B. Cedar Swamp; Managing Agency – St. Johns River Water Management District and the City of Jacksonville
C. Julington Creek/Durbin Creek Peninsula; Managing Agency – St. Johns River Water Management District
D. Timucuan Ecological and Historic Preserve; Managing Agency – National Park Service, Florida Division of Recreation and Parks and City of Jacksonville Parks and Recreation Department
E. Nassau River-St. Johns River Aquatic Preserve; Managing Agency – Florida Division of Recreation and Parks and Freshwater & Wildlife

Conservation Commission

GOAL 6

The City shall protect, conserve, and manage its sandy beach coastline and dune system~~,~~. and the St. John's River and its tributaries. The City shall ~~as well as~~ continue to ensure ~~that~~ access to beaches~~,~~ ~~and~~ coastal shoreline, and the St. John's River and tributaries ~~is~~ are available to the public.

~~Issue:~~ Preserving the Beach/Dune System~~~~

~~The City fully recognizes the economic, recreational, and resource value of its beaches. Perhaps unique to Jacksonville, all ocean fronting land within the City's boundaries is in public ownership. Given the absence of poorly sited and threatened upland development, the City's beach management problems are limited. Erosion at the southern tip of Little Talbot Island has necessitated shore armoring, and the beaches of Kathryn Abbey Hanna Park are subject to periodic artificial nourishment as part of a larger, federally authorized beach restoration project.~~

~~Duval County's sixteen miles of coastline fronting the Atlantic Ocean consists of barrier islands north and south of the mouth of the St. Johns River. Ocean fronting lands within the City of Jacksonville run from the county line on the Nassau River south to the City of Atlantic Beach. Virtually all of this land is in public ownership and, with the exception of U.S. Naval Station/Naval Air Station Mayport, is relatively undeveloped and used for conservation and recreational purposes. In turn, the City's beach management strategy is to preserve publicly owned beach/dune systems; participate in the restoration of damaged beaches and dunes; and provide adequate public access to the City's beaches, shorelines, and waterways.~~

Objective 6.1 The ocean fronting beaches and dunes within the City's jurisdiction shall be maintained predominantly in their natural state for conservation and recreational uses.

Policies 6.1.1
All activities which may result in man-induced erosion or would threaten the stability of the beach/dune system are prohibited.

6.1.2
Construction seaward of the State's Coastal Construction Control Line is prohibited. An exception shall be for passive recreation and access structures.

6.1.3
No new shore hardening structures shall be permitted, pursuant to Chapter 161, F.S. Reconstruction of existing erosion control structures is prohibited except for public navigation and emergency transportation corridors.

6.1.4
The beach and dune systems within the City of Jacksonville, including native vegetation, shall be protected and preserved.

6.1.5
Native vegetation shall be required as the stabilizing medium in any re-vegetation or restoration program.

6.1.6
Vehicular driving on the beach and primary dunes shall be prohibited except for emergency and maintenance purposes, or pursuant to an approved beach management plan.

6.1.7
The City shall implement a beach management plan for Huguenot Memorial Park to prevent vehicular damage to the dunes and dune stabilizing vegetation.

6.1.8
The City shall participate through City support services, personnel, and equipment with private and non-profit organizations in a dune enhancement and revegetation program (such as the current program with the Boy Scouts of America to stabilize the beaches and dunes with discarded Christmas trees) to restore damaged and breached dunes to their historical conditions. This program shall include preservation and enforcement provisions.

~~Issue: Restoring Damaged Beaches~~

~~Jacksonville Beach Island, which extends from the St. Johns River to the south county line, has historically experienced severe beach erosion. This ten mile stretch of beach was artificially restored in 1974, and subsequently renourished. Prior to restoration, the beach and dune system had been destroyed and the shoreline armored with sea walls and granite revetments to protect extensive upland development. The U.S. Naval Station/ Naval Air Station Mayport and Kathryn Abbey Hanna Park are the only segments of the restoration project within the City's boundaries. However, the City, acting as Duval County, serves as the local sponsor for this project, which encompasses Atlantic Beach, Neptune Beach, and Jacksonville Beach.~~

Objective 6.2 The City shall encourage the continuance of the federally authorized Jacksonville Beach Restoration Project.

Policies 6.2.1
The City, acting as Duval County, shall consider its continuation as the local sponsor for the Jacksonville Beach Restoration Project.

6.2.2
Restoration activities shall not interfere with sea turtle nesting. Re-vegetation activities associated with the beach restoration project shall utilize native vegetation.

6.2.3
The City, acting as Duval County, shall recommend Land Development Regulations to participating local governments to protect the performance and longevity of restored beaches.

6.2.4
In order to maximize federal and State funding participation, the City shall request participating local governments to ensure the availability of adequate public access within the beach restoration project's boundaries.

6.2.5
The City shall discourage any ocean dumping of beach-compatible sand from channel dredging by the federal government by providing alternative disposal sites through interlocal agreements with the local governments of the beach communities of Duval County to accept such sand for beach renourishment. The City shall continue to catalogue for evaluation approaches to beach stabilization as alternatives, or complements to beach renourishment.

Objective 6.3 The City shall maintain construction standards which minimize the impacts of man-made structures on beach or dune systems.

Policy 6.3.1
The Public Works Department shall maintain construction standards for both public and private developments which minimize the impacts of man-made structures on beach or dune systems. These standards shall include, but not be limited to, roadways, ramps, walkways, pavilions, recreation structures, retaining walls, and fences.

Objective 6.4 The City shall encourage the further development and implementation of a River Restoration Plan to help protect and restore the water quality health of the Lower St. Johns River, and the City's creeks and tributaries.

Policies 6.4.1
The City shall participate in the multi-agency River Accord partnership and the St. Johns River Alliance to promote restoration of the Lower St. Johns River Basin.

6.4.2
The City shall promote the Septic Tank Enforcement Program proposed by the River Accord partnership in order to ensure proper installation, inspection and maintenance of septic systems.

6.4.3
The City shall encourage the preservation of the St. Johns River as an American Heritage River in recognition of its ecological, historic, economic, recreational and cultural significance.

~~Issue:~~ The Public's Right to Access~~s~~

~~The City has a responsibility to provide public beach access and access for fishing and other waterfront recreation. There are currently 17 public boat access sites, and ample beach access at Kathryn Abbey Hanna Park, Huguenot Memorial Park, and Little Talbot Island. Future limitations on beach access will largely be a function of parking availability.~~

Objective 6.~~3~~5 The City shall continue to ensure that access to beaches, ~~and~~ coastal shoreline, and the St. John's River and its tributaries is available to the public. ~~Additional saltwater fishing facilities and parking for coastal access shall be provided.~~

Policies 6.~~3~~5.1
The ~~Parks, Recreation and Entertainment Department~~ Planning and Development Department in coordination with the Recreation and Community Services Department has developed and will continue to update a Master Recreation Improvement Plan which includes a program to expand the availability of public access, to include saltwater fishing facilities, boat ramps ~~and~~ parking, public parks and buffer zones with recommendations for a method to fund acquisition and construction.

6.5.2
The City shall encourage the preservation and enhancement of public access to the river and its recreational opportunities in the Downtown Zoning Overlay district.

6.5.3
As contained in the Recreation and Open Space Element of the 2030 Comprehensive Plan, the Recreation and Community Services Department shall utilize the Future Opportunities, Continuous Upgrade Strategy (FOCUS) plan to identify land prioritize waterfront locations for the development of boat ramps, buffer zones and/or public access to the St. Johns River and its tributaries.

6.~~3~~5.~~2~~4
The City shall accept donations of shoreline lands and River and its tributaries access lands suitable for use as public access, public parks, buffer zones or parking sites.

6.~~3~~5.~~3~~5
All public access facilities within the coastal area and the River and its tributaries shall be subject to the policies relating to public access contained in the Recreation and Open Space Element of the 2030~~10~~ Comprehensive Plan.

6. ~~3~~5.~~4~~6
Where appropriate, the City shall participate in intergovernmental agreements with federal and State agencies regarding the use of land and access to government-owned properties in the coastal area and the River and its tributaries for public use.

6. ~~3~~5.~~5~~7
The City shall continue to maintain public access to all beaches renourished at public expense and continue to enforce the public access requirements of the 1985 Coastal Zone Protection Act.

~~Issue: Construction Standards~~

~~In order to minimize the impacts of man-made structures on the beaches or the dunes, special construction standards should be addressed which provide assurances that these natural resources shall be protected by either public or private construction improvements.~~

~~Objective 6.4 The City shall maintain construction standards which minimize the impacts of man-made structures on beach or dune systems.~~

~~Policy 6.4.1~~
~~The Public Works Department shall maintain construction standards for both public and private developments which minimize the impacts of man made structures on beach or dune systems. These standards shall include, but not be limited to, roadways, ramps, walkways, pavilions, recreation structures, retaining walls, and fences.~~

Objective 6.6 The City shall implement the goals of the Tributary Assessment Team (TAT) and the Florida Department of Environmental Protection's (FDEP) adopted Basin Management Action Plan (BMAP) to restore the health of the tributaries.

Policies 6.6.1
The City shall implement and adhere to the BMAP and enforce all TMDL requirements outlined therein in accordance with Section 403.067(7), F.S.

6.6.2
The City will continue to coordinate with the FDEP and SJRWMD on implementing the Total Maximum Daily Loads (TMDL) program, the lower St. Johns River Comprehensive Restoration Plan/St. Johns River Accord and other relevant programs for the lower St. Johns River by actively participating in interagency meetings and work groups, by coordinating monitoring, assessment and enforcement programs, by submitting contracts for work on the City portion of the lower basin, and by revising and commenting on revised SWIM plans.

6.6.3
The City shall ~~require~~ ensure that all point sources receiving wasteload allocations and nonpoint sources receiving ~~waste~~load allocations achieve their reductions ~~as soon as practical~~ in compliance with the Lower St. Johns River Basin Management Action Plans, as adopted and approved by the State of Florida Department of Environmental Protection.

6.6.4
The City shall follow up and coordinate with the TAT on a regular basis to ensure that basin management strategies are being carried out and that their incremental effects are assessed. In addition, assessments shall be conducted every five (5) years as required by the Florida Watershed Restoration Act of 1999 (FWRA) to determine whether there is reasonable progress in implementing the BMAP and achieving pollutant load reductions. Assessments will include identification of total nitrogen (TN) and total phosphorus (TP) loadings, an inventory of problem areas, and updates to the policies of the Comprehensive Plan to comply with any new standards and regulations.

6.6.5
The following items should be addressed in future watershed management cycles to ensure the most accurate information is utilized for future TMDL allocations:

(i) Channel profile changes – The river channel in the hydrodynamic model is based on the 1997 profile and, since that time, several modifications have been made to the channel. Because the differences in the channel profile could affect the assimilative capacity and water quality data, the channel profile in the model should be updated to match the current profile to ensure greater accuracy of the model results.

(ii) Ocean boundary – The ocean boundary in the model should be expanded to better simulate processes on the Atlantic inner shelf in the vicinity of the mouth of the river, which impact water quality in the river. Improved monitoring must also occur in this region to verify assumptions upon which the current TMDL is based.

(iii) APRICOT/Reverse Osmosis (RO) – To meet future demands, existing and new wastewater treatment facilities will most likely require APRICOT discharges in which advanced waste treatment (AWT) facilities that provide reclaimed water are allowed to discharge 30 percent of their effluent during periods of low demand. In addition, there are proposed RO water treatment facilities in the basin, which will generate concentrate as a byproduct of the filtration process that will have to be disposed. These sources have been provided allocations, but the allocations may need to be revised during future TMDL cycles once more information is available on the number of proposed facilities in the basin and their capacities.

(iv) Wastewater facilities above head of tide – Currently, the facilities above head of tide have not been provided with allocations. These facilities may need to be assigned load allocations in future cycles.

(v) Future development – While increased loads from future growth are included by adjusting the starting point loads for projected growth (five years for point sources and projected 2008 land use for MS4s and nonpoint sources), it may be necessary in future cycles to project out further (i.e., 10 years instead of five), provide a separate allocation to future development, or some other measurement. During future TMDL cycles, it will need to be decided how any additional allocations to future sources will be accomplished.

(vi) Wetlands – There are several facilities in the basin with wetlands discharges (e.g. Blacksford and Spencer's Crossing WWTFs). The loads associated with these facilities will be evaluated in the next TMDL cycle because they are expected to increase.

(vii) Failing Septic Tanks – Additional research specific to the conditions in the Lower St. Johns River Basin is needed to quantify the loads associated with failing septic tanks in the watershed. Considerations such as water table elevation, soils and system design could be important to the amount of nutrient load contributed to surface waters by a failing system. Improved estimates would document the benefits of removing these systems, which would influence management and funding decisions.

(viii) Upstream Loads – The current TMDL includes a 30 percent reduction in upstream anthropogenic nitrogen and phosphorus loads. The achievability of this reduction has not been assessed; therefore, the upstream nutrient load should be studied and modeling should be conducted to examine eutrophication in the major upstream lakes, including Lake Crescent, Lake George, Lake Monroe, and Lake Jesup. The modeling effort for future TMDL cycles should expand upstream to include Lake George.

(ix) Alterations in Hydrology – Proposed surface water withdrawals from the river for consumptive uses will alter the hydrology by increasing residence time and the upstream intrusion of salinity. These changes could affect the water quality relationships that are the basis for the TMDL targets and increase the effect of discharges to the river. The potential impacts of surface water withdrawals should be studied and any necessary modifications made to the TMDL in future cycles.

(x) Model Enhancements – Future enhancements to the model will incorporate interactions with wetland areas in the marine portion of the Lower St. Johns River.

Objective 6.7 The City shall consider the impact of development on the river and its tributaries during the land development review process.

Policies 6.7.1
The City of Jacksonville shall require a Low Maintenance Zone (LMZ) to be established between developed areas contiguous to any pond, stream, water course, lake, wetland or seawall in accordance with Chapter 366, Part 6, Ordinance Code.

6.7.2
The Planning and Development Department shall encourage coordination between infrastructure and land planning in order to ensure that future development will contribute to the sustainability of the river and the City's water supply.

6.7.3
The City, in conjunction with the Low Impact Development (LID) subcommittee of the Subdivision Standards Policy Advisory Committee (SSPAC) and the St. John's River Water Management District, shall construct an LID manual by September 2010. The LID Manual shall include meaningful and predictable guidelines and standards that the City shall use to encourage LID in order to reduce the impact of new and existing development and manage stormwater at its source. Encouragement strategies may include: offering credits to off-set the Stormwater Utility Fee and allowing alternative designs to be permitted without deviations or variances from the Land Development Regulations.

6.7.4
In order to conserve fresh water, JEA, subject to permitting requirements of state law, shall have first priority of reclaimed municipal water use for electrical power production-related purposes, such as cooling water for generating units, because they constitute essential public infrastructure; provided, however, that following such use the remainder of such water, if any, shall be returned to the JEA reclaimed water system for further reuse so long as all water quality requirements are met.

Objective 6.8 The City shall continue to promote financial support for research and planning to ensure water quality health for the St. Johns River and its tributaries, as well as to meet the City's water supply needs.

Policies 6.8.1
The City, acting as Duval County, shall continue to seek endorsement from the SJRWMD and the *Florida Water Protection and Sustainability Program (WPSP)* in order to fund county-level water protection and water supply planning efforts.

6.8.2
Duval County's water resources and projected needs through 2025 come from both groundwater and surface water sources. Detailed data regarding water use, projections and sources are included in the background data for this element. The City shall

continue to identify and promote water conservation, alternative water supply sources and other water management strategies, consistent with the St. Johns River Water Management District's (SJRWMD) *District Water Supply Plan* and the provisions of the Potable Water and Natural Groundwater Aquifer Recharge Sub-Elements, in order to meet the City's growing water supply needs.

6.8.3
The City of Jacksonville shall continue to participate in the development of updates to the St. Johns River Water Management District's (SJRWMD) Water Supply Assessment and District Water Supply Plan, as well as other applicable water supply development-related initiatives facilitated by SJRWMD.

GOAL 7

The City shall make every reasonable effort to ensure the public safety, health, and welfare of people and property from the effects of coastal storm and hurricane damage.

~~Issue:~~ Timing Hurricane Evacuation

~~Total evacuation clearance times for Jacksonville, Atlantic Beach, Jacksonville Beach and Neptune Beach are manageable. However, for the area not to exceed a maximum required hurricane evacuation time established in the most current Northeast Florida Hurricane Evacuation Study will necessitate proper traffic control and early evacuation decision making. The scheduling of future roadway improvements must address volume and capacity as related to hurricane evacuation. The City fully recognizes the critical importance of intergovernmental coordination with neighboring beach communities and adjacent counties.~~

Objective 7.1 The City, acting as Duval County, shall reduce excessive hurricane evacuation times where they exist within specific areas of designated Hurricane Evacuation Zones and maintain all other evacuation times within the acceptable standard.

Policies 7.1.1
The City, acting as Duval County, shall establish a local working group to consider, by December 2009, a set of policies that would allow for a citywide local mitigation program that would take the place of the site-specific and case-by-case approach that is currently used to determine appropriate mitigation when a future land use map amendment is proposed that would impact hurricane evacuation time. Until and unless the City determines a citywide local mitigation program, all assessments of future land use map amendments that impact hurricane evacuation times shall be considered case-by-case.

7.1.2
The City, acting as Duval County, will develop and implement provisions for increasing the rate of evacuee mobilization, including the expansion of its comprehensive awareness program, to ensure that Duval County residents and visitors are informed regarding evacuation zones, clearance times, shelter locations and capacities, and evacuation routes. The Emergency Preparedness Division shall develop for general public distribution, a Duval County "All Hazards Guide," that will include the following: Family Disaster Planning; Disaster Supply Kits; Home Protection; Hurricane Evacuation Zones, Routes & Shelters; Flooding, Thunderstorms & Lightning; Tornadoes & Waterspouts; Hazardous Materials; What to Expect After the Disaster; Advice for Senior Citizens, Home-bound Patients and Special Need Populations; Pets; Business Protection; and Emergency Phone Numbers.

7.1.3
The City, acting as Duval County, shall review, and update as necessary, items related to hurricane evacuation in the Comprehensive Emergency Management Plan (CEMP) prior to June 1 of each year. The latest versions of, or changes to, all State and regional emergency plans shall be incorporated into the CEMP to ensure intergovernmental plan consistency.

7.1.4
The Emergency Preparedness Division, acting as the City of Jacksonville and Duval County, shall maintain a formalized intergovernmental strategy for hurricane evacuation planning and regional emergency planning efforts with adjacent counties and municipalities within the County.

7.1.5
The Comprehensive Planning Division of the Planning and Development Department and the Emergency Preparedness Division shall maintain procedures and guidelines for assessing the impact of a new development and redevelopment on hurricane evacuation times. Such procedures and guidelines shall be adopted and implemented in a manner consistent with the requirements of Section 163.3202(1), F.S., and therefore shall be formalized and integrated into the City's Land Development Regulations.

7.1.6
The City shall not amend the Future Land Use Element or the Future Land Use Map series unless; the requested change can be determined to not exceed the established hurricane evacuation times; the requested change is for a lower density; or the requested change for increased density provides adequate remedies to reduce impacts on hurricane evacuation times which exceed the acceptable standard.

7.1.7
All new development and redevelopment within Hurricane Evacuation Zones shall be consistent with hurricane evacuation times and the Future Land Use Element of the 2030~~10~~ Comprehensive Plan. In conjunction with the Emergency Preparedness

Division, the City shall develop procedures for evaluating the impact of new development and redevelopment on hurricane evacuation times.

7.1.8
The Emergency Preparedness Division shall review all development orders for projects located within Hurricane Evacuation Zones and recommend development conditions where necessary. The City shall develop a process to allow the adequate review of impacts of development orders by the Emergency Preparedness Division.

7.1.9
The cumulative impact of development orders or permits shall not exceed the established hurricane evacuation time.

7.1.10
The City Traffic Engineer and Chief of Emergency Preparedness shall review at least annually evacuation route road needs to ensure that the necessary improvements are incorporated within the Capital Improvements Element and Transportation Element.

7.1.11
The City shall utilize hurricane evacuation times, as well as Level of Service standards, in determining the timing and priority of roadway improvements as contained within the Transportation Element. Existing evacuation route deficiencies shall be included in the five year schedule of capital improvements.

7.1.12
The Emergency Preparedness Division shall participate in discussions and evaluations conducted by FDOT, JTA, and the City of Jacksonville to identify additional roads to be included in the City's evacuation system and in the CIP when the City's local road needs analysis is available by 2010.

~~Issue:~~ Providing Hurricane Shelter

~~The City currently has a deficit in State ARC 4496 design criteria compliant shelter spaces according to the State of Florida Department of Community Affairs Division of Emergency Management Annual Statewide Emergency Shelter Plan. The Emergency Preparedness Division, the Planning and Development Department, the Duval County School Board and other potential providers of shelter space are working to retrofit schools to reduce the deficit. It is the City's intent to monitor the relationship between population growth and shelter capacity to ensure the provision of additional shelter spaces, as determined to be necessary. Further, the City will continue to assist in the emergency preparedness requirements of its people with special needs.~~

Objective 7.2 Adequate shelter space shall continue to be available for the population in the Hurricane Evacuation Zones at risk under a Category 3 storm event. The City, acting as Duval County, shall have a mechanism in place to

assist in providing shelter and transportation for people with special needs during an emergency.

Policies 7.2.1
The City, acting as Duval County, shall increase its shelter capacity. All new or retrofit school projects and community centers located outside of Evacuation Zones shall be evaluated for sheltering of special needs as well as general populations. When appropriately located, designed and constructed, the following types of facilities are considered suitable for use as public hurricane evacuation shelters: community and civic centers, meeting halls, gymnasiums, auditoriums, cafeterias and open floor multipurpose facilities, exhibition halls, sports arenas, field houses, conference and training centers, certain classroom buildings, and other public assembly facilities as outlined in Chapters 252.385 and 1013.372, Florida Statutes.

7.2.2
The Chief of Emergency Preparedness, with assistance from State and regional agencies, shall establish the target shelter demand, and make recommendations on additional policies and strategies to ensure, if needed, the availability of additional shelter space.

7.2.3
In the event that the Chief of Emergency Preparedness determines that the shortage of shelter space requires mitigation, then policies 7.2.5, 7.2.6 and 7.2.7 shall apply.

7.2.4
The Emergency Preparedness Division shall, for evacuation purposes, continue to identify the special needs population of Duval County, and plan for appropriate facilities and services through the Duval County Health Department, with the assistance of such government and quasi-government agencies as the Northeast Florida American Red Cross, the First Coast Disaster Council, and other similar agencies.

7.2.5
The City shall require that all new development located in the Coastal High Hazard Area in land use categories that permit residential density greater than Low Density Residential shall contribute to the cost of emergency shelter space in existing school sites.

7.2.6
For purposes of determining an owner's assessment for the cost of emergency shelter space in new and existing school sites and community centers, the City shall use a quantitative formula where:

A equals the total number of residential units proposed;
B equals number of persons per household; and
C equals average cost to retrofit one shelter space;

D owners assessment

A X B X C = D Owner's Assessment

7.2.7
The City shall use the most recent U.S. Census data related to average household size, population in households and households. In calculating the assessment owed, the City shall use the full unit count of the proposed development, the county-wide average household size from the U. S. Census, and the average shelter retrofit cost as provided by the City's Emergency Preparedness Division in consultation with the Duval County School District Facilities Services Division. The City shall not allow a reduction of the shelter space required based on assumptions of smaller household sizes than the county-wide census data or reduced uses of public shelters for certain developments. These factors shall be updated as warranted by the City to ensure accuracy of costs and population factors.

Issue: ~~Restricting Imprudent Coastal Development~~

The City will continue to enforce building standards and requirements to minimize structural damage to property in hazardous coastal areas. Future City expenditures for infrastructure improvements will be limited to meeting the needs of existing residents and resource protection. Land use decisions will direct new development to areas outside of hazardous coastal areas.

Objective 7.3 Limit public expenditures that subsidize growth by ensuring that building and development activities are carried out in a manner which minimizes danger to life and property from natural disasters and restricting the intensity of development within designated Coastal High Hazard Areas consistent with public safety needs.

Policies 7.3.1
The Coastal High Hazard Area (CHHA) is the area below the elevation of the Category 1 storm surge line as established by the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model ~~as established by the most current Northeast Florida Hurricane Evacuation Study~~. ~~It~~ The CHHA is shown on Conservation/Coastal Management Element Map C-18 and Future Land Use Element (FLUE) Map L-9. ~~A property shall be deemed to be within the CHHA as depicted on Map C-18 unless site specific, reliable data and analysis demonstrates otherwise.~~

7.3.2
The City shall continue to participate in the National Flood Insurance Program.

7.3.3
The City shall maintain requirements for wind resistance, as stated in the latest edition

of the Statewide Florida Building Code.

7.3.4
Shoreline development in Coastal High Hazard Areas shall be protected by vegetation, setbacks, and/or restoration, rather than by seawalls or other coastal protection structures which contribute to erosion. Exception may be made for navigation and emergency transportation purposes.

7.3.5
The City shall limit the expenditure of public funds in Coastal High Hazard Areas to the restoration or enhancement of natural resources and to the replacement and renewal of existing public facilities which may be expanded and improved.

7.3.6
Established hurricane evacuation times and route capacities within Coastal High Hazard Areas shall not be exceeded.

7.3.7
All public lands within Coastal High Hazard Areas shall be designated for conservation purposes consistent with the Future Land Use Element's Conservation land use classification.

7.3.8
All Land Development Regulations shall be reviewed and revised to reduce the vulnerability of any existing development within Coastal High Hazard Areas.

7.3.9
The City shall identify areas within the CHHA that are considered blighted, and propose programs that will eliminate unsafe conditions and encourage economic redevelopment.

7.3.10
The City shall use Preservation Project monies as one of the sources of funds available to purchase lands in the Coastal High Hazard Areas – (CHHA). These land purchases shall reduce the development potential in the CHHA which, in turn, assists in reduction of evacuation times, number of persons living in these areas, and property loss damages. At least 25% of the total lands (67,573 acres) within the Coastal High Hazard Area shall be acquired through the Preservation Project to maintain or reduce hurricane evacuation times by removing the potential for residential development on these lands.

7.3.11
The City shall continue its current joint actions with surrounding cities, the State Department of Community Affairs (DCA) Division of Emergency Management Office, St. Johns River Water Management District and the Federal Emergency Management Administration (FEMA) to secure monies for purchase by a public agency of privately held lands.

These purchases shall be for the purpose of reducing development potential in the CHHA and thus serve as one of the remedies pursuant to Policy 7.1.6.

7.3.12
The City shall direct future residential density away from the Coastal High Hazard Area and shall mitigate the impacts of existing residential development rights through traditional and innovative planning tools including but not limited to Preservation Project land purchases and emergency shelter deficit reduction through mitigation assessments.

~~Issue:~~ Mitigating for a Natural Disaster

~~The City, acting as Duval County, shall identify and undertake mitigative actions that will reduce or avoid future property loss or damage. Options other than reconstruction shall be considered for public facilities experiencing substantial damage. Beach and estuarine properties and both public and private properties that suffer from repetitive losses and damage from natural disasters shall be considered for acquisition.~~

Objective 7.4 Limit development density and intensity within the Coastal High Hazard Area (CHHA) and direct it outside of the CHHA, and mitigate the impact of natural hazards in the area.

Policies 7.4.1
The City shall require that all land development applications within the Coastal High Hazard Area be planned and obtain approval pursuant to a site plan review process, to ensure that development is compatible with site characteristics.

7.4.2
Upon adoption of the 2030~~10~~ Comprehensive Plan, all land development applications within the Coastal High Hazard Area (CHHA) shall be reviewed by the Planning and Development Department, Emergency Preparedness Division and Public Works Department for verification of consistency with the goals, objectives and policies of the 2030~~10~~ Comprehensive Plan and all Land Development Regulations, including but not limited to, pertinent sections of the National Flood Insurance Program and all applicable flood control regulations.

7.4.3
Following a hurricane, the City shall identify those areas within the CHHA which have or can be reasonably expected to sustain recurring hurricane related damage, and prohibit development within those areas.

7.4.4
The City shall limit the density of new residential development within those areas within the Federal Emergency Management Agency V (Velocity) Zones and areas seaward of

the Florida Department of Environmental Protection Coastal Construction Control Line to a maximum of three dwelling units per net acre or the maximum density shown on the Future Land Use Map series for the area within those areas, whichever is less. Maximum density/intensity of new non-residential development within those areas shall be limited to the density/intensity for those areas as indicated on the Future Land Use Map series. Furthermore, during the review of a single project on a site that is located partially within those areas, any reduction in residential development potential within those areas resulting from the limit of 3 dwelling units per net acre within that area may be recaptured on the subject site within areas not in those areas, where such recapture is consistent with other provisions of the 2030~~10~~ Comprehensive Plan.

7.4.5
The City shall require that non-industrial redevelopment activities within those areas within the Federal Emergency Management Agency V (Velocity) Zones and areas seaward of the Florida Department of Environmental Protection Coastal Construction Control Line be limited to the density/intensity in existence for the development site prior to the effective date of the 2010 Comprehensive Plan or be limited to three dwelling units per net acre, whichever is lower.

7.4.6
The City shall limit the intensity of new industrial development within those areas within the Federal Emergency Management Agency V (Velocity) Zones and areas seaward of the Florida Department of Environmental Protection Coastal Construction Control Line to the maximum intensity threshold associated with the Light Industrial or Water-Dependent/Water-Related land use category, or to the maximum intensity allowed by any other categories permitting industrial development, whichever is lower.

7.4.7
The City shall require that the intensity of industrial redevelopment activities within those areas within the Federal Emergency Management Agency V (Velocity) Zones and areas seaward of the Florida Department of Environmental Protection Coastal Construction Control Line be limited to the intensity in effect for the development site prior to the effective date of the 2010 Comprehensive Plan, or the maximum intensity associated with the future land use designation on the project site, whichever is lower.

7.4.8
The City shall promote, in instances where a proposed project is located within the CHHA, the clustering of uses. Such clustering will be used to limit the acreage within the CHHA that will be affected by the proposed development, and will serve to limit the amount of infrastructure provided within the CHHA. To demonstrate compliance with the clustering concept identified in this policy, proposed site plans may be required to include conditions that restrict future development on any other portion of the site within the CHHA and /or place a conservation easement on any remaining wetlands within the CHHA not already proposed for impacts.

7.4.9
The City shall prohibit the siting of new adult congregate living facilities, community residential homes, group homes, homes for the aged, hospitals, mobile home parks and nursing homes, as defined in the Land Development Regulations, within the Coastal High Hazard Area. Such facilities already existing within the CHHA shall be discouraged from expanding.

7.4.10
The City shall utilize the definition of CHHA, as contained in the ~~definition s~~Section 163.3178(2)(h) of the Florida Statutes~~of Chapter 9J-5 of the Florida Administrative Codes~~, in the application of all policies related to the CHHA.

7.4.11
Those regulations relating to development activity in the CHHA will be incorporated into the Land Development Regulations, consistent with Section 163.3202, F.S.

7.4.12
Consistency with Objective 7.4 requires consistency with all Goals, Objectives, and Policies within the Conservation/Coastal Management Element, including, but not limited to Objectives 7.1, 7.2, 7.3, and 7.5 and all Policies within those Objectives.

Objective 7.5 Within 60 days of the occurrence of a major destructive storm or similar disaster, the City shall prepare a post-disaster redevelopment plan designed to reduce or eliminate the exposure of human life and property to natural hazards.

Policies 7.5.1
The Comprehensive Emergency Management Plan CEMP shall include guidance for post-disaster recovery operations. Post disaster recovery efforts and development shall include implementation of hazard mitigation programs that result in the reduction or elimination of future losses from similar events.

7.5.2
After a hurricane has severely impacted Jacksonville, the Mayor of the Consolidated City, and other local officials as designated by the Mayor, shall meet to review preliminary damage assessments as collected by the Emergency Preparedness division. The Mayor may take such actions as deemed necessary to restore the City to post storm conditions. Life safety issues, such as search and rescue activities shall receive first priority. Following life safety, recovery efforts shall be focused on damage assessment and human needs assessment, re-establishment of the public infrastructure. The Emergency Management Organization, as established by the CEMP, shall remain in operation until recovery efforts can be continued under normal governmental operations.

7.5.3
The Executive Group of the City's Emergency Management Organization shall oversee recovery actions and provide policy guidance for recovery operations.

7.5.4
The Emergency Management Organization shall implement the existing recovery policies and procedures of the CEMP and any policies or procedures issued or endorsed by the Executive Group. These policies shall include, but not be limited to, the issuance of emergency building permits, coordination with State and federal officials, authorization of mitigation options in the replacement of damaged or destroyed public property and infrastructure; approval of a post-disaster redevelopment plan, and amendments to the Comprehensive Plan and the CEMP.

7.5.5
Immediate repair and cleanup actions needed to protect the public health and safety include repairs to potable water, wastewater, and power facilities; removal of debris; stabilization or removal of structures about to collapse; and minimal repairs to make dwellings habitable. These actions shall receive first priority in permitting decisions

7.5.6
As part of its Local Mitigation Strategy, the City shall adopt prior to October 1, 1999 a formal decision making process to evaluate redevelopment options, considering such factors as cost to construct, cost to maintain, repetitive damage, impacts on land use, impacts on the environment, and public safety.

7.5.7
The Emergency Management Organization shall propose amendments to the 2030~~10~~ Comprehensive Plan which reflect the recommendations in any interagency hazard mitigation reports or other reports prepared pursuant to Section 406 of the Disaster Relief Act of 1974 (PL 93-288).

7.5.8
If rebuilt, structures which suffer damage in excess of fifty percent of their appraised value shall be rebuilt to meet all current building and code requirements, including those enacted since original construction of the structure.

7.5.9
Structures which suffer substantial damage to pilings, foundations, or loadbearing walls shall be required to rebuild landward of their current location or to modify the structure to delete the areas most prone to damage.

7.5.10
Following a disaster, the City shall identify any existing non-public structures in the Coastal High Hazard Area (CHHA), inventory their assessed value, judge the utility of the land for public access or resource protection, and make recommendations for

acquisition during post-disaster recovery.

7.5.11
The City shall consider and implement where appropriate the recommendations of the hazard mitigation annex of the local Comprehensive Emergency Management Plan.

7.5.12
The City shall prohibit the location of development in areas within the CHHA which have sustained recurring hurricane-related damage.

GOAL 8

The City shall provide for the protection, preservation, and sensitive reuse of historic resources in the coastal area.

~~Issue:~~ Preserving Historical Resources

~~The City has elected to prepare an optional Historic Preservation Element. Therefore, the criteria and policies for preserving historic and archaeological resources are detailed elsewhere in the 2010 Comprehensive Plan. Historic resources in Jacksonville's coastal areas of particular significance include Kingsley Plantation, San Juan del Puerto, and Fort Caroline National Memorial.~~

Objective 8.1 To protect historic and archaeological resources in the coastal area in accordance with the objectives of the Historic Preservation Element of this plan.

Policy 8.1.1
The City shall implement the applicable policies of the Historic Preservation Element in order to achieve the objective of this element.

GOAL 9

The appropriate services and infrastructure as required to maintain the Level of Service standards established within the 203~~0~~10 Comprehensive Plan shall be provided in the coastal area as proposed development occurs, consistent with the Future Land Use Element.

~~Issue:~~ Providing Services and Infrastructure

~~For planning purposes, the City has determined that the Level of Service standards established elsewhere in the 2010 Comprehensive Plan are sufficient to serve development and redevelopment in the coastal area.~~

Objective 9.1 Establish Levels of Service, service areas and phasing of

improvements for the coastal area consistent with the Public Utilities Element of the 2030~~10~~ Comprehensive Plan.

Policies 9.1.1
The Levels of Service, service areas and phasing of improvements for roadways within the coastal area shall be those contained within the Transportation Element of the 2030~~10~~ Comprehensive Plan.

9.1.2
The Levels of Service, service areas and phasing of improvements for potable water within the coastal area shall be those contained within the Potable Water Subelement of the 2030~~10~~ Comprehensive Plan.

9.1.3
The Levels of Service, service areas and phasing of improvements for sanitary sewer facilities within the coastal area shall be those contained within the Infrastructure Element Solid Waste of the 2030~~10~~ Comprehensive Plan.

9.1.4
Infrastructure projects shall be consistent with coastal resource protection and public safety/hurricane evacuation standards contained in this element.

9.1.5
The Levels of Service for recreational facilities within the coastal area shall be those contained in the Recreation and Open Space Element of the 2030~~10~~ Comprehensive Plan.

9.1.6
The Levels of Service for solid waste facilities and management shall be those contained in the Infrastructure Element Solid Waste of the 2030~~10~~ Comprehensive Plan.

GOAL 10

To provide for the siting and operation of boat facilities in such a manner as to protect water quality, maintain propagation of fish and wildlife, and maintain fishing, recreation, and swimming in a manner consistent with the Future Land Use Element, the Recreation and Open Space Element of the 2030~~10~~ **Comprehensive Plan, and the Manatee Protection Plan, ~~when~~ approved on June 24, 1999 by ~~Florida Department of Environmental Protection~~ Florida Fish and Wildlife Conservation Commission (FFWCC).**

~~Issue:~~ Manatee Protection Plan and Boat Facilities Siting Plan

~~The City has prepared a Manatee Protection Plan, including a Boat Facilities Siting~~

~~Plan, pursuant to Chapter 9J-5 F.A.C. The Manatee Protection Plan has been approved by the City Council and the Florida Fish and Wildlife Conservation Commission, the Department of Environmental Protection and the DCA. A plan for siting of boat facilities, including commercial marinas, is included therein. The Manatee Protection Plan is part of the Background Data and Analysis of the Comprehensive Plan, and was enacted by the Jacksonville City Council pursuant to local ordinance 1997-0651, and as subsequently updated In the plan, boat facilities are defined as port facilities, boat ramps or other launching facilities for motorized vessels, and marinas including both commercial and multi-family residential boat facilities. The siting criteria will apply to the expansion of existing or construction of marinas, boat ramps, and port facilities, either private or publicly owned. The siting criteria do not apply to boat ramps serving exclusively non-motorized vessels, such as canoes and kayaks.~~

<u>Objective 10.1</u> Boat facilities shall be sited in a manner which is compatible with existing and future land uses and consistent with the Boat Facilities Siting Plan of the Manatee Protection Plan as approved by the the FDEP (now FWC) on June 24, 1999.

Policies 10.1.1
The location of future boat facilities shall be consistent with the recommendations within the Future Land Use Element and the Recreation and Open Space Element of the 20<u>30</u>~~10~~ Comprehensive Plan, as well as any District Plan, and any other special study or plan adopted by the City such as the Boat Facilities Siting Plan.

10.1.2
New boat facilities shall be prohibited in the following areas:

A. Areas approved or conditionally approved by the ~~Florida Department of Environmental Protection~~ <u>Florida Fish and Wildlife Conservation Commission (FFWCC)</u> for shellfish harvesting.

B. Areas described by the Inter-State Shellfish Sanitation Conference (ISSSC) buffer zone calculation for individually proposed boat facilities.

C. Areas designated in the Conservation/Coastal Management Element as potential areas to be opened for shellfish harvesting.

D. The Nassau River/St. Johns River Marshes Aquatic Preserve north of the St. Johns River and west of the Atlantic Ocean, as described in Official Records Volume 3183, pages 547-552, current public records of Duval County, Florida and in Official Records Book 108, pages 232-237, current public records of Nassau County, Chapter 18-20.002 (7) (a) (2) F.A.C., and other Aquatic Preserves, as designated by the State.

E. Outstanding Florida Waters north of the St. Johns River and west of the Atlantic Ocean.

F. Class II Waters.

G. Other new boat facility prohibition areas specified in Special Management Area management plans and Boat Facility Zones 2, 6, 7, 10, 11, 12, 13S, and 17 as defined in the Manatee Protection Plan.

10.1.3
New or expanding boat facilities shall preserve any historical and archaeological sites found on the property, and sensitively incorporate them into their development plans in accordance with the Historic Preservation Element, or mitigate impacts in accordance with the guidelines of the State's Division of Historic Resources.

10.1.4
The City has prepared a Manatee Protection Plan, which includes a Boat Facilities Siting Plan. The Boat Facility Siting Plan incorporates manatee protection, fish nursery preservation and other environmental concerns, economic need, and feasibility, and provides for the implementation of the following criteria:

A. Boat facility construction shall be directed away from the following areas:

- Areas of high manatee use
- Areas where wetlands supporting manatee habitat will be disturbed
- Areas of highly productive habitat
- Areas of high manatee mortality
- Sensitive, undisturbed natural areas frequented by manatees

B. Boat facility construction shall be directed towards the following areas:

- All structures and other activities shall be within the riparian rights area of the applicant and shall be designed in a manner that will not restrict or otherwise infringe upon the riparian rights of adjacent upland riparian owners
- Locations in or near well flushed, deep water areas where the least maintenance or dredging is required
- Areas where the water quality benefits of existing water circulation are maximized
- Locations as close as possible to public demand
- Areas of minimal manatee use and mortality (except where otherwise provided within specified boat facility siting zones)
- Areas with no or minimal amounts of native submerged aquatic vegetation
- The facility shall be adjacent to speed zones as designated in the Manatee Protection Plan

10.1.5
The City shall review the application for any proposed boat facility to ensure consistency with Conservation/Coastal Management Element policies and objectives. Permit applications for all new or expanding boat facilities, including single-family docks and dry storage, shall be evaluated on a case by case basis, in the context of cumulative impacts on manatees and other freshwater and marine resources. Impacts will be considered with respect to Manatee Protection Plan studies and criteria set by the Boat Facilities Siting Plan. Development orders will not be issued for boat facilities that do not satisfy criteria of the Boat Facilities Siting Plan.

10.1.6
If there is an increase in manatee mortality as defined within Appendix D of the Manatee Protection Plan within a boat facility siting zone or on a county-wide basis, the need for more restrictive speed zones and the appropriateness of siting additional, or expanding, boat facilities in the vicinity shall be assessed. If the increase is at an unacceptable level according to the standards contained in Appendix D, no further boat facilities shall be permitted in that zone until its classification is reassessed. An unacceptable level of manatee mortalities means:

a) 3 or more watercraft-caused mortalities, or 5 or more mortalities from any cause except natural, within the last 12 months within a boat facility siting zone (or averaged for two zones if near a zone boundary) OR

b) 5 or more watercraft-caused mortalities in all county waters (without regard to boat facility siting zone or size of vessel), or 10 or more mortalities from all causes except natural in all county waters, within the last 12 months.

Objective 10.2 New or expanding boat facilities shall be sited and built with adequate upland support services.

Policies 10.2.1
Parking facilities at new and expanding boat facilities shall meet applicable city parking standards as described in the Recreation and Open Space Element of the 2030~~10~~ Comprehensive Plan and the Zoning Code.

10.2.2
Access consistent with the Levels of Service established within the Transportation Element shall be provided by all new or expanding boat facilities.

10.2.3
New or expanding boat facilities must locate non-water dependent facilities such as, but not limited to, parking areas, bait shops, and restaurants on upland areas. Exceptions may be allowed in cases where it is clearly in the public interest or where sensitive upland areas may be affected.

Objective 10.3 New or expanding boat facilities shall provide adequate protection against storm surges, winds, hurricanes, petroleum, chemicals, or other hazardous material spills.

Policies 10.3.1
New or expanding boat facilities shall provide effective measures for protection of life and property against hurricanes. New structures shall comply with all applicable hurricane construction codes as specified by State and federal regulations.

10.3.2
All boat facilities shall demonstrate the capability to promptly contain and dispose of any spills of petroleum or other hazardous materials within their boundaries.

Objective 10.4 All boat facilities must ensure protection of water quality consistent with the Boat Facilities Siting Plan requirements and other water quality requirements of the 2030~~10~~ Comprehensive Plan.

Policies 10.4.1
New or expanding boat facilities shall demonstrate the capability to control and treat storm water run-off by demonstrating compliance with the requirements of the SJRWMD and the DEP prior to final approval.

10.4.2
All boat facilities must handle sewage in accordance with applicable standards by means of on site pump-out with adequate on site treatment facilities, connection to a wastewater treatment plant, as required by federal, State and local regulations.

10.4.3
Prior to approval, all new or expanding boat facilities must demonstrate that construction and operation of the facility will comply with State water quality standards and any other local regulations.

Objective 10.5 New or expanding boat facilities must provide adequate depth for the type of vessels anticipated, and shall provide for safe access to channels.

Policies 10.5.1
New or expanding boat facilities shall demonstrate adequate water depths by demonstrating compliance with the requirements of the DEP.

10.5.2
New or expanding boat facilities shall delineate ingress and egress points by channel markers indicating speed limits and other applicable regulations. All markers shall be in accordance with Section 327.40(1), F.S. and 33 CFR Part 66.

Objective 10.6 **New or expanding boat facilities must be designed to minimize environmental disruptions and mitigate for such disruptions when unavoidable.**

Policies 10.6.1
Construction and operation of boat facilities shall be designed to minimize or eliminate adverse impacts on fish and wildlife habitat. Special attention and consideration shall be given to endangered and threatened species habitat.

10.6.2
To the maximum extent possible, shoreline stabilization must be accomplished through preservation or establishment of appropriate native wetland vegetation. Rip rap materials, sloping revetment rubble mound, pervious interlocking systems and other similar stabilization methods must be utilized as a primary method of stabilization wherever possible

10.6.3
Piling construction and other non-dredge fill techniques shall be utilized where possible to minimize habitat destruction as defined in the Boat Facilities Siting Plan.

10.6.4
Mitigation for impacts to fish and wildlife and water quality shall be as required by DEP and the USACOE or local regulations, pursuant to the policies in this element.

10.6.5
All public boat facilities shall distribute a manatee awareness booklet which contains reminders for protection of the manatee and its habitat public boat facilities shall display and maintain informational signs explaining the manatee protection zones established in the manatee protection plan mandated by the Governor and the Cabinet.

10.6.6
The City shall provide regulatory protection zones for the protection of the manatee and its habitat in areas frequented by manatees.

10.6.7
In reviewing applications for new boat facilities or the expansion of existing facilities, ways to improve, mitigate, or restore adverse environmental impacts caused by previous activities shall be explored. Criteria for the review will include the following: shallowing dredged areas, restoring wetland or submerged vegetation, or marking navigational channels. Such mitigation or restoration may be required as condition of approval for new or expanded facilities.

Objective 10.7 **The City must ensure adequate enforcement of the above objectives through consistency with the Boat Facilities Siting Plan and the Manatee Protection Plan and reduce permitting overlaps among agencies.**

Policies 10.7.1
New boat facilities shall be inspected at least once during construction, and all boat facilities must be inspected on an annual basis to ensure compliance with all requirements. ~~AWQD~~EQD will design and implement a water quality monitoring program for boat facilities within the City. If it can be determined that the boat facility and/or the riparian uplands are causing water quality violations, then the lessee will be given written notice to correct the problems, in accordance with the ~~AWQD~~ EQD's August 1986 Water Pollution Activity Enforcement Standard Operating Procedure.

10.7.2
The City shall continue to coordinate and enter into interagency agreements with regulatory and planning agencies to enforce regulatory functions effectively and efficiently.

GOAL 11

To ensure that development within the Coastal Area is compatible with the Coastal Area's natural character.

~~Issue:~~ Development Compatibility with Limited Available Shoreline and Natural Resources.

~~Alteration of natural processes by coastal development has led to water quality problems, erosion problems, and a decline in natural habitat and fish and wildlife resources. Various water-dependent, water-related, water enhanced and non-water related uses are competing for the limited existing shoreline in Jacksonville. Many of these uses, improperly located, can cause incompatibilities with adjoining shoreline uses.~~

Objective 11.1 To establish land use criteria which give priority to the siting and development of water-dependent uses within the Coastal Area, as compared with other shoreline uses.

Policies 11.1.1
Upon adoption of the 2030~~10~~ Comprehensive Plan, the City shall prioritize the siting of water-dependent and water-related uses according to the chronology listed hereinafter. Uses listed first shall generally be given the highest priority when being sited along the shoreline and uses listed last would be given the least priority when being sited along the shoreline.

1) Conservation or Public Use

2) Water-dependent

   a) Military (where necessary to assure the security of the United States)

b) Ports and other water-dependent industry

c) Water-dependent transportation facilities

d) Water-dependent utilities

e) Water-dependent commercial

3) Water-related industrial

4) Water-related commercial

5) Residential

6) Proposed amendments to the Future Land Use Map (FLUM), where water-dependent and/or water-related uses are proposed to be prohibited or removed from the permitted use of waterfront properties. This is the least desirable option, as other alternatives to protect working waterfront components should be considered prior to amendments to the FLUM.

11.1.2
The following performance standards shall be utilized for shoreline development:

A. The shoreline configuration shall not be altered except for activities which can be demonstrated (i) to be in the public interest, and (ii) not to adversely impact water quality, natural habit and adjacent shoreline.

B. No new direct discharge of untreated stormwater runoff shall be allowed into natural water bodies or watercourses. Adequate treatment of such stormwater must be demonstrated prior to development approval.

11.1.3
Implement the regulatory criteria, incentives and strategies outlined under Future Land Use Element Goal 8 to preserve recreational and commercial working waterfront uses (RCWW).

Objective 11.2 The City shall support the Jacksonville Port Authority in the orderly development, promotion and use of the Port of Jacksonville insofar as those efforts are in compliance with the 2030~~10~~ Comprehensive Plan.

Policies 11.2.1
The City shall continue to participate in the review of development plans for the Port of Jacksonville, supporting those plans which are consistent with the 2030~~10~~ Comprehensive Plan.

11.2.2
The City shall identify and reserve areas for port development through the designation of Water-Dependent/Water-Related land use.

11.2.3
The City shall discourage through the Land Development Regulations new land uses within the designated port area(s) which are non-water dependent and/or non-water related, such as residential, and advocate replacement of inconsistent land uses with land uses which are water-dependent and/or water related, such as cargo shipping terminals and boat repair yards. Conversely, the City shall retain and support the viability of existing port and water-related activities and industries and deter their movement away from existing port area(s).

11.2.4
The City shall support those plans for redevelopment of existing, or development of new, port and port-related facilities which are consistent with the Future Land Use; Conservation and Coastal Management; and Transportation Element of the 2030~~10~~ Comprehensive Plan.

11.2.5
RESD shall ensure that stormwater runoff from marine industrial projects complies with the applicable stormwater management requirements of the St. Johns River Water Management District, federal, State and local agencies.

11.2.6
Port facilities shall use best management practices during construction, operation and maintenance to ensure that water quality violations will not occur and all dredging shall be consistent with the dredging plan developed pursuant to the water quality section of this element.

11.2.7
Port facilities shall be designed, constructed and operated so as to minimize the risk to endangered species.

11.2.8
The City, acting as members of and as staff to the Technical Coordinating Committee of the ~~Metropolitan~~ Transportation Planning Organization (~~M~~TPO) for the Jacksonville Urbanized Area planning process, shall coordinate with railroad, trucking, and marine shipping interests concerning the intermodal shipment of goods to improve the vitality of the City's economy, specifically as it relates to maritime cargo shipping interests, while minimizing traffic conflicts on adjacent roadways.

11.2.9
The City, through the Land Development Regulations, shall encourage new

development involved in the import and export of heavy or bulk goods or recyclable goods to be located, when economically feasible, on sites near or adjacent to port or rail facilities in order to help minimize the number of heavy trucks on the region's highway system.

11.2.10
The City, through membership in and as staff to the ~~M~~TPO, shall coordinate with the Jacksonville Port Authority to implement its policies which relate to development and expansion of facilities designed to expedite the movement of persons and goods between various transportation modes.

GOAL 12

Protect, conserve and manage the natural resources on NAS Cecil Field.

Objective 12.1 Ensure the protection of natural resources and historic resources on NAS Cecil Field.

Policy 12.1.1
The City has entered into a Memorandum of Understanding with the St. Johns River Water Management District, Clay County, Jacksonville Port Authority and the Florida Department of Environmental Protection which establishes a natural and recreation corridor. The natural and recreation corridor identified on the map entitled Map C-17, Natural and Recreation Corridor, is hereby established in the 2030~~10~~ Comprehensive Plan. The corridor may serve as mitigation to offset adverse impacts to natural resources, fish and wildlife, and wetland functions on the eastern side of NAS Cecil Field. Permissible land uses within this corridor include: conservation, passive resource based recreation and forestry management. The corridor shall be managed uniformly as an integrated wetland and upland system under a cooperative agreement between appropriate local and state agencies. Any such management agreement may include harvesting of upland forest products under a long-term rotation plan, with wetland buffers, similar to forest management plans for Cary and Jennings State Forests. The management plan for the corridor may authorize public access to the property for passive resource based recreation which includes hiking and horseback riding trails, camping, hunting, fishing, and other mutually agreeable uses.

Objective 12.2 Provide a natural and recreation corridor between the Cary State Forest and the Jennings State Forest which creates the opportunity for a migratory corridor for wildlife in the area.

Objective 12.3 Provide for the productivity of forest resources and maintain the diversity of habitat types and overall biological productivity.

Objective 12.4 Coordinate land use development with contamination clean-up and investigation.

Policies 12.4.1
The City shall coordinate development and reuse of NAS Cecil Field with ongoing and future environmental contamination investigations and clean-up.

12.4.2
The City shall coordinate the future development of NAS Cecil Field with the U.S. Navy, Environmental Protection Agency and Florida Department of Environmental Protection to ensure that land use conflicts do not occur in the future.

GOAL 13

The City shall promote and encourage energy conservation in an effort to reduce greenhouse gas emissions and protect the environment.

Objective 13.1 The City shall promote responsible management of energy with the goal of protecting natural resources.

Policies 13.1.1
In accordance with Ordinance 2009-211-E, all new facilities, and new improvements to existing facilities, that will be constructed with City funds shall be designed, constructed, operated, and maintained according to the standards outlined by a recognized sustainable development rating system (such, as but not limited to, the U.S. Green Building Council's Leadership in Energy and Environmental Design, "LEED"), and/or are proven to be economically feasible using a cost benefit analysis of proposed projects.

13.1.2
The City will improve energy conservation and efficiency in City buildings/facilities, and will pursue renewable energy projects and programs.

13.1.3
The City shall replace light-duty vehicles in need of replacement with hybrids, alternative fuel vehicles, or the most fuel-efficient and least-polluting vehicles available for specific functions whenever cost and reliability are similar to traditional vehicles.

Objective 13.2 JEA shall continue to promote energy conservation programs and education.

Policies 13.2.1
JEA shall educate the public on energy saving opportunities in their homes and businesses by offering an online energy audit that provides customized cost efficient ideas designed to help lower energy costs.

13.2.2

JEA shall continue to offer cost effective energy saving incentive programs such as the JEA Compact Fluorescent Light Bulbs (CFLs) Instant Rebate Program, the JEA Solar Incentive Program and the Green Built Homes of Florida Incentive Program offered by JEA in conjunction with the Northeast Florida Builders Association.

Objective 13.3 The City shall implement tools and continue to evaluate opportunities to further energy conservation and reduce greenhouse gas emissions.

Policies 13.3.1

Upon completion of the revised Future Land Use Map, pursuant to FLUE Objective 4, the City shall review the Land Development Regulations for opportunities to promote energy conservation. Subjects for consideration shall include:

- site design and building orientation,
- maximizing reuse of existing buildings,
- promoting installation of clothes lines in new residential developments, and
- integration of multimodal transportation infrastructure requirements into the Land Development Regulations

13.3.3

Energy conservation efforts shall be maximized through coordination and implementation of other energy conservation programs, tools and strategies outlined in the Goals, Objectives and Policies of this and all other element of the 2030 Comprehensive Plan.

MAP C-3 Wetlands

City of Jacksonville

Wetlands*

Salt Water Marsh

National Wetlands Inventory (NWI) Data

Rriverine - Freshwater flowing water contained within a channel; salinity <0.5 ppt

Estuarine - Tidal ecosystems, usually semi-enclosed by land, with varying salinities

NWI - Other Wetlands

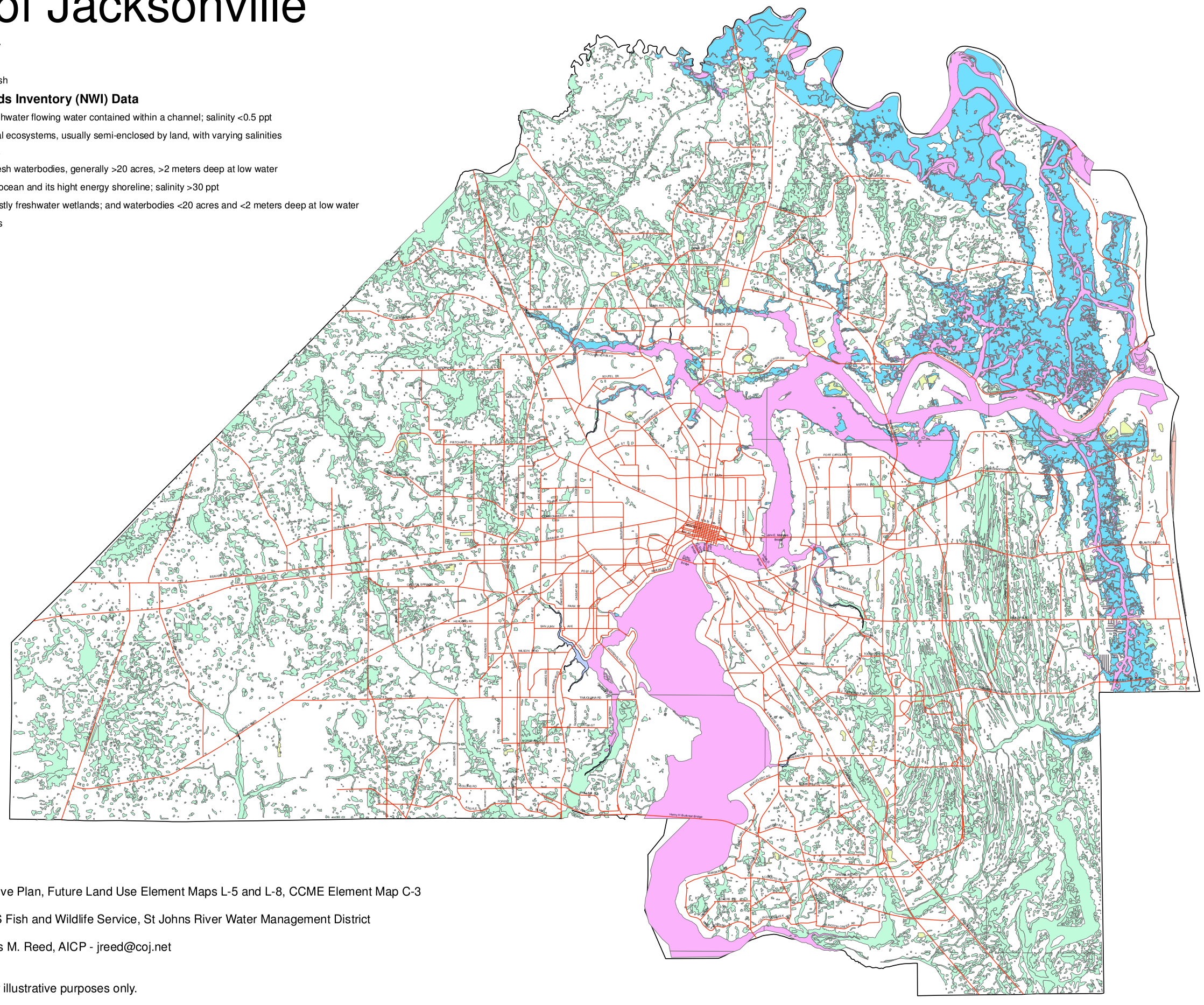
Lacustrine - Fresh waterbodies, generally >20 acres, >2 meters deep at low water

Marine - Open ocean and its hight energy shoreline; salinity >30 ppt

Palustrine - Mostly freshwater wetlands; and waterbodies <20 acres and <2 meters deep at low water

Major Highways

Duval County



* 2030 Comprehensive Plan, Future Land Use Element Maps L-5 and L-8, CCME Element Map C-3

Data provided by US Fish and Wildlife Service, St Johns River Water Management District

Developed by James M. Reed, AICP - jreed@coj.net
January 2009

Content intended for illustrative purposes only.

0 8,000 16,000 32,000 48,000 64,000 Feet

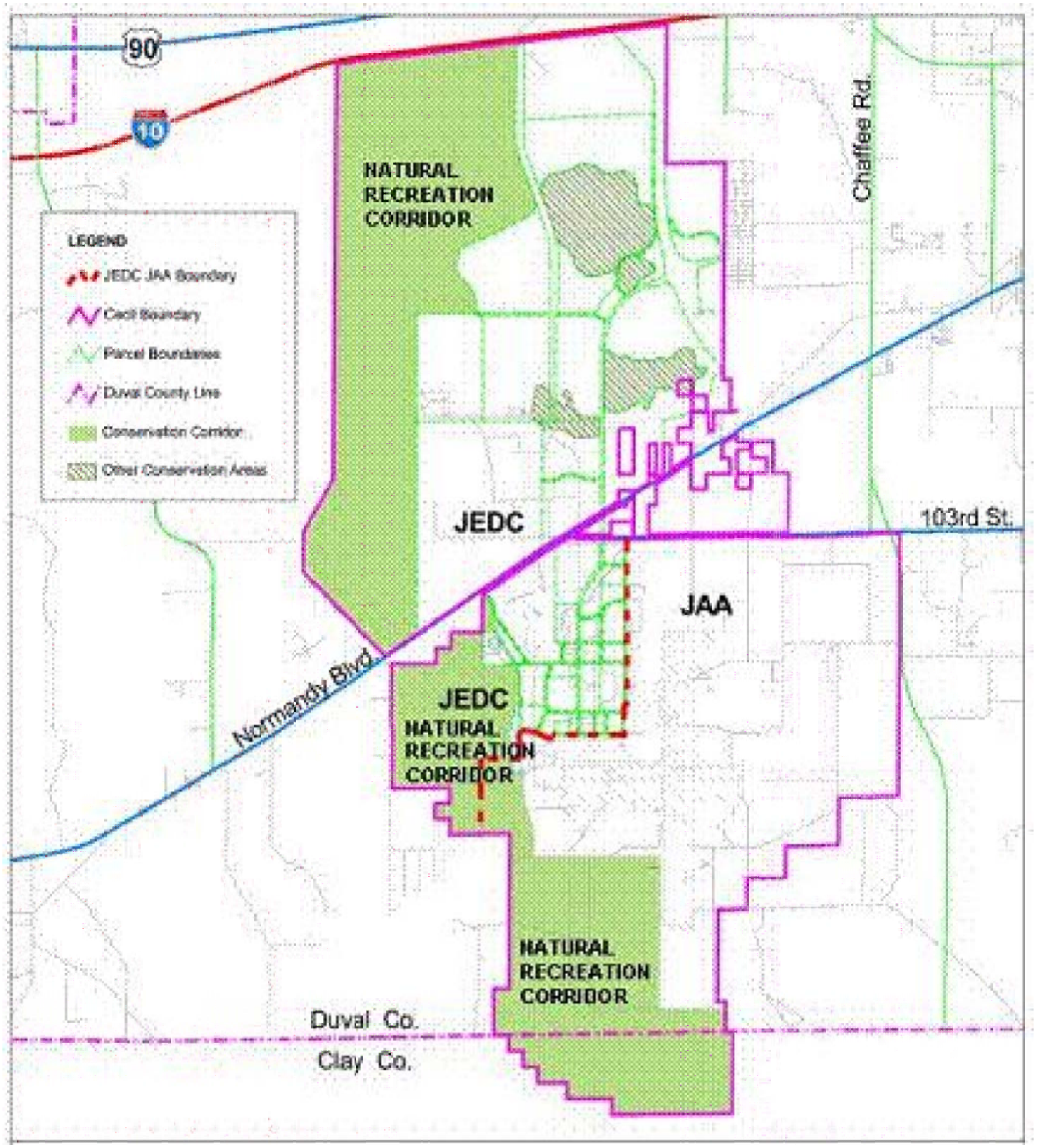
NORTH

JPDD GIS

MAP C-17 NAS Cecil Field Natural and Recreation Corridor

City of Jacksonville

NAS Cecil Field Natural and Recreational Corridor*



* 2030 Comprehensive Plan, CCME Element Map C-17

Data provided by BHR/Arcadis, Inc.

Developed by James M. Reed, AICP- jreed@coj.net
January 2009

Content intended for illustrative purposes only.

NORTH

JPDD GIS

MAP C-18 COASTAL HIGH HAZARD AREAS (CHHA) and Evacuation Zones

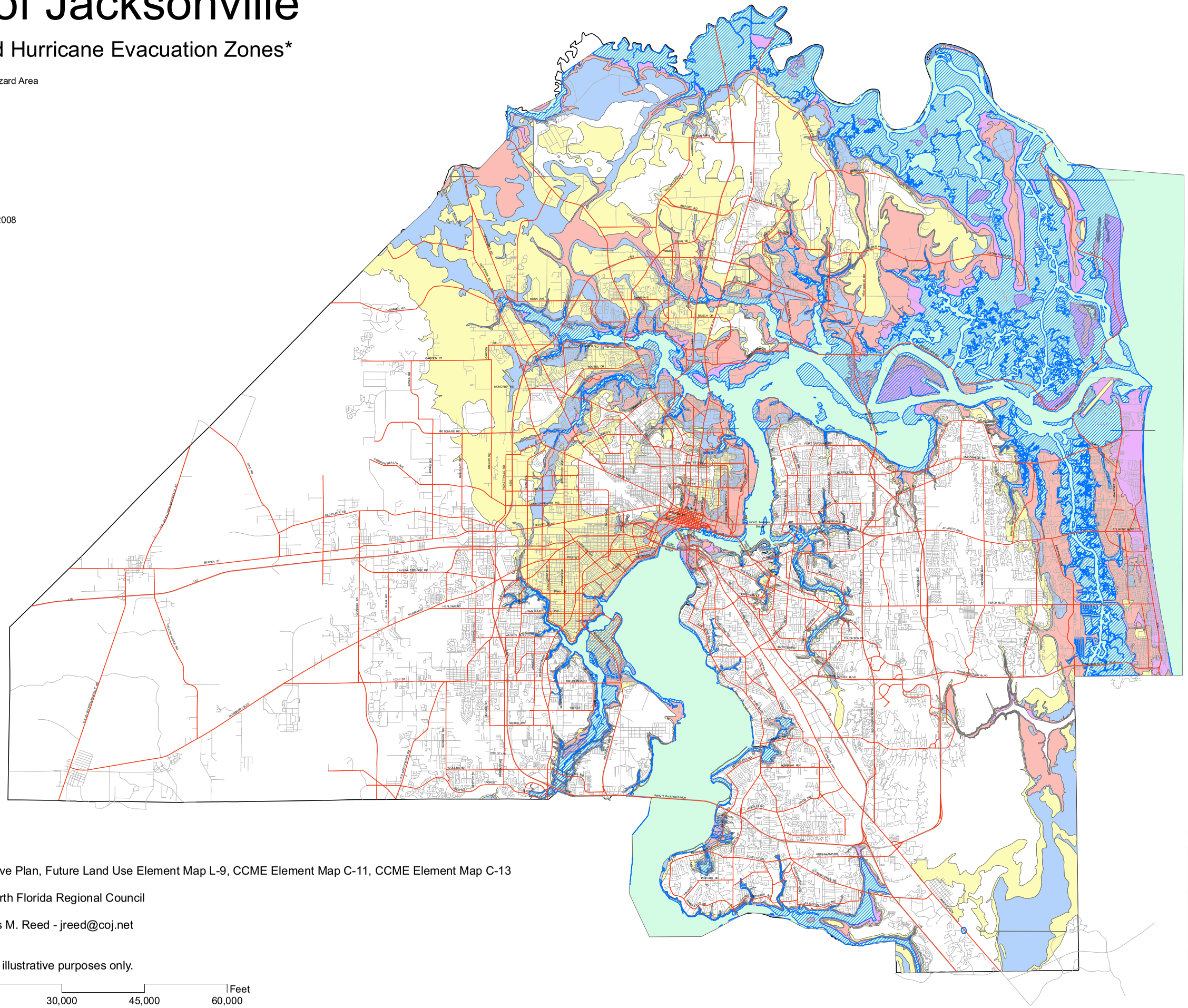
City of Jacksonville

CHHA and Hurricane Evacuation Zones*

- Coastal High Hazard Area

Surge Zones

- Category 1
- Category 2
- Category 3
- Category 4
- Category 5
- Major Highways
- Roads - Oct 27,2008
- River
- Duval County



* 2030 Comprehensive Plan, Future Land Use Element Map L-9, CCME Element Map C-11, CCME Element Map C-13

Data provided by North Florida Regional Council

Developed by James M. Reed - jreed@coj.net
January 2009

Content intended for illustrative purposes only.

0 7,500 15,000 30,000 45,000 60,000 Feet

NORTH

JPDD GIS

CONSERVATION/COASTAL MANAGEMENT ELEMENT

B

DEFINITIONS

DEFINITIONS

2010 Comprehensive Plan – Adopted September 21, 1990; replaced with the 2030 Comprehensive Plan, per Ordinance 2009-791.

A Prototype Realistic Innovative Community of Today (APRICOT) - Wet weather discharges from a wastewater plant that meet certain criteria including advanced wastewater treatment standards and minimum total suspended solids levels.

Agriculture Uses - Activities within land areas which are predominantly used for the cultivation of crops and livestock, including cropland, pastureland, orchards, vineyards, nurseries, ornamental horticulture areas, groves, confined feeding operations, specialty farms, and silviculture areas.

All Other Wetland Areas - Wetlands not included in the definition of Salt Water Marshes or Riverine/Estuarine Wetlands.

Aquifer - A geologic formation, group of formations, or rock layers, which are water-bearing.

Area Source - A pollution source which is insignificant individually, but which exists in large numbers and thus collectively impacts air-quality (e.g. automobiles).

Areas Subject to Coastal Flooding - See "Hurricane Vulnerability Zone".

Attainment - An official designation by the Environmental Protection Agency as being in compliance with the National Ambient Air Quality Standards.

Basin Management Action Plan (BMAP) - the “blueprint” for restoring impaired waters by reducing pollutant loadings to meet the allowable loadings established in a Total Maximum Daily Load (TMDL).

Beach - The zone of unconsolidated material that extends landward from the mean low water line to the place where there is a marked change in material or physiographic form, or to the line of permanent vegetation, usually the effective limit of storm waves. Beach, as used in the Conservation and Coastal Management Element requirements, is limited to oceanic and estuarine shorelines.

Best Management Practices (BMPs) - Administrative rules which identify work practices and odor control equipment applicable to the terpene chemical manufacturing industry and which are reasonably available based upon considerations of costs and environmental benefits.

Biochemical Oxygen Demand (BOD) - A measure of the amount of dissolved oxygen required in biochemical process to oxidize waste in water.

Boat Facilities-. Port facilities, boat ramps or other launching facilities for motorized vessels, and marinas including both commercial and multi-family residential boat facilities. Any dock with more than 5 slips is a boat facility.

Boat Facilities Siting Plan - A City-wide plan for the development of boat facilities which specifies preferred locations by zone for boat facility development based on an evaluation of natural resources, manatee protection needs, and recreation and economic demands. It is one component of a Manatee Protection Plan.

Brackish Groundwater - A mixture of sea water and fresh water.

Cedar Swamp - Headwater wetlands and wetlands contiguous to the Cedar Swamp Creek within the following: Section 39, Township 3 South, Range 28 East; Section 15, Township 3 South, Range 28 East; Section 10, Township 3 South, Range 28 East; Section 3, Township 3 South, Range 28 East; Section 4, Township 3 South, Range 28 East; Section 33, Township 2 South, Range 28 East; Section 21, Township 2 South, Range 28 East; Section 28, Township 2 South Range 28 East; Section 4, Township 2 South, Range 28 East; Section 39, Township 2 South, Range 28 East.

Clean Vessel Act (CVA) - passed in 1992 after Congress determined that there were not enough onshore sewage disposal facilities to accommodate recreational boaters. The CVA's primary goal is to reduce sewage discharge that may substantially degrade local water quality. The CVA provides funds to states to construct, renovate, operate and maintain pumpout stations and pumpout boats. Since 1994, the Florida Department of Environmental Protection has awarded millions of dollars in CVA grants, creating more than 350 pumpout facilities throughout the state.

Coastal Area - The 35 coastal counties and all coastal municipalities within their boundaries designated coastal by the State land planning agency. These local governments are listed in the document entitled "Local Governments Required to Include Coastal Management Elements in their Comprehensive Plans", dated July 1, 1986, and available from the Department upon request. The local governments listed in the document and any other communities that incorporate subsequent to July 1, 1986, and meet the criteria in Section 380.24, F.S., shall also be included in the coastal area.

Coastal Barriers - Barrier islands, spits, peninsulas, or similar landforms, including the Florida Keys, which front on the Atlantic Ocean, Gulf of Mexico, or Straits of Florida, and which separate estuaries or harbors from the open waters of the Atlantic Ocean, Gulf of Mexico, or Straits of Florida.

Coastal High Hazard Areas - ~~(Also "high-hazard coastal areas")~~ The~~ evacuation zone~~ area below the elevation of the Category 1 storm surge line as established by the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model The CHHA is shown on Conservation/Coastal Management Element Map C-18 and Future Land Use Element (FLUE) Map L-9.

Coastal or Shore Protection Structures - Shore-hardening structures, such as seawalls, bulkheads, revetments, rubble mound structures, groins, breakwaters, and aggregates of materials other than natural beach sand used for beach or shore protection, and other structures which are intended to prevent erosion or protect other structures from wave and hydrodynamic forces, including beach and dune restoration.

Commercial Uses - Activities within land areas, which are predominantly connected with the sale, rental, and distribution of products, or performance of services.

Comprehensive Emergency Management Plan (CEMP) - The plans prepared by the county civil defense or county emergency management agency addressing weather-related natural hazards and manmade disasters except nuclear power plant accidents and war. The plan covers hazard mitigation, emergency preparedness, emergency response, emergency recovery and, in coastal counties, hurricane evacuation.

Conservation Easement - A conservation easement is a right or interest in real property, which is appropriate to retaining land or water areas predominately in their natural state and as further defined by Section 704.06, F.S.

Conservation Uses - Activities within land areas designated for the purpose of conserving or protecting natural resources or environmental quality; and includes areas designated for such purposes as flood control, protection of quality or quantity of groundwater or surface water, flood plain management, fisheries management, or protection of vegetative communities, or wildlife habitats.

Demineralization - Removal of excess salt and other minerals, thus making water suitable for consumption and/or irrigation.

Development - The carrying out of any building activity or mining operation, the making of any material change in the use or appearance of any structure or land, or the dividing of land into three or more parcels.

The following activities or uses shall be taken for the purposes of this element to involve *development*, as defined herein:

A. A reconstruction, alteration of the size, or material change in the external appearance of a structure on land.

B. A change in the intensity of use of land, such as an increase in the

number of dwelling units in a structure or on land, or a material increase in the number of businesses, manufacturing establishments, offices, or dwelling units in a structure or on land.

C. Alteration of a shore or bank of a seacoast, river, stream, lake, pond, or canal, including any "coastal construction" as defined in Section 161.021, F.S.

D. Commencement of drilling, except to obtain soil samples, mining, or excavation on a parcel of land.

E. Demolition of a structure.

F. Clearing of land as an adjunct of construction.

G. Deposit or refuse, solid or liquid waste, or fill on a parcel of land.

The following operations or uses shall not be taken for the purpose of this element to involve *development* as defined herein:

A. Work by a highway or road agency or railroad company for the maintenance or improvement of a road or railroad track, if the work is carried out on land within the boundaries of the right-of-way.

B. Work by any utility and other persons engaged in the distribution or transmission of gas or water for the purpose of inspecting, repairing, renewing, or constructing on established rights-of-way any sewers, mains, pipes, cables, utility tunnels, power lines, towers, poles, tracks, or the like.

C. Work for the maintenance, renewal, improvement or alteration of any structure, if the work affects only the interior or the color of the structure or the decoration of the exterior of the structure.

D. The use of any structure or land devoted to dwelling uses for any purpose customarily incidental to enjoyment of the dwelling.

E. The use of any land for the purpose of growing plants, crops, trees, and other agricultural or forestry products, raising livestock, or for other agricultural purposes.

F. A change in use of land or structure from a use within a class specified in an ordinance or rule to another use in the same class.

G. A change in the ownership or form of ownership of any parcel or structure.

H. The creation or termination of rights of access, riparian rights, easements, covenants concerning development of land, or other rights of land.

District Water Supply Plan 2005 (DWSP 2005) - Addresses current and future water use and traditional and alternative water sources and water conservation required to meet 2025 water supply needs while sustaining water quality and protecting wetland and aquatic systems. DWSP 2005 is designed to meet the requirements of the water supply planning provisions of Section 373, *Florida Statutes* (F.S.), and is based on a planning horizon extending through 2025.

Dune - A mound or ridge of loose sediments, usually sand-sized sediments, lying landward of the beach and extending inland to the landward toe of the dune which intercepts the 100-Year Storm Surge.

Environmentally Sensitive Lands - Any land area and related water resources that may be determined to contain naturally occurring and relatively unaltered flora, fauna, or geologic conditions and whose interdependent biophysical components, including historical and archaeological resources might be essentially preserved intact by acquisition. This includes, but is not limited to, SMAs, high quality wetlands and buffer areas, native plant communities, listed species habitat and coastal beaches and dunes. ~~Areas of land or water which are determined necessary by the local government, based on locally determined criteria, to conserve or protect natural habitats and ecological systems.~~ Nothing in this definition shall be construed to prohibit silvicultural operations which employ the Florida Department of Agriculture and Consumer Affairs Best Management Practices, as revised in 1993.

Estuary - A semi-enclosed naturally existing coastal body of water in which saltwater is naturally diluted by fresh water and which has an open connection with oceanic waters. Estuaries include bays, embayments, lagoons, sounds, and tidal streams.

Evacuation Routes - Routes designated by county civil defense authorities, or the regional evacuation plan, for the movement of persons to safety in the event of a hurricane.

Exceedance - A concentration of a pollutant at a level which is greater than the level allowed in the National Ambient Air Quality Standards.

Florida Watershed Restoration Act of 1999 (FWRA) - Requires DEP to identify impaired waters and prioritize them for restoration. Science-based pollution limits, called Total Maximum Daily Loads (TMDLs), are then developed to promote the restoration of each impaired waterway.

Flood Plains - Areas inundated during a 100-Year flood event or identified by the National Flood Insurance Program, as an "A" Zone or a "V" (Velocity) Zone on Flood

Insurance Rate Maps, or Flood Hazard Boundary Maps.

Goal - The long-term end toward which programs or activities are ultimately directed.

Hazardous Waste - Solid waste, or a combination of solid wastes, which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or may pose a substantial present or potential hazard to human health or the environment when improperly transported, disposed of, stored, treated or otherwise managed.

High Intensity Wetlands Survey – An on-site delineation by a qualified Wetlands Scientist or related Environmental Specialist using hydrology, vegetation, and soil field indicators to accurately determine wetland boundaries which are then plotted and mapped.

High Quality Wetlands – Wetlands which provide environmentally high functional values such as:

- containing unique plant communities
- and/or containing or providing habitat for listed species of wildlife
- and/or have a high flood water storage capacity thereby reducing downstream flooding
- and/or have a high filtration capacity for removing pollutants for improved water quality
- and/or provide passive recreation opportunities and aesthetic or visual-cultural values

High Recharge Areas - Areas with recharge rates of 12 or more inches per year.

Historic Resources - All areas, districts, or sites containing properties listed on the Florida Master Site File, the National Register of Historic Places, or designated by a local government as historically, architecturally, or archaeologically significant.

Hurricane Shelter - A structure designated by local officials as a place of refuge during a storm or hurricane.

Hurricane Vulnerability Zone - (also "areas subject to coastal flooding") The areas delineated by the regional or local hurricane evacuation plan as requiring evacuation. The hurricane vulnerability zone shall include areas requiring evacuation in the event of a 100-Year storm or Category 3 storm event.

Hydroperiod – The characteristic frequency and duration or saturation of a wetland during a typical year.

Industrial Uses - The activities within land areas predominantly connected with manufacturing, assembly, processing, or storage of products.

Infrastructure - Those man-made structures which serve the common needs of the population, such as: sewage disposal systems, potable water systems, potable water wells serving a system, solid waste disposal sites or retention areas, storm water systems, utilities, piers, docks, wharves, breakwaters, bulkheads, seawalls, bulwarks, revetments, causeways, marinas, navigation channels, bridges, and roadways.

Level of Service (LOS) - An indicator of the extent or degree of service provided by, or proposed to be provided by, a facility based on and related to the operational characteristics of the facility. Level of Service shall indicate the capacity per unit of demand for each public facility.

Listed Species - Listed species shall include both plant and animal species. Listed animal species include those which are identified as endangered, threatened, or species of special concern by the Florida Fish and Wildlife Conservation Commission or the United States Fish and Wildlife Service. Listed plant species include those which are identified by the Florida Department of Agriculture and Consumer Services as endangered and those species identified by the United States Fish and Wildlife Service as endangered or threatened. All listed species are published in the Florida Fish and Wildlife Conservation Commission document "Official Lists of Endangered and Potentially Endangered Fauna and Flora in Florida", April 1, 1991, as amended.

Living Marine Resources - Oceanic or estuarine plants or animals, such as mangroves, sea grasses, algae, coral reefs, and living marine habitat, fish, shellfish, crustacean, fisheries, sea turtles, and marine animals.

Low Impact Development (LID) - A stormwater management approach that uses a suite of hydrologic controls (structural and non-structural) distributed throughout the site and integrated as a treatment train (i.e., in series) to replicate the natural hydrologic functioning of the predevelopment landscape. The fundamental goal of applying LID concepts, design, and practice is to improve the overall effectiveness and efficiency of stormwater management relative to conventional systems, reducing total and peak runoff volumes and improving the quality of waters discharged from the site.

Low Maintenance Zone - An area a minimum of six (6) feet wide adjacent to any pond, stream, water course, lake, wetland or seawall which is planted and managed in order to minimize the need for fertilization, watering, mowing, etc. No mowed or cut vegetative material shall be deposited or left remaining in the Low Maintenance Zone or deposited in the water. Care should be taken to prevent the over-spray of aquatic weed products into the Low Maintenance Zone.

Major Source - A source which meets specific criteria contained in Chapter 17-2.100,

F.A.C., relating to the quantity of pollutant emissions from the source.

Marina - A small craft harbor complex including those used primarily for recreational boat mooring or storage.

Marine Habitat - Areas where living marine resources naturally occur, such as mangroves, sea grass beds, algae beds, salt marshes, transitional wetlands, marine wetlands, rocky shore communities, hard bottom communities, oyster bars or flats, mud flats, coral reefs, worm reefs, artificial reefs, offshore springs, near shore mineral deposits, and offshore sand deposits.

Marine Wetland - Areas with a water regime determined primarily by tides and the dominant vegetation is salt tolerant plant species, including those species listed in Subsection 17-4.02 (17), F.A.C., "Submerged Marine Species."

Minerals - All solid minerals, including clay, gravel, phosphate, rock, lime, shells (excluding live shellfish), stone, sand, heavy minerals, and any rare earths, which are contained in the soils or waters of the State.

Mitigation - To mitigate, to make or become less severe or intense, moderate. The three types of mitigation in order of priority, as defined by the U.S. Fish and Wildlife Service, are as follows:

1. Avoiding the impact altogether by not taking a certain action or parts of an action.

2. Minimizing the impact by limiting the degree of magnitude of an action and its implementation.

3. Rectifying the impact by repairing, rehabilitating, or restoring the affected area.

Mobile Home - A structure transportable in one or more sections which, in the traveling mode, is eight body feet or more in width, and which is built on an integral chassis and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities, and includes the plumbing, heating, air conditioning, and electrical systems contained therein.

Mobile Sources - Non-stationary sources of pollution including, but not limited to, automobiles, trucks, buses, trains, planes, boats, construction equipment and agricultural equipment.

Municipal Separate Storm Sewer System (MS4) - A system that is owned or operated by a public agency, including ditches, curbs, gutters, storm sewers, and similar means of collecting or conveying runoff that do not connect with a wastewater collection system or treatment plant.

Natural Drainage Features - The naturally occurring features of an area, which accommodate the flow of storm water, such as streams, rivers, lakes, and wetlands.

Natural Drainage Flow - The pattern of surface and storm water drainage through or from a particular site before the construction or installation of improvements or prior to regrading.

Natural Reservations - Areas designated for conservation purposes, and operated by contractual agreement with, or managed by, a federal, state, regional, or local government or nonprofit agency, such as: national parks, state parks, lands purchased under the Save Our Coast, Conservation and Recreational Lands (CARL), or Save Our Rivers programs, sanctuaries, preserves, monuments, archaeological sites, historic sites, wildlife management areas, national seashores, and Outstanding Florida Waters. This definition does not include privately-owned land managed by a State agency on either a voluntary or short-term contractual basis.

Non-Attainment - An official designation by the Environmental Protection Agency as being in violation of the National Ambient Air Quality Standards.

Non-point Source Pollution - Any source of water pollution that is not a point source.

Objective - A specific, measurable, intermediate end that is achievable and marks progress toward a goal.

Oceanic Waters - Waters of the Atlantic Ocean, Gulf of Mexico, or Straits of Florida, but does not include bays, lagoons, or harbors.

Odor Attainment Plan - A plan developed pursuant to Chapter 360.202, Ordinance Code to provide inhabitants of the City with air that is pure, wholesome, and free of objectionable odors that cause distaste, disgust, and annoyance.

Open Spaces - Undeveloped lands suitable for passive recreation or conservation uses.

Parks Advisory Board - Formed in 2007 as a result of the recommendations made by the Mayor's Parks Task Force which was appointed by Mayor John Peyton in April 2004 to study Jacksonville's vast park system and make recommendations on how to take the system from simply the nation's largest urban parks system to its biggest and best system.

Photochemical - A chemical in the atmosphere which utilizes energy from the sun in its formation.

Point Source Pollution - Any source of water pollution that constitutes a discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal

feeding operation, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

Policy - The way in which programs and activities are conducted to achieve an identified goal.

Pollution - The presence in the outdoor atmosphere, ground, or water of any substances, contaminants, noise, manmade or man-induced alteration of the chemical, physical, biological, or radiological integrity of air or water, in quantities or at levels which are, or may be, potentially harmful or injurious to human health or welfare, animal or plant life, property, or unreasonably interfere with the enjoyment of life or property.

Port Facility - Harbor or shipping improvements used predominantly for commercial purposes, including channels, turning basins, jetties, breakwaters, landings, wharves, docks, markets, structures, buildings, piers, storage facilities, plazas, anchorages, utilities, bridges, tunnels, roads, causeways, and all other property or facilities necessary or useful in connection with commercial shipping.

Potable Water Facilities - A system of structures designated to collect, treat, or distribute potable water, and includes water wells, treatment plants, reservoirs, and distribution mains.

Power Plant Siting - A process established in Chapter 403, (Part 2), F.S., for certifying new power plants for construction and which reserves the authority for such certification to the State, thus limiting local control and enforcement.

Prime Recharge Area - An area so designated by the appropriate water management district governing board. Recommended prime ground water recharge areas to the Floridian aquifer are areas that contribute the greatest volume of water per unit area to the Floridian aquifer in a ground water basin. Prime recharge areas are those areas mapped as high recharge areas. High recharge and prime recharge areas shall receive a level of protection commensurate with their significance to natural systems or their status as current or future sources of potable water.

Public Recreation Sites - Sites owned or leased on a long-term basis by a federal, State, regional, or local government agency for purposes of recreational use.

Public Access - The ability of the public to physically reach, enter, or use recreation sites, including beaches and shores.

Public Facilities - Transportation systems or facilities, sewer systems or facilities, solid waste systems or facilities, drainage systems or facilities, potable water systems or facilities, educational systems or facilities, parks and recreation systems or facilities and public health systems or facilities.

Public Interest - In determining whether a project is clearly in the public interest, the City

shall consider and balance the following criteria as they relate to the objective of no net loss of wetland functions:

1. Whether the project will adversely affect the public health, safety, or welfare or the property of others;

2. Whether the project will adversely affect the conservation of fish and wildlife, including endangered or threatened species, or their habitats;

3. Whether the project will adversely affect navigation or the flow of water or cause harmful erosion or shoaling;

4. Whether the project will adversely affect the fishing or recreational values or marine productivity in the vicinity of the project;

5. Whether the project will be of a temporary or permanent nature;

6. Whether the project will adversely affect or will enhance significant historical and archaeological resources under the provisions of Section 276.061, F.S.; and;

7. The current condition and relative value of functions being performed by areas affected by the proposed activity.

Public Utilities - Public utilities shall mean distribution and transmission of potable water, sanitary sewer, electric, telecommunication, natural gas, and storm water facilities.

Public Water Access – The availability of opportunities to utilize the navigable waters of the City of Jacksonville on a "first come, first served" basis for recreational and commercial purposes. Public water access includes visual access.

Reclaimed Water (Recycled Water) - The highly treated (to nearly drinking water standards), filtered, and disinfected effluent from JEA's Water Reclamation Facilities that is safe to use for things like irrigation of lawns, golf courses, highway medians, common areas, and parks.

Recreation - The pursuit of leisure time activities occurring in an indoor or outdoor setting.

Recreation Facility - A component of a recreation site used by the public, such as a trail, court, athletic field or swimming pool.

Recreational and Commercial Working Waterfront (RCWW) – A parcel or parcels of real property that provide access for water-dependant commercial activities, including hotels and motels, or provide access for the public to the navigable waters of the state. Recreational and Commercial waterfronts require direct access to or a location on, over,

or adjacent to a navigable body of water. The term includes water-dependent facilities that are open to the public and offer public access by vessels to the waters of the state or that are support facilities for recreational, commercial, research, or governmental vessels. These facilities include public lodging establishments, docks, wharfs, lifts, wet and dry marinas, boat ramps, boat hauling and repair facilities, commercial fishing facilities, boat construction facilities, and other support structures over the water. (Seaports are excluded from this definition)

Recreational Uses - Activities with areas where recreation occurs.

River Accord - A 10-year, $700 million program to begin restoring the health of the Lower St. Johns River Basin. Members of the Accord include the City of Jacksonville, the St. Johns River Water Management District (SJRWMD), the JEA, the Water Sewer Expansion Authority (WSEA) and the Florida Department of Environmental Protection (FDEP). The *River Accord* has four major components: improving water quality, tracking the river's sedimentation, improving access, and program accountability.

Riverine/Estuarine Wetlands - Contiguous wetlands located downstream of the upper tidal limits or the point where the average annual flow is 5 cubic feet per second or greater, whichever is more inclusive, of the following major riverine/estuarine wetland systems as depicted on the Salt Marsh Marshes, Riverine/Estuarine Wetlands, and All Other Wetlands map.

A. St. Johns River
B. Trout River
C. Broward River
D. Arlington River
E. Cedar River
F. Durbin Creek
G. Thomas Creek
H. Ortega River
I. Julington Creek

Salt Water Marshes - Wetlands included as salt water marshes are predominated by one or more of the following plant species:

Cordgrasses	Spartina Spp.
Needlerush	Juncus Roemerianus
Seashore Saltgrass	Distichlis Spicata
Saltwort	Batis Maritima
Glassworts	Salicornia Sp.
Fringerush	Finbristylis Castanea
Salt Dropseed	Sporobolus Virginicus
Seaside Daisy	Borrichia Frutescens
Salt Jointgrass	Paspalum Vaginatum

Note: This definition is used in the Florida Land Use and Cover Classification System and which the City adopts through the use of the St. Johns River Water Management District land cover maps.

Sanitary Sewer Facilities - Structures or systems designed for the collection, transmission, treatment, or disposal of sewage, and includes trunk mains, interceptors, treatment plants, and disposal systems.

Seasonal Population - Part-time inhabitants, who utilize or may be expected to utilize public facilities or services, but are not residents. Seasonal population shall include tourists, migrant farm workers, and other short-term and long-term visitors.

Services - The programs and employees determined necessary by local government to provide adequate operation and maintenance of public facilities and infrastructure; as well as those educational, health care, social, and other programs necessary to support programs, public facilities, and infrastructure set out in the local plan or required by local, state, or federal law.

Shall - The word "shall" is used to indicate a mandatory action

Shelter Space - One shelter space (emergency shelter space) is equal to 20 square feet, as defined by the Florida Division of Emergency Management.

Should - The word "should" is used to indicate an action that is strongly advised.

Shoreline or Shore - The interface of land and water and as used in the Conservation and Coastal Management Element requirements, is limited to oceanic and estuarine interfaces.

Special Management Area - A specific geographical area which, because of its unique or especially sensitive environment, requires special management techniques.

Stage I RACT - Requirements in Chapter 17-2.65O (1) (f) 11, F.A.C. which relate to control of emissions generated by the storage and handling of gasoline at gasoline service stations.

Stage II RACT - An extension of the control required in Stage I to include control of gasoline evaporative emissions during refueling of vehicles.

Stationary Sources - Commercial and industrial sources of pollution.

St. Johns River Water Management District (SJRWMD) - Created by the Florida Legislature in 1972 to be one of five water management districts in Florida. It includes all or part of 18 counties in northeast Florida. The mission of SJRWMD is to ensure the sustainable use and protection of water resources for the benefit of the people of the District and the state of Florida.

Stormwater - The flow water which results from a rainfall event.

Stormwater Facilities – Manmade structures that are part of a stormwater management system designed to collect, convey, hold, divert, or discharge stormwater, and may include stormwater sewers, canals, detention facilities and retention facilities.

Stormwater Management System - A system which is designed and constructed or implemented to control discharges which are necessitated by rainfall events, incorporating methods to collect, convey, store, absorb, inhibit, treat, use or reuse water to prevent or reduce flooding, overdrainage, environmental degradation, and water pollution or otherwise affect the quality and quantity of the discharges.

Sustainable Population - An existing group of individuals of a particular species with the demonstrable high probability for self-maintenance, without significant demographic or genetic manipulation.

Total Maximum Daily Load (TMDL) - A calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources.

Total Reduced Sulfur - The sum of the sulfur compounds hydrogen sulfur sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide. TRS compounds are the source of the typical "paper mill" odor.

Tributary Assessment Team - A team consisting of the City of Jacksonville, JEA, Duval County Health Department and the Florida Department of Environmental Protection that was formed to assess the impaired tributaries and collaboratively develop a Basin Management Action Plan (BMAP).

Unclassified - An official designation by the Environmental Protection Agency as being unable to demonstrate compliance with the National Ambient Air Quality Standards, but not clearly in violation.

Uniform Mitigation Assessment Method (UMAM) - A standardized procedure for assessing the functions provided by wetlands and other surface waters, the amount that those functions are reduced by a proposed impact, and the amount of mitigation necessary to offset that loss, as defined in Chapter 62-345, FAC. It does not assess whether the adverse impact meets other criteria for issuance of a permit, nor the extent that such impacts may be approved.

Vegetative Communities - Ecological communities, such as coastal strands, oak hammocks, and cypress swamps, which are classified based on the presence of certain soils, vegetation, and animals.

Violation - Pollutant concentrations which exceed the levels allowed and the frequencies allowed in the National Ambient Air Quality Standards.

Water-Dependent Uses - Activities which can be carried out only on, 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.

Water Protection and Sustainability Program (WPSP) - A program created in 2005 to provide state funds to Florida's five water management districts for alternative water supply (AWS) project construction. These funds, along with matching district funds, are awarded as grants to local water suppliers.

Water Recharge Areas - Land or water areas through which groundwater is replenished.

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.

Water Wells - Wells excavated, drilled, dug, or driven for the supply of industrial, agricultural, or potable water for general public consumption.

Wetlands - Those areas which are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils. Soils present in wetlands generally are classified as hydric or alluvial, or possess characteristics that are associated with reducing soil conditions. The prevalent vegetation in wetlands generally consists of facultative or obligate hydrophytic macrophytes that are typically adapted to areas having soil conditions described above. These species, due to morphological, physiological, or reproductive adaptations, have the ability to grow, reproduce or persist in aquatic environments or anaerobic soil conditions. Florida wetlands generally include swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, riverine swamps and marshes, hydric seepage slopes, tidal marshes, mangrove swamps, and other similar areas. Florida wetlands generally do not include longleaf or slash pine flatwoods with an understory dominated by saw palmetto. The delineation by the SJRWMD of wetlands on site as determined by this definition shall be conclusive evidence of wetlands for purposes of City wetlands delineation. Where there is no SJRWMD delineation, Map L-5 of the Future Land Use Element shall be used for City wetlands delineation. For purposes of City wetlands programs, wetlands shall not include irrigation or drainage ditches constructed in the uplands or stormwater management systems.

Wetlands Mitigation – The replacement of the functional value of wetlands lost due to impacts from development.

Jaxport Master Plan Goals, Objectives and Policies

Jacksonville
Where Florida Begins.

March 2009

The Honorable John Peyton,
Mayor

William B. Killingsworth,
Director of Planning and Development

Introduction

The *JAXPORT* Master Plan consists of four sections:

1. Section A: Goals, Objective and Policies;
2. Section B: Master Plan Background, containing descriptions of the inventories, analyses, port maintenance and expansion;
3. Section C: Definitions; and
4. Section D: Maps 1-17.

APPENDICES

- Appendix A, the *JAXPORT* Quick Reference Emergency Response Plan,
- Appendix B, the PIERS Outlook for U.S./Global Economies Power Point, and
- Appendix C, the *JAXPORT* Hurricane Manual.

Appendices A, B and C are background information and contain additional data and analysis in support of the Master Plan as required by Florida Statutes Chapter 163 and Chapter 9J-5, Florida Administrative Code.

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JAXPORT Master Plan Goals, Objectives and Policies

Section A

GOAL 1

To increase public awareness of the benefits derived from the Jacksonville Port Authority, known by the trade name *JAXPORT*, for the City of Jacksonville, surrounding communities, and the State of Florida. To enhance the economic viability of *JAXPORT* through the operation, maintenance and expansion of public port facilities.

Issue: The Role of *JAXPORT*

JAXPORT has been vested by the Florida Legislature with the responsibility of operating, promoting, sustaining, and financing the public marine terminal facilities located within Duval County. In doing so, *JAXPORT* makes important contributions to the local and regional economy. These contributions are both direct in nature in terms of actual jobs created, as well as indirect through the attraction of business and industry to Jacksonville.

In order to continue this important role in the local and regional economy, *JAXPORT* must improve efficiency and expand existing public facilities to remain competitive relative to other southeastern ports. As *JAXPORT* continues to improve its competitive position, it will attract more maritime industries to the public terminals and advance Jacksonville as a site for a variety of maritime businesses. *JAXPORT* is a major contributor to the Port of Jacksonville (Port). All port facilities, whether public or private, operating in Duval County are considered a part of the Port.

Objective 1.1 *JAXPORT* shall maintain a public information program to inform local governmental agencies and citizens about current *JAXPORT* activities and future growth plans.

Policies

1.1.1 *JAXPORT* shall maintain existing public relations programs to provide timely, comprehensive information about port-related operations, activities, and growth opportunities.

1.1.2 *JAXPORT*, through its partnership in the Chamber of Commerce and the Jacksonville Economic Development Commission, shall emphasize the importance of *JAXPORT* to the city's overall economic development strategy.

Objective 1.2 *JAXPORT* shall strengthen the cooperative relationship between public and private Port facility owners and users.

Policies

1.2.1 *JAXPORT* shall participate in Port development task force or special Port task forces with both public and private sector members to resolve specific issues affecting opportunities for Port growth and development.

Objective 1.3 *JAXPORT* will work to improve the competitive position of the Port in relation to other ports in the Southeastern United States.

Policies

1.3.1 *JAXPORT* shall stimulate economic growth of Port-related businesses in the Jacksonville Area through a managed expansion program.

1.3.2 Port growth will be stimulated by providing personnel and facility services needed by maritime community.

1.3.3 *JAXPORT* shall continue to market the Port internationally and stimulate the regional economy by coordinating *JAXPORT*'s marketing program with other local economic development organizations, including the Jacksonville Chamber of Commerce and the Jacksonville Economic Development Commission.

Objective 1.4 Mediation or conflict resolution may be required in instances where there is an inconsistency or conflict between *JAXPORT* and the City, or the Port Master Plan and Comprehensive Plan.

Policies

1.4.1 *JAXPORT* and the City of Jacksonville agree to work together to find a mutually acceptable solution to resolve conflict or inconsistency. If a formal process to resolve a dispute is required, *JAXPORT* and the City shall resolve such dispute in accordance with the government conflict resolution procedures outlined in Chapters 164 or 186, Florida Statutes.

GOAL 2

To ensure that sites best suited for Port related development, water-dependent uses are reserved for that purpose.

Issue: Land Use

As *JAXPORT* grows to meet the changing needs of the maritime industry and carry out its charter responsibilities, and as the City of Jacksonville (City) continues to become a more urbanized metropolitan area, competition for suitable waterfront property will become intense. It is the desire of *JAXPORT* to grow in an orderly manner, carefully addressing the impacts of its growth. In order to meet the growth challenges of the maritime industry, it is necessary that those lands most suitable for marine terminal development be identified and reserved in the City's Future Land Use Element.

Objective 2.1 Utilize appropriate planning studies and processes that identify and reserve areas for Port development.

Policies

2.1.1 In areas recommended for Port use, development will be directed through the provisions of the Water-Dependent/Water-Related land use category of the City's Future Land Use Element. .

2.1.2 *JAXPORT* shall recognize waterfront-fishing communities as a Water-Dependent/Water-Related use consistent with the Future Land Use Element of the 2030~~2010~~ Comprehensive Plan.

2.1.3 All new development and Port expansions must be consistent with this Master Plan. As may be necessary, *JAXPORT* shall amend this Master Plan to authorize Port expansions in order to qualify for the DRI exemptions set forth in Section 163.3178(3), Florida Statutes, as applicable.

Objective 2.2 Redevelopment of declining areas adjacent to Talleyrand Avenue shall be consistent with the provisions of the City's Future Land Use Element.

Policies

2.2.1 Planned Port-related industrial development shall be directed to areas bordering the Port, consistent with the provisions of the City's Future Land Use Element.

2.2.2 Areas adjacent to the Talleyrand Corridor shall be redeveloped through the joint efforts of, *JAXPORT*, the City of Jacksonville Economic Development Commission and State programs such as Brownfields and Enterprise Zone designations.

2.2.3 Redevelopment of the Talleyrand Corridor shall be sensitive to existing residential uses, addressing concerns regarding port/industrial expansion.

2.2.4 *JAXPORT* shall identify potential Port expansion sites and facilities to address inappropriate use of these sites for non-water dependent, non-water related activities.

Objective 2.3 *JAXPORT* shall contribute to, where appropriate, protect and maintain the public investment in the infrastructure and facilities serving its activities.

Policies

2.3.1 *JAXPORT* shall maintain access to its facilities by enhancing transportation systems to meet the needs of existing Port areas.

2.3.2 *JAXPORT* shall upgrade, redevelop, and/or construct new facilities and utilities on their properties as warranted to meet the needs created by technological changes and economic forces in the shipping industry.

2.3.3 *JAXPORT*, as the local harbor sponsor, shall adhere to the Dredging Plan as established by US Army Corps of Engineers (USACOE) for compliance with local maintenance of the navigation channel and public port facilities to ensure economic competitiveness.

2.3.4 *JAXPORT* shall work with the City in the event that proposed *JAXPORT* development raises issues regarding land use, transportation, environment, or hazards to ensure that required infrastructure is in place when required for Port development.

2.3.5 As new *JAXPORT* development requiring State review is undertaken *JAXPORT* shall submit project specific studies to the State to evaluate project impacts on natural resources, cultural resources and public facilities.

2.3.6 Where proposed *JAXPORT* development requires additional public infrastructure in order to maintain levels of service as adopted in the Capital Improvements Element, projects will be added to the annual update of the financially feasible Capital Improvements Schedule as appropriate.

2.3.7 The City shall coordinate with *JAXPORT*, the North Florida Transportation Planning Organization (TPO), the State Department of Transportation, railroads, the local community and other entities as necessary on a long-term plan to maximize the use of rail, and other non-road mobility approaches, in support of Port activities.

GOAL 3

To develop and maintain an efficient and effective surface transportation network adequate to support existing and future Port facilities. Ensure that navigation channels are provided which adequately serve the needs of the Port.

Issue: Access and Transportation

Access and transportation are basic to the effective and efficient operation of a port. From a navigational standpoint, the existence of safe and adequate shipping channels and terminal berths are critical. The maintenance of channels in the St. Johns River involves periodic dredging, which in turn creates the need for dredge spoil disposal sites. This requires the coordination and cooperation of *JAXPORT*, Florida Department of Environmental Protection (FDEP), and the U.S. Army Corps of Engineers. Thus, it is necessary for *JAXPORT* to cooperate with these agencies in preparing dredging plans, identifying and acquiring

disposal areas, and identifying new projects that will allow the Port community to continue growing.

In order to sustain a competitive and successful maritime industry, it is imperative that an effective landside transportation system be maintained. Port areas need to have roadway systems that can support heavy truck traffic with access to interstate highways, as well as rail systems that feed into regional and national systems. As *JAXPORT* grows to meet the challenges of the maritime industry over the next 20 years, the development and maintenance of surface transportation systems will become increasingly important.

Objective 3.1 *JAXPORT* shall work with all appropriate agencies to encourage the planned development of a surface transportation system that will serve Port users.

Policies

3.1.1 *JAXPORT* shall continue to maintain and upgrade the existing surface transportation systems on *JAXPORT* properties in order to improve efficiency and accessibility with Port areas. The cooperative effort among *JAXPORT*, the TPO, the Florida Department of Transportation, the Federal Highway Administration, and private railroad companies shall be continued to facilitate the necessary improvements to surface transportation systems in support of Port development activities.

3.1.2 The City shall coordinate with *JAXPORT*, the TPO, the State Department of Transportation, the local community and other entities as appropriate on a long-term plan to address the impacts of Port growth on the surface transportation system, including financially feasible capacity improvements and long term maintenance planning.

Objective 3.2 *JAXPORT* shall develop new and maintain existing navigation channels as necessary for current and expanded Port operations.

Policies

3.2.1 *JAXPORT* shall continue to sponsor maintenance dredging projects by the USACOE in the main channel of the lower St. Johns River.

3.2.2 *JAXPORT* shall identify channel improvements necessary for the development of new marine terminals, or for the enhancement of existing facilities.

Objective 3.3 *JAXPORT* shall provide dredge spoil areas for public dredging projects in the lower St. Johns River located in Duval County, Florida and administer a dredged materials management program.

Policies

3.3.1 *JAXPORT* shall coordinate proposed maintenance dredging, acquisition/development of spoil disposal areas, and related environmental mitigation with the Florida Department of Environmental Protection, (FDEP) as well as the USACOE.

3.3.2 *JAXPORT* shall ensure its applications for permits for dredging, spoil disposal areas, etc., authorized pursuant to s.403.061 (38), F.S. shall include the requirements of s.311.105 (2) and (3), F.S.

3.3.3 *JAXPORT* shall coordinate with the USACOE to ensure that all prior conditions of the original permit(s) to construct the navigation channel/dredged material maintenance sites, turning basins, and harbor berths issued by FDEP for *JAXPORT* properties are met, in order to reduce environmental mitigation requirements in accordance with s.311.105(4), F.S.

3.3.4 *JAXPORT* shall coordinate with the USACOE and FDEP to ensure that, where feasible, suitable dredged materials will be deposited on Duval County beaches, subject to review and approval of affected municipalities and agencies.

GOAL 4

To develop financing mechanisms to facilitate the development and expansion of *JAXPORT* terminals in support of forecasted growth.

Issue: Financing

JAXPORT has a positive impact on the local economy and is currently in a growth mode, which must be sustained to remain competitive. As long as the Port facilities remain competitive in world markets, the facilities will continue to contribute significantly to the local economy. The improvements necessary to maintain growth and competitiveness are costly. *JAXPORT*, however, has limited capabilities to fund the needed improvements. Some of the necessary improvements are outside the purview of *JAXPORT*.

JAXPORT currently receives an annual appropriation of $800,000 of contributed capital from the City. It also receives non-operating income from telecommunication taxes. *JAXPORT* will need additional sources of revenue to make capital improvements in support of new growth.

Objective 4.1: Identify and obtain funding from other sources not currently utilized and update the Capital Improvements Program annually.

Policies

4.1.1 Pursue State and federal grants, loans and other forms of financial assistance.

4.1.2 Evaluate each land lease before renewal and update as feasible to stay current with land lease rates, throughput fees and dockage.

4.1.3 The *JAXPORT* Capital Improvements Program is a part of the City's Capital Improvements Element, and shall be updated annually as part of the City's Annual Capital Improvements Element amendment.

GOAL 5

To provide for the protection and conservation of natural resources consistent with the operation, maintenance, and expansion of *JAXPORT* facilities.

Issue: Environmental Protection

As growth occurs, there will be some environmental impacts as a reasonable consequence of the industrial processes to Port operations. In addition, it is important that water-related and water-dependent uses minimize their impacts upon the surrounding environment by adhering to the latest regulatory requirements.

Objective 5.1 Operation and expansion of *JAXPORT* facilities shall be planned and conducted to protect and conserve coastal resources, to the extent feasible.

Policies

5.1.1 Port activities shall be planned and conducted in accordance with both the general and specific policies pertaining to ports contained in the Conservation/Coastal Management Element of this plan for the purpose of protecting, conserving and improving wetlands, water sources, marine resources, coastal barriers, manatees, fish, shellfish, wildlife habitat, and groundwater.

5.1.2 Port development and operation shall be conducted to protect water quality in the St. Johns River, and where practical, to enhance the quality of the estuary in accordance with both the general and specific policies pertaining to ports contained in the Conservation/Coastal Management Element of this plan.

5.1.3 Port development in the coastal high hazard area shall be located when feasible, in areas where impacts from the high hazard area are minimized in order to reduce capital investment in infrastructure and related port facilities in such areas.

5.1.4 Port development and operations shall be consistent with the Historic Preservation Element and Housing Element of this plan.

5.1.5 All Port development shall be undertaken in a manner, which is consistent with the safety component of the Conservation/Coastal Management Element. Dedication of public land to conservation after permitting shall be encouraged, but must be balanced against the need to maximize land resources available for Port use.

5.1.6 *JAXPORT* development and operations shall be subject to an evacuation plan, hurricane manual, emergency response plan or other documents as appropriate to address hurricane preparedness planning, general hazard mitigation and post disaster planning. *JAXPORT* shall participate as needed in City efforts to produce a post-disaster redevelopment plan consistent with Objective 7.5 of the Conservation/Coastal Management Element.

The appendices to this Port Master Plan contain the *JAXPORT* Hurricane Manual, the *JAXPORT* Emergency Response Plan and a power point report entitled Outlook for Global Economies / Containerized Trade Flows and US, With Special Emphasis on Florida's Ports by Piers Global Intelligence Solutions.

GOAL 6

Recognize that *JAXPORT* is unique in its ability to serve as an economic engine for the State of Florida and the Northeast Florida region.

Issue: Port Expansion

JAXPORT has the possibility of expansion to sites not currently owned by *JAXPORT*. It operates out of diverse locations that are supported by private businesses that are part of a symbiotic relationship that benefits *JAXPORT* and the local economy. *JAXPORT* does not regulate private Port development.

Objective 6.1 *JAXPORT* must remain able to move efficiently when presented with new Port-related opportunities.

Policies

6.1.1 The *JAXPORT* Master Plan recognizes that various sites are under consideration for Port expansion as part of its *JAXPORT* Development Program. As work by *JAXPORT* on these sites progresses and funding is identified, projects required to support their Port development shall be added to the financially feasible capital improvement elements to address any potential impact they may have on Levels of Service in the City.

6.1.2 *JAXPORT* will be required to do environmental, transportation and infrastructure analysis as part of the permitting and submerged lands leasing process to meet City, State and federal requirements. The State

shall review specific related impacts at the time of permitting and submerged land leasing. The analysis produced as part of the permitting and submerged land leasing process shall be provided to the City and the State and shall become part of the background data and analysis associated with the Port Master Plan.

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JAXPORT Master Plan Background

Section B

HISTORY OF THE JACKSONVILLE PORT AUTHORITY

The Jacksonville Port Authority, known by the trade name *JAXPORT*, is an independent government agency created by the Florida legislature. *JAXPORT* owns, operates, manages and controls the public seaports and ancillary facilities in Duval County. Physical facilities owned by *JAXPORT* include docks and wharfs, cranes, a passenger cruise terminal, warehouses, railroad line, paved open storage areas and road connections to the public highway system. Generally, *JAXPORT* provides and maintains the terminals with their equipment and manages the overall public and private use of the facilities.

The original Jacksonville Port Authority was created by a special act of the Florida Legislature in 1963 to own, develop, maintain and market Jacksonville's seaport facilities. In 1963, these facilities included the areas now known as Talleyrand Marine Terminal and Blount Island. Talleyrand consisted of deteriorating wooden docks. Blount Island was an undeveloped spoil site. Aviation responsibilities were added in 1967.

In 2001, the Jacksonville Port Authority was divided into two entities, a new seaport authority, which retained the name Jacksonville Port Authority, hereafter known as *JAXPORT*, and an aviation authority, the Jacksonville Airport Authority. At this time, *JAXPORT* created a strategic plan to address increasing seaport business. Specific items of the strategic plan included increased cargo volumes, greater intermodal efficiency, higher throughput, increased revenues, quality employment opportunities and investment in new and existing facilities.

Port development pursuant to Chapter 163.3178(3), Florida Statutes, was exempted from Development of Regional Impacts (DRIs) provided the development is in compliance with the City Comprehensive Plan and consistent with projects identified in Section 311.07(3)(b) and Section 311.09(3), Florida Statutes. *JAXPORT* and the City submitted the *JAXPORT* Master Plan along with goals, objectives and policies meeting the requirements of the Florida Statutes governing the DRI process as well as *JAXPORT* responsibilities and operations. Florida Law 2000-465 outlined the powers and responsibilities of *JAXPORT,* which include, among other items, the authority to construct, repair, or improve projects, to acquire property for projects, to issue bonds and enter into contracts with companies that promote the mission of *JAXPORT*.

ECONOMIC IMPACT

JAXPORT is an independent authority within the City, operating as a separate business. Funding for the daily operations of *JAXPORT* is provided by private companies paying for the use of *JAXPORT* facilities through user fees, leases and other charges. *JAXPORT*'s operating revenues yield positive net income each year. *JAXPORT* capital improvements are eligible for State and Federal funding through a variety of programs.

An economic impact study completed in 2005 (DBA Martin Associates) stated cargo services associated with *JAXPORT* account for more than 12,000 direct and indirect

jobs provided by the private companies doing business at the *JAXPORT* facilities. An additional 22,000 related jobs are provided by consignees utilizing Port facilities. Employment includes longshoremen, truck drivers, warehouse workers, steamship and railroad employees and employees in support services such as repairs, environmental and legal consultation, insurance and retail sales. This same 2005 economic impact study indicates business revenue impacts generated over $550 million. This revenue includes direct personal earnings, local purchases by maritime services companies and state and local taxes.

Orlando-based Fishkind and Associates Inc., in 2004, completed an economic impact study for the cruise ship industry in Jacksonville. The study indicated the cruise industry could grow to create more than 2,700 area jobs and generate $1.5 billion in cumulative economic impact over 20 years. The Northeast Florida Regional Council completed a 2003 study, which indicated the industry had already created approximately 715 new jobs and more than $36 million in new annual economic impact for the region.

SECURITY OVERVIEW

JAXPORT considers security to be of paramount importance. *JAXPORT* developed a comprehensive security program to protect *JAXPORT* employees, tenants, property and assets, consistent with *JAXPORT*'s threat exposure. *JAXPORT* has implemented tighter security standards at its marine terminals over the last several years under this program.

Some of the improvements include increased security fencing around tenants' facilities, augmented patrols by security forces on the terminals, full time presence by the Jacksonville Sheriff's Office, and the installation of high-mast lighting and security cameras. Additionally, the installed S.T.A.R. and V.A.C.I.S. systems are methods by which U.S. Customs can randomly check a container's cargo for smuggled goods.

JAXPORT is currently implementing 33 CFR 105 Federal Regulation and Florida Statutes 311.12 (Seaport Security Act) to establish a safe and secure port. At this time, *JAXPORT* is the only major cargo port in Florida that is in substantial compliance with the Florida Seaport Security Act.

CARGO OVERVIEW

JAXPORT consists of three operating terminals, Talleyrand Marine Terminal, Dames Point Marine Terminal and Blount Island Marine Terminal. About seven million short tons of cargo are shipped through these ports annually with an additional 10 million tons of cargo moved through private facilities located along the St. Johns River. Approximately half of the seven million tons is imported and half is exported. Cargo is moved quickly, sometimes within 24 hours. *JAXPORT* cargo is characterized into four main categories; vehicles, containerized cargo, bulk cargo and breakbulk cargo.

Vehicles are primarily imported and exported passenger cars and trucks, but on occasion include other vehicles, which can be rolled on or off a ship (Ro/Ro, including

ambulances, school buses and construction equipment). *JAXPORT* handles almost 600,000 vehicles per year.

Containerized cargo accounts for approximately 60% of all cargo at *JAXPORT*. This cargo is carried in metal containers. The containers are loaded and unloaded using cranes on the dock adjacent to the ship. The containers are then placed on trains or trucks and transported from the terminals. This type of cargo can be any consumer good such as computers, furniture, clothing and food.

JAXPORT facilities handle over one million tons of bulk cargo each year. This cargo is considered "loose" cargo, meaning it is not carried in a container. The cargo is carried in a ship's hold and poured into piles. Examples include coal, woodchips, granite, limerock and gravel. Liquid cargo such as oil and corn syrup is considered "liquid bulk".

Breakbulk cargo examples include pallets of lumber, bales of cotton, rolls of steel, pallets of chicken and wood pulp. This cargo is generally moved on pallets, while other breakbulk cargo comes in bales or rolls. These cargos may need to be stored in a warehouse for protection from the elements.

JAXPORT Five Year Cargo Statistics

Port Statistics	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
Vessel Calls	1,592	1,587	1,611	1,539	1,582
Tonnage					
Containerized	3,796,925	3,544,607	3,717,503	3,751,251	3,927,437
Breakbulk	609,901	672,165	698,568	703,803	830,716
Bulk	1,805,845	1,668,770	1,666,158	1,699,584	1,862,704
Automobiles	901,413	971,357	1,036,892	1,146,378	1,067,411
Total	7,114,084	6,856,899	7,119,121	7,301,016	7,688,268
Units					
Containers (TEUs)	708,028	698,903	683,836	692,422	727,660
Automobiles	538,408	579,924	615,030	544,062	533,227
Source: *JAXPORT*					

Monthly *JAXPORT* Tonnage Statistics

May 2005 – 8 Month to Date
Fiscal Year 2004-2005

Imports

Tonnage Statistics	Current May-05	YTD FY-04/05	Previous May-04	YTD FY-03/04	Month Inc/Dec	YTD Inc/Dec
Containerized	87,106	671,060	86,653	632,061	1%	6%
Breakbulk	36,087	446,568	17,438	351,051	107%	27%
Bulk Cargo	14,1247	1,558,017	121,323	1,089,259	16%	43%
Auto/Tractors	73,944	486,686	54,957	570,561	35%	-15%
Total	338,384	3,162,331	280,371	2,642,932	21%	20%
Source: *JAXPORT*						

Exports

Tonnage Statistics	Current May-05	YTD FY-04/05	Previous May-04	YTD FY-03/04	Month Inc/Dec	YTD Inc/Dec
Containerized	238,437	2,146,516	246,916	1,983,222	-3%	8%
Breakbulk	20,030	123,107	21,704	104,117	-8%	18%
Bulk Cargo	10,786	78,976	11,823	80,328	-9%	-2%
Auto/Tractors	26,130	224,351	15,787	176,033	66%	27%
Total	295,383	2,572,950	296,230	2,343,700	0%	10%
Source: *JAXPORT*						

Import/Export Totals/Ratio

Tonnage Statistics	Current May-05	YTD FY-04/05	Previous May-04	YTD FY-03/04	Month Inc/Dec	YTD Inc/Dec
Containerized	325,543	281,7576	333,569	2,615,283	-2%	8%
Breakbulk	56,117	569,675	39,142	455,168	43%	25%
Bulk Cargo	152,033	1,636,993	133,146	1,169,587	14%	40%
Auto/Tractors	100,074	711,037	70,744	746,594	41%	-5%
Grand Total	633,767	5,735,281	576,601	4,986,632	10%	15%
Inbound Cargo Ratio	53%	55%	49%	53%		
Outbound Cargo Ratio	47%	45%	51%	47%		
Source: *JAXPORT*						

JAXPORT Tonnage (Short Tons)

Fiscal Year 2004

Containers	3,927,437
Vehicles	1,067,411
Bulk	1,862,704
Breakbulk	803,716
TOTAL	7,688,268
Source: *JAXPORT*	

Major *JAXPORT* Imports

Venezuela	gas, oil, cement
Virgin Islands	molasses, fish, paper
Canada	gravel, limestone, oil
Colombia	coal, coffee, bananas
Bahamas	limestone, seafood, beer
Source: *JAXPORT*	

Major *JAXPORT* Exports

Venezuela	auto parts, aluminum, cars
Puerto Rico	food, cars, furniture
Brazil	cars, machinery, aluminum
Mexico	paper, machinery, fabrics
Bahamas	electronics, food, tractors
Source: *JAXPORT*	

JAXPORT TENANTS

TENANT	LOCATION	TYPE OF BUSINESS
Agents' House	Talleyrand	Freight forwarder and

TENANT	LOCATION	TYPE OF BUSINESS
		customs broker
APM Universal/Horizon Lines	Blount Island	Terminal operator
APS East Coast Inc. (AMPORTS)	Blount Island	Portside vehicle processing
Andrew Vazques, Inc. (AVI Services)	Blount Island	Vehicle & cargo surveys for damage prevention & claims settlement
Bayer Polymers	Talleyrand	Industrial specialty maintenance
Berman Bros	Talleyrand	Steel distributors & warehousing
C. Martin Taylor	Talleyrand	Export, customs broker
Ceres Marine Terminal	Blount Island	Vehicle and container handling
Coastal Maritime Stevedoring, LLC	Blount Island	Stevedore services
Crowley Liner Services	Talleyrand	Container & Ro/Ro handling
Crowley – Bond Street	Talleyrand	Container & Ro/Ro handling
Distribution & Auto Service	Blount Island	Vehicle processing
E. I. Dupont Neumours	Talleyrand	Chemical processing
Foreign Trade Zone Operators	Talleyrand	Various companies providing FTZ assistance, services
GSA	Talleyrand	Provides workplace needs to government agencies
Hamburg Sud North America	Talleyrand	Cargo handling
Hual North America, Inc.	Blount Island	Vehicle export
ICS, Logistics, Inc.	Talleyrand	Dry warehousing services, stevedoring and transportation services
ICS-Goodnight	Talleyrand	Cold storage
International Transport Logistics	Blount Island	Intermodal services, warehouse availability
International Waste Control (Fleetwash)		
J. M. Family Enterprises, Inc. (SE Toyota)	Talleyrand	Vehicle processing
Kerr Norton Strachan	Dames Point	Shipping agency
Maersk Sealand	Blount Island	Ocean cargo carriers for containers
Marine Terminals Corp	Talleyrand	Stevedore operations
Martin Marietta	Dames Point	Dry bulk cargo handlers
MBT Enterprises LLC	Blount Island	Vehicle processing
MOL	Dames Point	Shipping company
Moran Towing	Talleyrand	Harbor towing services
MTMC Office Lease		

TENANT	LOCATION	TYPE OF BUSINESS
North Florida Shipyard	Talleyrand	Ship repair facilities
PPG Industries	Blount Island	
Rail Link, Inc.	Talleyrand	Talleyrand terminal railroad
Rinker	Dames Point	Aggregate imports
Safe Harbor Haven, Inc.	Dames Point	Residential facility for troubled youth, teaching seamanship skills
Sea Star Line	Blount Island	Stacked container & Ro/Ro operations
SSA/Cooper LLC	Blount Island	Breakbulk services
TICO Corp	Blount Island	Equipment supplier, solutions to distribution sectors of transportation industry
Trailer Bridge and HUAL North America	Blount Island	Container & vehicle export
USA Superroutes/D/B/A American Transbridge	Talleyrand	Container equipment & services
Wallenius Lines N.A., Inc.	Blount Island	Vehicle processors
Westway Trading	Talleyrand	Bulk liquid storage
Source: *JAXPORT*		

JAXPORT TERMINALS

Jacksonville's main shipping channel is a 23-mile stretch of the St. Johns River extending from its mouth at the Atlantic Ocean to Talleyrand Marine Terminal just north of downtown Jacksonville.

General Information – Three Terminals

	Blount Island	Talleyrand	Dames Point
Location	North of Fulton Dames Point cutoff channel. Nine miles from sea buoy.	Approximately 21 miles from the mouth of the St. Johns River.	Ten miles from sea buoy. Entrance located on August Drive off Hecksher Drive.
Terminal Area	754 acres, paved, lighted and secured.	173 acres, paved, lighted and secured.	585 acres
Cargo Types	Vehicles, pleasure	Passenger	Bulk cargos,

	Blount Island	Talleyrand	Dames Point
	boats, containers, breakbulk (wood pulp, rolled steel, paper, aluminum, others)	vehicles, containers, breakbulk (frozen poultry, beef, steel, lumber, others)	containers and cruise operation
Use	Containers, Ro/Ro, breakbulk & general cargo	Containers, Ro/Ro, liquid bulk & general cargo (steel, lumber, poultry)	Bulk cargos & cruise operations, breakbulk, Ro/Ro & containers.
Facilities	Transit shed 240,000 sf Forest product storage – 50,000 sf Container freight station – 90,000 sf	On-dock warehousing – 160,000 sf including 120,000 sf of refrigerated / freezer space	
	Container freight station – 90,000 sf	Dry storage – 40,000 sf	Cruise terminal – 63,000 sf
	Inside storage – 50,000 sf	550,000 sf cold storage	
General Berths	#20 – 750 linear feet	#3 – 700 linear feet	#10 – 1200 linear feet #18 – 1200 linear feet
	#22 – 600 linear feet	#4 – 800 linear feet	Cruise berth – 1200 linear feet
	#30 – 700 linear feet	#5 – 800 linear feet	
	#31 – 900 linear feet	#6 – 800 linear feet	
	#32 – 900 linear feet	#7 – 800 linear feet	
	#33 – 1000 linear feet	#8 – 900 linear feet	
	#34 – 1000 linear feet		
	#35 – 750 linear feet		
Load capacity / sf	800 lbs for all except #22 which is 900 lbs		
Apron Width	Berth #20 – 111 feet	80 feet	
	Berth #22 – 80 feet		
	80 feet in front of		

	Blount Island	Talleyrand	Dames Point
	transit shed; 150 feet elsewhere		
Depth alongside MLW	Berths #20 & #22 – 38 feet	38 feet	40 feet + 1
	Berths #30-#35 – 40 feet + 1		
Deck Height above MSL	Berths #20 & #22 - +10 feet	7 feet	8 feet
Mechanical Handling Facilities	8 container cranes ; 3 - 50 ton, 3 - 45 ton, 2 – 40 ton	6 container cranes ; 1 – 50 ton, 2 – 45 ton, 3 – 40 ton	
	1 – 100 ton gantry whirly crane	2 rubber tired gantry cranes	
	1 – 40 ton straddle crane	1 – 100 ton multi-purpose whirly crane	
		3 – 40 ton container stackers	
On-Dock Rail Connection	CSX Corporation	Rail Link to CSX, Norfolk Southern, Florida East Coast Railway	CSX Corporation
Highway Connections	I-95 & I-295 – State Road 9A leading to Heckscher Drive (State Road 105)	I-95 & I-10 to US 1 leading to 8th, 11th, or 21st Streets	I-95 & I-295 – State Road 9A leading to Heckscher Drive (state Road 105)
Source: *JAXPORT*			

All three terminals are identified as Foreign Trade Zones (FTZ), a site within the United States, which streamlines customs clearance. These zones assist companies involved in importing, exporting and manufacturing to operate more efficiently. In 2002, state legislation provided flexibility to the zone area initially assigned to *JAXPORT* (FTZ #64). This flexibility expanded the zone outside of Duval County allowing hundreds of businesses along the First Coast to take advantage of FTZs. In additional to the *JAXPORT* terminals, Jacksonville International Airport and several industrial parks are included in the FTZ.

BLOUNT ISLAND MARINE TERMINAL (MAP 8)

Blount Island Marine Terminal is located nine nautical miles from the Atlantic Ocean and has 6,600 linear feet of berthing space on 40 feet of deepwater. This terminal has an additional 1,350 feet of berthing space on 38 feet of water. The location of the terminal allows easy access to major highways; less than one mile to SR 9A and only minutes to I-95, I-295 and I-10. I-75 is one hour's drive to the west.

Blount Island also is one of the largest vehicle import-export centers on the East Coast, in addition to handling recreational boats, tractors, paper, wood pulp, forest products and a variety of general cargos. The entire terminal is identified as a foreign trade zone and can be activated for qualified users.

A 300-foot JEA transmission line easement and elevated coal conveyor divides Blount Island nearly in half. *JAXPORT* operates the marine terminal on the westerly half. This 754-acre terminal is *JAXPORT*'s largest container facility, dedicating 150 acres to container storage and 240,000 square feet of dockside transit shed to store a variety of commodities such as stainless steel, linerboard, wood pulp and other cargos requiring warehousing. The terminal uses one 100-ton whirly crane and eight container cranes to efficiently move cargo. For cross-dock efficiency, the terminal has a 90,000 sf Container Freight Station. The movement of cargo is facilitated by the terminal's on-dock rail served directly by CSX Corporation. Blount Island is also used to process passenger vehicles. Processing includes cleaning, inspecting and adding equipment.

The easterly half of Blount Island is owned by the federal government and occupied by the United States Marine Corps, Blount Island Command. This unit is responsible for attainment, maintenance, refurbishment, and sustainment of the 16 Maritime Prepositioning Force (MPF) ships. The MPF provides forward deployed equipment and logistic support to the Marine Expeditionary Force.

Access to the Blount Island Terminal is provided by State Road 105 (Heckscher Drive), a major 4-lane arterial that connects with SR9A/I-295 approximately 1 mile west of the terminal. Unlike Talleyrand, the Blount Island terminal is served by only one Class 1 railroad, CSX. As a result, most containers moving through the Terminal are handled by truck. Containers that ultimately are handled by rail are drayed (trucked) to and from the Terminal to the established CSX and Norfolk Southern intermodal yards located off I-295 on the western side of the City. There are limited rail deliveries of vehicles and liquid bulk cargoes directly to Blount Island.

TALLEYRAND MARINE TERMINAL (MAP 9)

Talleyrand Marine Terminal is located 21 miles from the Atlantic Ocean on the St. Johns River. This 173-acre terminal has a 38 foot depth along the docks. This depth will be increased to 40 feet with a dredging project expected to start in 2009. Talleyrand handles South American and Caribbean containerized cargos, automobiles and breakbulk commodities such as steel, paper, frozen and chilled goods and liquid bulk commodities such as turpentine and vegetable oil.

Mechanical handling facilities include six container cranes, two rubber-tired gantry cranes, one 100-ton whirly crane, tanker discharge facilities and three 40-ton container stackers. The rubber-tired gantry cranes have 50-long-ton capacity and are able to straddle four on-dock rail spurs.

Transit shed and warehousing facilities include 160,000 square feet of on-dock warehousing complete with cold storage, freezer and dry space and an additional 550,000 square feet of on-dock warehousing. This warehouse is used as dry space for imported finished Finnish paper.

The Talleyrand terminal is serviced by three Class 1 railroads; Norfolk Southern, CSX Corporation and Florida East Coast Railway. Talleyrand Terminal Railroad, Inc. provides direct switching for these railroads. The terminal is reached by I-95 and I-10 leading to U.S. 1 and Jacksonville's 20th Street Expressway (Martin Luther King Parkway). This terminal is located in a Foreign Trade Zone and can be activated for qualified users.

The Talleyrand Terminal is located near downtown Jacksonville and approximately 21 miles from the mouth of the St. Johns River. The terminal is well served by public infrastructure. Highway access to the Terminal is provided via the Martin Luther King (MLK) Parkway, which intersects with Interstate 95. The MLK Parkway is accessed from 8th Street and 21st Street. The FDOT recently completed interchange improvements at 8th Street and the MLK Parkway and has programmed a complete rebuild of the MLK Parkway/Phoenix Street Interchange.

DAMES POINT MARINE TERMINAL (MAP 10)

JAXPORT's newest terminal is the Dames Point Marine Terminal. This terminal has approximately 300 acres of waterfront property and another 75 acres of non-waterfront industrial/commercial sites. This terminal is presently home to *JAXPORT*'s "Temporary" Cruise Terminal and a 30-acre dry bulk terminal operated by Martin-Marietta. The Terminal is also home to the soon-to-be constructed 25 acre Rinker Materials dry bulk terminal, the 158-acre container terminal to be operated by the Asian carrier Mitsui OSK Line and its terminal operator TraPac, and the conversion of the temporary cruise terminal site to container terminal operations. Other planned projects for *JAXPORT*'s Dames Point properties include the construction of a *JAXPORT* Security Operations Center and the development of Port related industrial uses. Once these facilities are constructed, the Dames Point Marine Terminal will be essentially built-out.

The Dames Point Marine Terminal is accessed via SR 105 (Heckscher Drive) which links directly with SR9A/I-295 to the east, and I-95 to the west. Because of the planned development of the Dames Point container terminal, the FDOT and *JAXPORT* will be implementing a short-term plan to increase the traffic capacity at the SR 9A/I-295 interchange with Heckscher Drive and the Heckscher Drive intersection with New Berlin Road, which will serve as the Terminal's main entrance. The FDOT has committed to conduct a PD&E Study for this area in the next year to identify future improvements to the transportation system, which may be required. In 2003, *JAXPORT* entered into a

Fair Share Contract (no. 26411)with the City of Jacksonville for the "Ed Austin Marine Terminal" (now know as Dames Point) consisting of 4,300,000 enclosed square feet of industrial space on approximately 430+- acres of property located on Hecksher Drive, between August Drive and State Road 9A. This Agreement required *JAXPORT* to cause Heckscher Drive to be expanded to four lanes from August Drive to New Berlin Road. This project was completed in 2004. This terminal, like Blount Island is served exclusively by CSX Railroad. Adequate water, sewer, and electric services are provided by the JEA.

It is one of the few major greenfield sites that can offer extensive expansion capability. *JAXPORT* is currently expanding the bulk terminal by 25 acres and plan to add support facilities for breakbulk cargos. This terminal is an identified Foreign Trade Zone and benefits are available to qualified users. Dames Point is a 585-acre peninsula located just ten miles from the Atlantic Ocean and provides a 40-foot deep channel. Dames Point is within 10 minutes of Interstates 95, 295, 20 minutes to Interstate10, and less than two hours from I-75.

Bulk cargo operations are located on the southern end of the terminal where a 1,200-foot long berth and nine breasting and mooring dolphins are available. Another 250 acres is available for breakbulk, container and Ro/Ro cargos. On-dock rail infrastructure may be included in the development plans for this additional 250 acres. A recent contract with Mitsui OSK Lines LTD, a Japanese shipping company, identifies first phase development on Dames Point for a cargo terminal with two 1,200-foot berths and six cranes. This phase will consist of 158 acres adjacent to Martin Marietta with options to expand to 200 acres. Rinker, also a new contract, will occupy 25 acres east of the Dames Point Bridge and adjacent to the British Plaster Board plant. This site will be used to process aggregate imports.

Mentioned earlier was the location of *JAXPORT*'s "Temporary" Cruise Terminal at Dames Point. The *JAXPORT* Cruise Terminal is located on the western portion of the Dames Point Terminal. This site consists of a 63,000 square foot terminal, which includes a 9,000 square foot embarkation area and 8,000 square feet used by the Bureau of Customs and Border Protection. The facility can accommodate 500 passenger cars on a paved parking area providing security, lighting, and fencing.

The reference to "Temporary" relates to the original decision to locate the cruise terminal on Dames Point. In 2003, when the decision was made by *JAXPORT* to enter the cruise market, the Lines (Celebrity and Carnival) gave *JAXPORT* only eight months notice before their first scheduled ship deployment. Given that *JAXPORT* did not have an adequate facility to handle the vessel or the passengers' needs, the current location represented the least cost and most easily developed option. Over the past several years, this facility has served the needs of the cruise lines very well. The issue at hand is the fact that the Terminal is located west of both the JEA power lines that cross Blount Island and the St. Johns River, and the Dames Point Bridge. Both of these represent major impediments to *JAXPORT*'s ability to grow the cruise business as the newer generation of cruise ships are too tall to pass beneath. The solution for the cruise

business is to find an alternative location east of the JEA power line in order to develop a more permanent facility. By doing so, the area on Dames Point, which is currently impacted by the cruise operation, could be utilized for containerized cargo expansion.

In 2004, the inaugural year for cruise ship service in Jacksonville, 170,000 passengers were processed through this terminal. This figure represents passengers embarking and debarking where a cruise begins and ends in Jacksonville. Carnival Cruise Lines offers year round service to Freeport and Nassau, the Bahamas and Key West. The number of passengers is expected to grow to 300,000 in fiscal year 2005.

Orlando based Fishkind and Associates, Inc. completed a study in 2004 indicating the cruise industry may grow in Jacksonville to create 2,700 jobs and generate $1.5 billion for the local economy over the next 20 years.

ST. JOHNS RIVER FERRY

The City transferred ownership of the St. Johns River Ferry (Ferry) to *JAXPORT* in 2007. The Ferry, which historically has an annual operating revenue deficit, is an integral part of U.S. highway A1A. In addition, this strategic link reduces the travel distance between Mayport and Fort George Island by over twenty (20) miles when compared to alternative highway routes. The single ferryboat operates on a fixed schedule that results in a maximum wait time of thirty (30) minutes.

Annual ridership historically has been 279,000 2-axle vehicles.

RAIL, ROAD AND INTERMODAL ACCESS

Due to the location of Jacksonville at the southeastern corner of the United States, Port facilities have access to the best intermodal connections in the South Atlantic. More than 33 million consumers are within an eight-hour truck drive of all three *JAXPORT* marine terminals, each of which is minutes from an interstate highway. More than 100 trucking and drayage firms operate in and around Jacksonville's Port to take advantage of Jacksonville's highway system. Jacksonville is directly served by Interstates 95, 10 and 295. Interstate 75 is less than a two-hour drive west of Jacksonville.

JAXPORT terminals are serviced by three Class I railroads, including Jacksonville-based CSX Transportation (CSX), Florida East Coast Railway (FECR) and Norfolk Southern (NS). Rail links for Talleyrand on-dock services is provided by Talleyrand Terminal Railroad, Inc. (Rail Link, Inc.)

CSX provides Port customers with access to its 23,000-mile route network that reaches 23 states, the District of Columbia and two Canadian provinces - Ontario and Quebec. On-dock rail service at Blount Island and Dames Point terminals is provided by CSX.

Norfolk Southern (NS) has a 21,500-mile route network. The railroad now has eight through freight trains in and nine out of Jacksonville daily. Additionally, NS operates six-yard trains per day in the Jacksonville area.

Florida East Coast Railway offers intermodal service between Jacksonville and the Florida cities of Fort Lauderdale and Miami on six southbound and four northbound scheduled trains daily. It is the only railway serving locations from Jacksonville to West Palm Beach.

On-dock rail facilities at Talleyrand are operated by Talleyrand Terminal Railroad, Inc., also known as Rail Link, Inc. This company provides direct switching for Norfolk Southern and CSX. The terminal is only minutes from Florida East Coast Railway's intermodal ramp. *JAXPORT* recently added two 95-foot wide rubber-tired gantry (RTG) cranes and four new on-dock rail spurs totaling 4,800 linear feet.

HARBOR DEEPENING

As the owner and manager of Jacksonville's public ship terminals, *JAXPORT* considers maintaining a deep harbor essential to keeping the Port viable. A competitive harbor depth allows the Port to accommodate the water depth (draft) requirements of fully loaded cargo vessels and to meet the needs of newer larger cargo ships of the future. For every additional foot of channel depth, generally an additional 600 – 20-foot cargo containers or 8,000 barrels of oil can be carried by a ship.

The St. Johns River harbor deepening project was coordinated with the U.S. Army Corps of Engineers to increase depth from 38 feet to 40 feet (plus two feet overdredge) in phase 1, completed in 2003. This phase deepened the St. Johns River at the Blount Island Marine Terminal and Dames Point Terminal to mile marker 14.7 to a depth of 40 feet.

Phase II of the dredging plan is scheduled to start in 2008 and will continue to deepen the channel to the Talleyrand Marine Terminal to an estimated 40 feet.

Currently under study is the impact of deepening the main channel for the St. Johns River to a depth of 45 feet. Preliminary study results should be available in 2008.

Each phase and any future phases of dredging projects are coordinated through the USACOE as the lead agency. Environmental assessments and identification of potential impacts are provided by several environmental agencies, including the St. Johns River Water Management District, the Florida Department of Environmental Protection, the U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency.

IN-WATER FACILITY MAINTENANCE

JAXPORT conducts regular inspections of all of its in-water facilities. Table A (below), *JAXPORT* Facilities Inspection Schedule, shows the scheduled inspections for the Blount Island, Talleyrand and Dames Point Terminals, the St. Johns River Ferry (a/k/a Mayport Ferry) and the spoil sites, including Bartram and Bucks Islands. The table shows the inspections scheduled through 2013. The 10 year in-water facility maintenance consists of these same scheduled inspections for the period through 2018.

In addition, as new and expanded facilities are developed, they are added to the Inspection Schedule.

JAXPORT established a repair schedule for its in-water facilities for five-year periods, which is updated annually, based on results of the inspections. The Capital Improvements Program (see Appendix D) includes the dock repairs that are identified in the annual inspection reports. These repairs are prioritized according to the risk associated with delaying the repair work. Emergency and safety issues related to ongoing operations are repaired immediately and the highest priority tasks are then programmed into the upcoming year's budget.

Table B (below), the Facilities Repair Table, shows the scheduled repairs for the period through Fiscal Year 2012. As stated above, repairs are scheduled annually based on the results of inspections and thus the repair schedule is modified for each fiscal year. Repairs and maintenance for the Dames Point Terminal are the responsibility of *JAXPORT's* private shipping tenants. The St. Johns River Ferry docking facilities are governed by the Florida Department of Transportation inspection schedule and no repairs are schedule in the next five years at this time.

In addition, *JAXPORT* maintains a regular maintenance-dredging schedule. Table C (below), Maintenance Dredging Quantities, describes the amount of dredging (in cubic yards) that has occurred historically (for fiscal years 2004, 2005, 2006, 2007, and 2008) and projected for fiscal years 2009 through 2013. This schedule will be modified each year to reflect data and information resulting from the on-going inspection program for the years 2014 through 2018 and thereafter.

Table A *JAXPORT* Facilities Inspection Schedule

JAXPORT FACILITIES INSPECTION SCHEDULE

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	ITEM	PERIOD	2007	2009		2010	2011	2012	2013
													Blount Island				$389,000				
93-012			96-007			99-049B			AE-1054			AE-1210	General Faculties	3 years		X	77,000			X	
1994							99-050		X		AE-1134A		RR Bridge	2 years	AE-1227	X	38,000		X		
	94-002						99-050		AE-1051		AE-1134A		2 Lane Bridge (720146)	2 years	AE-1227	X	32,000		X		
	94-007						99-050		AE-1051		AE-1134A		4 Lane Bridge (720550)	2 years	AE-1227	X	35,000		X		
													4 Ln Brg. S ramp (720550)	Annually				X	X	X	X
											AE-1134D		Bridge Scour Analysis	Annually		X	25,000	X	X	X	X
						99-049B			AE-1054			AE-1210	Dave Rawls Flyover	3 years		X	31,000			X	
													Blount Island Blvd Overpass	3 years		X	18,000			X	
						99-049B			AE-1054			Under Repair	Main Wharf	3 years	AE-1227			X			
				96-015			99-050			X			West Wharf # 1	3 years		X	62,000			X	
	94-007					99-049B			AE-1054			AE-1210	West Wharf # 2	3 years		X	58,000			X	
						99-049B			AE-1054			AE-1210	Tri-level Wharf	3 years					X		
93-012			96-007					X			AE-1134A		Transit Shed #3 Roof	3 years					X		
93-012			96-007			99-049B			AE-1054		AE-1134A		AmPorts Bldg Roof	3 years		X	$3,500			X	
			96-007			99-049B			AE-1054			AE-1210	DAS Bldg Roof	3 years		X	$4,500			X	
									AE-1039		AE-1134A	AE-1210	Inspect 4 ponds	Annually	AE-1227	X	$5,000	X	X	X	X
										AE-1085	AE-1173	AE-1202	SWPPP Samples	Annually	AE-1227	X	$10,000	X	X	X	X
													Talleyrand				$48,500				
93-012			96-007			99-049B			AE-1054			AE-1210	General Faculties	3 years		X	$38,500			X	
		95-002	95-018		96-011	99-049B		X		X	3YR. INTERVAL		Main Wharf	3 years	AE-1227			X			X
93-012			96-007					X			AE-1134B		Transit #1 Shed Roof	3 years					X		
										AE-1085	AE-1172	AE-1202	SWPPP Samples	Annually	AE-1227	X	$10,000	X	X	X	X
													Dames Point				$19,300				
								X			AE-1134C		Sheet pile Wharf	3 years					X		
													Terminal Bldg. Roof	3 years				X			X
									AE-1039A		AE-1134C	AE-1210	Inspect 3 ponds	Annually	AE-1227	X	$5,000	X	X	X	X
													August Drive Bridge (724322)	2years		AE-1259A	$14,300				
													Bartram Island				$6,000				
							99-050		X		AE-1134A		Dike Structures	2 years	AE-1227	X	$2,500		X		X
							99-050		X		AE-1134A		Weir Structures	2 years	AE-1227	X	$3,500		X		X
													Bucks Island				$21,000				
							99-050		X		AE-1134A		Dike Structures	2 years	AE-1227	X	$2,500		X		X
							99-050		X		AE-1134A		Weir Structures	2 years	AE-1227	X	$3,500		X		X
							99-050		X		AE-1134A		Access Bridge	2 years	AE-1227	X	$15,000		X		X
													Mayport Ferry				$0				
													North Bridge (720934)	2 years				X		X	
													South Bridge (720933)	2 years				X		X	
													N & S Fender Systems	2 years				X		X	

Source: *JAXPORT*

Table B Facilities Repair

Blount Island Marine Terminal	Five Year Total	$24,605,175
Talleyrand Marine Terminal	Five Year Total	$19,764,500

Budget Year	Marine Terminal	Facility	Repair Description	Sub cost	Total Cost
07/08	Blount Island Marine Terminal	Main Wharf (Berth 30 Through 35)	Repair of 52 spots of spalling and exposed rebar on the underside of the prestressed precast deck panels. Repair of 8 broken and deteriorated piles. Repair of 5 large holes in the sheet pile wall. Repair of 5 location from berth 31 to 33 of upper dock deck settling and spalling along with severely corroded utility pits.	$826,000	$1,200,000
		2 Lane Bridge	Replace one girder beam anchor bolt. Re-stripe the deck surface. Replace badly corroded Inspection/Work access ladder and landing.	$70,000	
		4 Lane Bridge	Replace joint seal in the abutment to prevent rain water from eroding the fill and slope materials. Repair undermined fill and slope protection. Repair drainage system hangars that are corroded. Replace 36 liner feet of damaged railing with epoxy injection.	$22,000	
		Railroad Bridge	Repair 1 pile with a bad spall that has exposed the internal steel reinforcement. Repair the non-operating navigational lights.	$19,000	
		Bartram Island Dike Repair	Reshaping is required of 600' section of dike inner slope to prevent eminent failure of the dike wall.	$124,000	
		Berth 20 & 22	In berth 22, repair 5 piles that are deteriorated to a point that they are no longer structurally functional. On berth 20 the deck grouting on the catwalk that serves those tying up the ships has deteriorated to a point platform is unstable. At berth 20, 17 piles and 5 pile caps, berth 22, 27 piles and 4 pile caps require repair of large spalls and delaminated concrete. There are miscellaneous safety items to be corrected on both docks.	$139,000	
	Talleyrand Marine Terminal	Main Wharf (Berth 4 Through 8)	Repair of 47 piles with encasement jackets. Repair of 4 large holes in the sheet pile wall. Repair 9 large spalls on pile caps through out berth 4 through 8. Repair 7 large spalls on the dock face. Repair two large spalls on the underside of the dock deck.	$150,000	$900,000
		Dock Stations 25+25 and 26+00	Partially replace bulkhead, landside cap, batter piles, and landside crane rail piles to repair severely deteriorated bulkhead.	$750,000	

Budget Year	Marine Terminal	Facility	Repair Description	Sub cost	Total Cost
08/09	Blount Island Marine Terminal	Main Warf (Berth 30 Through 35)	Repair of 54 piles and 9 areas on pile caps that have moderately larger spalls and/or delaminating of concrete. There are 7 locations on the deck slabs and 62 large spalls on the dock face that need spalls repaired.	$1,081,120	$1,473,780
		2 Lane Bridge	There are 4 columns that have delaminated and spalled areas with exposed and corroding steel reinforcements. The bridge railing has cracks in 13 lin ft. that require repair as well as 210 lin ft of joint seal that is no longer effective and requires replacement.	$132,660	
		4 Lane Bridge	10 columns have delaminated and/or spalled areas exposing the steel reinforcements. There are also 6 lin ft of abutment and 3 lin ft of girder that have damage that requires repair. The bridge deck has a 50 sq. ft area that has moderate damage requiring repair to prevent further damage.686 lin ft of joint seal requires replacement.	$150,000	
		Railroad Bridge	There are medium to large spalls and delaminated areas on 50 piles and 13 pile caps. A medium crack and some delaminating is occurring on the concrete deck panels.	$110,000	
	Talleyrand Marine Terminal	Main Wharf (Berth 4 Through 8)	There are 37 piles and 9 pile caps that are in moderate condition currently that require repair to protect exposed prestressed steel elements. The wharf face has 7 large spalls that need repair to protect from further damage. The wharf deck underside has two locations that require spall repair. The completion of the immediate repairs to the partial replacement of the bad sheet pile area stated in 2008 Capital Budget.	$725,000	$725,000
9/10	Blount Island Marine Terminal	Main Wharf (Berth 30 Through 35)	This year will begin the effort to make complete repairs of the wharf structure	$7,250,000	$7,431,395
		Buck Island	Repairs will be needed to the access bridge slope protection timbers and the center levees between the eastern and western cells.	$181,395	
	Talleyrand Marine Terminal	Main Wharf (Berth 5 through 8)	This year will begin the effort to make complete repairs of the wharf structure	$6,046,500	$6,046,500
10/11	Blount Island Marine Terminal	Main Wharf (Berth 30 Through 35)	Complete Reconditioning of the wharf structure continues.	$7,250,000	$7,250,000
	Talleyrand Marine Terminal	Main Wharf (Berth 5 Through 8)	Complete Reconditioning of the wharf structure continues.	$6,046,500	$6,046,500
11/12	Blount Island Marine Terminal	Main Wharf (Berth 30 Through 35)	Complete Reconditioning of the wharf structure continues.	$7,250,000	$7,250,000
	Talleyrand Marine Terminal	Main Wharf (Berth 5 through 8)	Complete Reconditioning of the wharf structure continues.	$6,046,500	$6,046,500

Source: *JAXPORT*

Table C Maintenance Dredging Quantities

TMT	DPMT	BIMT	CUBIC YARDS	
93,250	99,750	13,000	***FY04***	***206,000***
90,365	124,865	44,038	***FY05***	***259,268***
233,990	142,790	82,502	***FY06***	***459,282***
19,655	43,560	23,004	***FY07***	***86,219***
48,445	52,682	0	***FY08***	***101,127***

	TMT		DPMT		BIMT		MAYPORT	CUBIC YARDS
Average		***97,141***		***92,729***		***32,509***		
Projected Yearly Quantity		***100,000***		***100,000***		***40,000***		
Add B16, 17, & Turning Basin				***150,000***				
			Estimated Annual Dredge Volume for FY09-13					***390,000***
Source: *JAXPORT*								

NATURAL RESOURCES

St. Johns River

Access to the St Johns River from the Atlantic Ocean is between two jetties, each over two miles long extending in an east-west direction across the ocean bar from the river mouth. The entrance channel leads southwestward along the inshore end of the south entrance jetty from St. Johns Point to Mayport Basin (Ribault Bay).

Dredged deepwater channels generally follow the river's natural course to the upstream limit of the USACOE maintenance project at the Florida East Coast Railway Bridge. The only exception is the Dames Point-Fulton Cutoff, created to shorten a natural meander of the St. Johns River around present Blount Island. The dredging was a USACOE project that placed the spoil material on Blount Island

The USACOE currently maintains the 26.8 miles of harbor channels within the St. Johns River. Between the ocean and mile marker 14.7, the channel is 40 feet deep and varies in width from 400 to 1200 feet. The channel is 38 feet deep to the south to *JAXPORT's*

docks and 34 feet deep from there to Commodores Point. The harbor channel is 30 feet deep to the Florida East Coast Railway Bridge. The USACOE also maintains a 38-foot channel in the Blount Island west channel.

Anchorages for deep-draft vessels waiting outside the river's entrance are located in the Atlantic Ocean off Ft. George Inlet, northeast of the jetties, in water depths of 36-50 feet. Federally designated anchorages within the St. Johns River are provided at several locations for vessels of different draft and for special purposes, such as awaiting quarantine inspection, explosives, and naval fuel depot.

The mean tidal range is 4.9 feet at the mouth of the St. Johns River and about 1.2 feet at the Florida East Coast Railway Bridge. At the Talleyrand Terminal, the range is about 2 feet and nears 3.5 feet at the Blount Island Marine Terminal.

Tidal currents in the river can reach 1.9 knots on the flood tide (upriver or inland) between the jetties and 2.3 knots at the ebb tide (downriver, toward the ocean). Mayport velocities are 2.2 knots on the flood and 3.1 knots on the ebb. Velocities at Mile Point 27 above the mouth of the river are about 2.8 knots and at Commodore Point, about 1 knot. The flood current is increased by northeasterly and easterly winds while the ebb current is influenced by southwesterly and westerly winds.

Aquatic life in the St. Johns River and its tributaries is addressed in the Conservation Coastal Management Element, along with endangered, threatened and species of special concern. *JAXPORT* recognizes the need for natural resource protection and all development plans are to be consistent with the goals, objectives and policies associated with resource protection. Due to the nature of operations and location of port facilities, two species that are addressed by *JAXPORT* in more detail are the West Indian Manatee and North Atlantic Right Whale.

West Indian Manatee

The Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973 are federal laws protecting the West Indian Manatee. The Florida Manatee Sanctuary Act of 1978, a State law, also provides protection for manatees. These laws make it illegal to harass, hunt, capture, or kill any marine mammal. The Florida Manatee Recovery Plan, coordinated by the U.S. Fish & Wildlife Service, was developed as a result of the Endangered Species Act with the intended goal of upgrading their endangered species status. In 1989, Florida's Governor and Cabinet directed the Florida Department of Environmental Protection to work with 13 "key" counties to reduce injuries and deaths to manatees. Duval County was one of these "key" counties.

Chapter 95 City of Jacksonville Ordinance Code created the Jacksonville Waterways Commission specifically for the following purposes related to the St. Johns River and its tributaries: To study and make recommendations to the Council with respect to the improvement, development and protection, to formulate an overall plan for problems that may exist, and to devise methods of future development.

The Jacksonville Waterways Commission, for the Jacksonville City Council, engaged Jacksonville University to conduct research on manatees and their habitat. This research resulted in the Duval County Manatee Protection Plan with provisions to review and update the plan on an annual basis. *JAXPORT* played an integral part through financial assistance and participation in the Jacksonville Waterways Commission meetings and workshops. Aerial sightings identified manatees in areas around port facilities, and as a result, *JAXPORT* activities are planned and conducted in accordance with the Conservation/Coastal Management Element policies regarding manatee protection.

JAXPORT implemented manatee protection measures at their facilities such as wharf fenders and cantilever docks. Wharf fenders are inflatable bumpers generally 10 feet by 5 feet in size. The fender provides approximately 4 to 5 feet of space between the vessel and the bulkhead. This prevents an animal from being caught between a slowly docking ship and the wharf. Cantilever docks work in the same manner as a building balcony. A portion of the dock is located on land and the remaining portion hangs over the water. This leaves space under the dock as a protection area preventing trapping animals. Cantilever docks can also be embedded into a concrete bulkhead.

Each year, *JAXPORT* provides financial assistance to fund the City's Manatee Protection Program, a continuing Jacksonville University program gathering information and increasing awareness and protection among area boaters and residents. Education plays a vital role in manatee protection. Public education materials include pamphlets with basic manatee information, kiosks at major boating facilities and traveling kiosks and specialty maps for special events, and public service announcements. Jacksonville University offers a slide presentation that can be incorporated into school curriculums and civic organization events.

North Atlantic Right Whale

JAXPORT also helps to fund protection programs for North Atlantic Right Whales. Right whales are classified as endangered species with a population of less than 400. Initially the low population count was due to commercial whaling. Today, recovery is threatened due to competition for food resources, entanglements in fishing gear, ship strikes and a naturally low rate of reproduction.

JAXPORT along with federal, state and local agencies financially assists the Right Whale Early Warning System. This program sponsors aerial surveys of the southeastern U.S. coast to locate, photograph and report positions of right whales in their habitats. The whale positions are broadcast to ships in order to avoid whale-occupied areas. *JAXPORT* also supports the Mandatory Ship Reporting System, a Coast Guard regulation requiring large vessels to report their location and intended track to Georgia and northeastern Florida ports. The Coast Guard can then provide recent whale sightings so ships can avoid interaction.

Additional *JAXPORT* support for right whale protection is the participation in the Southeast Right Whale Recovery Plan Implementation Team. This association is

comprised of scientists, government agencies and private businesses focused on right whale protection.

Historic Resources

No known historic resources are located on existing *JAXPORT* terminal properties of Talleyrand, Dames Point, or Blount Island. Any expansion outside the current boundaries will be consistent with the 2030~~2010~~ Comprehensive Plan Historic Resources Element. This element, a requirement of Chapter 163 Florida Statutes, was implemented in accordance with Chapter 307 of the City of Jacksonville Ordinance Code and the Certified Local Government Program through an agreement with the Florida Department of State, Division of Historical Resources.

Coastal High Hazard Areas

JAXPORT, with the majority of its facilities located within the coastal high hazard areas, along the coast, acknowledges the potential impact of hurricanes to these facilities.

Due to the water dependent nature of Port facilities, it is difficult to locate Port facilities and operations completely outside coastal high hazard areas. When feasible, capital improvements will be located outside the hazard areas. In addition, *JAXPORT* completed a Hurricane Preparedness Plan to address issues relating to hazard areas and has committed to further address and minimize these impacts through the goals, objectives and policies identified in the Conservation Coastal Management Element.

WATER RELATED / WATER DEPENDENT LAND USE

Port and related Port activities, both public and private, are located on both sides of the St. Johns River from the Atlantic Ocean to the Hart Bridge. Facilities include a range of uses from ship mooring and repair to general cargo shipping. The majority of these properties are classified in the Water Dependent/Water Related (WD/WR) land use category of the 2030~~2010~~ Comprehensive Plan. This future land use category protects and supports the sound expansion of Port facilities.

In addition to Port related activities in the WD/WR category, there are additional Port activities operating under the Central Business District (CBD), Community General Commercial (CGC) and Public Buildings and Facilities (PBF) land use categories. The CBD properties are located between the Hart and Matthews Bridges. CGC properties are located just north of the Matthews Bridge and south of Talleyrand Marine Terminal. PBF designated properties can be found in various parts of the City.

Although the land use categories for Port related operations and activities are not always WD/WR, the importance of the areas currently used for such purposes should not be minimized. The properties are located along the waterfront, are at the perimeter of existing nodes of Port activity and have access to necessary infrastructure.

The purpose of identifying existing Port related activities and property with the appropriate land use category is to maintain these properties for future growth and

expansion. Future Port development is dependent on the availability of property located along the waterways and those areas currently identified for Port and Port related activities need to be protected from future land uses that restrict expansion or decrease necessary waterfront acreage. Private companies may relocate and government uses, specifically military bases, may close. Should this be the case, the City needs to maintain the use of the property for *JAXPORT* development, or at the least, development dependent on water access.

Blount Island (eastern half) is a prime example of a site appropriate for future *JAXPORT* development. This area has the necessary infrastructure in place to support future Port activities and is located adjacent to the Blount Island Marine Terminal. Other areas currently used by the military should also be identified as potential *JAXPORT* usage in the event of base closures or realignments.

The accompanying Map 17 identifies current *JAXPORT* properties and properties with existing Port related uses. The main privately operated companies and government branches are listed here. This is not meant to be an exhaustive list, merely a sampling of the diverse uses located along the riverfront.

Amerada Hess
Atlantic Drydock and Marine
Chevron USA Inc.
Container Land Associates
Crowley American Transport
Gate Concrete Company
Jacksonville Electric Authority
Phillips 66 Company
Southeast Toyota
Standard Oil Company
Support Terminals Operating Partnership
United States Army Corps of Engineers
United States Gypsum Company
United States Marine Corps

EXISTING INFRASTRUCTURE

The Port is a multi-modal operation bringing together 36 shipping lines, more than 100 truck lines and tie-ins to three rail systems. The success of the Port is contingent, in part, on the accessibility to the various transportation modes to the Port facilities. All of Jacksonville's major Port facilities are located near a part of the City's expressway system, which, in turn, connects the Port facilities to the remainder of Northeast Florida.

Talleyrand Corridor Port facilities are adjacent to the Hart and Mathews Bridges and close to the 20th Street Expressway (Martin Luther King Parkway), a limited access highway connecting with I-95. Blount Island and Dames Point have access to I-95 and I-295 via Heckscher Drive and State Road 9A, respectively. I-95 and I-295 provide access to I-10, an east-west interstate starting in Jacksonville and terminating in San Diego, California.

Norfolk Southern Railway Systems, CSX Transportation and Florida East Coast Railway serve Talleyrand. Just under 40% of the terminal, pier, wharf and dock facilities have direct rail system access. CSX maintains rail service to Dames Point and Blount Island.

JAXPORT facilities are served by the Jacksonville Electric Authority (JEA) for electricity, wastewater treatment and potable water supplies. JEA owns and operates three generating plants and all transmission and distribution facilities. A fourth power plant, the St. Johns River Power Park (SJRPP), is owned jointly by JEA and the Florida Power & Light Company (FPL) and operated by JEA. In addition, JEA produces 3.2 megawatts from a methane-fueled generating facility at the Girvin Road Landfill. JEA's net generating capability is 2,361 megawatts.

In 1994, the Cedar Bay Generating Plant began commercial operation and is operated by PG&E Generating. This plant provides electricity to FPL and process steam to the recycling facility of Smurfit-Stone Container Corporation. Cedar Bay is a 269 megawatt, coal-fired cogeneration plant.

EXISTING DEMAND

Containers

Since 1994, container tonnage has increased at an average of 2.8% per year with the majority of import/export container cargo from Puerto Rico and South America. Caribbean and European markets account for other container cargo. Historically, container cargo has accounted for half of all tonnage at *JAXPORT*.
Blount Island handles approximately two thirds of *JAXPORT* container traffic. In 2004, this accounted for approximately 520,000 TEUs. There are four key operators at Blount Island Coastal Maritime Services, Sea Star Line, APM Universal/Horizon Lines and Trailer Bridge.

Three key operators at Talleyrand handled approximately 100,000 TEUs during the same period. These operators include Hamburg Sud North America, Crowley Liner Service and Industrial Cold Storage.

Vehicles and Ro/Ro Cargo

Blount Island handles approximately 68%, or 362,000 units with the remaining 170,000 units handled at Talleyrand. Although there was a slight decrease in units handled during 2004, the period from 1997 through 2003 increased steadily at 3.6%.

Over the 215 acres dedicated to vehicle and Ro/Ro cargos on Blount Island, operators indicated a storage density of approximately 150 autos per acre per turn. Per turn identifies the amount of time a vehicle is stored at the facility to the time it is moved to the consumer. The average of 21 storage days was used for these calculations. This provides a current capacity of 560,000 units, 200,000 above current operations. Talleyrand however is operating just under capacity.

Breakbulk Cargo

An increase in paper and steel products has provided *JAXPORT* with a growth rate for breakbulk cargos of approximately 9.7% over the past five years. Tonnage of poultry products has been fluctuating due to closures of production facilities. In 2004, over

140,000 tons of poultry and 280,000 tons of steel were handled at Talleyrand. The capacity at Talleyrand is 480,000 tons for all breakbulk cargo however, steel is at capacity. Any amount of steel over the 280,000 tons is unloaded at Blount Island.

Operations at Blount Island are near capacity, handling approximately 500,000 tons per year. This includes paper, steel coils and rods and plywood.

Bulk Cargo

JAXPORT handles approximately 1.9 million tons of bulk cargo, both liquid and dry. Dry bulk cargos account for about 20-25% of the total tonnage handled by *JAXPORT*.

At Talleyrand, there is a capacity of 16,000,000 gallons for liquid bulk cargo. This cargo consists of chemicals used in agricultural markets and paper manufacturing. The anticipated growth rate is 3% per year, with the current demand, measured in tons, of 300,000 – 400,000 tons per year. Dames Point handles dry bulk cargos and is the only public terminal to do so. This facility handles 1,000,000 – 1,500,000 tons per year with the capability of an additional 500,000 tons. Over the past five years, dry bulk growth has averaged 3.1% increase per year.

Summary of Cargo Capacity

FACILITY	CARGO	CAPACITY
BLOUNT ISLAND	Containers	459,800 moves
	Vehicles	560,000 vehicles
	Breakbulk	500,000 tons
TALLEYRAND	Containers	129,250 moves
	Vehicles	170,000 vehicles
	Breakbulk	480,000 tons
	Liquid Bulk	16,000,000 gallons
DAMES POINT	Bulk	2,000,000 tons
Source: *JAXPORT*		

FUTURE FORECASTS

Containers

Terminal operators and carriers anticipate growth of existing services and potential growth from new services. The following table shows the growth of existing markets and potential cargo opportunities based on information provided by the four main operators at Blount Island and three main operators at Talleyrand. In addition to the existing carriers, *JAXPORT* recently signed agreements at Dames Point to move up to 800,000 units per year.

CONTAINER MOVES				
BLOUNT ISLAND	BASE MOVES	EXISTING SERVICES	POTENTIAL SERVICES	TOTALS
2004	259,103			
2005		267,106	138,368	405,474
2010		311,570	167,305	478,875
2015		364,658	203,682	568,340
2020		428,351	249,708	678,058
TALLEYRAND	BASE MOVES	EXISTING SERVICES	POTENTIAL SERVICES	TOTALS
2004	99,967			
2005		99,080	11,119	110,199
2010		119,130	12,841	131,971
2015		143,300	14,839	158,139
2020		172,452	17,157	189,609
Source: John C. Martin Associates, 2005				

Vehicles and Ro/Ro Cargo

Jacksonville is geographically in a position to take advantage of land constraints on the west coast and the inability of consistent, high volume rail movement of units. There is a growing market for distribution to the Southeast and the Jacksonville location can decrease delivery times to consumers in this area. Volumes handled by the main Talleyrand carrier, SE Toyota, may decrease as future expansion for this carrier moves to their inland facility. Overall sales and demands however are expected to continue increasing. Based on 3.6% increase from 1997 through 2003, the following estimates are calculated relating to future growth potential.

VEHICLE – RO/RO CARGO			
BLOUNT ISLAND		TALLEYRAND	
2004	360,000	2004	170,000
2005	372,960	2005	176,120
2010	445,104	2010	210,188
2015	531,202	2015	250,845
2020	633,955	2020	299,368

Source: *JAXPORT*

Breakbulk Cargo

Overall breakbulk cargo handled by *JAXPORT* increased 9.7% over the past five years. The table below projects potential cargo tonnage through 2010 provided the increase remains steady.

BREAKBULK CARGO			
BLOUNT ISLAND		TALLEYRAND	
2004	500,000	2004	420,000
2005	548,500	2005	460,740
2010	871,384	2010	731,963
2015	1,384,340	2015	1,162,845
2020	2,199,257	2020	1,847,376
Source: *JAXPORT*			

Bulk Cargo

Dry bulk cargo is tied to local companies, specifically cement, concrete and asphalt production. The JEA consumes limestone for certain processes. Provided these local consumers are maintained, the growth rate for dry bulk cargo is approximately 3.1% per year. The liquid bulk operators expect a 3% increase. The future projections with a steady growth increase are shown below.

BULK CARGO			
BULK		LIQUID	
2004	1,250,000 (average)	2004	350,000 (average)
2005	1,288,750	2005	360,500
2010	1,501,281	2010	417,918
2015	1,748,861	2015	484,482
2020	2,037,270	2020	561,647
Source: *JAXPORT*			

PASSENGER CRUISE INDUSTRY

According to Cruise Lines International Associations, the number of cruise ship passengers has increased 8% per year over the last 15 years. Ships are added to accommodate this growth taking advantage of first time passengers as well as repeat passengers by adding amenities to the newer ships. Older ships are repositioned to

new ports for cruise market expansion. Potential new ports are identified in several ways. One is the emerging market of passengers that prefer to drive to the port rather than fly. This identifies the population for the potential market at four, six and eight hour drives to the port. Although the focus is on driving to the port, an assessment is made as to hotel and flight availability. Infrastructure is also a major factor; roadway infrastructure in particular. Facilities must be suitable for ship turnarounds as well as the ability to accommodate the larger ships.

JAXPORT is in a position to attract a portion of the cruise ship industry due to Jacksonville's location. South Florida ports are close to reaching maximum capacity and therefore cruise companies will need to look at other ports for space relief. Destinations to the Caribbean, Bahamas and northern states can be reached from Jacksonville in a reasonable amount of time. Cruise ship service from Jacksonville began in 2004 with 170,000 passengers embarking and debarking. This number is expected to grow to 300,000 passengers in 2005.To determine the potential number of passengers, the 8% growth rate is applied to the predicted 2005 number of passengers, 300,000 and projected through 2020. The projections do not start in 2004 as this was the inaugural year. The projections assume a steady increase in the cruise industry and a continued presence in Jacksonville.

Jacksonville Homeport Projections

YEAR	PASSENGERS
2005	300,000
2008	377,914
2010	440,798
2012	514,147
2015	647,677
2018	815,887
2020	951,651
Source: *JAXPORT*	

SYSTEM NEEDS AND SOLUTIONS

Several improvements or changes need to be considered in order to address current and potential cargo demands at the three terminals. All the projections assumed a steady annual increase through 2020. However, it is reasonable to state that markets fluctuate and types of cargo may change leaving growth potential to fluctuate. The following comments are based on current conditions, operator needs and potential growth.

Dames Point Marine Terminal

- *JAXPORT* recently expanded the Dames Point bulk terminal by 25 acres with plans to add facilities to support new services.

- Mitsui O.S.K. Line will develop a cargo terminal on 158 acres that will include two 1,200-foot berths and six cranes. The company has options to expand to 200 acres in a later phase.
- New marine terminal development with possible on-dock rail infrastructure is included in the expansion plans.

Blount Island Marine Terminal

- Future growth potential indicates additional acreage is required to meet projected demand.
- Due to insufficient warehouse space, some business has been turned away. It is estimated that an additional 100,000 sf of warehouse could be used immediately for breakbulk cargo.
- Additional storage capacity for vehicles may be increased by reducing storage times and re-striping yard layouts.

Talleyrand Marine Terminal

- Operators are concerned about rail capacity to accommodate projected future volumes. One key operator projects a 10% increase in rail capacity needs while a second anticipates an additional 30 railcars per day for paper business. *JAXPORT* is working with Talleyrand Terminal Railroad to increase railcar storage capacity at Duffer and F&J yards adding 5,000 feet of track between the two yards as a short-term solution.
- Acreage is limited for terminal expansion. *JAXPORT* is investigating two properties; the Smurfit-Stone property for potential warehouse expansion and a 30-acre parcel adjacent to the CSX export yard to be used for railcar storage or breakbulk storage.
- Steel discharge has reached capacity. To alleviate the capacity issue, steel is unloaded at Blount Island as a temporary solution.
- A 553,000 sf on-dock warehouse for paper and forest products has been constructed. This warehouse is equipped to handle an additional 800,000 – 1,000,000 tons annually. The operator indicated another 200,000 to 250,000 sf of warehouse space would attract a key forest product account.
- Efficiency was improved by use of a Rubber Tire Gantry (RTG) Cranes to stack containers. A more efficient method than reach stack containers.
- A change in vessel sizes increase cargo amount but decrease port calls, freeing some time on berth use.

Passenger Cruise Terminal

In order to take advantage of the growing cruise industry, *JAXPORT* has several factors to consider. Site selection for a permanent terminal needs to address air draft restrictions. Over the next ten years, 50% of the new cruise ships will require in excess

of 175 feet air draft. Berths should be 1,100 feet with 34-foot drafts. Cruise activity should not impact or restrict cargo activities. The site needs ample space for parking, security and passenger processing. Infrastructure to support the cruise ship, such as road access, must be in place.

JAXPORT DEVELOPMENT AND EXPANSION PROGRAM

Background

JAXPORT an independent public authority is charged with the acquisition, planning, development, management and marketing of the public marine terminals within the City. *JAXPORT*'s facilities generally serve as a transfer point for waterborne cargo and inland distribution points. With the exception of the automobile import business, *JAXPORT*'s facilities generally do not include processing, assembly or other industrial functions. In addition, *JAXPORT* serves as the local sponsor with the USACOE, which has ultimate responsibility for the development and maintenance of the federal channel in the St. Johns River that serves all users of the River. As local sponsor, *JAXPORT* is required to fund the entire non-federal portion of all channel capital improvements, to provide dredge material storage facilities for the federal channel dredging and to represent the interests of users of the River with the USACOE. *JAXPORT* has no legal or planning authority over the private users of the River.

JAXPORT created by an act of the Florida Legislature in 1963, is governed by a seven member appointed Board of Directors. The Mayor of the City appoints four members and the Governor appoints three to the Board. *JAXPORT* acts as an enterprise function in that revenues generated by the use of its assets pay for all of its operating expenses and a large portion of its capital requirements. Public funding in the form of grants and loans from the State, the City and the Federal government assists with capital infrastructure.

Private tenants lease space on *JAXPORT*'s facilities and compensate *JAXPORT* through land leases, dockage, wharfage and equipment use fees. Because of its operating structure, expansion of *JAXPORT* capacity is driven by market demand and economic analyses, which allow *JAXPORT* to maintain its independent status. Projects may not be justified on the basis of economic impact (i.e., job creation) alone, as may be the case for State owned and controlled port authorities, but rather they must represent financially sound investments.

The City 2030~~2010~~ Comprehensive Plan recognizes the importance of the public seaport facilities to the economic well-being of the community. Specific policies are contained within the Future Land Use Element and the Conservation/Coastal Management Element, in addition to this Port Master Plan, which address the need to protect the existing Port facilities from encroachment of non-waterfront dependent uses and to direct the development of new Port facilities to locations within the community, which are most appropriate. The areas deemed most appropriate for *JAXPORT* development are described below and shown on Map 17 *JAXPORT* Map. These areas are located predominantly along the western and northern shores of the St. Johns River, generally north of the Mathews Bridge. In making these determinations, the City and *JAXPORT* reviewed surrounding land uses, neighborhood conditions, transportation access, utilities and environmental concerns. Specific policies are also contained within the Conservation/Coastal Management Element, which recognizes the

need to balance the impacts of Port development with protection of significant environmental resources.

Marine Terminals by their nature are generally not large consumers of public utilities. *JAXPORT*'s container cranes are presently fueled by diesel fuel and potable water is occasionally provided to the vessels. The terminals do have electrical power requirements for overhead high mast lighting and for the various office and warehouse structures. These utilities are all provided for adequately by the public utility system.

PORT EXPANSION

CARGO TERMINALS

International trade is forecasted to continue to grow at a very rapid rate as evidenced in the attached market analysis performed by the Port Import Export Reporting System (PIERS). The impact on the Port and all eastern seaboard ports will be determined by a given port's ability to respond with additional port facility capacity. In Jacksonville, that capacity will be gained primarily through the acquisition of additional property and the development of Port terminals, while some capacity gains may occur through the more efficient use of existing facilities.

JAXPORT conducted a survey of potential Port expansion properties in 2005 and 2006, which is reflected in Map 17.

Future expansion sites for cargo terminals should consider the following: (1) the proximity of the site to the main channel of the St. Johns River; (2) the site should be of sufficient size to amortize the fixed costs associated with terminal construction; (3) the existing land use and zoning of the site; (4) the site's proximity to road and rail systems, and (5) the site's proximity to other industrial areas. In identifying potential cargo sites, the *JAXPORT* Board has made the policy decision to avoid established residential communities and environmentally sensitive locations. Should existing port-related industrial sites become available for *JAXPORT* use, either in whole or in part, they would be reviewed and evaluated accordingly. Redevelopment of existing industrial sites would be given some level of priority consideration over development of "Greenfield" sites. The following sites have been identified as potential *JAXPORT* development properties.

LaFarge (Map 11)

The LaFarge Property is approximately 47.5 acres of upland property, located along the Blount Island west channel. The property is currently designated as Water Dependent/ Water Related land – use and is zoned Industrial Waterfront. The site has limited water frontage, approximately 400 feet, for major deep-water Port use. The property is accessed from New Berlin Road via Heckscher Drive (State Road 105).

Surrounding land uses include the British Plasterboard facility adjacent to the southern border, Eagle Transport (a commercial trucking company) and the New Berlin Residential Enclave to the north and vacant *JAXPORT* property and a small CSX rail yard to the west. *JAXPORT* is currently working on plans to relocate a portion of Dames Point Road to the western boundary of the LaFarge property to improve safety and access to the British Plasterboard and LaFarge properties as it builds out its Dames Point Marine Terminal. *JAXPORT* and LaFarge are currently exploring development opportunities for this parcel, which may include additional Port facilities (most likely conveyable bulk material) and Port-related industrial uses, including distribution centers.

Zion Jacksonville (Map 12)

This property, which lies northwest of the Dames Point Marine Terminal, between Dunns Creek and the Broward River, is approximately 880 acres in size. The property is generally bound by the St. Johns River on the south, Dunns Creek on the east, Faye Road on the north and Eastport Road on the west. The property is bisected by Heckscher Drive (State Road 105). With frontage on Eastport Road, Faye Road and Heckscher Drive, traffic may be dispersed to and from the existing Interstate system at several locations. The current land use designation for the property north of Heckscher Drive is Light Industrial with an Industrial Business Park zoning. The southern portion of the property, south of Heckscher Drive is designated Industrial Waterfront. Adjacent uses include the Hess Oil Terminal, Jefferson Smurfit paperboard plant and the Cedar Bay electric generating station.

Heckscher Drive, which has been designated as a Strategic Intermodal System Connector is presently under design for widening to a four lane divided roadway, with construction scheduled in 2008. The planning on this project has been closely coordinated between *JAXPORT* and the Jacksonville Transportation Authority, which has taken responsibility for the improvements to the roadway. This widening will pose some challenges to the development of the Zion property, in that development of the site into a marine terminal will require lands on both sides of the roadway. The configuration of the site and the current market conditions dictate that the most viable short-term port uses for the property include conveyable bulk materials (liquid and dry) and perhaps containers. Container use of the property will require that a portion of Heckscher Drive, which bisects the property, will have to be elevated to allow unimpeded access across the property, while bulk cargoes could conceivably be conveyed over the top of an at-grade Heckscher Drive. The ultimate use of the property will dictate the type and extent of berthing facilities that will be required.

JAXPORT is in the process of negotiating the acquisition of 185 upland acres of the southern most portion of the property, including the submerged lands, which Zion Jacksonville holds title to. Also being acquired will be a 100-foot access easement from the property boundary to Eastport Road and a 50-foot easement from the property to the CSX railroad. The mix of truck and rail activity at this site

will ultimately depend on the cargo use of the property. The remaining portion of the property not being acquired by *JAXPORT* will remain available for other industrial uses, Port-related or other.

Bostwick (Map 13)

The Bostwick Trust property, located west of the Broward River, is bisected by Heckscher Drive (State Road 105). The total parcel is approximately 350 acres with 100 useable upland acres located south of Heckscher Drive. This property has very little useable waterfront which limits its port potential. The land use designation for the property is Water Dependent/Water Related and the zoning classification is Industrial Waterfront.

The property has direct access to Heckscher Drive (State Road 105) and the CSX Railroad. The property is also situated adjacent to the Imeson Industrial Park and other port and industrial users including the Navy Fuel Dock and the BP Oil Tank Farm.

As noted earlier, with the limited waterfront accessibility, the site is best suited for a conveyable bulk material (liquid or dry) and perhaps roll-on roll-off cargo, or related non-waterfront industrial development. The mix of traffic, between road and rail, would be dependent on the type of cargo handled at the site.

Navy Fuel Dock (Map 14)

The U.S. Navy currently operates a fuel depot for military vessels on a 245-acre site. This depot is comprised of 12 storage tanks, a docking facility and associated pipelines and ancillary facilities. *JAXPORT* is in discussions with the Navy to determine if the fuel tanks could be repositioned on the site in order to make available 100-120 acres of property for port expansion.

The site has access to Heckscher Drive (State Road 105) via Somers Road and direct access to a CSX rail line. The site is located along the Federal channel of the St. Johns River and would be easily developed into a marine terminal for nearly any cargo type. The site is presently designated as WDWR in the Future Land Use Element and is zoned Industrial Waterfront.

Talleyrand North Terminal Map (Map 15)

Part of this former paper mill property was recently purchased by *JAXPORT* for Port development. The property is located in the Talleyrand area, on Wigmore Street. It contains approximately 27 acres located on the St. Johns River and 11 acres west of Wigmore Street. The property is directly served by the Norfolk Southern railroad. Surrounding waterfront uses are industrial in nature, either direct port use or other water-dependent uses. There is a transitional residential community also in close proximity. The property has a land use designation of Water Dependent/Water Related and a zoning classification of Industrial Waterfront.

The property's configuration allows for consideration of a full range of port uses. *JAXPORT* has been approached by automobile users, container operators, break bulk and bulk cargo interest. The combination of location on deep water, direct rail service and adequate road access via Wigmore Street (Talleyrand Avenue) and 21st Street to Martin Luther King Parkway and I-95 makes this an excellent Port property. The property is served by public utilities and is located within the City of Jacksonville Enterprise Zone and Brownfields Area.

It is anticipated that the property will be under active redevelopment to port use in 2009. The determination of the cargo type or types, which will be handled at the property, has not been made. The traffic and other impacts for development of the property will vary dramatically depending on ultimate use. For example, should the property by utilized for containers or automobile there would be a significantly higher volume of truck traffic generated by the terminal than it the property were to be used for imported coal, in which case there would be a significantly higher rail volume.

The principal ingress and egress to the property is via Wigmore Street, which is essentially the northerly extension of Talleyrand Avenue north of 21st Street. Wigmore Street is presently a two-lane road, which carries a combination of industrial and residential traffic, and operates at a Level of Service C, with 891 peak hour trips available.

Kerr-McGee (TRONOX) (Map 16)

Kerr-McGee (TRONOX) Chemical Company owns a parcel of property between *JAXPORT*'s Talleyrand Marine Terminal and the Crowley Maritime privately owned marine terminal, on Talleyrand Avenue. The waterfront site, which is approximately 30 acres in size, formerly housed a pesticide and fertilizer blending and distribution facility. The site is significantly contaminated by the pesticides and is under a Consent Order with the Environmental Protection Agency. It is believed that the clean-up plan will significantly outweigh the value of the land for port use. The Authority has evaluated the use of this site for both container terminal expansion associated with the Crowley terminal and for automobile expansion associated with the adjoining Toyota processing facility. This property is not currently being pursued by the Authority, pending final clean up by Kerr-McGee.

Other Property Development

In addition to the potential marine terminal properties discussed previously, *JAXPORT* is also actively pursuing the acquisition and development of other parcels of property to support its mission. These properties, generally non-waterfront and smaller in size, fill a critical need for terminal support and community protection. In order to increase the efficiency and cargo throughput of its existing terminals, *JAXPORT* must seek opportunities to locate or relocate those terminal functions that do not require waterfront

locations. These uses include, but are not limited to, the storage of empty containers and chassis and office and administrative support uses. In addition, the *JAXPORT* is interested in acquiring properties surrounding the operating terminals to serve as a buffer from adjoining uses. These properties are generally acquired as they become available and fit within *JAXPORT* annual capital budget.

JAXPORT owns approximately 7.5 acres of land in Mayport. This land is not a part of this Port Master Plan and any plans for development of this property by *JAXPORT* will require an amendment to this Plan.

JAXPORT also owns a 2.5 acre (approximately) parcel located in the southeast quadrant of State Road 9-A and U.S. Highway 17 (Main Street). This parcel is not a part of this Port Master Plan and any plans for development of this parcel will require an amendment to this Plan.

JAXPORT DEVELOPMENT AND EXPANSION PROGRAM: POTENTIAL IMPACTS

JAXPORT identified existing and potential development sites on Map 17 entitled "*JAXPORT* MAP" as adopted into the *JAXPORT* Master Plan. Market forces and technological advances are factors, which may account for site-specific uses in Port development. Rather than identify specific development to a specific site, the approach is to identify all types of potential development or development categories which are acceptable Port uses or Port related uses. These potential development sites are categorized by one of the following scenarios:

- Scenario 1: Existing Port development converted to a similar use
  Converting to a similar use is defined as a new use at a previously developed Port site, consistent with the Comprehensive Plan and does not require additional or new permits. No review is necessary by City, State or federal agencies. Therefore, the project is deemed consistent and moves forward without additional analysis.

- Scenario 2: Existing Port development converted to development requiring permits
  Although the new use is on a site already impacted by existing Port development, the proposed development is such that new or additional permits must be obtained for the conversion. All associated analysis will be completed to satisfy permit requirements and the appropriate City, State and federal agencies have the opportunity to review and comment on the proposed development.

- Scenario 3: Sites where no previous Port development exists
  Undeveloped sites require the most analysis. These analyses are determined by the proposed use and subsequent permit requirements. In some cases, land use amendments and rezoning may be necessary. Land use amendment applications require information relating to soils, natural vegetation and wildlife, wetlands (type, location and amount of acreage to the nearest one-hundredth

acre), topography and flood prone areas, historic and archaeological resources, and aquifer recharge areas. The land use amendment process provides City, State and federal agencies the opportunity to review proposed land use impacts and issues prior to zoning change requests and permitting.

The following tables identify the development or development categories defining Port development. The first table relates to existing Port development converted to a use requiring permits, the types of impacts related to the use and the potential sources of funding. The second table relates to Port development at a previously undeveloped Port site, the types of impacts related to the use and the potential sources of funding. The types of impacts guide the analysis and reports required and reviewed by the various City, State and federal agencies.

Existing Port Site – Permit Required (Scenario 2)

CATEGORIES	IMPACT OR ISSUE	FUNDING SOURCES
Cruise Terminal	Transportation: traffic, roadways, waterways Submerged land leases and permits ACOE (dredging) Utilities Water retention	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT Federal Agencies
Containers (RO/RO and Bulk)	Transportation: traffic, roadways, rail, waterways Utilities Water retention Submerged land leases and permits ACOE (dredging)	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT Federal Agencies
Automobiles/Heavy Equipment (RO/RO)	Transportation: traffic, roadways, rail, waterways Utilities Water retention Submerged land leases and permits ACOE (dredging)	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT Federal Agencies
Bulk/Conveyable Bulk	Transportation: traffic, roadways, rail, waterways Utilities Water retention Submerged land leases and permits	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT Federal Agencies

CATEGORIES	IMPACT OR ISSUE	FUNDING SOURCES
	ACOE (dredging)	
Warehouse/ Break Bulk	Transportation: traffic, roadways, rail, waterways Utilities Water retention Submerged land leases and permits ACOE (dredging)	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT Ports Council – State Organizations Federal Agencies
Tank Storage – Hazardous	Transportation: traffic, roadways, rail, waterways Utilities Water retention EPA: hazardous material storage Submerged land leases and permits ACOE (dredging)	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT Federal Agencies
Tank Storage – Non-Hazardous	Transportation: traffic, roadways, rail, waterways Utilities Water retention Submerged land leases and permits ACOE (dredging)	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT Federal Agencies
Accessory Uses Office Restaurant Marinas Operations Buildings Port Support Structures	Transportation: traffic, roadways, rail, waterways Utilities Water retention Submerged land leases and permits ACOE (dredging)	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT

New Undeveloped Port Site (Scenario 3)

CATEGORIES	IMPACT OR ISSUE	FUNDING SOURCES
Cruise Terminal	Transportation: traffic, roadways, waterways Submerged land leases and	Private Developer/User *JAXPORT* City of Jacksonville –

CATEGORIES	IMPACT OR ISSUE	FUNDING SOURCES
	permits ACOE (dredging) Utilities Clearing/Tree permits Historical/Archaeological Resources Water retention Environmental: wetlands, listed species, coastal high hazard	Economic Development FDOT Federal Agencies
Containers (RO/RO and Bulk)	Transportation: traffic, rail, roadways, waterways Submerged land leases and permits ACOE (dredging) Utilities Clearing/Tree permits Historical/Archaeological Resources Water retention Environmental: wetlands, listed species, coastal high hazard	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT Federal Agencies
Automobiles/Heavy Equipment (RO/RO)	Transportation: traffic, rail, roadways, waterways Submerged land leases and permits ACOE (dredging) Utilities Clearing/Tree permits Historical/Archaeological Resources Water retention Environmental: wetlands, listed species, coastal high hazard	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT Federal Agencies
Bulk/Conveyable Bulk	Transportation: traffic, rail, roadways, waterways Submerged land leases and permits ACOE (dredging) Utilities Clearing/Tree permits Historical/Archaeological Resources Water retention Environmental: wetlands, listed species, coastal high hazard	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT Federal Agencies

CATEGORIES	IMPACT OR ISSUE	FUNDING SOURCES
Warehouse/ Break Bulk	Transportation: traffic, rail, roadways, waterways Utilities Clearing/Tree permits Historical/Archaeological Resources Water retention Environmental: wetlands, listed species, coastal high hazard	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT Federal Agencies
Tank Storage – Hazardous	Transportation: traffic, rail, roadways Clearing/Tree permits Historical/Archaeological Resources Water retention Environmental: wetlands, listed species, coastal high hazard EPA: hazardous material storage	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT Federal Agencies
Tank Storage – Non-Hazardous	Transportation: traffic, rail, roadways Clearing/Tree permits Historical/Archaeological Resources Water retention Environmental: wetlands, listed species, coastal high hazard	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT Federal Agencies
Accessory Uses		
Office	Transportation: traffic, roadways Utilities Clearing/Tree permits Historical/Archaeological Resources Water retention Environmental: wetlands, listed species, coastal high hazard	Private Developer/User *JAXPORT* City of Jacksonville – Economic Development FDOT

ARCHAEOLOGICAL SENSITIVITY REVIEWS FOR EXPANSION SITES LISTED IN THE *JAXPORT* DEVELOPMENT AND EXPANSION PROGRAM

Blount Island North (Marine Corps): High Sensitivity – An Archaeological Reconnaissance Survey would be recommended. The Reconnaissance Survey could lead to a need for a Phase 1 Archaeological Survey of the area.

LaFarge Property: High Sensitivity – and an archaeological site is located in this area. Archaeological site # DU00123 "Yellow Bluff Fort" Due to the known presence of an archaeological site – a Phase 1 Archaeological Survey is recommended

Zion Property: High Sensitivity – An Archaeological Reconnaissance Survey would be recommended. The Reconnaissance Survey could lead to a need for a Phase 1 Archaeological Survey of the area.

Bostwick Property: On RE# 11065 000 an archaeological site is located in the area under #DU00100 "Meld." Due to the known presence of an archaeological site – a Phase 1 Archaeological Survey is recommended. The rest of the area is a mix of High, Medium and Low Sensitivity – An Archaeological Reconnaissance Survey would be recommended. The Reconnaissance Survey could lead to a need for a Phase 1 Archaeological Survey of the area.

Navy Fuel Dock: Mix of High, Medium and Low Sensitivity. FMSF 4508 located on area "Phase 1 Historic Resource Survey, Fleet Industrial Supply Center" 12/95 #4508. An Archaeological Reconnaissance Survey would be recommended. The Reconnaissance Survey could lead to a need for a Phase 1 Archaeological Survey of the area.

Talleyrand North Terminal: Mostly High, some Medium and Low Sensitivity. An Archaeological Reconnaissance Survey would be recommended. The Reconnaissance Survey could lead to a need for a Phase 1 Archaeological Survey of the area

Kerr McGee (TRONOX): Mix of High and Low Sensitivity. An Archaeological Reconnaissance Survey would be recommended. The Reconnaissance Survey could lead to a need for a Phase 1 Archaeological Survey of the area

FLOOD ZONE REVIEWS FOR PROPOSED EXPANSION SITES LISTED IN THE *JAXPORT* DEVELOPMENT

Flood Zone	AE	X5	AO	VE	None
• LaFarge Property	√				
• Zion Property					√
• Bostwick Property	√				
• Navy Fuel Dock	√	√		√	
• Talleyrand North	√		√		
• Kerr McGee	√	√		√	

Source: City of Jacksonville Planning and Development Department

LIST OF SOURCES

Duval County Manatee Protection Plan and Annual Updates

JAXPORT Master Plan May 2000

JAXPORT Annual Review and Outlook / 2005

Conservation/Coastal Management Element 2010 Comprehensive Plan November, 2004

Future Land Use Element 2010 Comprehensive Plan August, 2005

Northeast Florida Regional Council, 2003 the Cruise Ship Industry and Economic Impact on Northeast Florida; Economic Summary

Economic and Fiscal Impacts of the Expansion and Relocation of the *JAXPORT* Cruise Terminal, Sept 2004 Fishkind and Associates, Inc.

Jacksonville Electric Authority Website www.jea.com
Save The Manatee Club website www.savethemanatee.org
Cruise Lines International Association Cruise News January, 2005

Foster & Wheeler Update, Newsletter Spring, 2000

Business and Development Strategy Port of Jacksonville April, 2005 by John C Martin Associates, LLC (DBA Associates) in association with Han Padron Associates and BEA International

Jacksonville Port Authority Master Plan Update Final Report February, 1996

Chapter 163, Florida Statutes and Chapter 9J-5, Florida Administrative Code

LIST OF TABLES

LIST OF MAPS

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JAXPORT Master Plan Definitions

Section C

Berth - The place where the vessel is secured. This usually includes the water area, which a ship occupies, the dock to which it is moored, and the area immediately behind it. The type of berth is sometimes characterized by the type of commodity it serves.

Breakbulk Cargo - The general cargo method where the cargo is usually handled on pallets which are loaded by crane and slings in much the same way that sailing ships were loaded.

Bulk Cargo - A method of handling cargo in "loose" form that is not packaged in any way.

Coastal High Hazard Area – As defined in the Conservation/Coastal Management Element.

Containerized Cargo - A cargo handling system utilizing specially designed containers or boxes from 20 to 53 feet long. These containers are usually transported in~~to~~ specially designed ships, lifted with specially designed cranes, and are handled with specially designed carriers.

Dolphin – Pile, cluster of piles or buoy, which a vessel can moor in open water or used as a fender at a dock entrance.

Drayage – Transportation used to haul goods.

Dry Bulk Cargo - Refers to solid materials such as coal or iron ore, and is usually handled by specially designed ships, special high-capacity ship loaders and un-loaders, and conveyer systems, and stored by special stacking and reclaiming equipment.

FDEP – Florida Department of Environmental Protection

FDOT – Florida Department of Transportation

Hazardous Waste- Solid waste, or a combination of solid wastes, which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or may pose a substantial present or potential hazard to human health or the environment when improperly transported, disposed of, stored, treated or otherwise managed.

Jacksonville Port Authority (*JAXPORT*) - An independent authority responsible for owning, operating and managing public marine terminals in Jacksonville.

JAXPORT- Refers to the Jacksonville Port Authority trade name and those public facilities owned by the Jacksonville Port Authority.

Liquid Bulk - Refers to materials in a liquid state such as petroleum and petroleum products. Special ships, special loading arms at the docks, pipelines and storage tanks are required.

Long Ton – 2,240 pounds

LOS - Level of Service - An indicator of the extent or degree of service provided by, or proposed to be provided by a facility based on and related to the operational characteristics of the facility. Level of service shall indicate the capacity per unit of demand for each public facility.
MLW – Mean Low Water

MSL – Mean Sea Level

Natural Drainage Features – The naturally occurring features of an area which accommodate the flow of significant amounts of stormwater, such as streams, rivers, lakes, sloughs, floodplains and wetlands.

Natural Drainage Flow - The pattern of surface and storm water drainage through or from a particular site before the construction or installation of improvements or prior to regrading.

Port of Jacksonville (Port) - All Port facilities whether public or private in Jacksonville.

Roll-on/Roll-off (RoRo) - A cargo handling system utilizing specially designed ships with openings in the stern area or in the side area which permits the loading and unloading of wheeled-vehicles such as automobiles or tractors to docks by way of internal and external ramps.

Short Ton (net ton) – 2,000 pounds

Stevedore – To load or unload cargo from a ship.

Stormwater Management System – A system that has the meaning described in Rule 17-40.210(21) F.A.C.

Talleyrand Corridor Area - That part of the Port of Jacksonville, which lies on the western bank of the St. Johns River, south of 21st Street, east of Martin Luther King Parkway and north of the Hart Bridge.

Terminal Areas - An area adjacent to the water which serves as a dock for the ship, the transfer of its cargo, and the storage of its cargo for a short duration until it is moved to longer-term storage.

TEUs – Unit measurement for container units, measured in twenty (20) foot equivalent units.

Throughput Fees – Fee for handling a container and includes movement necessary to complete delivery from the stevedore, and to or from an inland carrier.

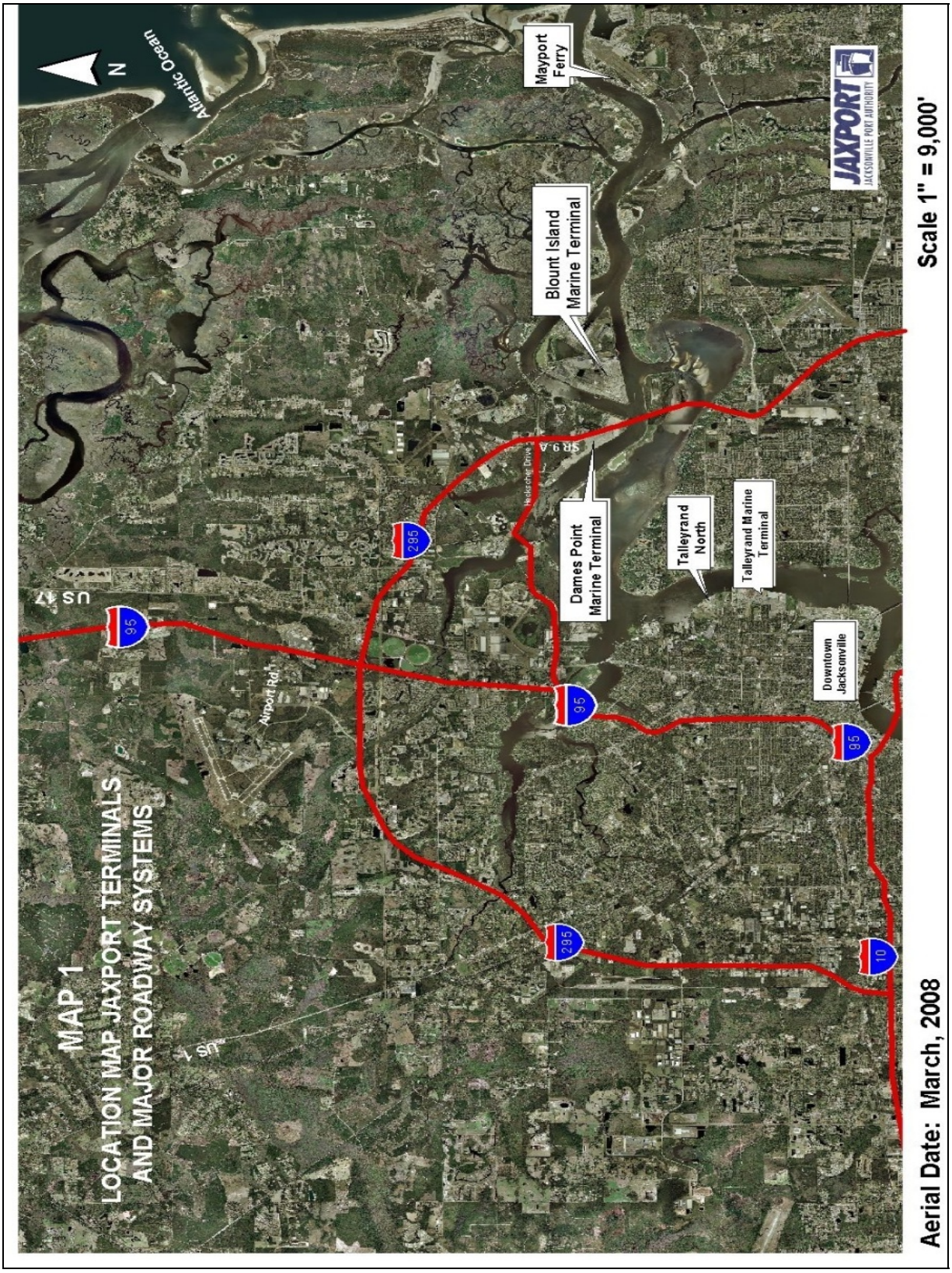
USACOE - U.S. Army Corps of Engineers. Federal agency responsible for maintenance and construction of the main shipping channels in the St. Johns River.

Water-Dependent - Land uses and activities that must be located on waterfront property in order to function.

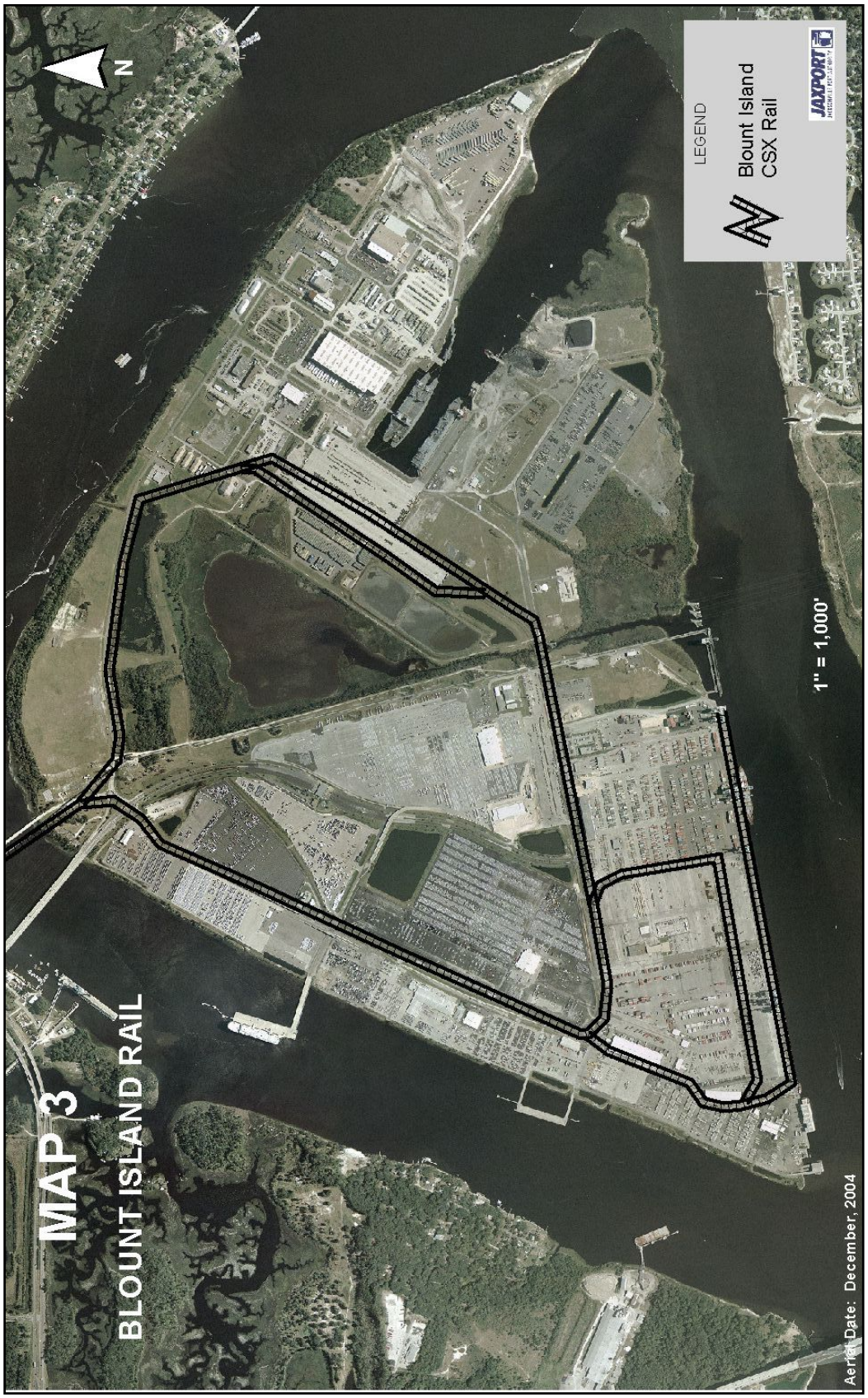
Water-Related - Industries or facilities that are located adjacent to water for the convenience of conducting business, but are not necessarily dependent on Port facilities directly.

203~~0~~10 Comprehensive Plan

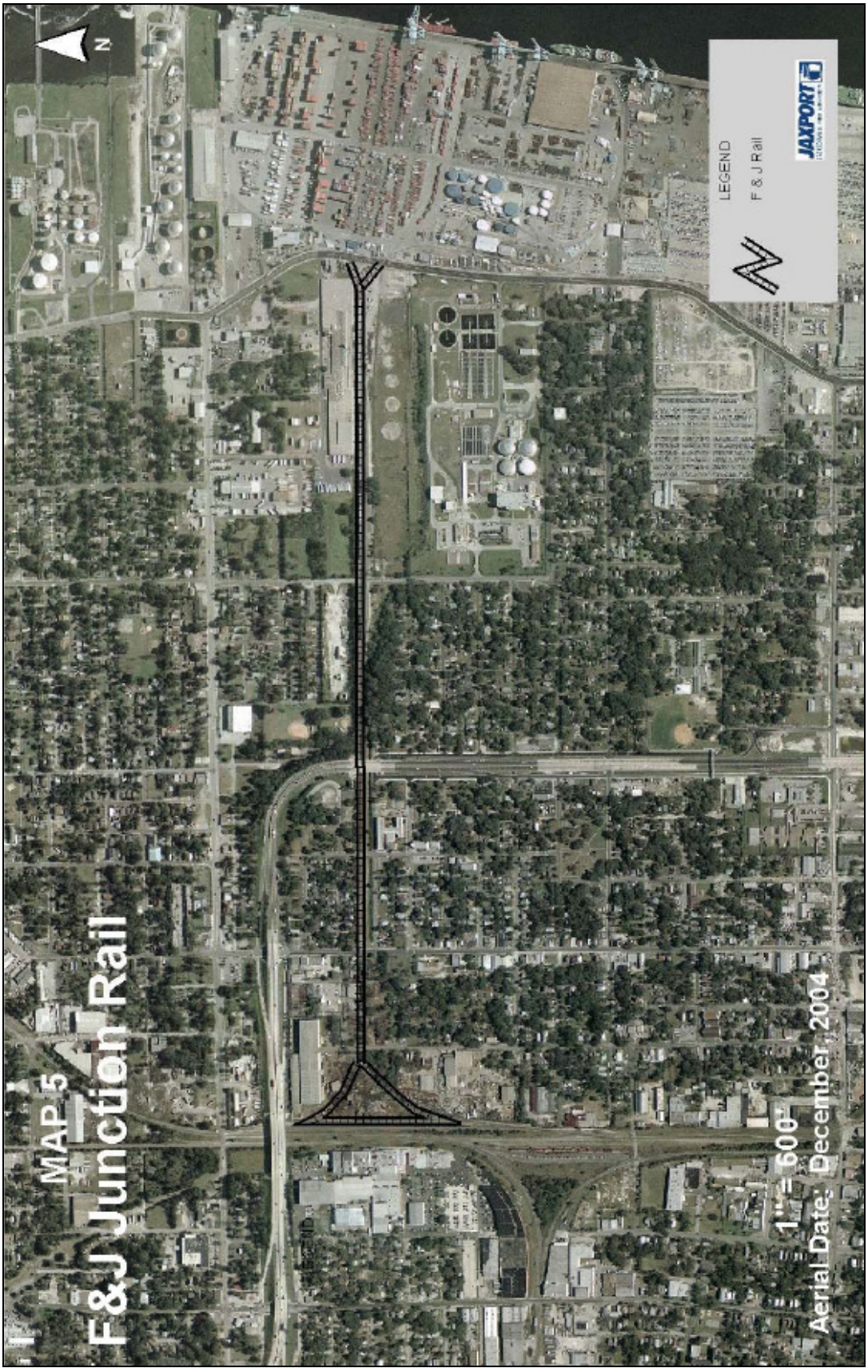
JAXPORT Master Plan
Maps
Section D


MAP 1
LOCATION MAP JAXPORT TERMINALS
AND MAJOR ROADWAY SYSTEMS
Aerial Date: March, 2008
Scale 1" = 9,000'
Atlantic Ocean
N
Mayport Ferry
Blount Island Marine Terminal
Dames Point Marine Terminal
Talleyrand North
Talleyrand Marine Terminal
Downtown Jacksonville
JAXPORT
JACKSONVILLE PORT AUTHORITY
US 17
US 1
Airport Rd
SR 9A
Heckscher Drive
95
295
10


Map 2
DREDGE SPOIL SITES
N
Bucks Island
Reed Island
Bartram Island
JAXPORT
JACKSONVILLE PORT AUTHORITY
1" = 3,000'
Aerial Date - December 2004

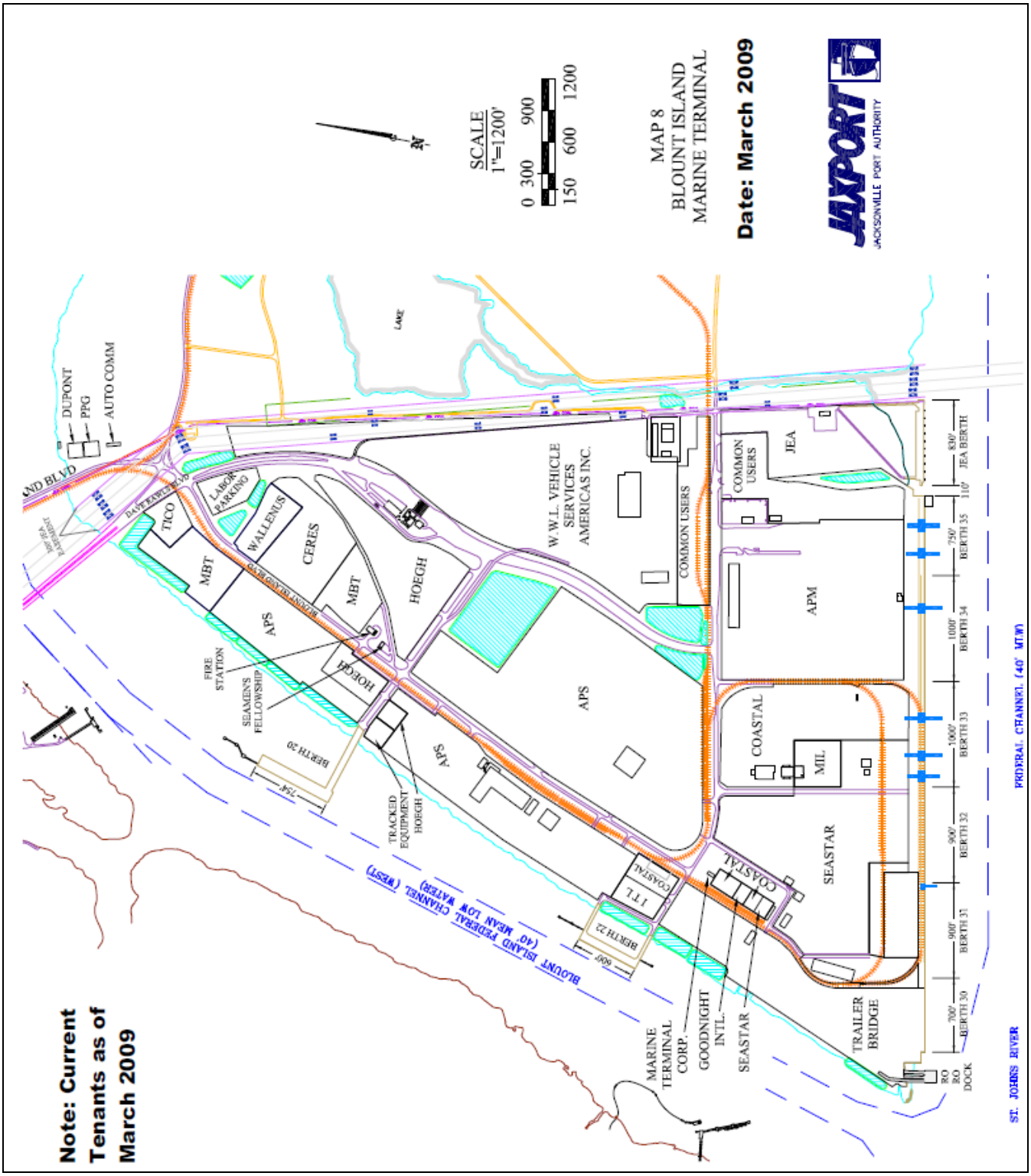

MAP 3
BLOUNT ISLAND RAIL
N
LEGEND
Blount Island
CSX Rail
JAXPORT
1" = 1,000'
Aerial Date: December, 2004

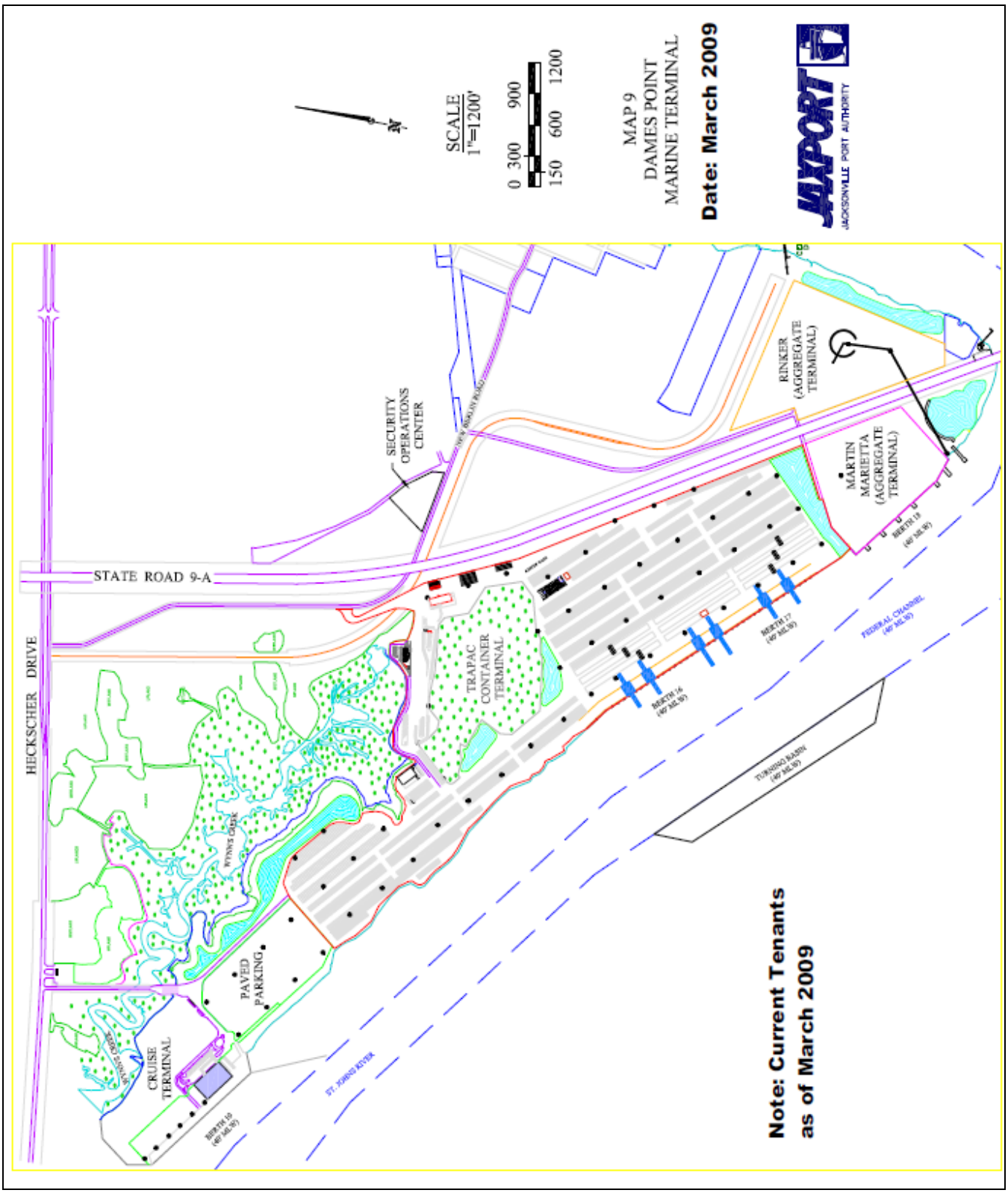

MAP 4
DAMES POINT RAIL
N
LEGEND
Dames Point Rail
JAXPORT
1" = 2,000'
Aerial Date: December, 2004

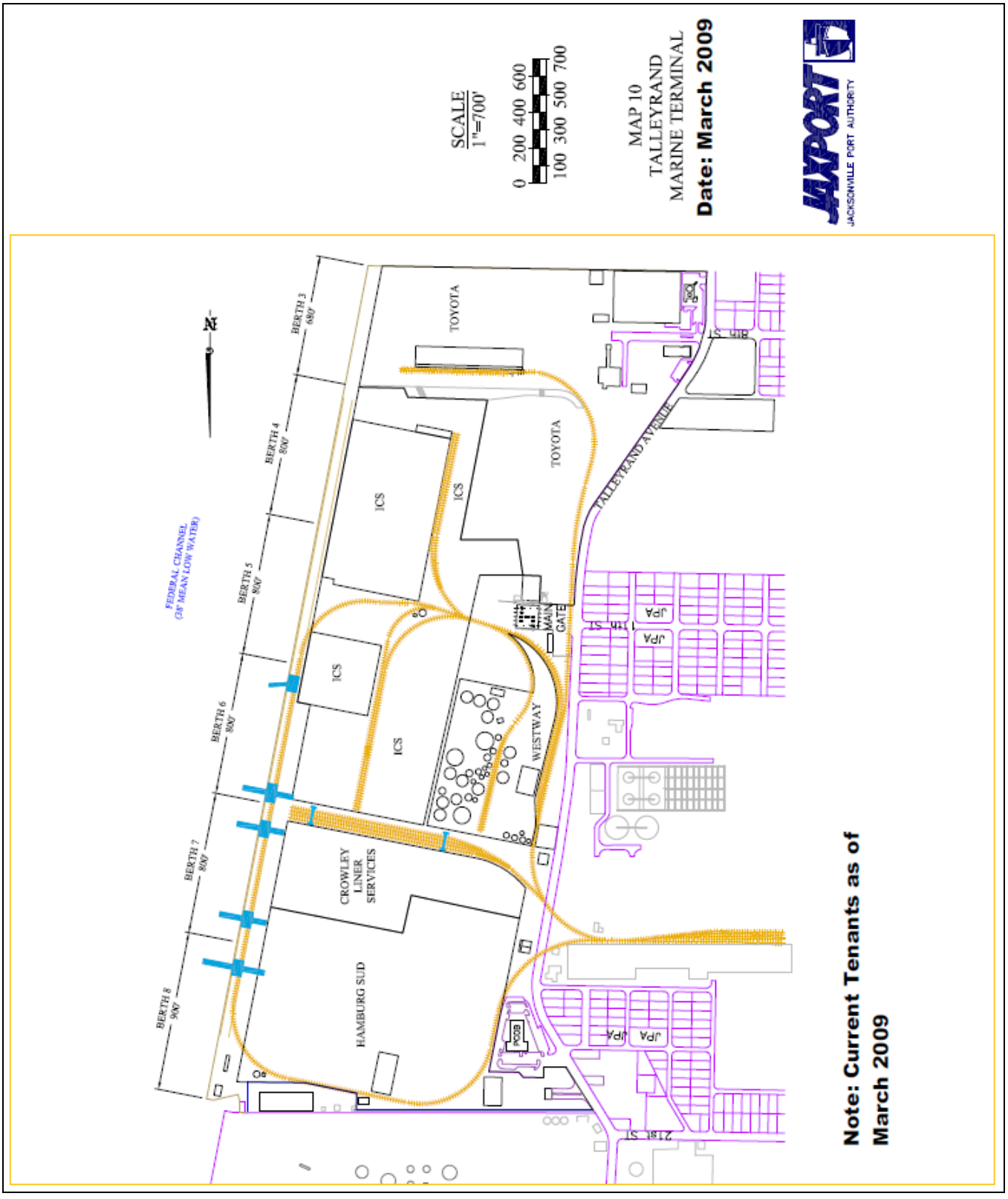

N
LEGEND
F & J Rail
JAXPORT
MAP 5
F&J Junction Rail
Aerial Date: December, 2004
1" = 600'


MAP 6
TALLEYRAND TERMINAL RAIL
N
LEGEND
Talleyrand Rail
JAXPORT
1" = 500'
Aerial Date: December,2004


MAP 7
TALLEYRAND AREA RAIL INFRASTRUCTURE
N
LEGEND
JAXPORT
CSX RAIL
NORFOLK SOUTHERN RAIL
JAXPORT
1" = 1,250'
Aerial Date: March, 2008
TALLEYRAND YARD
JAXPORT BUFFER YARD
CSX EXPORT YARD
NORFOLK SOUTHERN RAIL
F&J JUNCTION
CSX RAIL
Norfolk Southern B Yard


MAP 8
BLOUNT ISLAND
MARINE TERMINAL
Date: March 2009
JAXPORT
JACKSONVILLE PORT AUTHORITY
SCALE
1"=1200'
0 300 900
150 600 1200
N
Note: Current
Tenants as of
March 2009
DUPONT
PPG
AUTO COMM
LABOR PARKING
TICO
WALLENIUS
CERES
MBT
HOEGH
APS
SAV
FIRE STATION
SEAMEN'S FELLOWSHIP
BERTH 20
TRACKED EQUIPMENT HOEGH
W.W.L. VEHICLE SERVICES AMERICAS INC.
COMMON USERS
JEA
APM
COASTAL
MIL
SEASTAR
I.T.L.
BERTH 22
MARINE TERMINAL CORP.
GOODNIGHT INTL.
SEASTAR
TRAILER BRIDGE
RO RO DOCK
BERTH 30
BERTH 31
BERTH 32
BERTH 33
BERTH 34
BERTH 35
JEA BERTH
BLOUNT ISLAND FEDERAL CHANNEL (WEST)
(40 MEAN LOW WATER)
FEDERAL CHANNEL (40' MLW)
ST. JOHNS RIVER


JAXPORT
JACKSONVILLE PORT AUTHORITY
MAP 9
DAMES POINT
MARINE TERMINAL
Date: March 2009
SCALE
1"=1200'
0 300 900 1200
150 600
N
SECURITY OPERATIONS CENTER
RINKER (AGGREGATE TERMINAL)
MARTIN MARIETTA (AGGREGATE TERMINAL)
STATE ROAD 9-A
HECKSCHER DRIVE
TRAPAC CONTAINER TERMINAL
BERTH 17 (40' MLW)
BERTH 16 (40' MLW)
BERTH 15 (40' MLW)
FEDERAL CHANNEL (40' MLW)
TURNING BASIN (40' MLW)
PAVED PARKING
CRUISE TERMINAL
BERTH 10 (40' MLW)
ST. JOHNS RIVER
Note: Current Tenants as of March 2009


SCALE
1"=700'
0 200 400 600
100 300 500 700
MAP 10
TALLEYRAND
MARINE TERMINAL
Date: March 2009
JAXPORT
JACKSONVILLE PORT AUTHORITY
N
BERTH 3
600'
BERTH 4
800'
BERTH 5
800'
BERTH 6
800'
BERTH 7
800'
BERTH 8
900'
FEDERAL CHANNEL
(38' MEAN LOW WATER)
TOYOTA
TOYOTA
ICS
ICS
ICS
ICS
MAIN GATE
WESTWAY
TALLEYRAND AVENUE
18th ST
19th ST
21st ST
JPA
JPA
JPA
JPA
CROWLEY LINER SERVICES
HAMBURG SUD
BSCA
Note: Current Tenants as of March 2009


N
RE# OWNER ACRES
109278-0000 LaFarge 45.65
JAXPORT
JACKSONVILLE PORT AUTHORITY
MAP 11
LaFarge Property
1" = 500'
Aerial Date: March, 2006

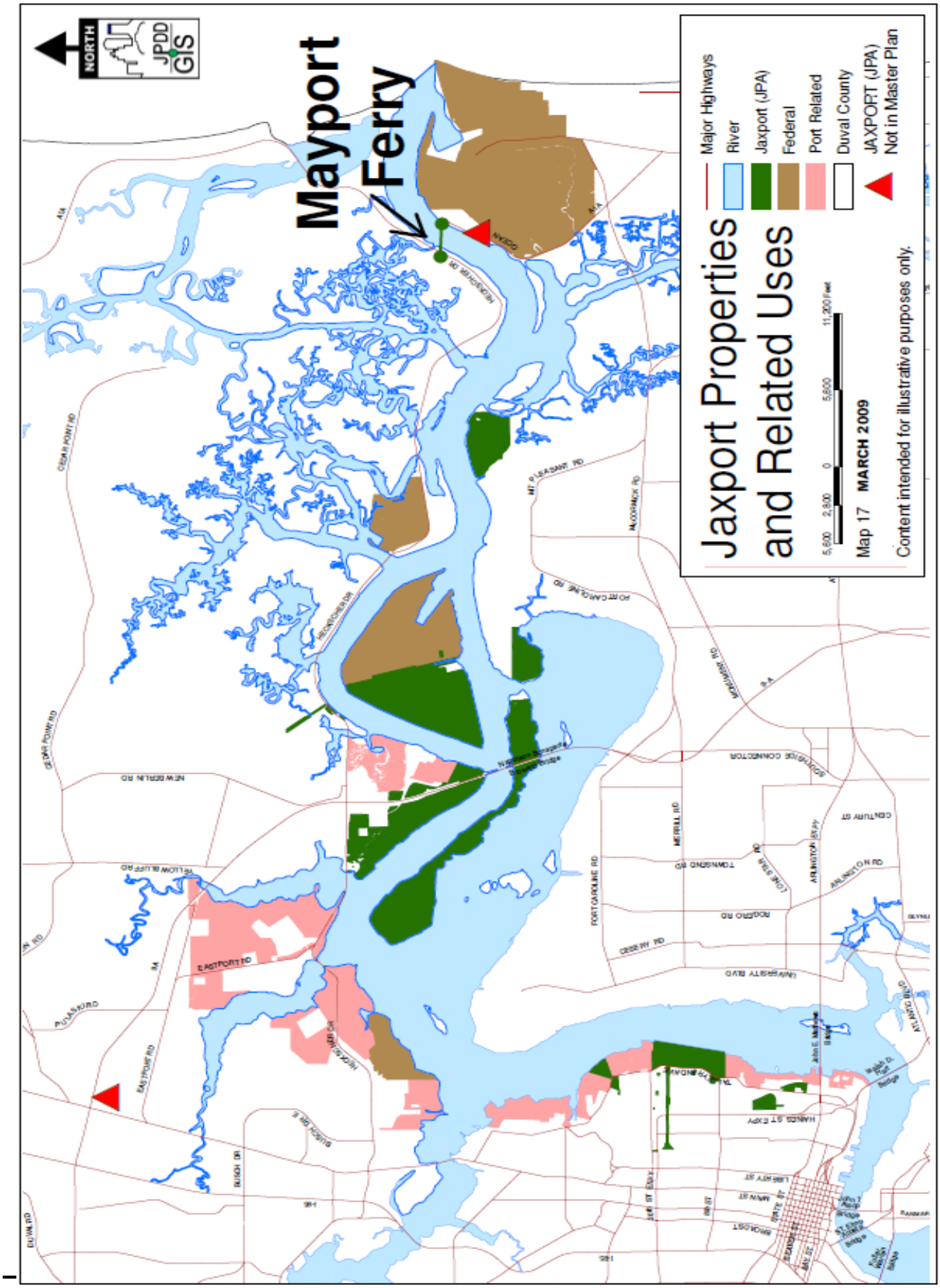

MAP 12
Zion Property
ZION PROPERTY
RE#109708-0000
Scale 1" = 2,000'
Aerial Date: March, 2006
Created By: Melanie Lumar
N
JAXPORT


MAP 13
Bostwick Property
BOSTWICK
JAXPORT
JACKSONVILLE PORT AUTHORITY
1" = 2,000'
Aerial Date: March, 2006


MAP 14
Navy Fuel Dock Property
Navy Fuel Dock
RE#s
108818-0000
109434-0000
109449-0000
Heckscher Drive
JAXPORT
JACKSONVILLE PORT AUTHORITY
1" = 1,000'
Aerial Date - March 2006
N


MAP 15
TALLEYRAND NORTH TERMINAL
N
Aerial Date: March, 2008
1" = 300'
JAXPORT
Talleyrand Avenue
Wigmore Street


MAP 16
Kerr McGee (Tronox)
N
Kerr McGee
RE# 115323-0000
1" = 400'
Aerial Date: March, 2006
JAXPORT


NORTH
JPDD GIS
Mayport Ferry
Jaxport Properties and Related Uses
Major Highways
River
Jaxport (JPA)
Federal
Port Related
Duval County
JAXPORT (JPA) Not in Master Plan
5,600 2,800 0 5,600 11,200 Feet
Map 17 MARCH 2009
Content intended for illustrative purposes only.

203010 Comprehensive Plan

JAXPORT Master Plan
Appendices
Section E

APPENDIX A

JAXPORT QUICK REFERENCE EMERGENCY RESPONSE PLAN

APPENDIX B

PIERS–OUTLOOK FOR U.S./GLOBAL ECONOMIES POWERPOINT

APPENDIX C

JAXPORT HURRICANE MANUAL