

RESOLUTION NO. 2013 - 275

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA MAKING FINDINGS OF FACT; APPROVING AND ADOPTING THE ST. JOHNS COUNTY LOCAL MITIGATION STRATEGY PLAN; DIRECTING THE DIRECTOR OF EMERGENCY MANAGEMENT TO NOTIFY THE FLORIDA DIVISION OF EMERGENCY MANAGEMENT OF THE COUNTY'S APPROVAL AND ADOPTION OF THE LOCAL MITIGATION STRATEGY PLAN; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, this Local Mitigation Strategy Plan is intended to provide a strategy to mitigate dangers and costs associated with weather and man made hazards and to provide a priority for recovery of hazardous events occurring in St. Johns County; and

WHEREAS, the St. Johns County Local Mitigation Strategy (LMS) Taskforce was created in August 1998, with the responsibility of developing a Local Hazard Mitigation Plan; and

WHEREAS, the St. Johns County Local Mitigation Strategy Taskforce has completed a Local Mitigation Strategy Plan which has been reviewed by the Florida State Division of Emergency Management as meeting the criteria for such plans and was last approved by the St. Johns County Board of County Commissioners in 2008; and

WHEREAS, St. Johns County in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended (42 U.S.C 5121-5206) shall prepare and adopt a jurisdiction wide Local Mitigation Strategy Plan as a condition of receiving project grant funds under the Hazard Mitigation Grant Program; and

WHEREAS, the Local Mitigation Strategy Taskforce accepted the revised Plan by unanimous vote on November 18, 2013;

NOW THEREFORE, BE IT RESOLVED by the Board of County Commissioners of St. Johns County:

1. The Board of County Commissioners adopts the above recitals as findings of fact.
2. The Local Mitigation Strategy Plan attached and incorporated herein as Exhibit A is hereby approved and adopted.
3. The St. Johns County Director of Emergency Management is hereby directed to timely notify the State Division of Emergency Management of the date of the County's approval and adoption of the Local Mitigation Strategy Plan.

4. This resolution shall be effective upon its adoption by the Board of County Commissioners.

PASSED AND ADOPTED this 17 day of December, 2013.

ATTEST: Cheryl Strickland, Clerk

BOARD OF COUNTY COMMISSIONERS
OF ST. JOHNS COUNTY, FLORIDA

By: Pam Halterman
Deputy Clerk

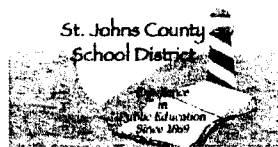
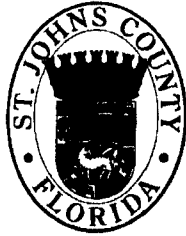
By: [Signature]
John H. Morris, Chair

Rendition Date: 12/19/13

Effective Date: 12/17/13



St. Johns County Local Mitigation Strategy



Prepared By:

St. Johns County LMS Task Force and St. Johns County
Emergency Management

**ST. JOHNS COUNTY
LOCAL MITIGATION STRATEGY**

*Originally Adopted By the St. Johns County Local
Mitigation Strategy Task Force*

2004

Most Current Update and Adoption

2010

**Revisions and Updates made by the St. Johns County Local
Mitigation Strategy Task Force on the following dates:**

February 2010

May 2010

February 2013

September 2013

Current Participating Agencies

City of St. Augustine Fire Department
City of St. Augustine Planning and Building
City of St. Augustine Police Department
City of St. Augustine Beach Public Works
Diversified Engineering International, Inc.
Flagler Estates Road and Water District
Flagler Hospital
Florida Department of Agriculture and Consumer Services -- Division of Forestry
Northeast Florida Regional Council
South Anastasia Community Association
St. Johns County Board of County Commissioners
St. Johns County Emergency Management
St. Johns County Engineering Department
St. Johns County Fire and Rescue
St. Johns County Health Department
St. Johns County Planning Department
St. Johns County Property Appraisers
St. Johns County Public Works
St. Johns County Road and Bridge Department
St. Johns County School Board
St. Johns County Sheriffs Department
St. Johns County Utilities Department
Town of Hastings
University of Florida – IFAS Extension

Founding Participating Agencies

Anastasia Mosquito Control District
City of St. Augustine
City of St. Augustine Beach
Diversified Engineering International, Inc.
Flagler College
Flagler Estates Road and Water District
Northeast Florida Regional Council
St. Johns County Airport Authority
St. Johns County Board of County Commissioners
St. Johns County Building Department
St. Johns County Department of Emergency Management
St. Johns County Fire/Rescue
St. Johns County Health Department
St. Johns County Planning Department
St. Johns County Property Appraisers Office
St. Johns County Sheriff's Office

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Section I - Introduction

A. Local Mitigation Strategy

In the spring of 1998, the Florida Department of Community Affairs (DCA) initiated a program to assist local governments in developing plans to reduce or eliminate risks to people and property from natural and man-made hazards. This program is known as the Local Mitigation Strategy or the LMS.

Hazard Mitigation has gained increased attention over the past few years due to the large number of natural hazards which have occurred throughout the world and the in the U.S. in particular. A main area of concern is the rapid rise in the costs associated with disaster recovery. It has become apparent that money spent prior to an event to harden the community and reduce the impacts of a disaster can result in substantial savings in life and property following the event. The benefit cost ratios are extremely advantageous. As a result, the Federal Emergency Management Agency (FEMA) and the State of Florida have recently developed National and State Mitigation Strategies respectively and funding is increasingly becoming available to support hazard mitigation efforts.

The advantages of developing a local LMS program are numerous including guidance in developing pre and post disaster mitigation plans; identifying priority projects and programs for funding; and increasing the likelihood of Federal and state funding for pre and post disaster, hazard mitigation projects.

B. Planning Process

On May 14, 1998, the Northeast Florida Regional Council (NEFRC) contracted with St. Johns County to facilitate in developing the LMS. Through a Memorandum of Agreement the Strategy developed is intended to provide one unified program for the County and its incorporated municipalities. Through the process of developing a unified Mitigation Strategy, it is intended that the local governments preserve, protect, and improve the safety and durability of their communities. The primary objective of the Local Mitigation Strategy is to remove if possible, otherwise to limit the losses of life and property due to a disaster. The Regional Council role as a facilitator allowed communities to provide unrestricted input regarding local mitigation needs, without appearing biased. The resulting LMS provides the best fit for St. Johns County, and is based countywide agreement.

In August of 1998, a countywide LMS Task Force was organized with members from a broad cross section of the County including elected officials, County Department heads, County staff, representatives from the cities of St. Augustine, Hastings, St. Augustine Beach, Flagler County's Marineland, and local businesses and business people. The LMS Task Force membership currently includes City of St. Augustine Fire Department, Planning and Building Department, Police Department, City of St. Augustine Beach Public Works, Diversified Engineering International, Flagler Estates Road and Water District, Flagler Hospital, St. Johns County School District, Division of Forestry, Northeast Florida Regional Council, St. Johns County Board of County Commission, Emergency Management, Engineering Department, Fire and Rescue, health Department, Planning Department, Property Appraisers Office, Public Works, Road and Bridge Department, Sheriff's Department, Utilities Department, Town of Hastings, University of

Florida -- IFAS Extension. The previously listed jurisdictions and entities are all continuing members of the Local Mitigation Strategy. The Taskforce had been meeting on a quarterly basis since August 1998, in November 2008 the Taskforce decided to begin meeting three times a year and has since. The Task Force has been responsible for developing all work products for the LMS including the development of a set of guiding principles; identification of potential hazards affecting the community; identification of people and infrastructure which are vulnerable to hazards; identification of critical facilities which are necessary for maintaining health, safety and welfare of residents before, during, and after a catastrophic event; and the development of a prioritized list of pre and post hazard mitigation initiatives (projects) eligible for funding. The work of the Task Force continues; meeting schedules are created for a permanent committee responsible for reviewing new initiatives and ranking them. The third page of this document lists all founding agencies as well as currently participating agencies in the Local Mitigation Strategy.

The Florida Department of Community Affairs (DCA) assisted in the effort by providing St. Johns County with computer generated data showing projected wind speeds, detailed structural damage estimates, and amount of debris generated by hazards such as hurricanes. These estimates are made using the TAOS (The Arbiter of Storms) computer model and have been used during the hazards identification process. In addition the data includes information on 100 and 500-year floodplains, critical facilities and evacuation routes for each County. Additional information has been developed using the SLOSH (Sea, Lake and Overland Surges from Hurricanes) computer model. Complete details regarding the storm surge threat are available from these two sources the TAOS model currently in use by the State of Florida through the Division of Emergency Management and the SLOSH model currently in use by the National Weather Service and the National Hurricane Center. A comparison of data from the two sources does not show resoundingly different results for the minor storm events, differences are greater for data on major storm events, but both models are respected in the response community. However, the SLOSH model has a longer proven record and is used in this analysis for storm surge vulnerability levels.

Since the creation of the first LMS document, St. Johns County has continued to work to continuously maintain and update the LMS as needed and to add new mitigation initiatives as projects are completed and new projects are initiated. Through this planning process, St. Johns County has been able to get many projects initiated, funded, and completed through the guidance of the LMS. The Task Force continues this process in addition to working to keep the LMS in compliance with Federal Emergency Management Agency regulations for County LMS documents. Regular maintenance of the LMS is coupled with updates to maintain FEMA compliance. The Task Force continues to meet on a regular basis to discuss the LMS.

The Northeast Florida Regional Council staff in conjunction with the St. Johns County Emergency Management representatives served to facilitate the meetings during the 2002-2006 planning and updating of the Local Mitigation Strategy. As of 2007 St. Johns County Emergency Management has taken over these tasks. These planning efforts include expanding the list of people and organizations invited to participate, expanding the list of participants actively encouraged to participate, revising portions of the local mitigation strategy to be as up-to-date as possible, performing a more detailed risk assessment and damage loss estimate analysis, holding meetings 3 times a year, and setting up public information workshops and

meetings among other planning activities.

St. Johns County Emergency Management performs the data collection, analysis and revisions to the Local Mitigation Strategy with the assistance of the Task Force members. Each section of the Local Mitigation Strategy was reviewed and revised as necessary, and then brought forth to the Task Force for review, discussion and approval. The updates that were made in the statistical portion of the document due to more current information becoming available; the Guiding Goals and Principles of the LMS Taskforce were also updated to better describe the mitigation goals of St. Johns County; and all Maps within the document were updated with the most current information. Other portions of the document have remained unchanged.

The LMS document was presented to the St. Johns County Commission, City of St. Augustine, City of St. Augustine Beach, and the Town of Hastings for their approval and adoption once the revisions were made to meet the newly set requirements. When the Local Mitigation Strategy was approved by the State of Florida and the Federal Emergency Management Agency in 2010, the role of St. Johns County Emergency Management Staff became to review and adjust accordingly.

C. Community Participation

Federal mandates regarding Local Mitigation Strategies require increased public participation and documentation of solicitation for public involvement. All LMS Task Force Meetings are advertised in a newspaper of general circulation at least 10 days prior to the date of the meeting. Copies of the Public Meeting Advertisements and the Affidavit establishing that the advertisement was published in the St. Augustine Record are in Appendix E. This is to assure that the public is informed of meetings and given a chance to participate if interested. Minutes of each meeting or workshop held are recorded and maintained by St. Johns County Emergency Management and are available for review. Increased efforts are made to solicit ideas, comments, and information from the general public. These efforts include providing access to the LMS document upon request, allowing the public an opportunity to comment at regular Task Force meetings, public information workshops, and presentations at County Commission Meetings. As specific outreach activities are conducted, more details of such meetings or efforts are added to the information provided in the Local Mitigation Strategy.

At least one public meeting/workshop was held once the draft of the updated Local Mitigation Strategy was complete. This workshop was held in order to solicit ideas and comments from the general public to incorporate into the final copy of the plan before it is submitted for review to State and Federal reviewers. People invited to any public information meetings or workshops are the general public, task force members, County, City, and State representatives and all others that may be interested.

A copy of the Local Mitigation Strategy document is made available at the St. Johns County Emergency Management office. Announcements of meetings or workshops and where to obtain more information are made in the local and county newspapers. Other public outreach activities include periodic presentations to St. Johns County Commission and municipal Commission/Council meetings that are open to the public.

D. Private Sector Participation

Since the beginning of the Local Mitigation Strategy program in St. Johns County, efforts have been made to insure participation by the private sector. Included on the mailing list for the St. Johns County LMS Task Force are representatives from the insurance industry, healthcare, representatives from the County's largest employers, local business people, local private school representatives, local farmers, and others.

Prior to each LMS meeting information packets are sent to the private sector participants. By sending out mailings to notify members of all upcoming meetings, the representatives from the private sector are being actively encouraged to participate in the Local Mitigation Strategy planning process. When possible, all LMS members were also phoned to remind them of the upcoming meetings. The meetings were attended sporadically by the private sector due to conflicts and busy schedules. However, at least one representative and sometimes more from the private sector were in attendance at each of the LMS meetings and valuable input was obtained from these individuals.

The St. Johns County LMS Task Force continues to hold LMS meetings and continues to coordinate and encourage private and public sector interest and involvement. Efforts to expand the list of participating agencies and organizations to include a broader spectrum of representation from the community are on-going. An informational workshop is held in order to provide new members and interested parties with information regarding the Local Mitigation Strategy planning process and why their participation is important. These efforts continue throughout the planning process for updating and maintaining the Local Mitigation Strategy. New participants are continuously sought for inclusion on the mailing list. In addition the Chamber of Commerce is used as an information source to obtain up-to-date information on businesses and organizations so that it is certain that all have been given the opportunity to participate in the planning process.

E. Use and Incorporation of Existing Documents

As part of the planning process for the creation of the LMS document, other existing documents are used as references and incorporated into the LMS document. These existing documents include County and municipal Comprehensive Plans, Regional Strategic Plans, Land Development Regulations, City Codes, State Statutes, and Emergency Management Plans. These documents are used to obtain the goals, objectives and policies that are incorporated into the LMS document as guiding principles, which are discussed in detail in Section II. These documents are listed in Appendix B.

Efforts are made in current and future planning activities to review new documents and documents previously not reviewed in order to cover the wide spectrum of plans within the County and State. Currently, St. Johns County, the Town of Hastings, and the Cities of St. Augustine and St. Augustine Beach are active participants on the National Flood Insurance Program. There are always new plans and studies being written and developed that have not yet

been reviewed and incorporated into the LMS, but as the LMS is a living document they will be incorporated in the current planning cycle and future reviews of the LMS.

F. Incorporation of LMS into other Documents

Part of the LMS document contains Guiding Principles, which as explained above were obtained by reviewing other pertinent county and municipal documents. Through this process of information incorporation into the LMS, new goals, objectives and policies can be created to fill in the gaps in the existing documents in order to increase the county's ability to effectively mitigate against hazards. In this way the goals and principles of the LMS will be incorporated into other planning documents such as the St. Johns County Comprehensive Plan, City of St. Augustine Comprehensive Plan, City of St. Augustine Beach Comprehensive Plan, Town of Hastings Comprehensive Plan, St. Johns County Comprehensive Emergency Management Plan, St. Johns County Land Development Regulations and any other appropriate documents in the County or Municipalities that deal with hazard mitigation. Any changes made to the above stated documents or any other appropriate documents, would be made by Resolution by the governing body of the Jurisdiction in which it pertains

The 2010 LMS has been used extensively with Community Ratings System Planning and for back-up documentation. It has also been used in the update for the St. Johns County Comprehensive Plan as well as the St. Johns County Comprehensive Emergency Management Plan. The Risk Assessment portion of the LMS has proved to be invaluable when writing the aforementioned documents. Changes made to these documents were made by Resolution by the St. Johns County Board of County Commissioners.

G. Reevaluation Criteria

The LMS document has to be updated over time to change with the growing and changing community. Strategies, and mitigation initiatives change, Comprehensive Plans updated, and projects completed. These changes need to be reflected in the LMS document. In order to ensure that the document remains updated and current, the LMS Task Force meets three times a year and the LMS is reviewed a minimum of once every year or following a disaster (mandatory) to determine if any updates or corrections are necessary. Updates may include new issues, new projects, changes to existing projects, consideration of new funding sources, changes to timeframes of existing projects, or changes to the mitigation strategy program itself.

As a result, the LMS is maintained by the St. Johns County Task Force in order to meet the needs of St. Johns County and its citizens. The LMS Taskforce, in conjunction with the community, meet and review comments and recommendations for all portions of the LMS process including the planning process, risk assessment, mitigation strategy, and plan maintenance. Any changes to the Local Mitigation Strategy are then voted on by the Taskforce Members at a publicly noticed meeting. The changes to the LMS have been minor and have including only updating information and more in-depth information on some items. It is essential that all facets of the community be represented at the Task Force meetings including the public, to ensure that the plan is staying up to date with all aspects of the community. Details on how the public continues to be included and encouraged to participate throughout the reevaluation,

maintenance, and review process are outlined in Section I, C. Through these meetings, facilitated by St. Johns County Emergency Management staff, the LMS document is reevaluated and updated regularly.

The St. Johns County Emergency Management Planner, who also serves as the LMS Chairperson, is responsible for monitoring the plan. She will monitor any changes throughout St. Johns County and make sure the information is promptly and properly entered into the LMS Plan on a quarterly basis. As these monitoring updates are entered into the LMS they will be presented to the Local Mitigation Strategy Taskforce as an item on the Agenda at one of the meetings held three times a year and will be voted on by all members.

H. Submission of Plan to SHMO

Within five years of the plan's update approval by the Federal Emergency Management Agency (FEMA), the plan must be submitted to the State Hazard Mitigation Officer for review and approval. As described above the Local Mitigation Strategy is continually updated as the needs of the community change. The Local Mitigation Strategy Task Force meets 3 times a year and at each meeting we review the document and make changes accordingly. The plan will be officially updated for its next 5 year review in 2015. The Taskforce will then hold at least one public workshop along with its regularly scheduled meetings, which are open to the public, for public input. The plan will then go before each municipalities governing board for approval and then forwarded to the State and FEMA for review and approval.

I. Conflict Resolution

Recognizing that disputes between jurisdictions, interest groups, units of government and the private sector sometimes occur in a decision making process, the St. Johns County LMS Task Force agreed to resolve all conflicts in policy, procedures and issues based on the Regional Dispute Resolution Process.

The Northeast Florida Regional Council currently uses this process, established by the Florida Legislature as part of the 1993 Environmental Land Management Study (ELMS) legislation to facilitate intergovernmental problem solving. The process offers a reasonable approach to solving public problems. It provides a forum to cooperatively resolve issues and differences between local governments and private interests in a timely, informal, and a cost-effective manner.

The process should take no longer than two weeks. The core of the process is a settlement meeting at which disagreeing parties explain their interests, explore options, and seek a mutually acceptable agreement. Many times it ends at this point. However, if a solution is not reached, other options available include additional settlement meetings. Disputes and conflicts that cannot be resolved at this level can be escalated to mediation.

The process essentially saves time and money by seeking mutually beneficial solutions. Within this process, direct communication encourages improved control of outcomes and the quality of

the agreement itself. The conflict resolution process was not required during the development of the LMS. The LMS Task Force resolves all conflicts by democratic rule.

Section II - Guiding Goals and Principles

A. Goals

The purpose for developing a set of Goals and Guiding Principles is to clearly state what the community's overall vision for hazards mitigation is and to ensure that the community adequately addresses its mitigation needs before and after a disaster. Before beginning the process of developing the Guiding Principles for the St. Johns County Local Mitigation Strategy (LMS) the Task Force identified the goals they believed should be foremost in overall development of this document. The following goals are intended to be the leading concepts of this Strategy. In short, the purpose of the Local Mitigation Strategy is to provide guidance to the County in building a safer and more resilient community. The declaration of these ultimate goals provides the overall guidance for the Strategy. The goals are provided in a ranked order, where the first goal is paramount. The activities recommended as mitigation efforts by this Strategy must first meet or further these goals.

- 1. Protect the lives of the residents of St. Johns County and its Municipalities.**
- 2. Protect property to ensure that its intrinsic value is preserved.**
- 3. Protect infrastructure so that it is available during and after a disaster.**
- 4. Protect business activities so that they continue to provide economic strength to the community.**
- 5. Protect the environment to ensure that quality of life and economic wellbeing are preserved.**

These goals are used as part of the project prioritization methodology. Projects recommend by this Strategy must first meet one of the goals to be considered, then will receive points based on which Goals they will routinely further.

B. Guiding Principles

The Guiding Principles for St. Johns County outlined in the following document, which was developed and approved by the Task Force as part of the LMS process. It was compiled from existing adopted Goals, Objectives, Policies, and Ordinances, which address hazard mitigation and long-term recovery.

The Guiding Principles were compiled by reviewing existing requirements in the adopted Comprehensive Plan of each local government as well as State, Regional and Local planning documents. These documents have already adopted requirements which address hazard mitigation and long-term recovery and which are already serving as the County's Adopted Guiding Principles. They are shown in the text summary and in the following matrix format

which identifies in a narrative description how they contribute to a comprehensive mitigation strategy as well as the source of the requirement and if and how it has been implemented. Sources include State Statutes, the County and Municipal Comprehensive Plans; the Strategic Regional Policy Plan developed by the NEFRC; the County Emergency Management Plan, and local ordinances.

A review of these Guiding Principles will quickly reveal several mitigation approaches commonly used in the County and municipal plans. Among these are the policies which, direct growth away from or restrict growth in the hazardous areas. The restriction of growth in the Coastal High Hazard Areas (CHHA) for example is common to each, the County and coastal municipal plans. Prohibitions on development, which increases off site flooding or does not provide for proper transportation drainage, are common in St. Johns County. These examples are given to introduce the concepts that St. Johns County and its municipal governments have available to them and the regulatory authority and public support for development of a unified mitigation strategy.

It is not intended that the inclusion of these policies as Guiding Principles in the Local Mitigation Strategy will provide a fixed master plan for the future development or revision of policies, but that they when viewed as a whole represent a community policy statement relating to the future development in St. Johns County. As such they are intended to provide the guidelines for revision of development regulations and to focus future policy development on the goals stated above. The LMS also relates to the intent and mandates of the State and Federal governments to encourage local jurisdictions to undertake a coordinated and effective program that will reduce the vulnerability of its population and infrastructure to the effects of disasters. When the use of these Guiding Principles for future policy development is combined with the direct implementation of mitigation projects identified in this Strategy, the County will have a unified mitigation approach.

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy</p> <p>Reduce the quantity and improve the quality of storm water runoff to surface water bodies by increasing the amount of green permeable open space and the use of more permeable surfaces through the following policy program.</p>	<p>City of St. Augustine Comprehensive Plan - Future Land Use Element - Objective 4</p>	<p>Implementation ongoing</p>
<p>Require subdivisions to be platted and recorded and include road and drainage maintenance plans as outlined in the City of St. Augustine's subdivision ordinance (Ordinance 83-9) prior to a building permit being issued.</p>	<p>City of St. Augustine Comprehensive Plan - Future Land Use Element</p>	<p>On-going enforcement</p>
<p>Ensure that coastal area populations densities are coordinated with the St. Johns County and Northeast Regional Planning Council's Hurricane Evacuation Plans,</p>	<p>City of St. Augustine Comprehensive Plan - Future Land Use Element - Objective 10</p>	<p>The Regional Planning Council recently completed the updated Evacuation Study. Local review and coordination are in progress.</p>
<p>Continue to operate the drainage system based upon the existing master planning process as established by the City (city of St. Augustine) staff and under the aegis of the Director of Public Works and will provide for maintenance of its existing drainage system data base; continue to establish a list of prioritized renewal/replacement projects; and will facilitate periodic updates of the master plan.</p>	<p>City of St. Augustine Comprehensive Plan - Infrastructure Element - Drainage Sub Element - Objective 1.2</p>	<p>Implemented</p>
<p>Investigate the feasibility of establishing a storm drainage utility and a system of storm drainage user fees and charges which follow a cost of service approach to rate structuring, and produce revenues adequate to fund ongoing maintenance efforts and ongoing renewal and replacement improvements.</p>	<p>City of St. Augustine Comprehensive Plan - Infrastructure Element - Drainage Sub Element - Objective 1.3</p>	<p>Implemented</p>
<p>The storm drainage system will adhere to stringent regulatory requirements as necessary to promote the conservation and protection of natural resources.</p>	<p>City of St. Augustine Comprehensive Plan - Infrastructure Element - Drainage Sub Element - Objective 1.4</p>	<p>On-going enforcement</p>
<p>Protect valuable functions of wetlands, estuaries, tidal marshes and submerged lands, including the territorial sea by maintaining native vegetative communities and</p>	<p>City of St. Augustine Comprehensive Plan -</p>	<p>On-going enforcement</p>

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy</p> <p>hydrologic systems, through continued enforcement of Ordinance 88-39, Conservation Overlay zone Development□, for all development proposals in the conservation zones....</p>	<p>Conservation Element - Objective 7</p>	
<p>Control erosion and sedimentation in development areas both during and after construction.</p>	<p>City of St. Augustine Comprehensive Plan - Conservation Element - Objective 6</p>	<p>Enforced through Development Code</p>
<p>Establish development guidelines for the remaining undisturbed areas of the 100 year flood plain so that the flood-carrying and flood-storage capacity of those lands is maintained.</p>	<p>City of St. Augustine Comprehensive Plan - Conservation Element Objective 9</p>	<p>Implemented</p>
<p>Reduce or prevent storm damage by protecting natural systems which serve as buffers against those storms.</p>	<p>City of St. Augustine Comprehensive Plan - Conservation Element Goal 3 Objective 1</p>	<p>Implemented</p>
<p>Ensure that a total evacuation of the City during a Category 3 storm can be accomplished in less than 12 hours, or in a time period determined to be safe from the recommendations of a new hurricane evacuation study and plan in 1991, by providing adequate evacuation routes and shelters.</p>	<p>City of St. Augustine Comprehensive Plan - Conservation Element Goal 3 Objective 2</p>	<p>The Regional Planning Council recently completed the updated Evacuation Study. Local review and coordination are in progress.</p>
<p>Regulate development within coastal high-hazard areas by enforcing coastal construction standards.</p>	<p>City of St. Augustine Comprehensive Plan - Conservation Element Goal 3 Objective 3</p>	<p>On-going enforcement</p>
<p>Research strategies in post-disaster redevelopment planning that eliminate exposure to natural hazards.</p>	<p>City of St. Augustine Comprehensive Plan - Conservation Element Goal 3 Objective 4</p>	<p>Ongoing</p>

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy</p> <p>The City of St. Augustine will implement the Future Land Use Map illustrated in the Future Land Use Element through the year 2000 to limit population concentrations in the coastal high hazard areas.</p>	<p>City of St. Augustine Comprehensive Plan - Conservation Element Goal 3 Objective 6</p>	<p>Ongoing</p>
<p>The City of St. Augustine will limit capital expenditures that subsidize development in coastal high hazard areas, but will place no limitation on expenditures in those areas that enhance or restore natural resources.</p>	<p>City of St. Augustine Comprehensive Plan - Capital Improvements Element Objective 2</p>	<p>On-going enforcement</p>
<p>Protect human life and health.</p> <p>Minimize expenditure of public money for costly flood control projects.</p> <p>Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public</p> <p>Minimize prolonged business interruptions.</p> <p>Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains.</p> <p>Maintain a stable tax base by providing for the sound use and development of floodprone areas in such a manner as to minimize future flood blight areas.</p> <p>Ensure that potential home buyers are notified that property is in a flood area.</p>	<p>City of St. Augustine -- Chapter 13 Flood Control of the St. Augustine Code.</p>	<p>On-going enforcement</p>
<p>Standards for Flood Hazard Reduction. Provisions for development in flood hazard areas in order to minimize damages.</p>	<p>City of St. Augustine -- Chapter 13 Flood Control of the St. Augustine Code. Sec 13-61 through 13-65</p>	<p>On-going enforcement</p>
<p>Conservation Overlay Zone Development. Establishes criteria for the review of development proposals and to manage and regulate and direct development within the</p>	<p>City of St. Augustine -- Chapter 11 Environmental Protection of the St. Augustine</p>	<p>Implemented</p>

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy Conservation Overlay Zones 1, 2, and 3.</p>	Code.	
<p>Coastal Construction Requirements generally. All structures shall be designed so as to minimize damage to life, property and the natural environment.</p>	City of St. Augustine Building Code Sec. 8-134	On-going enforcement
<p>All subdivisions require a drainage design plan show existing and proposed features. The plan shall equal or exceed design standards set forth hereinafter and the policies and procedures established in the Drainage Manual of the FDOT.</p>	City of St. Augustine Subdivision Regulations Division 3 Section 23-96.	On-going enforcement
<p>Roadway ditches standards and requirements.</p>	City of St. Augustine Subdivision Regulations Sec. 23-98 through 23-103	On-going enforcement
<p>Base future land use decisions on the carrying capacity and the ability to evacuate in a major hurricane event as defined by the Northeast Florida Region Hurricane Evacuation Plan.</p>	City of St. Augustine Beach Comprehensive Plan Future Land Use Element Objective L.1.5	The Regional Planning Council completed the updated Evacuation Study. Local review and coordination are pending.
<p>Coordinate with St. Johns County and the NEFRPC in establishing the carrying capacity of the coastal areas.</p>	City of St. Augustine Beach Comprehensive Plan Future Land Use Element Policy L.1.5.1	The Regional Planning Council completed the updated Evacuation Study. Local review and coordination are pending.
<p>Amendments to the Future Land Use Plan shall reflect densities and intensities that do not exceed the carrying capacity of the designated evacuation routes.</p>	City of St. Augustine Beach Comprehensive Plan Future Land Use Element Policy L.1.5.2	The Regional Planning Council completed the updated Evacuation Study. Local review and coordination are pending.
<p>Existing evacuation routes shall be so marked and should be given special consideration for improvement over other roads and highways in the City.</p>	City of St. Augustine Beach Comprehensive Plan Future Land Use Element Policy	On-going enforcement

CATEGORY	SOURCE	NOTES (Design, Implementation; Enforcement)
Objective/Policy	L.1.5.3	
Update the hurricane evacuation and disaster preparedness plan every five years in conjunction with St. Johns County, and re-evaluate its effectiveness immediately after a major disaster event, to recommend appropriate improvements.	City of St. Augustine Beach Comprehensive Plan Future Land Use Element Policy L.1.5.4	The Regional Planning Council completed the updated Evacuation Study. Local review and coordination are pending.
Update hurricane guide, showing evacuation routes, hurricane hazards, safety procedures, shelters, and other pertinent information.	City of St. Augustine Beach Comprehensive Plan Future Land Use Element Policy L.1.5.5	The Regional Planning Council completed the updated Evacuation Study. Local review and coordination are pending.
Adhere to the DEP's Coastal Setback Requirements and their permitted variances regardless of the size of the developable parcel.	City of St. Augustine Beach Comprehensive Plan Future Land Use Element Policy L.1.5.6	On-going enforcement
Encourage St. Johns County, the SJRWMD and/or the State of Florida to purchase areas subject to seasonal or periodic flooding including flood-prone areas adjacent to the Atlantic Ocean to be used for public and beach-access parking.	City of St. Augustine Beach Comprehensive Plan Future Land Use Element Policy L.1.5.7	Ongoing
Identify at least two methods to improve approaches of evacuation routes which are subject to flooding.	City of St. Augustine Beach Comprehensive Plan Transportation Element Objective T.2.2	The Regional Planning Council completed the updated Evacuation Study. Local review and coordination are pending.
Continue to coordinate with FDOT and St. Johns County on the study of and necessity for improved evacuation with elevation standards.	City of St. Augustine Beach Comprehensive Plan Transportation Element Policy T.2.2.1	Ongoing
Assist in protecting, conserving, and enhancing remaining coastal dunes and beach by requesting assistance from the Department of Environmental Protection.	City of St. Augustine Beach Conservation/Coastal Element	Ongoing

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
Objective/Policy	Objective CC.1.2	
Promote hazard mitigation by enforcement of the coastal construction setback line.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policies CC.1.2.6	On-going enforcement
Enforce requirements of the Federal Flood Insurance Program by continuing to participate in the program, specifically designating coastal high hazard areas and limiting development in such areas along with relocating any infrastructure.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.1.2.7	On-going enforcement
Land Development Regulations should include revised regulations of building practices and land uses that reduce the vulnerability of human life and property to natural hazards, specifically hurricanes, in high hazard areas.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.1.2.8	Implemented
Participate with all applicable State and Federal Agencies to insure public safety by keeping Disaster Preparedness plans current incorporating the hazard mitigation annex of the peacetime emergency plan as well as updates by the Regional Planning county and St. Johns County.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Objective CC.1.3	Ongoing
Assessment of the impact of new development on emergency evacuation routes will be incorporated into the City land development ordinance.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.1.3.1	Ongoing
Existing evacuation routes will be given priority for improvement over other transportation facilities in the Annual Capital Improvements Program.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.1.3.2	Ongoing
St. Augustine Beach shall prepare and update its hurricane evacuation plan and disaster preparedness plan every five years and also reevaluate its effectiveness	City of St. Augustine Beach Comprehensive Plan	The Regional Planning Council completed the updated Evacuation Study. Local review

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy</p> <p>immediately after a major disaster event to recommend appropriate improvements and post-disaster redevelopment activities both immediate and long term.</p>	<p>Conservation/Coastal Element Policy CC.1.3.3</p>	<p>and coordination are pending.</p>
<p>City shall update its hurricane guide showing evacuation routes, hurricane hazards, safety procedures, shelters, and other pertinent information for its citizens every year by the anniversary date of the adoption of the Comprehensive Plan.</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.1.3.4</p>	<p>The Regional Planning Council completed the updated Evacuation Study. Local review and coordination are pending.</p>
<p>City's disaster preparedness plans shall give priority to accommodations for the handicapped and indigent, including transportation and appropriate sheltering by May, 1992.</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.1.3.5</p>	<p>Implementation ongoing</p>
<p>St. Augustine Beach will annually coordinate disaster preparedness plans with St. Johns county and the City of St. Augustine.</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.1.3.6</p>	<p>Implementation ongoing</p>
<p>Limit public expenditures to that which supports recreation, expenditures to the City-owned City Hall/Fire Department square, conservation of natural resources, and/or the extension of sewer facilities for public health within the coastal high hazard area.</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Objective CC.1.4</p>	<p>Enforced. City has moved its Public Works and Police Departments as well as its City Hall off the ocean front.</p>
<p>Infrastructure shall be planned and required to be installed currently with future development in areas outside of coastal high hazard areas.</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.1.4.1</p>	<p>Implementation Ongoing</p>
<p>All private and public infrastructure, utilities and drainage improvements must be constructed concurrently, or in accordance with a phased plan approved by St. Augustine Beach</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.1.4.2</p>	<p>On-going enforcement</p>
<p>City shall reduce hurricane evacuation times by establishing for reviewing new development in relation to evacuation.</p>	<p>City of St. Augustine Beach Comprehensive Plan</p>	<p>The Regional Planning Council completed the updated Evacuation Study. Local review</p>

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
Objective/Policy	Conservation/Coastal Element Objective CC.1.5	and coordination are pending.
Transportation systems shall be designed and built to handle traffic generated during emergency evacuations as defined in the City's evacuation plan.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.1.5.1	Implementation ongoing
All roadways in the coastal zone shall be constructed to City specifications using salinity tolerant construction techniques and materials.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.1.5.2	Implementation ongoing
Transportation drainage systems including swales and ditches shall be maintained to ensure hydraulic capability.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.1.5.3	Implementation ongoing
City will coordinate with St. Johns County in lobbying FDOT for the improvements of the bridge on SR 312 or an additional bridge which crosses the Intracoastal as well as other key evacuation routes.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.1.5.4	Completed
Reduce the potential for flood-related adverse impacts in St. Augustine Beach by five percent in 3 years.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Objective 2.5	Implemented through revised building code. (10% discount)
Review existing development in low-lying areas subject to flooding and modify drainage systems by five percent in these areas in 3 years to minimize potential damage to property and natural systems.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.2.5.1	Implemented through revised building code.
Protect natural resources of the City from contamination by any hazardous substances.	City of St. Augustine Beach	None in City

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
Objective/Policy	Comprehensive Plan Conservation/Coastal Element Objective CC.2.7	Implemented by County
In conformance with State and Federal regulations, commercial establishments which use, create, store, generate or transport toxic or hazardous substance shall prepare a plan which identifies the materials and how these materials will be handled and disposed.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.2.7.1	Two gas stations in City. No problems reported.
St. Augustine Beach will work with other State agencies to develop sites for households, small businesses and other low volume generators of hazardous waste to deliver hazardous waste for later disposal at an approved hazardous waste disposal site.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.2.7.2	On-going enforcement
Sites polluted from underground petroleum storage tanks shall be promptly cleaned up and the tank replaced, repaired or removed as presented in an approved plan within six months of discovering the petroleum.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.2.7.3	Ongoing
City shall make every reasonable effort to ensure public safety health and welfare of people and property from the effects of coastal storms by limiting public expenditures in areas subject to repeated damage by wind and water thereby reducing the exposure of humans and property to natural hazards, i.e., hurricanes.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Goal CC.4	Implemented through revised building code and through the City's participation in FEMA's Community Rating Service. City has a rating of 8, which saves the City's property owners 10% on their flood insurance premium.
Prepare a post-disaster redevelopment plan by 1993 to reduce the exposure of human life and property to the destruction of hurricanes.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.4.1	Ongoing
City shall include in its post-disaster redevelopment plan a delineation of activities that give priority to immediate repair and cleanup actions over long term redevelopment activities.	City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.4.1.1	Ongoing

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy</p> <p>City will amend its building code to specify standards for the removal, relocation or structural modification of damaged infrastructure and structures.</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.4.1.2</p>	<p>Implemented</p>
<p>City shall establish as its standard for inclusion in the Land Development Regulations that any structure damaged beyond fifty percent of value more than once during storms, hurricanes or northeasters will be determined to be a non-conforming use if located in a coastal high hazard area.</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.4.1.3</p>	<p>LDR development ongoing</p>
<p>City shall include in the post-disaster redevelopment plan, recommendations of interagency hazard mitigation reports.</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.4.1.4</p>	<p>Ongoing</p>
<p>City shall include in the post-disaster redevelopment plan, measures for eliminating unsafe conditions and inappropriate uses in coastal high hazard areas.</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.4.1.5</p>	<p>Ongoing</p>
<p>City shall restrict the intensity of development within coastal high hazard areas consistent with public safety needs through the adoption of the Land Development Regulations.</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Objective 4.2</p>	<p>LDR development ongoing</p>
<p>City shall designate the Coastal High Hazard Area as those areas which are within the FEMA V (Velocity) Zones and areas seaward of the Coastal Construction Control Line and within those areas which may be repeatedly damaged, redevelopment will be limited to conservation and recreational land uses.</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.4.2.1</p>	<p>On-going enforcement</p>
<p>By 1992, the City shall identify any areas within the coastal high hazard area needing redevelopment and develop a plan for eliminating unsafe conditions and inappropriate conditions.</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Policy CC.4.2.2</p>	<p>Implemented</p>

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy</p> <p>St. Augustine Beach shall not allow public expenditures that subsidize future development in the high-hazard coastal area, except for expenditures which support recreation, expenditures to the City-owned City Hall/Fire Department square, conservation of natural resources, and/or the extension of sewer facilities for public health.</p>	<p>City of St. Augustine Beach Comprehensive Plan Conservation/Coastal Element Objective C.1.5</p>	<p>On-going enforcement</p>
<p>Protect human life and health.</p> <p>Minimize expenditure of public money for costly flood control projects.</p> <p>Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public</p> <p>Minimize prolonged business interruptions.</p> <p>Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains.</p> <p>Maintain a stable tax base by providing for the sound use and development of floodprone areas in such a manner as to minimize future flood blight areas.</p> <p>Ensure that potential home buyers are notified that property is in a flood area.</p>	<p>City of St. Augustine Beach Flood Damage Prevention Regulations - Objectives.</p>	<p>On-going enforcement</p>
<p>Standards for Flood Hazard Reduction. Provisions for development in flood hazard areas in order to minimize damages.</p>	<p>City of St. Augustine Beach Land Development Regulations Sec. 5.03.05</p>	<p>On-going enforcement</p>
<p>Performance of all stormwater management systems shall comply with this section of the city's code as well as all state regulations.</p>	<p>City of St. Augustine Beach Land Development Regulations Sec. 6.05.00</p>	<p>On-going enforcement</p>
<p>The Town requires a 35-foot natural buffer around all wetlands and prohibits the location of residential, commercial and industrial land uses within the buffer areas, but allows resource-based recreational activities within buffer areas subject to best.</p>	<p>Town of Hastings Comprehensive Plan - Conservation Element Policy</p>	<p>On-going enforcement</p>

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
Objective/Policy management practices.	V.2.4	
The Town requires that post-development runoff rates and pollutant loads not exceed redevelopment conditions.	Town of Hastings Comprehensive Plan - Conservation Element Policy V.2.5	On-going enforcement
Town regulates development within the 100-year flood plain in order to maintain the flood-carrying and flood storage capacities of the floodplains and to reduce the risk of property damage and loss of life by establishing minimum floor elevations and by limiting impervious development on residential lots to a maximum of 20%. Commercial property development is also limited to 20% unless retention or detention areas are approved on a case-by-case basis.	Town of Hastings Comprehensive Plan - Conservation Element Policy V.2.7	On-going enforcement
Prohibits development or dredging and filling of wetlands which would significantly alter their functions and by only allowing non-intensive agriculture, aquaculture and silviculture type practices.	Town of Hastings Comprehensive Plan - Conservation Element Policy V.2.8	On-going enforcement
Require the maintenance of the quantity and quality of surface water runoff by prohibiting any development which may diminish or degrade the quality and quantity of surface water runoff within the Town.	Town of Hastings Comprehensive Plan - Conservation Element Policy V.2.12	On-going enforcement
Require all hazardous waste generators properly manage their own wastes and require that new hazardous waste generators comply with all applicable federal and state permitting requirements before approving any development plans.	Town of Hastings Comprehensive Plan - Conservation Element Policy V.2.13	On-going enforcement
Resource Protection Standards for the Town of Hastings are detailed in the Land Development Regulations	Town of Hastings - Land Development Regulations, Article V Resource Protection Standards	On-going enforcement

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy</p> <p>Local governments should sign statewide mutual aid agreements.</p> <p>Local governments are encouraged to consider the impact and compatibility of emergency preparedness and recovery plans on adjacent areas.</p> <p>Local governments should participate in region and state wide disaster exercises.</p> <p>Establish a work group to coordinate compatibility among communications systems within the region.</p> <p>Review and update the Regional Hurricane Evacuation Study every five years.</p> <p>Local governments shall consider utilizing the Northeast Florida Regional Planning Council's Regional Dispute Resolution Process as the first means of settling disputes concerning emergency preparedness.</p>	<p>Strategic Regional Policy Plan- Emergency Preparedness Element Policies 3.1.1 through 3.1.6</p>	<p>Northeast Florida Regional Planning Council is responsible for the implementation of its Strategic Regional Policy Plan. The Council is developing ways to implements these policies.</p>
<p>The location of solid waste and commercial hazardous waste management facilities and/or regional hazardous waste storage, transfer or treatment facilities in the coastal high hazard area are assumed to have adverse regional impacts which shall be prevented.</p> <p>Development within hurricane evacuation areas should be responsible and permitted only when evacuation route capacity and shelter space capacity is available. Responsible development includes but is not limited to: structures elevated in storm surge and flooding areas; adequate drainage in flooding areas; and sufficient access for emergency response vehicles to all development.</p> <p>Assist in the development of funding for public acquisition of coastal property that has been destroyed or damaged as the result of a hurricane, storm or flooding.</p> <p>Reduce public expenditures that subsidize increased densities in the coastal high hazard area except for restoration, enhancement of natural resources, or development</p>	<p>Strategic Regional Policy Plan- Emergency Preparedness Element Policies 3.2.1 through 3.2.8</p>	<p>Northeast Florida Regional Planning Council is responsible for the implementation of its Strategic Regional Policy Plan. The Council is developing ways to implements these policies.</p>

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy of recreational facilities.</p> <p>Educate citizens and businesses about the impacts of natural disasters, including economic disruption, personal safety and property loss.</p> <p>The siting of new critical facilities or institutions, such as hospitals, nursing homes, adult congregate living facilities and correctional facilities in coastal high hazard areas are assumed to have adverse regional impacts and shall be prevented.</p> <p>Coastal high-hazard areas, for uniformity and planning purposes, are defined as category 1 evacuation zones or as designated by the local government.</p> <p>Protect the primary dune systems of the region. Provide technical assistance to local governments in the development and implementation of dune protection plans.</p>		
<p>Public and private members of the community shall be encouraged to support and participate in Local Emergency Planning Committee activities.</p> <p>The risks of hazardous materials to the public and the environment should be determined through the Local Emergency Planning Committee, local emergency management agencies and facilities.</p> <p>Train emergency responders to appropriate levels for responding to hazardous materials incidents in accordance with the SERC Training Task Force Training Guidelines.</p> <p>A hazardous waste disposal day program should be supported by communities throughout the region.</p>	<p>Strategic Regional Policy Plan- Emergency Preparedness Element Policies 3.3.1 through 3.3.4</p>	<p>Northeast Florida Regional Planning Council is responsible for the implementation of its Strategic Regional Policy Plan. The Council is developing ways to implement these policies.</p>
<p>Assess the numbers and requirements of special needs populations.</p> <p>Local governments should be encouraged to require new, reconstructed and expanded health care facilities outside the hurricane evacuation areas to be built to shelter</p>	<p>Strategic Regional Policy Plan- Emergency Preparedness Element Policies 3.4.1 through 3.4.4</p>	<p>Northeast Florida Regional Planning Council is responsible for the implementation of its Strategic Regional Policy Plan. The Council is developing ways to implement these</p>

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy specifications.</p> <p>Local governments should develop incentives to encourage existing health care facilities outside the storm surge areas to retrofit buildings to shelter specifications.</p> <p>Health care facilities outside the hurricane evacuation areas shall be encouraged to establish aid agreements with similar facilities within the hurricane evacuation areas.</p>		policies.
<p>An adverse regional impact is assumed when a proposed development in a hurricane evacuation zone is anticipated to utilize twenty-five percent (25%) or more of an identified hurricane evacuation route's level of service E hourly directional maximum service volume based on the Florida Department of Transportation's Generalized Peak Hour/ Peak Direction Level of Service Maximum Volumes as presented in the Florida Highway Systems Manual which shall be mitigated.</p> <p>Roads which function as evacuation routes with high clearance times, particularly intercommunity routes, should receive high priority in FDOT or local capital improvement programs.</p> <p>Suspend road construction projects on evacuation routes during hurricane watches and move construction barriers to maximize capacity.</p> <p>Develop a system of emergency communication on highways including electronically controlled message signs and a radio station to broadcast highway conditions.</p>	Strategic Regional Policy Plan- Emergency Preparedness Element Policies 3.5.1 through 3.5.4	Northeast Florida Regional Planning Council is responsible for the implementation of its Strategic Regional Policy Plan. The Council is developing ways to implements these policies.
<p>Establish a procedure for prioritizing and retrofitting existing public facilities located outside of the coastal high hazard area to shelter specifications.</p> <p>Adopt construction standards and techniques, and siting decisions for public buildings that would make these structures suitable for public shelters.</p> <p>Where shelter deficits exist, an adverse regional impact is a proposed development with anticipated public shelter space demand that will require 200 spaces or five</p>	Strategic Regional Policy Plan- Emergency Preparedness Element Policies 3.6.1 through 3.6.8	Northeast Florida Regional Planning Council is responsible for the implementation of its Strategic Regional Policy Plan. The Council is developing ways to implements these policies.

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy</p> <p>percent (5%) of the shelter space capacity; or where shelter deficits do not exist, an adverse regional impact is a proposed development with anticipated public shelter space demand that will cause a deficit of 200 spaces or more which shall be mitigated.</p> <p>Educate residential home builders about the benefits of constructing new residences outside of the hurricane evacuation areas with a safe room to serve as home shelters. Insurance agencies shall be encouraged to provide incentives to prepare existing residences as home shelters.</p> <p>Require new and existing mobile home and RV parks to have on-site shelter facilities for their residents or plans for alternative off-site shelters.</p> <p>Require new apartment complexes and condominiums located outside of hurricane evacuation areas to provide on-site shelter space.</p> <p>Innovative programs for financing shelter space should be examined including special assessment districts.</p> <p>Encourage the Humane Society and local animal control departments to develop their role in animal evacuation during disasters.</p>	<p>Strategic Regional Policy Plan- Emergency Preparedness Element Policies 3.7.1 through 3.7.6</p>	<p>Northeast Florida Regional Planning Council is responsible for the implementation of its Strategic Regional Policy Plan. The Council is developing ways to implement these policies.</p>
<p>Local governments shall address post-disaster redevelopment planning within their comprehensive plans in accordance with Rule 9J-5, F.A.C.</p> <p>Replacement development should be consistent with local, regional and state programs designed to ensure safe and timely evacuation.</p> <p>Increase attention given to building code regulations and enforcement that may not be sufficient to protect the life and safety of the occupants.</p> <p>Communities should maintain emergency recovery funding and staffing plans to enable quick restoration of services lost to disasters.</p> <p>Recovery plans should include the identification of potential disaster field offices and</p>		

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy disaster assistance centers.</p> <p>Identify areas for potential acquisition in areas of existing vulnerable development.</p>		
<p>Local governments should encourage their elected and appointed officials to attend the Public Officials Conference and other state wide training sessions and conferences.</p> <p>Local governments shall conduct training exercises which include roles for their elected and appointed officials.</p> <p>Educate citizens on the need for personal disaster plans including provisions for their pets.</p> <p>Encourage media personnel to attend educational conferences on disasters so they can better inform and educate the public.</p>	<p>Strategic Regional Policy Plan- Emergency Preparedness Element Policies 3.8.1 through 3.8.4</p>	<p>Northeast Florida Regional Planning Council is responsible for the implementation of its Strategic Regional Policy Plan. The Council is developing ways to implements these policies.</p>
<p>Requirements for Stormwater management, including minimum design standards and finished floor elevations and lot grading plans.</p>	<p>St. Johns County Paving and Drainage Standards Ordinance 96-40</p>	<p>On-going enforcement</p>
<p>Requirements for roadway design, including pavement design and roadway drainage.</p>	<p>St. Johns County Paving and Drainage Standards Ordinance 96-40</p>	<p>On-going enforcement.</p>
<p>Through the future land use plan, the County shall ensure safe evacuation of coastal areas and shall coordinate coastal area population densities with appropriate regional hurricane plans.</p>	<p>St. Johns County Comprehensive Plan Coastal Element - Objective A.1.5</p>	<p>Implemented</p>
<p>Existing evacuation routes shall be mapped and physically posted and should be given special consideration for improvement over other transportation facilities.</p>	<p>St. Johns County Comprehensive Plan Coastal Element - Policy A.1.5.1</p>	<p>The Regional Planning Council recently completed the updated Evacuation Study. Local review and coordination are in progress.</p>

CATEGORY	SOURCE	NOTES (Design: Implementation; Enforcement)
<p>Objective/Policy</p> <p>The County shall update its hurricane evacuation plan and disaster preparedness plan every three years and also shall re-evaluate its effectiveness immediately after a major disaster event to recommend appropriate improvements.</p>	<p>St. Johns County Comprehensive Plan Coastal Element - Policy A.1.5.2</p>	<p>County has recently prepared the emergency management plan. The Regional Planning Council recently completed the updated Evacuation Study. Local review and coordination are in progress.</p>
<p>The County shall update its hurricane guide annually if needed, showing: evacuation routes, hurricane hazards, safety procedures, shelters and other pertinent information for its citizens.</p>	<p>St. Johns County Comprehensive Plan Coastal Element - Policy A.1.5.3</p>	<p>County has recently prepared the emergency management plan. The Regional Planning Council recently completed the updated</p>
<p>The County shall complete a County-wide master drainage study by, which shall include inventories of existing drainage facilities and address their deficiencies. Upon completion of the drainage study for each sub-basin, the County shall review and amend the Plan to include or implement the sub-basin study's findings.</p>	<p>St. Johns County Comprehensive Plan Coastal Element - Objective F.1.3</p>	<p>Implemented</p>
<p>The County shall coordinate with DEP and St. Johns River Water Management District in the identification of all drainage basins in the County to assure uniformity of basin designation.</p>	<p>St. Johns County Comprehensive Plan Coastal Element - Policy F.1.3.1</p>	<p>Ongoing</p>
<p>As the drainage studies for each sub-basin are completed, the County shall establish drainage facility priorities in the sub-basin based on the potential damage created by flooding, the water quality in the area, and the impacts to areas of special concern (e.g., OFW, Class II).</p>	<p>St. Johns County Comprehensive Plan Coastal Element - Policy F.1.3.2</p>	<p>Ongoing</p>
<p>Upon identification of deficiencies by the master drainage study, the County shall take action to address such deficiencies through the establishment of stormwater utilities for the affected areas, or other appropriate implementation mechanism.</p>	<p>St. Johns County Comprehensive Plan Coastal Element - Policy F.1.3.3</p>	<p>Ongoing</p>
<p>Pending completion of the master drainage study, the following standards shall be considered for addition to the Paving and Drainage Ordinance (86-4) by April 1991:</p> <p><u>Water Quality</u></p> <p>1. Draw down of the required retention volume within 72 hours following a storm event.</p>	<p>St. Johns County Comprehensive Plan Coastal Element - Policy F.1.3.4</p>	<p>Ongoing</p>

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy</p> <p>2. Special criteria for Class II, OFW, and recharge areas, which shall, at a minimum, be consistent with standards contained in Chapter 17-3, 17-25 and 40C-42 F.A.C.</p> <p><u>Water Quantity</u></p> <ol style="list-style-type: none"> 1. The 10-year return period shall be used to design minor internal drainage facilities. 2. The 25-year/24-hour storm event shall be used to design storage basins for peak flow attenuation in addition to the current 10-year/24-hour storm event. 3. The 25-year return period storm shall be used for the design of major drainage facilities such as: canals, drainage ditches and culverts external to the development. 4. Antecedent Moisture Condition shall be the average wet season (AMC II). 		
<p>The County shall manage and regulate development within the 100-year flood plain through enforcement of the Flood Plain Management Ordinance (90-24) and the procedures recommended by FEMA as incorporated within the County's development permit review process.</p>	<p>St. Johns County Comprehensive Plan Coastal Element - Policy F.1.3.6</p>	<p>On-going enforcement</p>
<p>Vegetative buffers of at least 25 feet shall be required and maintained between natural drainage courses and developed areas to protect the water quality of the drainage course.</p>	<p>St. Johns County Comprehensive Plan Coastal Element - Policy F.1.3.7</p>	<p>On-going enforcement</p>
<p>County shall develop coordination mechanisms between the planning and engineering departments to ensure that plans developed for drainage facilities are consistent with, and support, the Future Land Use Element.</p>	<p>St. Johns County Comprehensive Plan Coastal Element - Objective F.1.4</p>	<p>Implemented</p>
<p>The County shall manage, use, conserve, protect, and enhance coastal resources, along with protecting human life from natural disasters.</p>	<p>St. Johns County Comprehensive Plan Coastal/Conservation Management Element - Goal</p>	<p>On-going enforcement</p>

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
Objective/Policy	G.1	
<p>The County shall assure the protection, conservation and enhancement of the County's coastal barrier areas, dunes, and beaches through: (a) coordination of County permitting activities with the activities of other regulating state and federal agencies; (b) establishment or continued enforcement of construction standards for the coastal building zones; and (c) the establishment of procedures and land development regulations to protect the County's dune systems.</p>	<p>St. Johns County Comprehensive Plan Coastal/Conservation Management Element - Objective G.1.2</p>	<p>On-going enforcement</p>
<p>The County shall provide technical support and assistance to applicable state and federal agencies in identifying and inventorying all beaches and dune systems, so that they may be protected, enhanced and re-nourished.</p>	<p>St. Johns County Comprehensive Plan Coastal/Conservation Management Element - Policy G.1.2.1</p>	<p>Ongoing</p>
<p>By April 1991, the County shall develop procedures and, through adoption of land development regulations shall develop and adopt standards and procedures, to ensure the protection, enhancement or restoration of the County's dune systems. At a minimum, these procedures or regulations shall provide for:</p> <ul style="list-style-type: none"> -- Coordination with DEP as to applications to develop seaward of the established Coastal Construction Control Line, in order to monitor and comment on DEP applications for variances to the CCCL requirements, and to favor variances to County setback requirements where possible or appropriate to avoid or minimize development seaward of the CCCL; and -- The County's use of beach ramp fees/tolls, consistently with applicable law, for dune restorations and enhancement programs (such as, without limitations, the construction of dune walkovers, the establishment of a salt-tolerant vegetation/revegetation program, and public education programs in cooperation with the Marine Extension Service), and to further control beach access in order to prevent dune damage; and -- Establishment of standards and enforcement mechanisms to prevent 	<p>St. Johns County Comprehensive Plan Coastal/Conservation Management Element - Policy G.1.2.2</p>	<p>Ongoing</p>

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy</p> <p>destruction of dune vegetation; and</p> <p>-- Continued enforcement of the County's requirements and prohibitions against uncontrolled vehicular beach access pursuant to Ordinance No. 73-2, and related ordinances; and</p> <p>-- Continued enforcement, through the development permit review process, of applicable state, federal or local coastal construction zone requirements;</p> <p>-- Improvements to beach access and parking facilities as provided in Policy H.1.1.1.</p>		
<p>Seawall and other shoreline modifications shall be set at, or landward of, the mean high water line, except as provided by law. The County and other agencies having jurisdiction shall coordinate in establishing appropriate setbacks.</p>	<p>St. Johns County Comprehensive Plan Coastal/Conservation Management Element - Policy G.1.2.3</p>	<p>On-going enforcement</p>
<p>The County shall prepare post-disaster redevelopment plans which will reduce or eliminate the exposure of human life and public and private property to natural hazards.</p>	<p>St. Johns County Comprehensive Plan Coastal/Conservation Management Element - Objective G.1.3</p>	<p>County has recently prepared the emergency management plan. The Regional Planning Council recently completed the updated Evacuation Study. Local review and coordination are in progress.</p>
<p>The County shall update its hurricane evacuation plan and Peacetime Emergency Plan every three years, and shall re-evaluate their effectiveness immediately after a major disaster event to recommend and adopt appropriate modifications.</p> <p>The County shall update its hurricane guide showing evacuation routes, hurricane hazards, safety procedures, shelters, and other pertinent information for its citizens.</p> <p>Disaster preparedness plans shall include accommodations for the handicapped and indigent, including transportation and sheltering.</p>	<p>St. Johns County Comprehensive Plan Coastal/Conservation Management Element - Policies G.1.3.1 through G.1.3.10</p>	<p>Implementation ongoing</p>

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy</p> <p>County shall add three additional public buildings as hurricane evacuation shelters to its inventory of evacuation centers.</p> <p>The County shall coordinate disaster preparedness plans with adjacent counties and municipalities.</p> <p>Emergency vehicles and personnel shall be stationed on the barrier islands during an emergency situation at the discretion of the Chairman of the Board of County Commissioners or other appropriate official.</p> <p>The County shall reduce the risks to human life, and to public and private property from natural disasters through the following post-disaster redevelopment planning and implementation of hazard mitigation measures:</p> <p>The County shall consider, and as necessary implement where appropriate, the recommendations of the hazard mitigation annex of the local peacetime emergency plan.</p> <p>Concurrently with the investigation provided for in Policy G.2.5.4, the County shall investigate development credits or transfer of development rights for use as incentives to reduce rebuilding damaged structures in the CHHA.</p> <p>St. Johns County shall direct population concentrations away from the CHHA by limiting residential densities as shown on the Future Land Use Map.</p>		
<p>The County shall cooperate with, and provide technical support and assistance to, the appropriate State and Federal regulatory agencies, and shall implement the requirements of Policy of G.1.5.3 (and other applicable Policies in other Plan Elements), in order to protect, enhance, and restore the environmental quality of the County's Coastal Area and waterways.</p>	<p>St. Johns County Comprehensive Plan Coastal/Conservation Management Element - Objective G.1.5</p>	<p>Ongoing</p>
<p>Routing of new infrastructure and public services within the Coastal Area shall be designed to direct growth away from environmentally sensitive areas and the coastal</p>	<p>St. Johns County Comprehensive Plan</p>	<p>Ongoing</p>

CATEGORY	SOURCE	NOTES (Design; Implementation; Enforcement)
<p>Objective/Policy</p> <p>high hazard area, and to limit public expenditures within the coastal high hazard area.</p>	<p>Coastal/Conservation Management Element - Objective G.1.7</p>	
<p>The County shall maintain hurricane evacuation times.</p>	<p>St. Johns County Comprehensive Plan Coastal/Conservation Management Element - Objective G.1.79</p>	<p>County has recently prepared the emergency management plan. The Regional Planning Council recently completed the updated Evacuation Study. Local review and coordination are in progress.</p>
<p>The County shall protect flood plains, wetlands, forests, and surface waters within the County from development impacts to provide for maintenance of environmental quality and wildlife habitats.</p>	<p>St. Johns County Comprehensive Plan Coastal/Conservation Management Element - Objective G.2.2</p>	<p>On-going enforcement</p>

C. Government Coordination

Every governmental agency plays a role in hazard mitigation at some level. Future funding guidelines, from the State and Federal government, will include mandated active involvement by recipient agencies. In order to be effective, the St. Johns County Mitigation Strategy must be a redefining process, evaluating developing as well as addressing existing hazard vulnerabilities. The following table will grow as and evolve as agencies begin to redefine roles and adopt activities that will further the mitigation process.

GOVERNMENT COORDINATION TABLE

AGENCY/ENTITIES	MITIGATION FUNCTIONS
Florida Division of Emergency Management	Technical Assistance, Advice and Funding
Northeast Florida Regional Council	Technical Assistance for Comprehensive Planning and Emergency Management Planning. Strategic Regional Policy Plan
St. Johns County Board of County Commissioners	Policy Guidance and Regulatory authority
St. Johns County Administrator	Supervision and Guidance
St. Johns County Department of Emergency Management	Management of Plan/Strategy Development/Implementation, and Mitigation Task Force Member
St. Johns County School District	Provide shelters for evacuees.
St. Johns County Mitigation Task Force	Develop a recommended Local Mitigation Strategy for St. Johns County for approval by the St. Johns County Board of County Commissioners. Conduct periodic reviews of the mitigation strategy to ensure that goals are accomplished according to the established milestones
St. Johns County Engineering Department	Follow and implement the County's Engineering Standards and ensure compliance.
St. Johns County Building Department	Follow and implement the County's Building Code and ensure compliance.
St. Johns County Road and Bridge Department	Follow and implement the County's requirements for roadways and maintain roadways, ditches and drainage basins within its jurisdictions.

AGENCY/ENTITIES	MITIGATION FUNCTIONS
City of St. Augustine	Member of Mitigation Task Force. Input and Assistance in the Development and Implementation of Plans and Strategy.
City of St. Augustine Beach	Members of Mitigation Task Force. Input and Assistance in the Development and Implementation of Plans and Strategy.
Town of Hastings	Members of Mitigation Task Force. Input and Assistance in the Development and Implementation of Plans and Strategy.
Flagler Estates Road and Water District	Members of Mitigation Task Force. Input and Assistance in the Development and Implementation of Plans and Strategy.
Florida Department of Transportation	Maintain roadways, ditches and drainage basins within its jurisdiction

Section III - Hazards Identification and Vulnerability Assessment

A. County Description

St. Johns County is situated in the northeast Florida region, bounded by the Atlantic Ocean with approximately 42 miles of Atlantic Ocean shoreline on the east and the St. Johns River on the west. St. Johns County has a land area of 609.0 square miles and has the longest shoreline in northeast Florida. According to the US Census its population in 2000 was 123,135 with a density of 202.2 persons per square mile and in 2008 the population was estimated to be 181,540 with a density of 298 persons per square mile. This is a suburban county partially within the Jacksonville Urban Area with several urban places. Anticipated growth will continue the induction of St. Johns County as an urbanized area within northeast Florida. However, the southern half of the county is classified as rural. The expansion of the urban area is expected to proceed southward from the County line. Like every other coastal county of the State, a large portion of the population is concentrated along the counties main bodies of water: the Atlantic coast, inter-coastal waterway, and along the St. Johns River. These are areas most vulnerable to the effects of hurricane storm surge, wind, and freshwater flooding.

Its county seat, St. Augustine, is the oldest permanent settlement in the United States. The U.S. Census 2005-2007 American Community Survey says that the population aged 65 and over in St. Johns County increased to 24,439 residents; that will account for 14.5 percent of the total population.

B. Population and Housing

Development along the ocean and the resulting vulnerability of that population to natural hazards is a major concern of emergency management planners. Most population growth in the last few decades has occurred closest to water bodies and this trend is expected to continue. Increasing coastal development is accompanied by certain social and economic costs due to imperiled public safety and property damage, as well as potential losses from hurricanes, flooding, or high winds.

Along with the growing population is the decrease in household size leading a requirement for more houses to accommodate the population. While the St. Johns County is still mostly rural, the overall household size has decreased since 1980 from 2.65 to 2.44 in 2000 and is projected to fall even further in 2010.

**Number of Households
Persons Per Household, 1980 -2000- 2010**

County	1980		2000		Projected 2010	
	Households	PPH	Households	PPH	Households	PPH
St. Johns	18,623	2.65	49,614	2.44	59,500	2.38

A major concern is the proliferation of mobile home communities and scattered mobile homes located in low-lying areas and unmarked or water-surge-affected roadways. During the 1970s the region experienced a 158 percent increase in the number of mobile homes with only a 44 percent increase in total year-round dwelling units. During the 1990s, St. Johns County experienced an increase of over 13,100 dwelling units, over 2,600 of which were mobile homes. These figures amount to an increase in total units of 24 percent and over 27 percent in mobile homes.

In 1990, mobile homes numbered 7,187 and accounted for 17.45 percent of dwelling units. By 2000, the number of mobile homes jumped to 7,688 and accounted for 13.3 percent of all dwelling units. Occupants of mobile home units account for approximately 24,000 persons that would potentially be affected by hazardous weather.

In St. Johns County as of 1996 there are approximately 9,744 persons aged 16 and over with mobility or self-care limitation as shown below. Of that number, 4,299 are aged 65 and over.

Regional Persons With Mobility or Self-Care Limitation

County	Persons Aged 16-64 With Mobility Limit	Persons Aged 65+ With Mobility Limit
St. Johns	5,445	4,299

According to the 1990 Census, at least 644 persons in the County that did not speak or understand English. This number more than tripled to 1,973 by year 2000; this is attributed to the increase in Asian population.

The population of St. Johns County has been aging. Median age rose from 36.9 in 1990 to 41.6 in 2000 and the age group distribution for the county is changing as a result. While increasing in actual numbers due to overall population growth, the age groups 0-17, 18-24 and 25-44 have declined as a share of population between 1990 and 1999. The age groups that have shown an increase are especially 45-64 and those 65 and over.

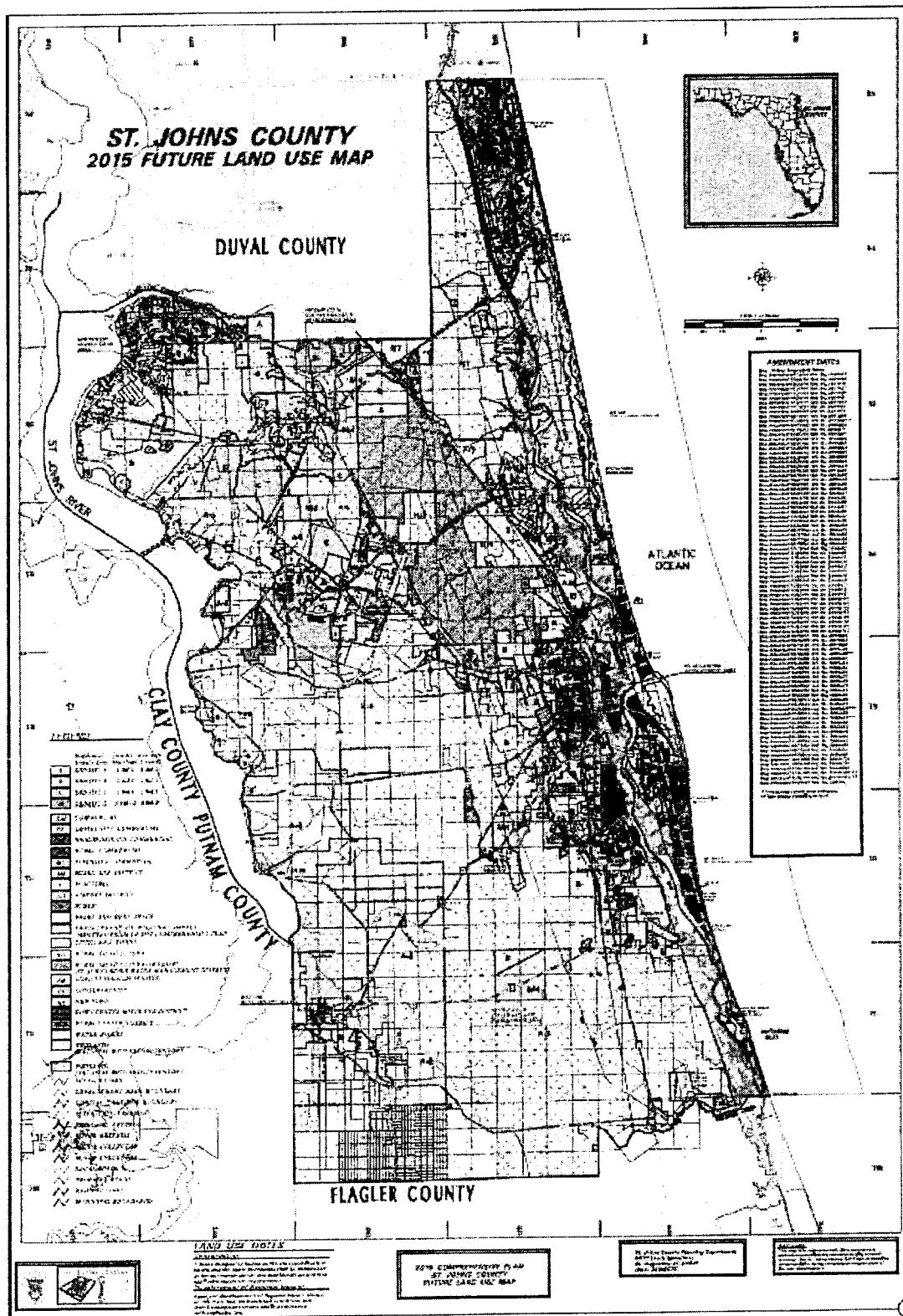
C. Income and Earnings

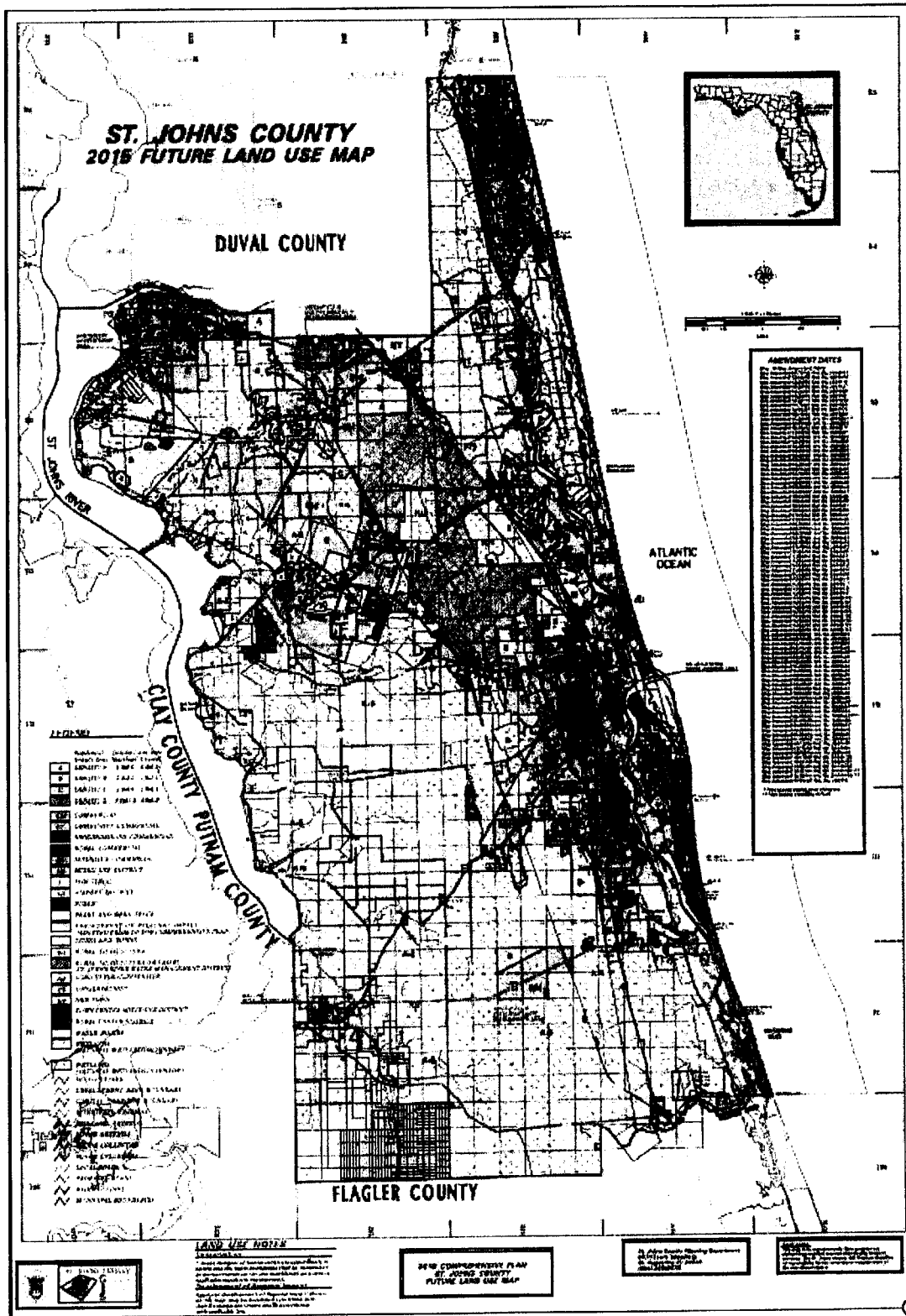
Per capita personal income in St. Johns County was estimated at \$28,674 in 2000. This is 121 percent of the state average and the county ranks 6th in the state. In 1986, the per capita personal income was \$16,210 and the rank was 8th in the state. This yields an annual growth rate of 6.1 percent over the last ten years as compared to a state average of 4.7 percent. However, in 2000, 23 percent of all County households earned less than \$25,000, and 6.3 percent earned less than \$10,000.

D. Land Uses and Development Trends

St. Johns County exhibits a pattern of rural, suburban and urban land uses. In the northwest part of the County there are suburban subdivisions in the Julington Creek/ Fruit Cove area. More intense single family, multi-family, and commercial urban land uses are found in the northeast part of the County, mainly Ponte Vedra Beach. Both Urban and suburban land uses dominate the east central portion of the County in and around the City of St. Augustine. Residential and Commercial development exists both north and south of St. Augustine along U.S. 1. Recreation land uses also exist along the barrier islands in the County.

In the 1980's the highest growth areas were in the northeast portion of the County, specifically the Ponte Vedra Beach/Palm Valley area. In the last two decades, development has occurred in the northwest portion of the County including Fruit Cove, Julington Creek, Switzerland, and areas around 210 West. Several large subdivisions are also emerging along I-95. These areas are growing fast due to several factors including low land prices, good schools, and accessibility to major roads and employment centers. This growth includes Developments of Regional Impact planned or projects that are currently being developed within the County that will bring a mix of residential, commercial, and retail to the County. All future development will follow best use practices and mitigate vulnerability to hazards to the greatest extent possible. The following Map is a Future Land Use Map and identifies areas of development and future development within the County.





E. Hazards Identification and Vulnerability

The following sections identify potential hazards that could affect the County and its residents. For the purposes of the 2010 LMS update, no new hazards have been identified. The probability of each hazard occurring has been verified from trustworthy sources including the National Weather Service, United States Geological Survey, Florida Division of Forestry, and the Florida Department of Law Enforcement. Not every hazard was looked at in depth as some hazards have a minute chance of occurring. These hazards that are not analyzed in depth are tsunamis, sinkholes, earthquakes, and dam/levee failure.

Each hazards characteristic is described and past occurrences have been identified. Table A-1, the Hazards Quick Reference Table, in the appendices outlines the specifics of the hazards identification section in greater detail. Multi-hazard maps are included throughout Section E.

1. Hurricanes

Hurricanes have the greatest potential for causing disaster then any other single natural threat to St. Johns County. The first step in the formulation of a hurricane disaster mitigation strategy is to identify and analyze the expected hurricane hazards such as storm surge and winds. The effects of an impacting hurricane will depend upon the strength, direction and, location of impact of the storm. Hurricanes are categorized on the Saffir-Simpson Hurricane Scale from one through five. (See below) Categories one and two storms are considered “minor” hurricanes, although they can cause significant damage. Categories 3, 4 and 5 hurricanes are “major” hurricanes and can cause massive destruction and potential loss of life.

SAFFIR/SIMPSON HURRICANE INTENSITY CATEGORIES

Category	Central Pressure		Wind Speed		Damage
	Millibars	Inches (Hg)	Miles per Hour	Knots	
1 (Minor)	980	28.9	74 - 95	64 - 83	Minimal
2 (Minor)	965 - 979	28.5 - 28.9	96 - 110	84 - 96	Moderate
3 (Major)	945 - 964	27.9 - 28.5	111 - 130	97 - 113	Extensive
4 (Major)	920 - 944	27.2 - 27.9	131 - 155	114 - 135	Extreme
5 (Major)	< 920	< 27.2	> 155	> 135	Catastrophic

The three major hazards produced by a hurricane are the storm surge, high winds and rainfall. The storm surge is the abnormal rise in ocean water levels caused by the wind and pressure forces of a hurricane or tropical storm. Storm surge produces most of the flood damage and drowning associated with storms that make landfall or that closely approach the coastline. Of the hurricane hazards, the storm surge is considered to be the most dangerous as ninety percent of hurricane-related deaths have been caused by drowning.

St. Johns County is a coastal County and may have storm surge associated with hurricanes as well as surge effects associated with the St. Johns River which functions less as a river and more like a tidally influenced lagoon along its lower portions from Palatka to Jacksonville which make up the western boundary of the county. The St. Johns River is shallow and strongly influenced by tides from the Atlantic Ocean up to 50 miles downstream. As a result, within St. Johns County, areas adjacent to the St. Johns River and its tributaries are subject to storm surge. Areas of particular vulnerability include the entire shoreline of the St. Johns River, the southern portions of Julington Creek, shorelines adjacent to Cunningham Creek, Six Mile Creek and Deep Creek, which leads into and may cause the Town of Hastings to flood.

A review of records from the National Weather Service between 1979 and 2012 shows that St. Johns County and Northeast Florida have had brushes with hurricanes but no direct hits. The last hurricane to directly impact Northeast Florida was hurricane Dora in 1964, which came ashore in northern St. Johns County. The following storms have come the closest to Northeast Florida and St. Johns County in the past thirty years

- Hurricane David September 4, 1979
- Hurricane Dennis August, 1989
- Tropical Storm Isadore..... September/October, 1984
- Hurricane Bob July 24, 1985
- Tropical Storm Chris August, 1988
- Tropical Storm Josephine October, 1996
- Tropical Depression Georges September/October, 1998
- Hurricane Floyd..... September 15, 1999
- Tropical Storm Gabrielle..... September, 2001
- Hurricane Charley..... August, 2004
- Hurricane Frances..... September, 2004
- Hurricane Jeanne..... September, 2004
- Tropical Storm Ophelia..... September, 2005
- Tropical Storm Alberto..... June, 2006
- Tropical Storm Ernesto..... August, 2006
- Tropical Storm Fay..... August, 2008
- Tropical Storm Beryl..... May 2012
- Tropical Storm Debby..... June 2012

2. Storm Surge

Complete details regarding the storm surge threat are available from two sources: the TAOS (The Arbitrator of Storms) model currently in use by the State of Florida through the Division of Emergency Management and the SLOSH (Sea, Lake and Overland Surges from Hurricanes) model currently in use by the National Weather Service and the National Hurricane Center. A comparison of data from the two sources does not show resoundingly different results for the minor storm events, differences are greater for data on major storm events both models are respected in the response community. However, the SLOSH model has a longer proven record and will be used in this analysis for storm

surge vulnerability levels. The Northeast Florida Regional Council updated the Storm Surge Atlas for St. Johns County (Volume 3) utilizing the SLOSH data in 1998. The last known occurrence of Storm Surge in St. Johns County was in 1964 when Hurricane Dora came ashore in St. Johns County. The following maps, Maps 1, 2, and 3, represent the surge threat identified in the models as shown in the Storm Surge Atlas.

3. Areas Subject to High Winds

If a severe storm or hurricane were to occur in the County there are certain areas where winds would be higher due to topography (higher elevations), proximity to the ocean, and/or land use patterns such as large clear-cut within the forest. These areas have been determined by the TAOS models and are mapped as part of the Multi-Hazard Map Series.

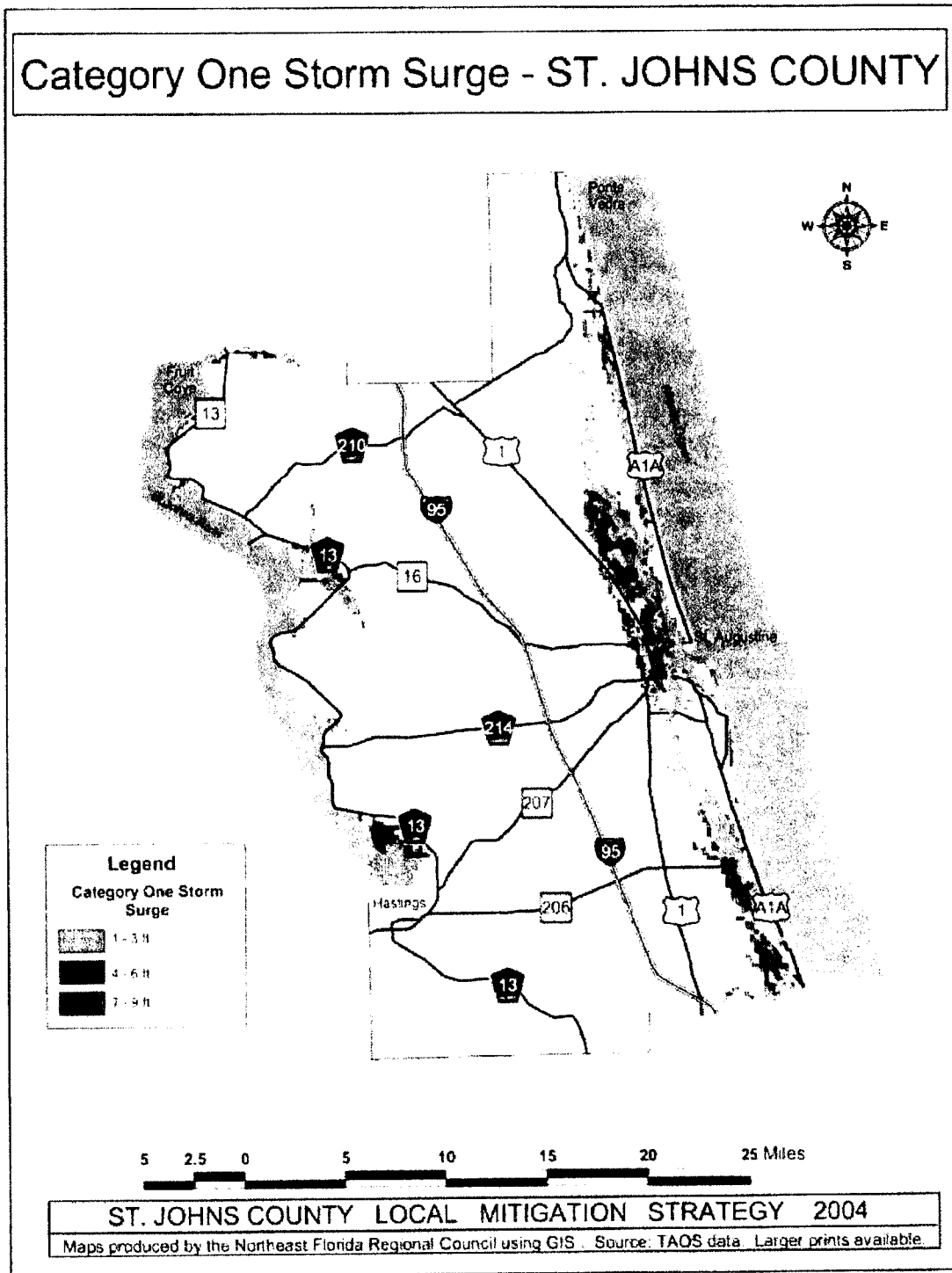
The following areas appear to be the most susceptible to high winds from a hurricane:

- All shorelines;
- Areas adjacent to the Intracoastal Waterway;
- Development located adjacent to the St. Johns River;
- Areas in and around the Town of Hastings.

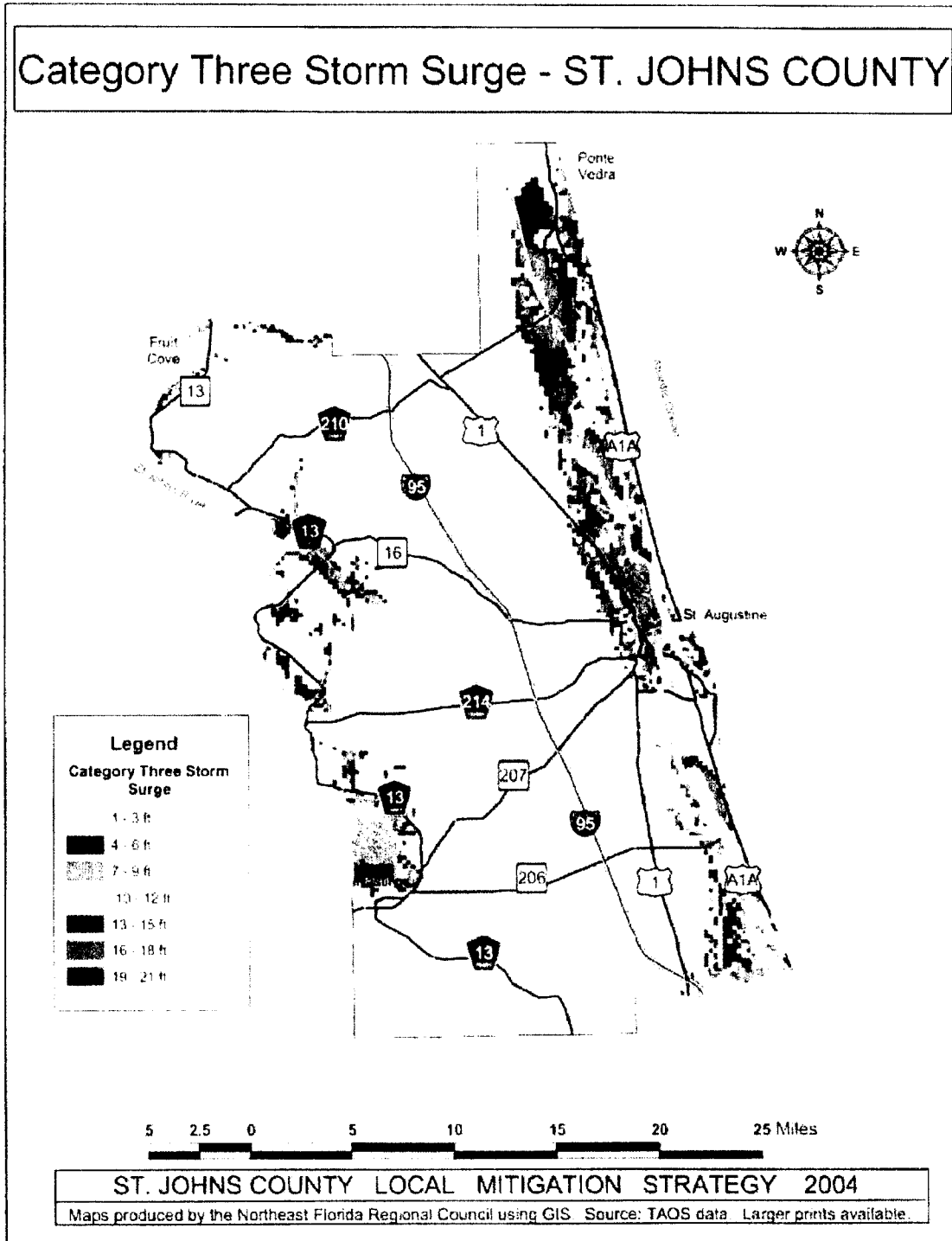
The high winds also can be devastating to persons outside, in mobile homes or substandard structures, or in structures with unprotected exposures. A 140-mile per hour wind can produce as much as 60 pounds of pressure per square foot. With this kind of pressure a structure, once compromised during a windstorm, will experience increasing internal pressure to the roof and walls. This could cause: the roof to blow off the structure, the structure to completely fail, or the inside to be devastated by a wind tunnel effect.

The following maps, Maps 4, 5, and 6, are from the TAOS (The Arbiter of Storms) model currently in use by the State of Florida through the Division of Emergency Management. They represent the high wind hazard from hurricanes, categories 1, 3 and, 5. The maps clearly show that the County is vulnerable to winds from even a category 1 hurricane.

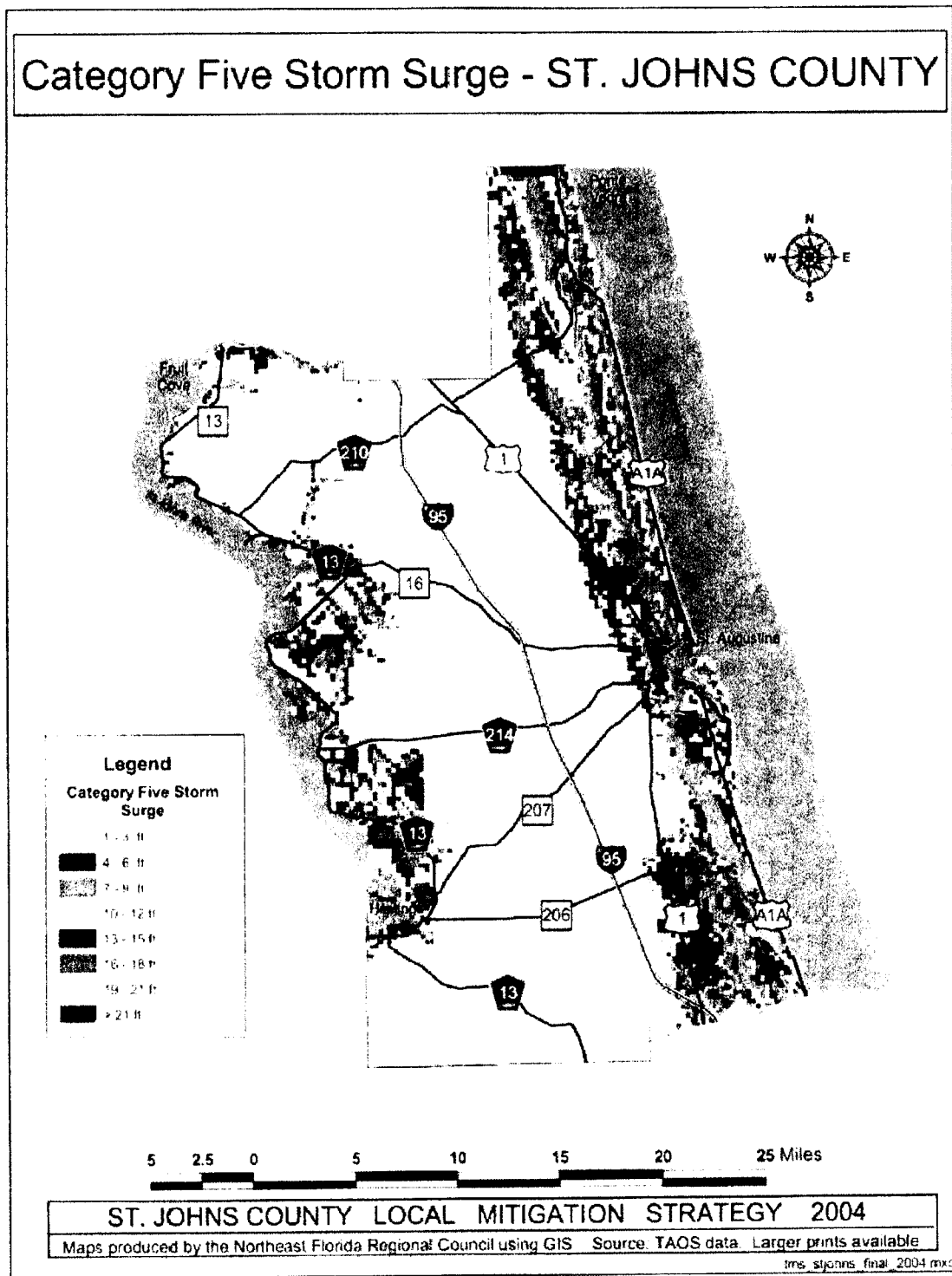
Map 1



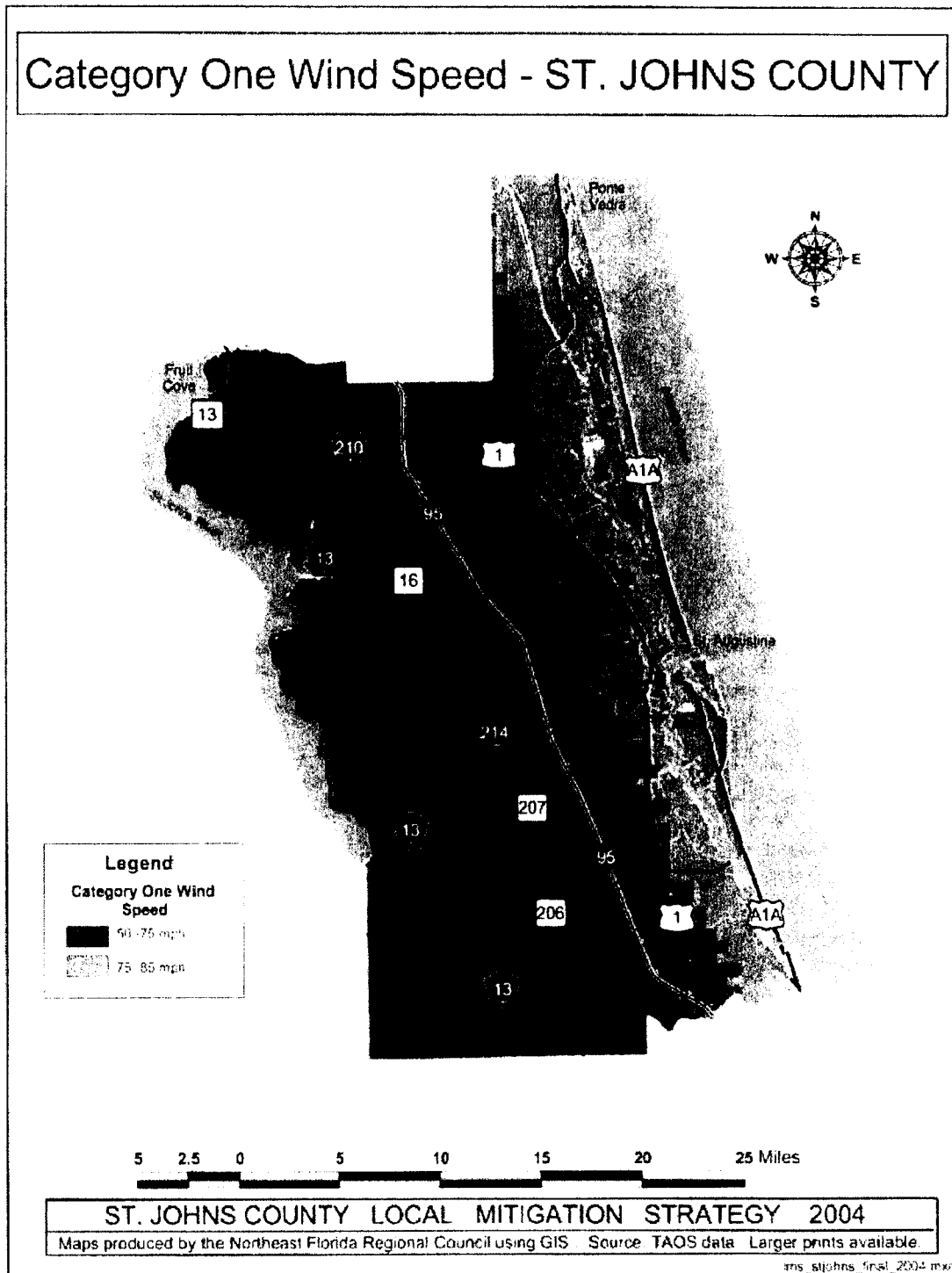
Map 2



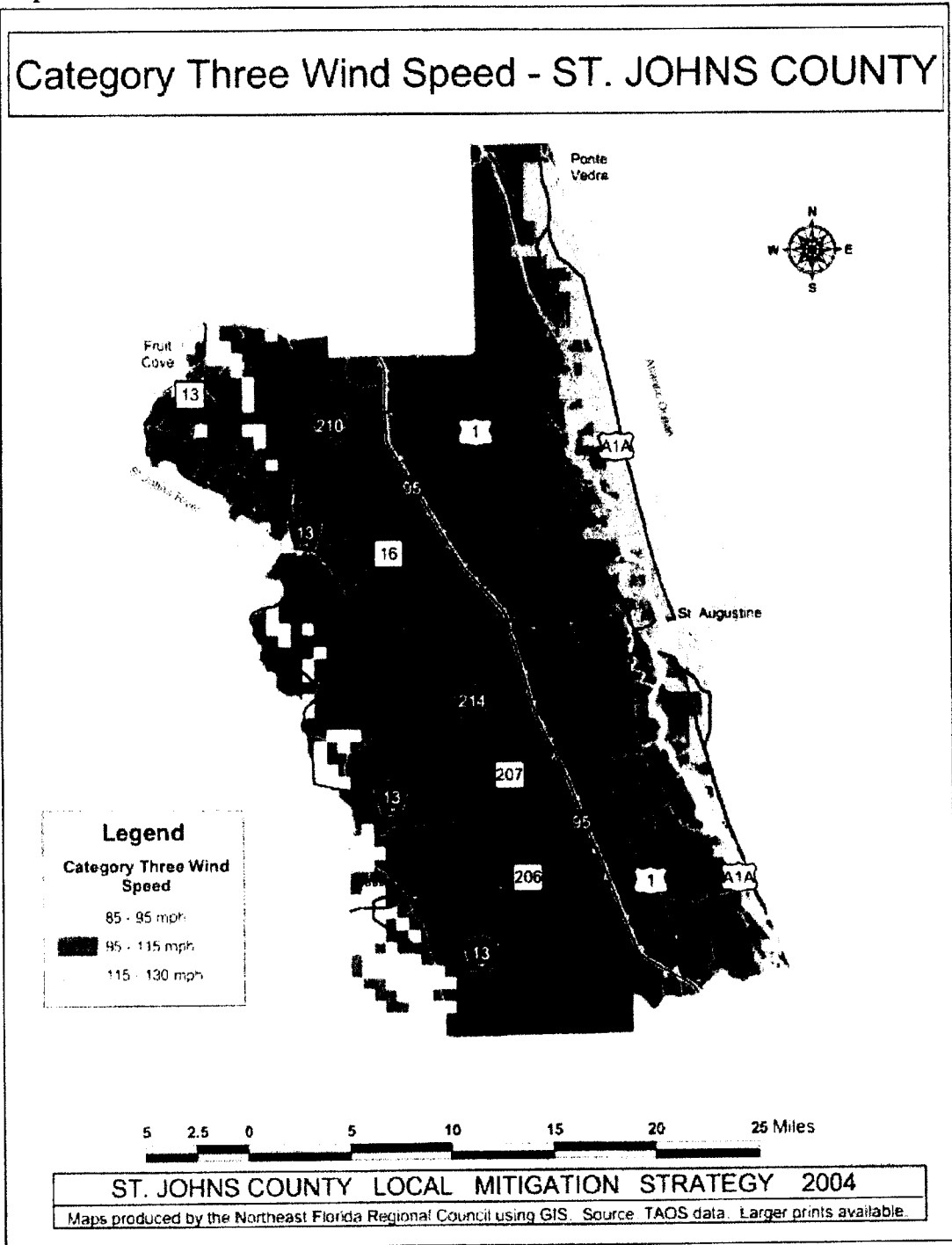
Map 3



Map 4

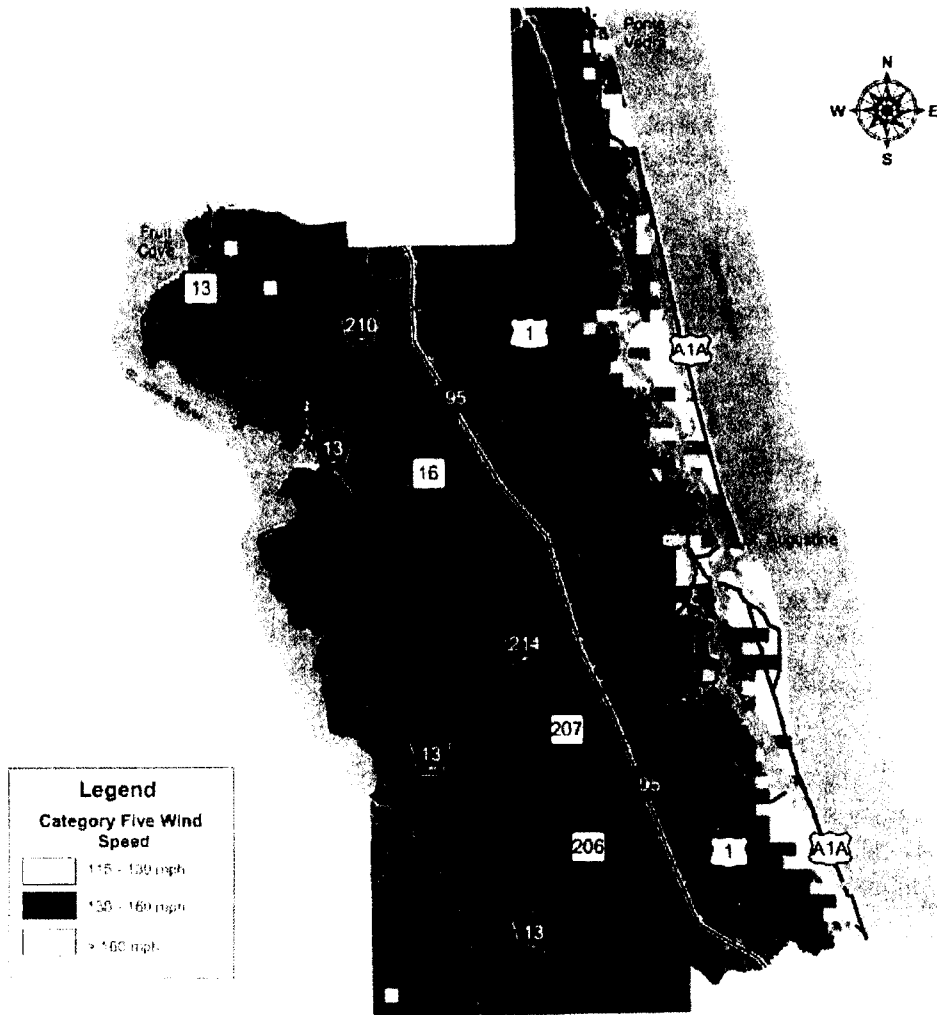


Map 5



Map 6

Category Five Wind Speed - ST. JOHNS COUNTY



5 2.5 0 5 10 15 20 25 Miles

ST. JOHNS COUNTY LOCAL MITIGATION STRATEGY 2004

Maps produced by the Northeast Florida Regional Council using GIS. Source: TAOS data. Larger prints available.

ms_stjohns_final_2004.mxd

4. Tornadoes

Although tornadoes in Florida are not as prevalent as they are in the Midwest within the area known as “Tornado Alley”, nevertheless they do occur from time to time. However, during the period between 1950 and 2009, Florida had a total of 3,025 reported tornadoes, an average of 51 per year. This ranks Florida third among the States in the number of tornados, behind Texas and Oklahoma. Further, while not considered one of the main hazards of a hurricane, tornadoes are spawned by hurricanes and can cause major damage and loss of life. Tornados are most prevalent in west central Florida and portions of the panhandle. Tornados are categorized on the Fujita Scale from F0 - F5.

The Fujita Scale

Scale	Wind Estimate	Typical Damage
F0	40 – 72 mph Gale Tornado	Light Damage
F1	73 – 112 Moderate Tornado	Moderate Damage
F2	113 – 157 Significant Tornado	Considerable Damage
F3	158 – 207 Severe Tornado	Severe Damage
F4	208 – 260 Devastating Tornado	Devastating Damage
F5	261 – 318 Incredible Tonado	Incredible Damage

On February 1, 2007 NOAA began using the Enhanced Fujita Scale. The Enhanced F-scale still is a set of wind estimates (not measurements) based on damage. Its uses three-second gusts estimated at the point of damage based on a judgment of 8 levels of damage to the 28 indicators listed below. These estimates vary with height and exposure.

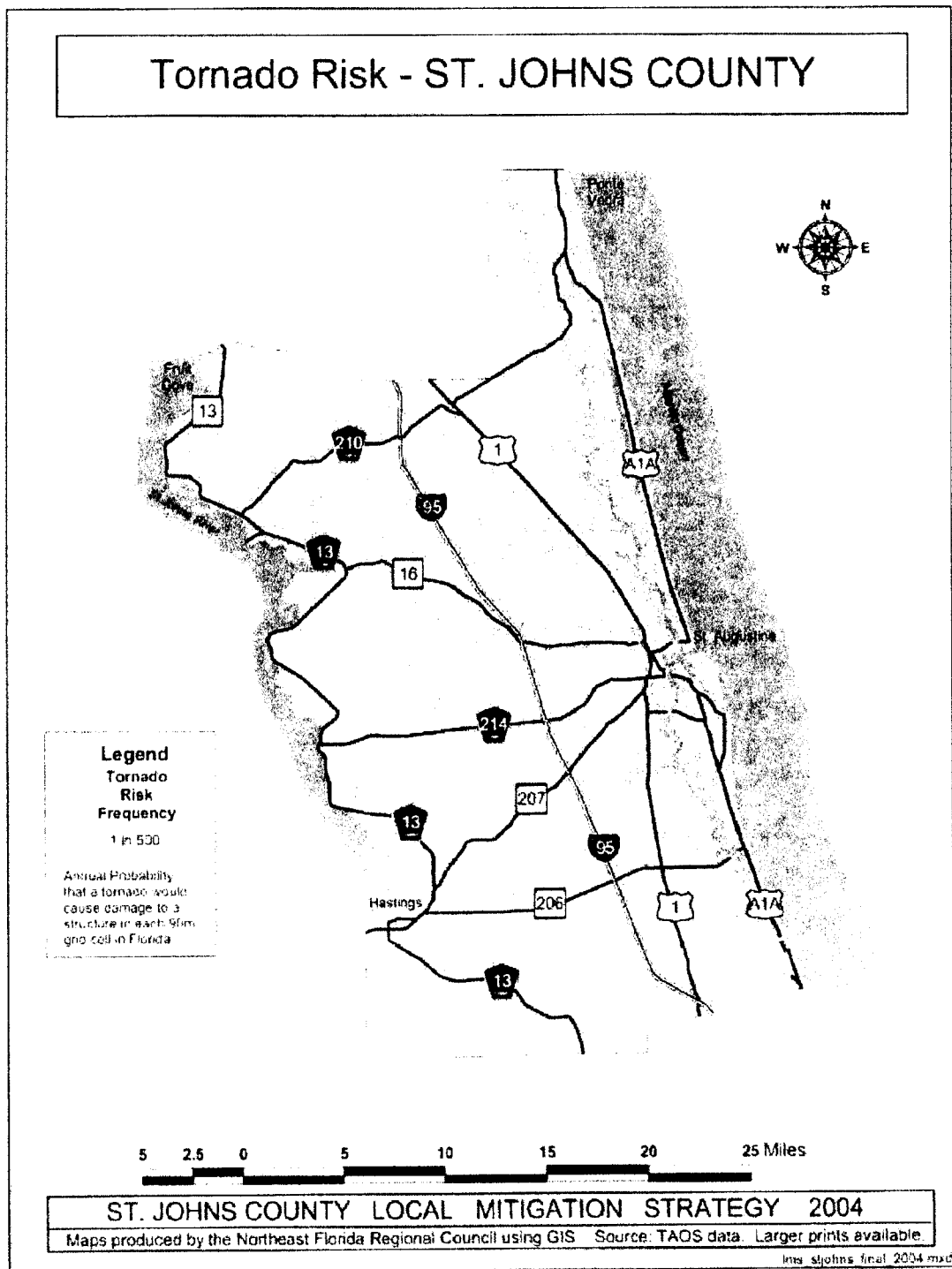
Fujita Scale			Derived Enhanced Fujita Scale		Operational EF Scale	
F Number	Fastest ¼ mile (mph)	3 Second Gust (mph)	EF Number	3 Second Gust (mph)	EF Number	3 Second Gust (mph)
0	40 - 72	45 - 78	0	65 - 85	0	65 - 85
1	73 - 112	79 - 117	1	86 - 109	1	86 - 110
2	113 - 157	118 - 161	2	110 - 137	2	111 - 135
3	158 - 207	162 - 209	3	138 - 167	3	136 - 165
4	208 - 260	210 - 261	4	168 - 199	4	166 - 200
5	261 - 318	262 - 317	5	200 - 234	5	Over 200

Enhanced F Scale Damage Indicators

Number	Damage Indicator	Abbreviation
1	Small barns, farm outbuildings	SBO
2	One- or two-family residences	FR12
3	Single-wide mobile home (MHSW)	MHSW
4	Double-wide mobile home	MHDW
5	Apt, condo, townhouse (3 stories or less)	ACT
6	Motel	M
7	Masonry apt. or motel	MAM
8	Small retail bldg. (fast food)	SRB
9	Small professional (doctor office, branch bank)	SPB
10	Strip mall	SM
11	Large shopping mall	LSM
12	Large, isolated ("big box") retail bldg.	LIRB
13	Automobile showroom	ASR
14	Automotive service building	ASB
15	School - 1-story elementary (interior or exterior halls)	ES
16	School - junior or senior high school	JHSH
17	Low-rise (1-4 story) bldg.	LRB
18	Mid-rise (5-20 story) bldg.	MRB
19	High-rise (over 20 stories)	HRB
20	Institutional bldg. (hospital, govt. or university)	IB
21	Metal building system	MBS
22	Service station canopy	SSC
23	Warehouse (tilt-up walls or heavy timber)	WHB
24	Transmission line tower	TLT
25	Free-standing tower	FST
26	Free standing pole (light, flag, luminary)	FSP
27	Tree - hardwood	TH
28	Tree - softwood	TS

A review of records from the National Weather Service shows that between 1950 and 2009 St. Johns County has had 49 tornadoes, 4 of which occurred between 2005 and 2009. The worst case scenario for St. Johns County would be an F3 Tornado based on the original Fujita Scale. There has been two (2) F3 tornados recorded in St. Johns County, these storms occurred in 1958 and 1971. Information on the tracks of tornadoes is available through the State Department of Emergency Management database. The following Map, Map 7, illustrates the tornado risk in St. Johns County.

Map 7



5. Freshwater Flooding

Freshwater flooding is generally associated with small natural streams or other drainage systems that are overwhelmed by large amounts of runoff generated by short episodes of extremely heavy rainfall. Freshwater flooding of evacuation routes just prior to evacuation orders or during the latter evacuations can trap evacuees. Detailed below are some of the roads and areas of concern within the county.

Freshwater Flooding occurs in several areas in St. Johns County. The two largest areas of note are the downtown area in the city of St. Augustine and Flagler Estates with roads frequently flooded after rains. Other notable roadways include:

- Solana Road west of Sunset Drive
- Several sections of Roscoe Road which runs along the Intracoastal Waterway
- Greenbriar Road east of Roberts Road
- International Golf Parkway just west of the World Golf Village and a large section just west of US-1.

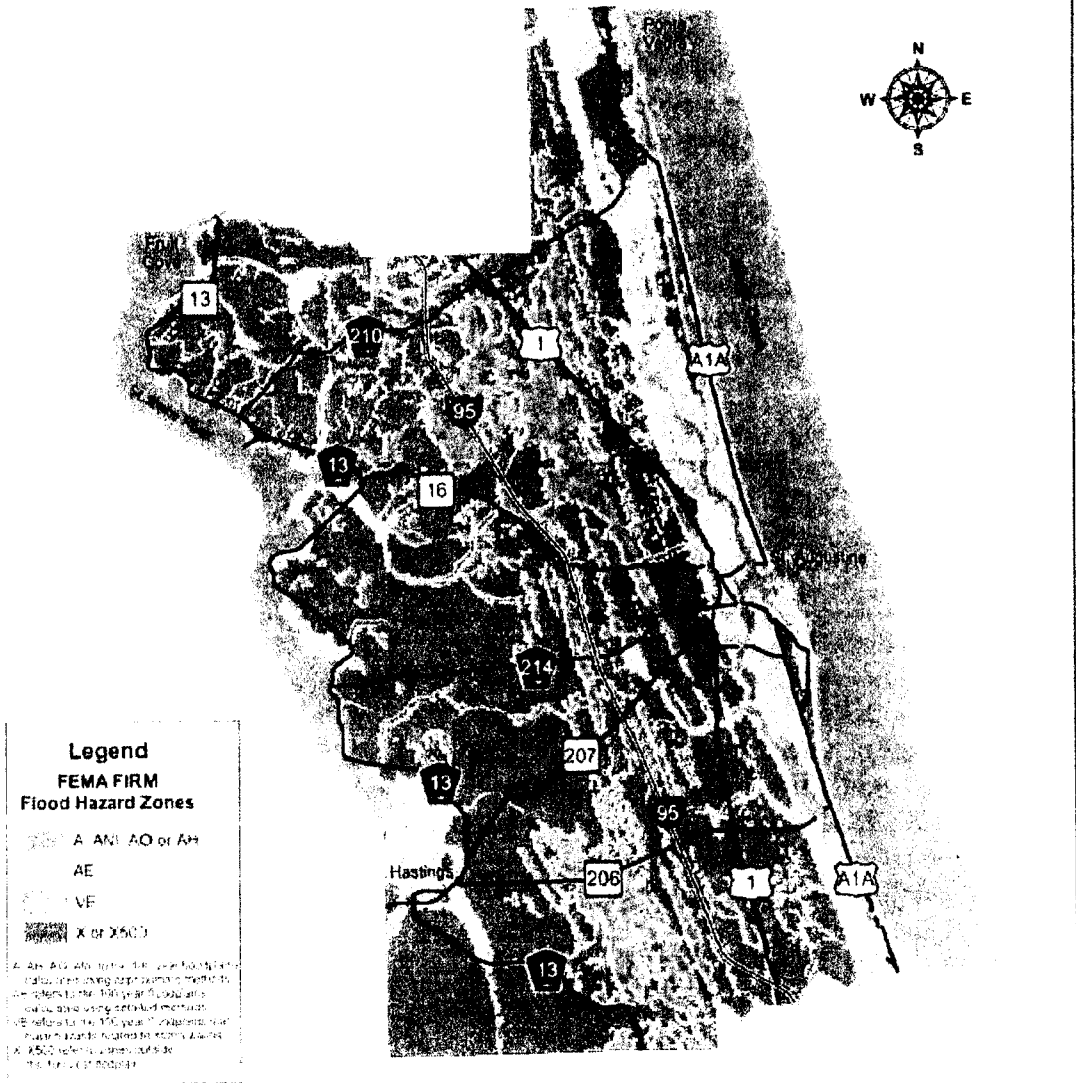
Freshwater flooding may inundate potential evacuation routes and prevent persons evacuating late from vulnerable areas. Flooded roads and storms can also contribute to fatal accidents. Freshwater flooding as well as coastal flooding is modeled by the Federal Emergency Management Agency (FEMA) as part of the National Flood Insurance Program (NFIP). Vulnerability to flooding is documented in the Flood Insurance Rate Maps delineating the “100-year storm” (or A Zones) and the Velocity (or V) Zones. Map 8 illustrates the FEMA FIRM, Flood Insurance Rate Maps, Zones for St. Johns County. For specific water depths in flooding events you can refer to the Flood Insurance Rate Maps. St. Johns County (unincorporated) can be found in Map(s) number 125147; City of St. Augustine (incorporated) in Map(s) number 125145; City of St. Augustine Beach (incorporated) in Map(s) number 125146; and Town of Hastings (incorporated) in Map(s) number 120282. This collection of maps is far too extensive to be included within this document and can be supplied upon request. The highest flood waters on record for St. Johns County occurred in Flagler Estates on September 14th – 15th, 2001 as a result of Tropical Storm Gabrielle. The water reached a depth of 3 feet on Flagler Estates Boulevard and surrounding areas. If conditions were right this level of flooding, or possibly more, could be experienced in the future.

6. Floodplains

Map 9 shows those areas of St. Johns County that are within the 100 year and 500 year floodplain as delineated by the Federal Emergency Management Agency (FEMA) as part of the National Flood Insurance Program (NFIP). These are areas which experience flooding associated with heavy rainfall events which cause localized flooding from overflowing streams or ponds in low lying areas. In St. Johns County floodplains are associated with the St. Johns River and Intracoastal Waterway and their tributaries; Flooding within these areas accounts for the principle flooding problems within the County. As shown on the following map the largest portion of the county vulnerable to

Map 8

FEMA FIRM Zones - ST. JOHNS COUNTY



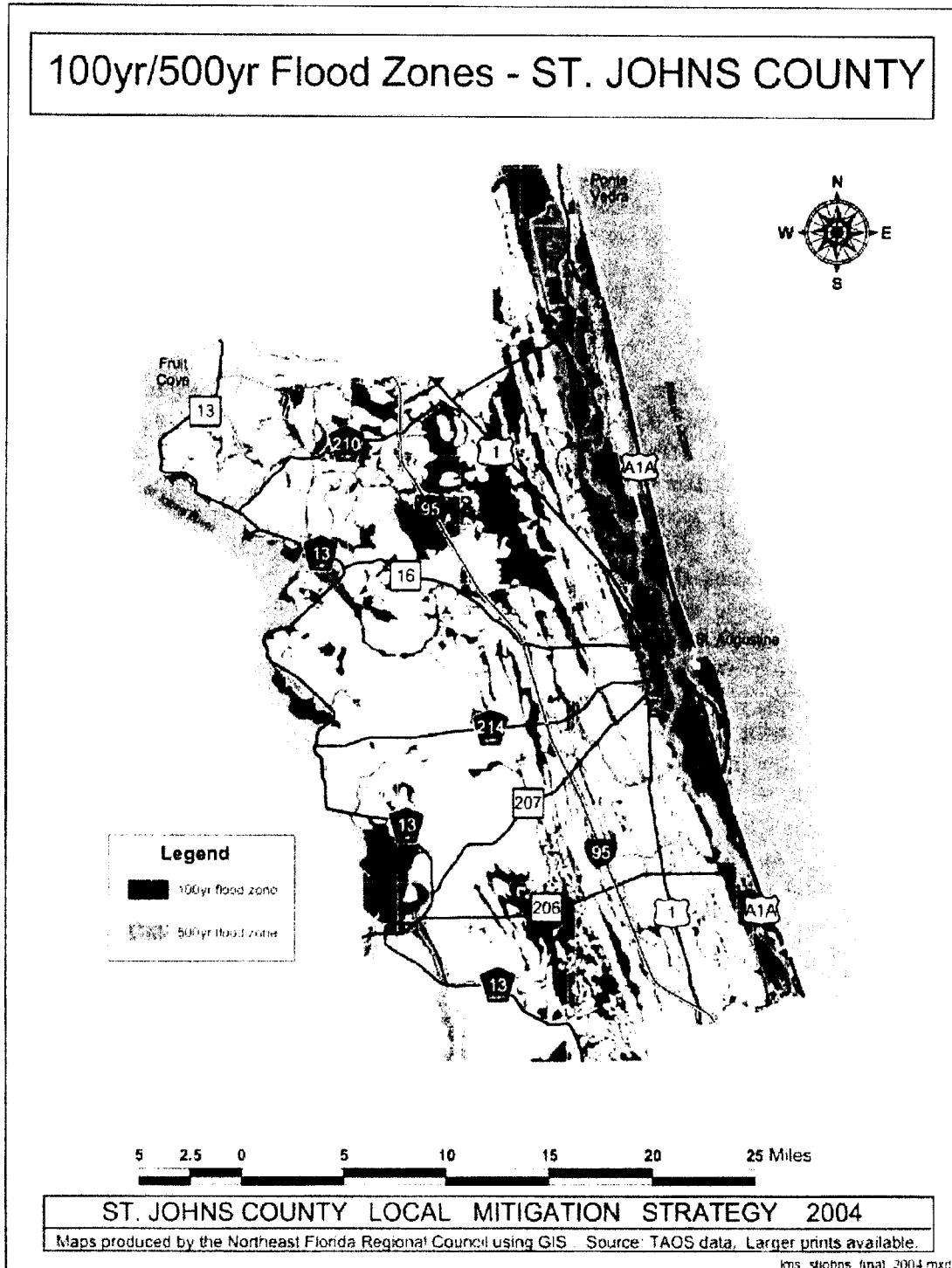
5 2.5 0 5 10 15 20 25 Miles

ST. JOHNS COUNTY LOCAL MITIGATION STRATEGY 2004

Maps produced by the Northeast Florida Regional Council using GIS. Source: TAOS data. Larger prints available.

lms stjohns final 2004.mxd

Map 9



freshwater flooding is that area east of US 1 and areas along the St. Johns River. These are also the areas with the highest population concentrations within the County.

As a result a significant portion of the Counties population is vulnerable to the effects of a 100 or 500-year flooding event. This could mean either that the dwelling units are directly impacted by being flooded, or that the property or accesses to the property are flooded resulting in health and safety hazards. Based on analysis completed for the Northeast Florida Hurricane Evacuation Study, between 30,000 and 40,000 of the County's 150,000 residents are vulnerable. This is between 20 and 30 percent of the population.

7. Wildfires

The County is subjected to some form of wild fire each year. In recent history 1997 through 1999, 2004 and 2007 the fires have been larger and have threatened urbanized areas more frequently. St. Johns County is transforming from a rural county, to one which is much more urban in nature, but a large percentage of its land area is still covered in forest. As a result many areas of the County are susceptible to wildfire. The most vulnerable areas those generally located at the urban/wildland interface, primarily located in the western portions of the County. These are areas where subdivisions occur adjacent to large undeveloped areas of forestland. Much of this land is in large ownerships including lands owned by large timber companies and which is actively managed for silviculture. When subdivisions are developed without clearing the wooded areas surrounding them the interface becomes extremely hazardous. Florida has a history of naturally occurring wildfires. The hot, wet summers following long periods of uninterrupted growth cause the buildup of underbrush, which is prime fuel for wildfires. Large amounts of dry underbrush require only an ignition source; this can be from a home fireplace, trash burn, carelessly tossed away cigarette, or a natural source such as lightning. Once ignited, the underbrush can burn thousands of acres. Housing developments adjacent to areas with large amounts of underbrush are vulnerable to the fires.

The Keetch-Byran drought index was designed specifically for fire potential assessment. It is a number representing the net effect of evapotranspiration and precipitation in producing cumulative moisture deficiency in deep duff and upper soil layers. It is a continuous index, relating to the flammability of organic material in the ground.

- KBDI = 0 - 200: Soil moisture and large class fuel moistures are high and do not contribute much to fire intensity. Typical of spring dormant season following winter precipitation.
- KBDI = 200 - 400: Typical of late spring, early growing season. Lower litter and duff layers are drying and beginning to contribute to fire intensity.
- KBDI = 400 - 600: Typical of late summer, early fall. Lower litter and duff layers actively contribute to fire intensity and will burn actively.
- KBDI = 600 - 800: Often associated with more severe drought with increased wildfire occurrence. Intense, deep burning fires with significant downwind

spotting can be expected. Live fuels can also be expected to burn actively at these levels.

Map 10 shows the areas of the County dominated by large tracts of land still covered primarily with forests. These areas represent the primary places wildfire may occur. The interface between these areas and the urban areas indicated the areas most vulnerable to wildfires.

8. Hazardous Materials

Hazardous materials are used to maintain the modern lifestyles of both urban and rural communities; in fact, as many as 50,000 new chemicals are created annually. Agricultural uses for chemicals range from fertilizers, insecticides and disease control for crops to ammonia refrigeration units for dairy products. These chemicals increase crop yields and ensure the delivery of fresh products to markets. Similarly in urbanized areas of northeast Florida communities often use extremely hazardous chemicals, such as chlorine or sulfuric acid for treating drinking and wastewater. Safe drinking water and reduced levels of pollution in surface waters are the result. Industrial chemicals such as potassium cyanide (used in manufacturing medicines) and fluorine (used in rocket fuels) are essential to maintain modern lifestyles in the northeast Florida area. New industrial chemicals improve product durability and create alternatives to high cost organic products, making products affordable to a wider range within the general population.

However, these conveniences have increased vulnerability of the general population to exposure from an accidental release of hazardous materials.

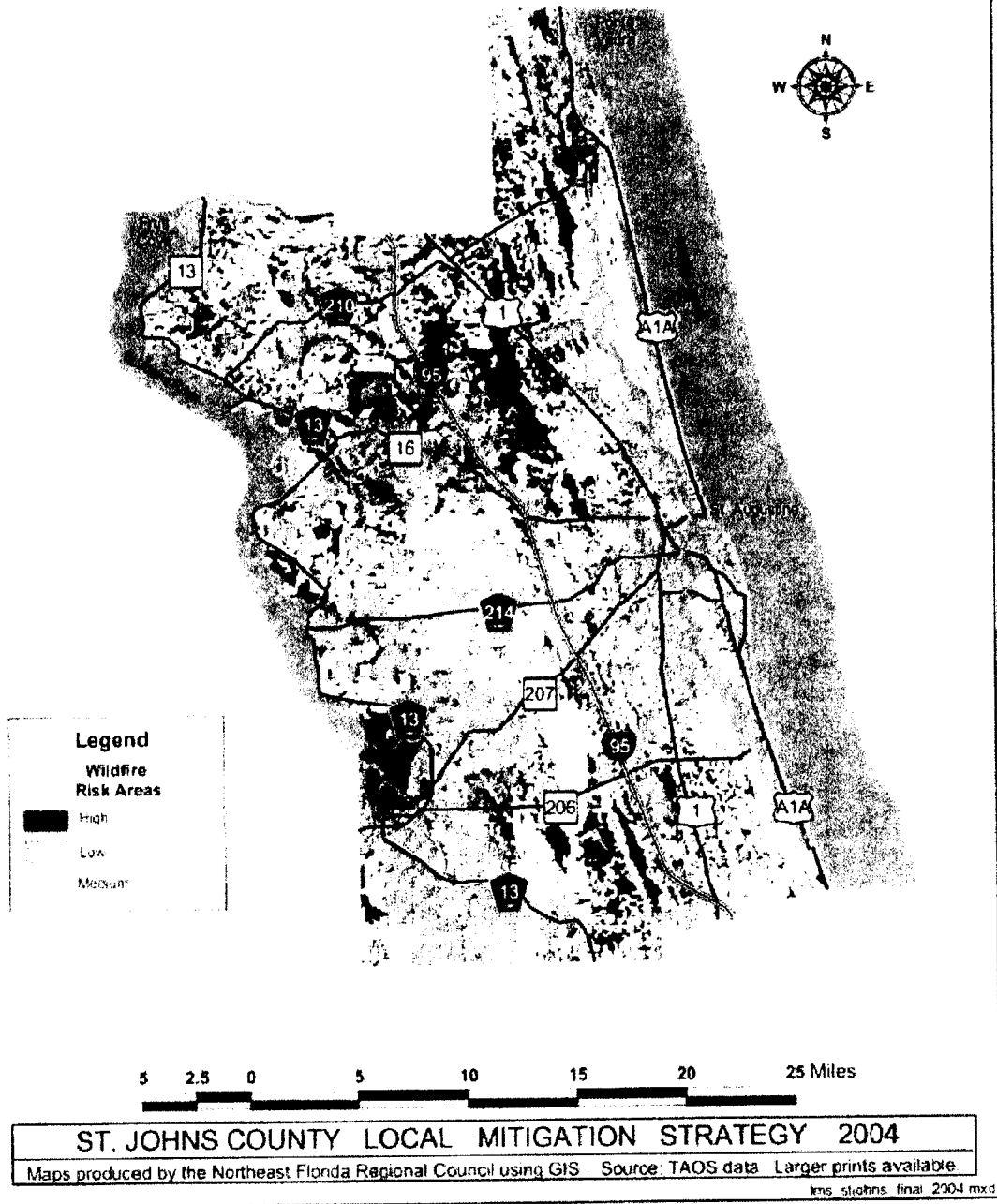
Since 1988, there has been a fifteen percent increase in the number of registered facilities using extremely hazardous materials in Northeast Florida. Supplying these facilities require routinely transporting hazardous materials the County by rail, truck, air and/or, barge. The County is rapidly urbanizing; developing around the economic centers of St. Augustine, Ponte Vedra, and the World Golf Village. As the population and number of facilities that handle hazardous materials grow, greater numbers of people are vulnerable to an accidental release. This would include vulnerability from a release of hazardous materials during or following a major natural or man-made disaster. Facilities releasing materials during a major event can cause residual contamination. If a facility is damaged during a major event only to release a hazardous material once the event has past a much greater hazard to community is created.

As part of the *Comprehensive Emergency Management Plan*, facilities subject to the 1986 Emergency Planning and Community Right-To-Know Act are identified and the following information is obtained:

- The types of chemicals
- The type and design of the container
- Quantity of materials
- The nature of the hazard (vapors, mists, fire explosion etc.)

Map 10

Wildfire Risk Areas - ST. JOHNS COUNTY



In addition a Vulnerability Analysis was completed and includes the following information:

- A vulnerability zone (radius) around the facility that could be affected by a release.
- Population within this zone.
- Property in the zone subject to damage.
- Potential environmental impacts within the zone.

And finally a Risk Analysis is completed which includes the following information:

- Probability of occurrence
- Estimates of injuries and deaths
- Impacts to critical facilities
- Impacts to property
- Impacts to environment

9. Terrorism

Terrorism incidents can come in many forms including cyber-terrorism, biological weapons, chemical weapons, nuclear weapons, explosive weapons, and incendiary weapons. Biological, nuclear, incendiary, chemical, and explosive materials (B-NICE) are considered hazardous by nature. All counties in Florida are vulnerable to a terrorist attack, whether physical destruction from bombs or contamination from chemical, biological weapons, or radiological materials. There is also the risk of cyber-terrorism attacks that could disrupt or destroy vital computer networks. The county and local emergency service departments will be the first to respond to an actual or suspected terrorism attack. There are 7 potential targets that are vulnerable to a terrorist attack in St. Johns County as identified in the Terrorism Annex:

- Northrup Grumman Aircraft installation
- Flagler Hospital
- Florida National Guard Headquarters
- Florida National Guard Armory
- Elementary and High Schools
- Special Events
- County Government Complex

A Terrorism Response Annex has been created as an appendix to the St. Johns County Comprehensive Emergency Management Plan (CEMP) to provide St. Johns County with a continuing assessment of the community's vulnerability, and capability to respond to a terrorism incident. The annex provides an assessment of the County's critical facilities and vulnerable populations, specialized response capabilities of emergency response personnel, definitions of operational aspects used in response management, and federal, state, and local command structure roles and responsibilities. The Terrorism Annex also

provides information on each type of weapon of mass destruction that may be used in a terrorism attack. Map 11 identifies the location of the facilities that have been deemed “Critical Facilities” by St. Johns County.

The following are descriptions of each type of potential hazardous threat by terrorist acts:

- Biological weapons; microorganisms and/or toxins from living organisms that have infectious or non-infectious properties that produce lethal or serious effects in plants and animals, including small pox, anthrax, Ebola, and bubonic plague.
- Nuclear weapons; high-energy particles or gamma rays that are emitted by an atom that represent a hazard to humans both internally and externally.
- Incendiary weapons; intentional arson or explosions used to spread fire or chemical and biological weapons.
- Chemical weapons; gas, liquid, or aerosol agents used to affect the transmission of nerve impulses in the human nervous system, including blister/mustard agents, choking agents and blood agents,
- Explosive weapons; used to damage property and cause loss of human life by resulting secondary hazards such as unstable structures, debris and fire.

Map 11

Critical Facilities Map available upon request

10. Drought / Heat Wave

Drought is a normal climatic occurrence that happens almost everywhere on the planet, although its characteristics vary throughout different regions. Drought is recognized as a deficiency of precipitation over an extended period of time, which could be an entire season or more. Drought not only has its physical effects on the environment, but also has social effects as well, and can often be exacerbated by human demand on water supply. There are different perspectives on drought, which include those from meteorological, agricultural, societal, and hydrologic perspectives. Periods of drought can affect crops, water supply, and can lead to increased hazard of wildfires. All of St. Johns County is susceptible to drought conditions and the hazards associated with them.

The Palmer Drought Severity Index (PDSI) is an index of the relative dryness or wetness of an area. The PDSI indicates the prolonged and abnormal moisture deficiency or excess. The PDSI is an important climatological tool for evaluating the scope, severity, and frequency of prolonged periods of abnormally dry or wet weather.

- -4.0 or less is considered an extreme drought
- -3.0 to -3.9 is considered a severe drought
- -2.0 to -2.9 is considered a moderate drought
- -1.9 to +1.9 is considered near normal conditions
- 2.0 to 2.9 is considered an unusual moist period
- 3.0 to 3.9 is considered a very moist period
- 4.0 and above is considered an extremely moist period

A heat wave is when temperatures are abnormally and uncomfortably hot for an extended period of time. This event could continue from one day to several weeks. Heat waves are often accompanied by high humidity and can have a great impact on lives, including heat strokes, heat exhaustion, and even death. On July 20th, 1986 St. Augustine hit a record high temperature of 103* F

The heat index is the "APPARENT TEMPERATURE" that describes the combined effect of high air temperature and high humidity. The higher this combination, the more difficult it is for the body to cool itself. All of St. Johns County is susceptible to the entire range of temperatures represented on the chart below describing heat index.

Heat Index Chart (Temperature & Relative Humidity)

Relative Humidity %	Temperature (*F)															
	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
90	119	123	128	132	137	141	146	152	157	163	168	174	180	186	193	199
85	115	119	123	127	132	136	141	145	150	155	161	166	172	178	184	190
80	112	115	119	123	127	131	135	140	144	149	154	159	164	169	175	180
75	109	112	115	119	122	126	130	134	138	143	147	152	156	161	166	171
70	106	109	112	115	118	122	125	129	133	137	141	145	149	154	158	163
65	103	106	108	111	114	117	121	124	127	131	135	139	143	147	151	155

60	100	103	105	108	111	114	116	120	123	126	129	133	136	140	144	148
55	98	100	103	105	107	110	113	115	118	121	124	127	131	134	137	141
50	96	98	100	102	104	107	109	112	114	117	119	122	125	128	131	135
45	94	96	98	100	102	104	106	108	110	113	115	118	120	123	126	129
40	92	94	96	97	99	101	103	105	107	109	111	113	116	118	121	123
35	91	92	94	95	97	98	100	102	104	106	107	109	112	114	116	118
30	89	90	92	93	95	96	98	99	101	102	104	106	108	110	112	114

Note: Exposure to full sunshine can increase HI values by up to 15° F

People in urban areas are more susceptible to the effects of a heat wave due to the Urban Heat Island effect, which happens as a result of changes in their landscape. Buildings, roads, and other infrastructure replace open land and vegetation. Surfaces that were once permeable and moist become impermeable and dry. These changes cause urban regions to become warmer than their rural surroundings, forming an "island" of higher temperatures in the landscape. All of St. Johns County is susceptible to heat wave conditions.

11. Winter Storm / Freeze

A winter storm is defined as a storm that can range from a few hours of moderate snow to blizzard like conditions with wind-driven snow that can last for days. Winter storms can impede visibility, affecting driving conditions, and can have an impact on communications, electricity or other services. Winter storms can range from several states to one county. St. Johns County is not generally susceptible to winter storms, because temperatures rarely reach snow-producing levels. The climactic conditions for winter storms are also not favorable. But temperatures can reach levels low enough to cause damage to crops and water lines.

Freezing occurs when temperatures are below freezing, less than 32° F, over a wide-spread area for a significant period of time. Freezing temperatures can damage agricultural crops and burst water pipes in homes and buildings. In St. Johns County we have an average of 17 days a year at or below freezing. Frost, often associated with freezes can increase damaging effects. Frost is a layer of ice crystals that is produced by the deposition of water from the air onto a surface that is at or below freezing. Some of the coldest ever recorded temperatures in St. Johns County were in January 1985. On January 21st, 1985, St. Augustine recorded a temperature of 10* F and Hastings recorded a temperature of 12* F.

Wind Chill is the term used to describe the rate of heat loss on the human body resulting from the combined effect of low temperature and wind. As winds increase, heat is carried away from the body at a faster rate, driving down both the skin temperature and eventually the internal body temperature. Exposure to low wind chills can be life threatening to both humans and animals alike. In St. Johns County one could experience Wind Chills between 36* F and -11* F. If conditions were right Wind Chills could fall even lower. Below is the National Weather Service Wind Chill Chart.



NWS Windchill Chart



		Temperature (°F)																	
		40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
Wind (mph)	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
	60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98

Frostbite Times 30 minutes 10 minutes 5 minutes

Wind Chill (°F) = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})
 Where, T= Air Temperature (°F) V= Wind Speed (mph) Effective 11/01/01

F. Summary

Much development has been occurring along the County's coastline, particularly residential construction. All such structures are subject to the hazards of hurricanes and, accordingly, need to be constructed in conformance with stringent building codes. This is particularly true of structures in the hurricane surge zone. The storm surge has by far the most destructive power associated with a hurricane. The benefits of the preserving the natural dune system have been shown to be enormous in mitigating storm surge hazard. Other actions such as elevating houses above the anticipated surge levels, building back from the shoreline, and using breakaway walls on lower levels all mitigate the effects of this hazard.

Second to the storm surge in power but yielding the potential for far-reaching and expensive damage are the heavy winds associated with a hurricane. Hurricane force winds, even a category 1 hurricane, directly striking the area will be felt throughout the County. Structures not built to withstand high winds are particularly vulnerable. Older, substandard, mobile homes, and manufactured homes are dispersed throughout the County, all of which will be at risk in the event of a hurricane.

In addition to threats from hurricanes many dwelling units and other structures are located in FEMA designated 100-year flood plain areas. Enforcing minimum floor

elevations, relocating the extremely vulnerable, or elevating structures minimizes the vulnerability to this threat.

Outside the floodplains the hazards are centered on wildfires and hazardous materials. Homes built in the urban/wildland interface are the most vulnerable to wildfires. Control burns and buffering will greatly reduce the threat of wildfires to the urbanized areas of the County. However, the entire County is vulnerable to the effects of a release of hazardous materials.

The vulnerable zones for each hazardous materials facility are mapped by facility for two reasons. First, unless the result of a catastrophic event or the intentional actions of an individual, a simultaneous release of hazardous materials by multiple sites is unlikely. Second, the amount of overlap and complete coverage of the County by the hazards quickly renders the map useless. Preparedness and prevention are the key mitigation factors for hazardous materials. Educating the population to the risk, and a rapid response to a release begins to mitigate the hazard. Unfortunately, some people are unable to respond to protective actions unassisted, or are not able to read literature intended to educate them to the risk. Many people at-risk throughout the County are transportation disadvantaged, who are handicapped, elderly, or economically disadvantaged.

Appendix A – St. Johns County Hazards Quick Reference Guide provides an overview of the impacts associated with various hazards.

Section IV – Vulnerability and Loss Estimates

A. Repetitive Loss Data

Some areas of the County experience repetitive flooding from heavy rainfall and damage includes flooded roadways and homes.

The most well known area with repetitive flooding is the waterfront area of downtown St. Augustine which is very low and which sometimes can flood from the combination of a full moon, a high tide and a northeastern wind. Flooding also occurs throughout the County within low-lying areas and within the 100-year floodplain.

According to information provided by the Florida Division of Emergency Management the City of St. Augustine Beach has had 22 losses to 7 properties totaling \$1,058,837.22. The City of St. Augustine has had 51 losses on 16 properties totaling \$479,540.74. The Town of Hastings has had 2 losses on 1 property totaling \$9,547.23. Unincorporated St. Johns County has had 117 losses on 46 properties totaling \$1,843,386.46. This information included properties with reported losses up to September 30, 2009. The types of properties that are included on this repetitive loss list include: Fifty-four (54) Single Family Units, Six (6) 2-4 Family Units, Nine (9) Non-residential Units, and One (1) ASSMD Condominium Unit.

A detailed description of these repetitive losses is provided on the following table. Exact addresses are considered confidential and are thus not included.

Repetitive Loss Summary for St. Johns County

Data as of 09/30/2009

County Name	Community Name	Building Payments	Contents Payments	Total Payments	Average Payment	Losses	Properties
St. Johns County	St. Augustine Beach, City Of	854,691.55	204,145.67	1,058,837.22	48,128.96	22	7
	St. Augustine, City Of	342,857.25	136,683.49	479,540.74	9,402.76	51	16
	Town of Hastings	9,547.23	0.00	9,547.23	4,773.62	2	1
	St. Johns County **	1,427,847.91	415,538.55	1,843,386.46	15,755.44	117	46

* NOTE: ALL PAYMENTS ARE IN US DOLLARS (\$)

**NOTE: THE DATA CONTAINED ON THIS REPORT CONTAINS REPETITIVE LOSS PROPERTIES AS WELL AS MITIGATED PROPERTIES (PROPERTIES THAT ARE NO LONGER REPETITIVE).

B. Critical Facilities Inventory

According to information from the Florida Department of Community Affairs, critical facilities are defined as: “those structures from which essential services and functions for victim survival, continuation of public safety actions, and disaster recovery are performed or provided. Supporting life-line infrastructure essential to the mission of critical facilities must also be included in the inventory when appropriate.”

Each local government must decide which of its facilities is critical. In light of this, St. Johns County has completed an inventory of critical facilities, which it deems are necessary to provide with extra protection in the event of a natural or man-made disaster. This inventory includes the following types of facilities:

Airport	Group Quarters	Parks
Boat ramps	Medical Services	Schools
Correctional Facility	Fire Stations	Shelters
Churches	Government Buildings	Sheriff's Department
Clinics	Hazard Material Sites	Transportation Facilities
Communication stations	Hospitals	Water and Sewer
Communication towers	Industrial Parks	Facilities
Electrical Substations	Landfills	Sewer Lift Stations
Emergency Operations Center	Landing Zones	
	Nursing Homes	

Critical facilities table and map on file with St. Johns County Emergency Management.

C. Other Vulnerable Facilities and Loss Estimates

In addition to the repetitive loss properties and critical facilities identified by the County and municipalities there are other vulnerable properties that also need to be identified and examined for potential losses and future mitigation actions. These properties include those non-repetitive loss properties that are located in a flood zone, storm surge/high wind zones, properties located in the urban/wildland interface, and others that may be determined vulnerable throughout the identification process. Through the identification process, the value of the properties identified as vulnerable will be determined therefore ultimately allowing for a damage loss estimate for each hazard.

To identify additional vulnerable properties and loss estimates data provided from an effort between the State of Florida Department of Community Affairs and Kinetic Analysis Corporation, Mapping for Emergency Management, Parallel Hazard Information System (MEMPHIS), which provides information on vulnerable properties has been evaluated. MEMPHIS data includes the total number of structures for a number of categories, arranged by DOR code, and their values.

The project was conducted by Kinetic Analysis Corporation and the University of Central Florida Department of Statistics for the Florida Department of Community Affairs under contract number 04HS-L+12-00-22-267. The maps and tables in these reports were generated by The Arbiter Of Storms (TAOS) Version 11 automatic report generation system outputs and data from the US Geological Survey and the National Weather Service. The following information describes the process by which all the data was assembled and reviewed.

- **Data Sources**

This information presents, housing, and damage estimates based on Census 2000 (U.S. Census Bureau, 2000 Census of Population and Housing, Summary File 3: Technical Documentation, 2002.) Tax records from the same time frame (2000) were obtained from the Florida Department of Revenue. All other data (topography, land cover, historical hurricane activity) is from Spring 2004. The analysis is at the level of the census block group (BG). Each BG is treated as a point. The relevant hazard data such as wind and water levels were extracted from the TAOS output files and processed by the automatic report generator.

- **Department of Revenue Tax Record notes**

The 2000 Department of Revenue Tax Records were used to create an exposure data base for use in these analyses.

- **Georeferencing**

A three stage process was used for georeferencing the tax data. Stage one attempted an address match against the Census TIGER file road network. Stage one georeferencing was successful in 70% of cases. Stage two attempted a partial address match, using both zip code and the Public Land Survey System (PLSS) as supplemental data. Stage two georeferencing matched an additional 15% of locations. Stage three, which matched the final 15% of primarily rural locations, used the PLSS data, zip code, and satellite derived land cover to allocate these remaining locations to built locations in the designated

Township/Range/Section grid cell. In urban counties the percentage of address matches (Stages one and two) was 90% or better; in a few rural areas the match rate was as low as 60%.

- **Use Code Translation**

The DOR uses a 99 category use code to define land and structure uses. These codes were aggregated for reporting purposes in this analysis to the following six categories:

DOR Code Report Category

01 Single Family

02 Mobile Home

03 - 09 Multifamily

10 - 19, 21 - 49 Commercial

50 - 69 Agriculture

20, 70 - 99 Government/Institutional

- **Loss Estimates**

The loss estimates are based on the census housing survey. The housing data includes the number and median value of various types of housing units such as mobile homes, single family, etc. From that data the total infrastructure in each census block is estimated. Thus, the exposure in the block is a composite of the survey data (for housing) and estimate of other infrastructure (commercial, governmental) that typically supports a given level of housing. Note that these estimates can (and will) differ from the DOR tax parcel based data, which should be more accurate. The census based estimates are included because these are used in the real time damage estimation system. Census based Loss estimates are total losses (insured and uninsured), including cleanup. Something to consider with respect to the Census based estimates is the impact of georeferencing and flood data. The Census data is at the block group level and the exact position of the block group centroid may fall in or out of the flood zone. For lower flood levels such as Category 1 storms with very narrow flood zones, there may be a larger difference between the tax based assessment and census based assessment because of the potential for any given block group to hit or miss the zone.

- **Valuation, contents, and infrastructure**

Tax records normally undervalue property. We assumed that properties were valued at 80% fair market value. Contents and additional property such as automobiles and boats were estimated according to use type, in keeping with practices used in the insurance industry. An additional 15% that is not normally tracked by tax assessors such as signage, roads, etc. For Census based estimates, the following method was used: housing values were obtained from the STF-3 files. Contents were estimated as with tax parcel based system. Infrastructure, commercial exposures, and government/institutional exposures were estimated from the satellite derived land cover.

Disclaimer

Natural hazards modeling and analysis are subject to many uncertainties. These uncertainties include, but are not limited to, incomplete or inaccurate data, changes to the natural and built environment, limited historical records, and limitations in the state of the art of modeling, as well as limits to the scientific understanding of some of the phenomena.

Note that this analysis is based on the 2000 Census and Department of Revenue (DOR) records. Therefore, for simulations of historical storms, these are the losses and populations expected if the storm were to hit in the year 2000, not the year in which the storm occurred.

Hurricanes

This information describes the threat of wind and flood damage from tropical cyclones (hurricanes). These threats are described in terms of the peak one minute sustained wind in mph for wind, and the peak water level in feet for storms of the Saffir-Simpson hurricane category. This is a Maximum Envelope data set, representing the peak possible impact this storm type could have on the study area. It is important to realize that at the state level in particular, no single storm could produce the damage seen here. In other words, these are the exposures and damages at risk from all storms of this category, not from any single event.

Hurricane Category 1 (Storm Surge, High Wind)

Impact Summary for Unincorporated Areas of St. Johns County

Peak winds 90.mph, peak water depth 7.0ft
 Tax Parcel based Wind Damage: \$ 195.34 Million
 DOR based Flood Damage: \$ 30.10 Million
 DOR Structures in Flood Zone: 497
 Census based Wind Damage: \$ 171.98 Million
 Census based Flood .Damage: \$ 104.40 Million
 Uninhabitable Housing Units: 136 0.7% of total HU.

Unincorporated St. Johns County Structures at Risk/Vulnerable

	Total	Tropical Storm Wind	Hurricane Wind	Flooded
Single Family Residential	10207	10207	5929	395
Mobile Home	3885	3885	1732	2
Multi-family Residential	3147	3147	2069	91
Commercial	1408	1408	710	7
Agriculture	1732	1732	430	1
Government/Institutional	433	433	242	1

Unincorporated St. Johns County Potential Loss Estimates

	Exposure	Loss	Percent Loss
Single Family Residential	\$4.97 Billion	\$88.48 Million	1.8%
Mobile Home	\$376.84 Million	\$25.96 Million	6.9%
Multi-family Residential	\$1.24 Billion	\$30.05 Million	2.4%
Commercial	\$939.17 Million	\$13.10 Million	1.4%
Agriculture	\$563.10 Million	\$10.39 Million	1.8%
Government/Institutional	\$2.24 Billion	\$27.37 Million	1.2%

Impact Summary for City of St. Augustine
 Peak winds 84.mph, peak water depth 1.5ft.

Tax Parcel based Wind Damage: \$ 53.28 Million
 DOR based Flood Damage: \$ 117.91 Thousand
 DOR Structures in Flood Zone: 14
 Census based Wind Damage: \$ 46.32 Million
 Census based Flood .Damage: \$ 0.00 dollars
 Uninhabitable Housing Units: 20 0.4% of total HU.

City of St. Augustine Structures at Risk/Vulnerable

	Total	Tropical Storm Wind	Hurricane Wind	Flooded
Single Family Residential	3746	3746	3163	11
Mobile Home	223	223	185	0
Multi-family Residential	1242	1242	1098	3
Commercial	923	923	689	0
Agriculture	26	26	22	0
Government/Institutional	316	316	298	0

City of St. Augustine Potential Loss Estimates

	Exposure	Loss	Percent Loss
Single Family Residential	\$1.11 Billion	\$24.21 Million	2.2%
Mobile Home	\$13.67 Million	\$1.32 million	9.7%
Multi-family Residential	\$327.01 Million	\$7.04 Million	2.2%
Commercial	\$424.87 Million	\$8.72 Million	2.1%
Agriculture	\$572.93 Million	\$11.57 Million	2.0%
Government/Institutional	\$20.81 Million	\$415.00 Thousand	2.0%

Impact Summary for City of St. Augustine Beach

Peak winds 87.mph, peak water depth 0.0ft.
 Tax Parcel based Wind Damage: \$ 39.29 Million
 DOR based Flood Damage: \$ 2.98 Million
 DOR Structures in Flood Zone: 83
 Census based Wind Damage: \$ 44.29 Million
 Census based Flood .Damage: \$ 0.00 dollars
 Uninhabitable Housing Units: 21 0.7% of total HU.

City of St. Augustine Beach Structures at Risk/Vulnerable

	Total	Tropical Storm Wind	Hurricane Wind	Flooded
Single Family Residential	1543	1543	1461	23
Mobile Home	37	37	34	2
Multi-family Residential	1545	1545	1491	15
Commercial	141	141	137	38
Agriculture	3	3	3	0
Government/Institutional	11	11	8	5

City of St. Augustine Beach Potential Loss Estimates

	Exposure	Loss	Percent Loss
Single Family Residential	\$632.73 Million	\$15.15 Million	2.4%
Mobile Home	\$2.75 Million	\$313.62 Thousand	11.4%
Multi-family Residential	\$692.55 Million	\$18.61 Million	2.7%
Commercial	\$167.34 Million	\$4.81 Million	2.9%
Agriculture	\$21.62 Million	\$386.46 Thousand	1.8%
Government/Institutional	\$831.30 Thousand	\$15.29 Thousand	1.8%

Impact Summary for Town of Hastings

Peak winds 71.mph, peak water depth 0.0ft.

Tax Parcel based Wind Damage: \$ 443.38 Thousand

DOR based Flood Damage: \$ 0.00 dollars

DOR Structures in Flood Zone: 0

Census based Wind Damage: \$ 620.89 Thousand

Census based Flood .Damage: \$ 0.00 dollars

Uninhabitable Housing Units: 0 0.0% of total HU.

Town of Hastings Structures at Risk/Vulnerable

	Total	Tropical Storm Wind	Hurricane Wind	Flooded
Single Family Residential	92	92	11	0
Mobile Home	20	20	1	0
Multi-family Residential	20	20	4	0
Commercial	36	36	2	0
Agriculture	18	18	1	0
Government/Institutional	17	17	5	0

Town of Hastings Potential Loss Estimates

	Exposure	Loss	Percent Loss
Single Family Residential	\$12.92 Million	\$130.10 Thousand	1.0%
Mobile Home	\$1.28 Million	\$76.93 Thousand	6.0%
Multi-family Residential	\$3.89 Million	\$50.35 Thousand	1.3%
Commercial	\$5.87 Million	\$56.92 Thousand	1.0%
Agriculture	\$9.49 Million	\$84.43 Thousand	0.9%
Government/Institutional	\$5.10 Million	\$44.65 Thousand	0.9%

Hurricane Category 3 (Storm Surge, High Wind)

Impact Summary for Unincorporated Areas of St. Johns County

Peak winds 133 mph, peak water depth 16.8ft.

Tax Parcel based Wind Damage: \$ 1.54 Billion

DOR based Flood Damage: \$ 959.20 Million

DOR Structures in Flood Zone: 5732

Census based Wind Damage: \$ 1.28 Billion
 Census based Flood .Damage: \$ 716.40 Million
 Uninhabitable Housing Units: 1150 5.6% of total HU.

Unincorporated St. Johns County Structures at Risk/Vulnerable

	Total	Tropical Storm Wind	Hurricane Wind	Flooded
Single Family Residential	10207	10207	10207	3088
Mobile Home	3885	3885	3885	717
Multi-family Residential	3147	3147	3147	1406
Commercial	1408	1408	1408	322
Agriculture	1732	1732	1732	84
Government/Institutional	433	433	433	115

Unincorporated St. Johns County Potential Loss Estimates

	Exposure	Loss	Percent Loss
Single Family Residential	\$4.97 Billion	\$719.65 Million	14.5%
Mobile Home	\$376.84 Million	\$156.15 Million	41.4%
Multi-family Residential	\$1.24 Billion	\$222.62 Million	18.0%
Commercial	\$939.17 Million	\$112.56 Million	12.0%
Agriculture	\$563.10 Million	\$82.38 Million	14.6%
Government/Institutional	\$2.24 Billion	\$244.48 Million	10.9%

Impact Summary for City of St. Augustine
 Peak winds 126.mph, peak water depth 13.8ft.
 Tax Parcel based Wind Damage: \$ 411.02 Million
 DOR based Flood Damage: \$ 639.61 Million
 DOR Structures in Flood Zone: 5405
 Census based Wind Damage: \$ 358.73 Million
 Census based Flood .Damage: \$ 323.93 Million
 Uninhabitable Housing Units: 225 4.0% of total HU.

City of St. Augustine Structures at Risk/Vulnerable

	Total	Tropical Storm Wind	Hurricane Wind	Flooded
Single Family Residential	3746	3746	3746	3125
Mobile Home	223	223	223	148
Multi-family Residential	1242	1242	1242	1043
Commercial	923	923	923	791
Agriculture	26	26	26	20
Government/Institutional	316	316	316	278

City of St. Augustine Potential Loss Estimates

	Exposure	Loss	Percent Loss
Single Family Residential	\$1.11 Billion	\$187.12 Million	16.8%
Mobile Home	\$13.67 Million	\$7.59 million	55.5%
Multi-family Residential	\$327.01 Million	\$54.68 Million	16.7%
Commercial	\$424.87 Million	\$68.55 Million	16.1%

Agriculture	\$572.93 Million	\$89.83 Million	15.7%
Government/Institutional	\$20.81 Million	\$3.25 Million	15.6%

Impact Summary for City of St. Augustine Beach
Peak winds 128.mph, peak water depth 9.6ft.
Tax Parcel based Wind Damage: \$ 286.37 Million
DOR based Flood Damage: \$ 189.33 Million
DOR Structures in Flood Zone: 2371
Census based Wind Damage: \$ 313.49 Million
Census based Flood .Damage: \$ 111.31 Million
Uninhabitable Housing Units: 168 5.4% of total HU.

City of St. Augustine Beach Structures at Risk/Vulnerable

	Total	Tropical Storm Wind	Hurricane Wind	Flooded
Single Family Residential	1543	1543	1543	1044
Mobile Home	37	37	37	23
Multi-family Residential	1545	1545	1545	1175
Commercial	141	141	141	121
Agriculture	3	3	3	1
Government/Institutional	11	11	11	7

City of St. Augustine Beach Potential Loss Estimates

	Exposure	Loss	Percent Loss
Single Family Residential	\$632.73 Million	\$112.76 Million	17.8%
Mobile Home	\$2.75 Million	\$1.70 Million	61.9%
Multi-family Residential	\$692.55 Million	\$134.61 Million	19.4%
Commercial	\$167.34 Million	\$34.13 Million	20.4%
Agriculture	\$21.62 Million	\$3.05 Million	14.1%
Government/Institutional	\$831.30 Thousand	\$123.07 Thousand	14.8%

Impact Summary for Town of Hastings
Peak winds 105.mph, peak water depth 0.0ft.
Tax Parcel based Wind Damage: \$ 3.93 Million
DOR based Flood Damage: \$ 0.00 dollars
DOR Structures in Flood Zone: 0
Census based Wind Damage: \$ 4.76 Million
Census based Flood .Damage: \$ 0.00 dollars
Uninhabitable Housing Units: 7 2.9% of total HU.

Town of Hastings Structures at Risk/Vulnerable

	Total	Tropical Storm Wind	Hurricane Wind	Flooded
Single Family Residential	92	92	92	0
Mobile Home	20	20	20	0
Multi-family Residential	20	20	20	0
Commercial	36	36	36	0

Agriculture	18	18	18	0
Government/Institutional	17	17	17	0

Town of Hastings Potential Loss Estimates

	Exposure	Loss	Percent Loss
Single Family Residential	\$12.92 Million	\$1.21 Million	9.3%
Mobile Home	\$1.28 Million	\$465.56 Thousand	36.4%
Multi-family Residential	\$3.89 Million	\$457.87 Thousand	11.8%
Commercial	\$5.87 Million	\$528.05 Thousand	9.0%
Agriculture	\$9.49 Million	\$818.91 Thousand	8.6%
Government/Institutional	\$5.10 Million	\$456.61 Thousand	8.9%

Hurricane Category 5 (Storm Surge, High Wind)

Impact Summary for Unincorporated Areas of St. Johns County

Peak winds 183.mph, peak water depth 34.3ft.
 Tax Parcel based Wind Damage: \$ 6.26 Billion
 DOR based Flood Damage: \$ 3.85 Billion
 DOR Structures in Flood Zone: 10049
 Census based Wind Damage: \$ 4.52 Billion
 Census based Flood .Damage: \$ 1.26 Billion
 Uninhabitable Housing Units: 4625 22.6% of total HU.

Unincorporated St. Johns County Structures at Risk/Vulnerable

	Total	Tropical Storm Wind	Hurricane Wind	Flooded
Single Family Residential	10207	10207	10207	5720
Mobile Home	3885	3885	3885	1266
Multi-family Residential	3147	3147	3147	1924
Commercial	1408	1408	1408	687
Agriculture	1732	1732	1732	259
Government/Institutional	433	433	433	193

Unincorporated St. Johns County Potential Loss Estimates

	Exposure	Loss	Percent Loss
Single Family Residential	\$4.97 Billion	\$3.06 Billion	61.6%
Mobile Home	\$376.84 Million	\$370.97 Million	98.4%
Multi-family Residential	\$1.24 Billion	\$905.42 Million	73.3%
Commercial	\$939.17 Million	\$492.54 Million	52.4%
Agriculture	\$563.10 Million	\$349.57 Million	62.1%
Government/Institutional	\$2.24 Billion	\$1.08 Billion	48.3%

Impact Summary for City of St. Augustine
 Peak winds 176.mph, peak water depth 34.0ft.
 Tax Parcel based Wind Damage: \$ 1.70 Billion
 DOR based Flood Damage: \$ 1.95 Billion
 DOR Structures in Flood Zone: 6476
 Census based Wind Damage: \$ 1.48 Billion

Census based Flood .Damage: \$ 589.03 Million
 Uninhabitable Housing Units: 970 17.2% of total HU.

City of St. Augustine Structures at Risk/Vulnerable

	Total	Tropical Storm Wind	Hurricane Wind	Flooded
Single Family Residential	3746	3746	3746	3746
Mobile Home	223	223	223	223
Multi-family Residential	1242	1242	1242	1242
Commercial	923	923	923	923
Agriculture	26	26	26	26
Government/Institutional	316	316	316	316

City of St. Augustine Potential Loss Estimates

	Exposure	Loss	Percent Loss
Single Family Residential	\$1.11 Billion	\$776.79 Million	69.9%
Mobile Home	\$13.67 Million	\$13.67 million	100.0%
Multi-family Residential	\$327.01 Million	\$226.71 Million	69.3%
Commercial	\$424.87 Million	\$285.74Million	67.3%
Agriculture	\$572.93 Million	\$381.52 Million	66.6%
Government/Institutional	\$20.81 Million	\$13.58 Million	65.3%

Impact Summary for City of St. Augustine Beach

Peak winds 181 mph, peak water depth 23.7ft.
 Tax Parcel based Wind Damage: \$ 1.17 Billion
 DOR based Flood Damage: \$ 1.11 Billion
 DOR Structures in Flood Zone: 3280
 Census based Wind Damage: \$ 1.28 Billion
 Census based Flood .Damage: \$ 401.12 Million
 Uninhabitable Housing Units: 692 22.0% of total HU.

City of St. Augustine Beach Structures at Risk/Vulnerable

	Total	Tropical Storm Wind	Hurricane Wind	Flooded
Single Family Residential	1543	1543	1543	1543
Mobile Home	37	37	37	37
Multi-family Residential	1545	1545	1545	1545
Commercial	141	141	141	141
Agriculture	3	3	3	3
Government/Institutional	11	11	11	11

City of St. Augustine Beach Potential Loss Estimates

	Exposure	Loss	Percent Loss
Single Family Residential	\$632.73 Million	\$466.72 Million	73%
Mobile Home	\$2.75 Million	\$2.75 Million	100.0%
Multi-family Residential	\$692.55 Million	\$546.59 Million	78.9%
Commercial	\$167.34 Million	\$137.15 Million	82.0%

Agriculture	\$21.62 Million	\$12.86 Million	59.5%
Government/Institutional	\$831.30 Thousand	\$513.26 Thousand	61.7%

Impact Summary for Town of Hastings

Peak winds 155.mph, peak water depth 0.0ft.
 Tax Parcel based Wind Damage: \$ 19.40 Million
 DOR based Flood Damage: \$ 0.00 dollars
 DOR Structures in Flood Zone: 0
 Census based Wind Damage: \$ 21.98 Million
 Census based Flood .Damage: \$ 0.00 dollars
 Uninhabitable Housing Units: 44 18.5% of total HU.

Town of Hastings Structures at Risk/Vulnerable

	Total	Tropical Storm Wind	Hurricane Wind	Flooded
Single Family Residential	92	92	92	0
Mobile Home	20	20	20	0
Multi-family Residential	20	20	20	0
Commercial	36	36	36	0
Agriculture	18	18	18	0
Government/Institutional	17	17	17	0

Town of Hastings Potential Loss Estimates

	Exposure	Loss	Percent Loss
Single Family Residential	\$12.92 Million	\$6.36 Million	49.2%
Mobile Home	\$1.28 Million	\$1.28 Million	100.0%
Multi-family Residential	\$3.89 Million	\$2.25 Million	57.9%
Commercial	\$5.87 Million	\$2.82 Million	47.9%
Agriculture	\$9.49 Million	\$4.37 Million	46.0%
Government/Institutional	\$5.10 Million	\$2.33 Million	45.6%

Tornado

This volume describes the threat of damage from tornados, based on an analysis of National Severe Storms Forecast Center data from 1950-2003.

Unincorporated St. Johns County Structures at Risk/Vulnerable

	Low (1 in 500)	Medium (1 in 250)	High (1 in 100)	Very High (1 in 50)
Single Family Residential	1	26882	0	0
Mobile Home	0	4595	0	0
Multi-family Residential	0	8468	0	0
Commercial	0	2122	0	0
Agriculture	0	761	0	0
Government/Institutional	4	1818	0	0

Unincorporated St. Johns County Potential Loss Estimates

	Low (1 in 500)	Medium (1 in 250)	High (1 in 100)	Very High (1 in 50)
Single Family Residential	\$342.58 Thousand	\$15.61 Billion	\$0.00	\$0.00
Mobile Home	\$0.00	\$450.34 Million	\$0.00	\$0.00
Multi-family Residential	\$0.00	\$4.40 Billion	\$0.00	\$0.00
Commercial	\$0.00	\$1.67 Billion	\$0.00	\$0.00
Agriculture	\$0.00	\$1.35 Billion	\$0.00	\$0.00
Government/Institutional	\$2.40 Million	\$2.31 Billion	\$0.00	\$0.00

City of St. Augustine Structures at Risk/Vulnerable

	Low (1 in 500)	Medium (1 in 250)	High (1 in 100)	Very High (1 in 50)
Single Family Residential	0	3746	0	0
Mobile Home	0	223	0	0
Multi-family Residential	0	1242	0	0
Commercial	0	923	0	0
Agriculture	0	26	0	0
Government/Institutional	0	316	0	0

City of St. Augustine Potential Loss Estimates

	Low (1 in 500)	Medium (1 in 250)	High (1 in 100)	Very High (1 in 50)
Single Family Residential	\$0.00	\$1.11 Billion	\$0.00	\$0.00
Mobile Home	\$0.00	\$13.67 Million	\$0.00	\$0.00
Multi-family Residential	\$0.00	\$327.01 Million	\$0.00	\$0.00
Commercial	\$0.00	\$424.87 Million	\$0.00	\$0.00
Agriculture	\$0.00	\$572.93 Million	\$0.00	\$0.00
Government/Institutional	\$0.00	\$20.81 Million	\$0.00	\$0.00

City of St. Augustine Beach Structures at Risk/Vulnerable

	Low (1 in 500)	Medium (1 in 250)	High (1 in 100)	Very High (1 in 50)
Single Family Residential	0	1543	0	0
Mobile Home	0	37	0	0
Multi-family Residential	0	1545	0	0
Commercial	0	141	0	0
Agriculture	0	3	0	0
Government/Institutional	0	11	0	0

City of St. Augustine Beach Potential Loss Estimates

	Low (1 in 500)	Medium (1 in 250)	High (1 in 100)	Very High (1 in 50)
Single Family Residential	\$0.00	\$632.73 Million	\$0.00	\$0.00
Mobile Home	\$0.00	\$2.75 Million	\$0.00	\$0.00
Multi-family Residential	\$0.00	\$692.55 Million	\$0.00	\$0.00
Commercial	\$0.00	\$167.34 Million	\$0.00	\$0.00

Agriculture	\$0.00	\$21.62 Million	\$0.00	\$0.00
Government/Institutional	\$0.00	\$831.30 Thousand	\$0.00	\$0.00

Town of Hastings Structures at Risk/Vulnerable

	Low (1 in 500)	Medium (1 in 250)	High (1 in 100)	Very High (1 in 50)
Single Family Residential	0	92	0	0
Mobile Home	0	20	0	0
Multi-family Residential	0	20	0	0
Commercial	0	36	0	0
Agriculture	0	18	0	0
Government/Institutional	0	17	0	0

Town of Hastings Potential Loss Estimates

	Low (1 in 500)	Medium (1 in 250)	High (1 in 100)	Very High (1 in 50)
Single Family Residential	\$0.00	\$12.92 Million	\$0.00	\$0.00
Mobile Home	\$0.00	\$1.28 Million	\$0.00	\$0.00
Multi-family Residential	\$0.00	\$3.89 Million	\$0.00	\$0.00
Commercial	\$0.00	\$5.87 Million	\$0.00	\$0.00
Agriculture	\$0.00	\$9.49 Million	\$0.00	\$0.00
Government/Institutional	\$0.00	\$5.10 Million	\$0.00	\$0.00

Wildfires

This information comes from the official wildland fire level of concern (LOC) layer from the Division of Forestry. The Level of Concern is an integer scaled from 0 to 9 indicating the relative risk of Wildland Fire, and is an output of the Florida Division of Forestry Fire Risk Assessment System (FRAS).

Unincorporated St. Johns County Structures at Risk/Vulnerable

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/Institutional
Level 1 (low)	4013	768	1720	674	526	70	255
Level 2	10377	5616	1925	1594	630	215	397
Level 3	12622	6532	2784	1684	892	311	419
Level 4	2192	1390	320	261	108	50	63
Level 5 (medium)	2461	1290	413	409	180	103	66
Level 6	873	615	91	98	38	6	25
Level 7	3282	1720	674	526	70	255	37
Level 8	4816	1925	1594	630	215	397	55
Level 9 (high)	612	2784	1684	892	311	419	34

Unincorporated St. Johns County Potential Loss Estimates

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
Level 1 (low)	\$2.65 Billion	\$424.58 Million	\$1.23 Billion	\$288.38 Million	\$293.84 Million	\$33.25 Million	\$379.10 Million
Level 2	\$7.02 Billion	\$3.89 Billion	\$926.76 Million	\$867.72 Million	\$532.65 Million	\$192.93 Million	\$617.70 Million
Level 3	\$6.38 Billion	\$3.50 Billion	\$648.19 Million	\$670.95 Million	\$414.87 Million	\$312.96 Million	\$839.64 Million
Level 4	\$1.16 Billion	\$689.17 Million	\$30.93 Million	\$95.20 Million	\$77.64 Million	\$156.95 Million	\$110.96 Million
Level 5 (medium)	\$1.17 Billion	\$592.89 Million	\$41.50 Million	\$154.64 Million	\$63.76 Million	\$178.79 Million	\$139.48 Million
Level 6	\$481.48 Million	\$378.78 Million	\$8.02 Million	\$50.90 Million	\$15.06 Million	\$1.39 Million	\$27.33 Million
Level 7	\$2.33 Billion	\$1.23 Billion	\$288.38 Million	\$293.84 Million	\$33.25 Million	\$379.10 Million	\$98.79 Million
Level 8	\$3.19 Billion	\$926.76 Million	\$867.72 Million	\$532.65 Million	\$192.93 Million	\$617.70 Million	\$53.35 Million
Level 9 (high)	\$2.92 Billion	\$648.19 Million	\$670.95 Million	\$414.87 Million	\$312.96 Million	\$839.64 Billion	\$35.58 Million

City of St. Augustine Structures at Risk/Vulnerable

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
Level 1 (low)	414	192	86	48	57	27	4
Level 2	656	383	90	88	76	17	2
Level 3	1012	551	114	204	88	50	5
Level 4	76	37	5	27	5	2	0
Level 5 (medium)	263	152	17	56	26	11	1
Level 6	366	220	36	66	32	11	1
Level 7	222	86	48	57	27	4	0
Level 8	273	90	88	76	17	2	0
Level 9 (high)	464	114	204	88	50	5	3

City of St. Augustine Potential Loss Estimates

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
Level 1 (low)	\$160.40 Million	\$61.68 Million	\$37.95 Million	\$16.97 Million	\$24.41 Million	\$16.65 Million	\$2.75 Million
Level 2	\$234.33 Million	\$143.81 Million	\$14.86 Million	\$30.32 Million	\$19.67 Million	\$18.60 Million	\$7.07 Million
Level 3	\$244.34 Million	\$117.06 Million	\$15.97 Million	\$55.60 Million	\$22.85 Million	\$30.54 Million	\$2.32 Million
Level 4	\$16.05 Million	\$8.28 Million	\$287.41 Thousand	\$6.29 Million	\$970.71 Thousand	\$219.89 Thousand	\$ 0.00
Level 5 (medium)	\$63.27 Million	\$25.47 Million	\$788.27 Thousand	\$15.89 Million	\$12.15 Million	\$5.87 Million	\$3.10 Million
Level 6	\$94.61 Million	\$54.63 Million	\$2.44 Million	\$9.46 Million	\$20.75 Million	\$7.26 Million	\$81.00 Million

	Million	Million	million	Million	Million	Million	Thousands
Level 7	\$98.72 Million	\$37.95 Million	\$16.97 Million	\$24.41 Million	\$16.65 Million	\$2.75 Million	\$ 0.00
Level 8	\$90.52 Million	\$14.86 Million	\$30.32 Million	\$19.67 Million	\$18.60 Million	\$7.07 Million	\$ 0.00
Level 9 (high)	\$127.91 Million	\$15.97 Million	\$55.60 Million	\$22.85 Million	\$30.54 Million	\$2.32 Million	\$633.37 Thousand

City of St. Augustine Beach Structures at Risk/Vulnerable

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
Level 1 (low)	460	43	132	99	179	7	0
Level 2	1295	566	88	554	75	11	1
Level 3	172	127	5	31	7	2	0
Level 4	0	0	0	0	0	0	0
Level 5 (medium)	175	75	2	94	4	0	0
Level 6	230	85	0	136	9	0	0
Level 7	417	132	99	179	7	0	0
Level 8	729	88	554	75	11	1	0
Level 9 (high)	45	5	31	7	2	0	0

City of St. Augustine Beach Potential Loss Estimates

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
Level 1 (low)	\$203.96 Million	\$15.51 Million	\$51.05 Million	\$44.03 Million	\$84.89 Million	\$8.48 Million	\$ 0.00
Level 2	\$587.62 Million	\$230.83 Million	\$34.48 Million	\$248.53 Million	\$63.68 Million	\$10.06 Million	\$42.55 Thousand
Level 3	\$100.63 Million	\$69.97 Million	\$510.97 Thousand	\$13.08 Million	\$4.08 Million	\$12.99 Million	\$0.00
Level 4	\$ 0.00	\$ 0.00	\$0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$0.00
Level 5 (medium)	\$57.41 Million	\$21.77 Million	\$135.50 Thousand	\$35.00 Million	\$509.44 Thousand	\$ 0.00	\$0.00
Level 6	\$99.60 Million	\$28.88 Million	\$0.00	\$60.90 Million	\$9.82 Million	\$ 0.00	\$0.00
Level 7	\$188.45 Million	\$44.03 Million	\$44.03 Million	\$84.89 Million	\$8.48 Million	\$ 0.00	\$ 0.00
Level 8	\$356.79 Million	\$34.48 Million	\$248.53 Million	\$63.68 Million	\$10.06 Million	\$42.55 Thousand	\$ 0.00
Level 9 (high)	\$30.67 Million	\$510.97 Thousand	\$13.08 Million	\$4.08 Million	\$12.99 Million	\$ 0.00	\$0.00

Town of Hastings Structures at Risk/Vulnerable

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
Level 1 (low)	5	20	2	1	0	2	0
Level 2	40	2	4	1	9	3	1

Level 3	76	29	12	14	11	7	3
Level 4	12	2	1	0	7	1	1
Level 5 (medium)	5	0	0	0	0	0	5
Level 6	0	0	0	0	0	0	0
Level 7	5	2	1	0	2	0	0
Level 8	18	4	1	9	3	1	0
Level 9 (high)	48	12	14	11	7	3	1

Town of Hastings Potential Loss Estimates

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
Level 1 (low)	\$544.31 Thousand	\$0.00	\$ 305.94 Thousand	\$ 2.28 Million	\$ 2.30 Million	\$ 2.33 Million	\$ 207.26 Thousand
Level 2	\$5.41 Million	\$2.56 Million	\$ 813.19 Thousand	\$ 561.57 Thousand	\$ 1.43 Million	\$ 7.15 Million	\$ 2.60 Million
Level 3	\$12.74 Million	\$4.10 Million	\$ 159.47 Thousand	\$ 1.05 Million	\$ 2.14 Million	\$ 5.43 Thousand	\$ 2.30 Million
Level 4	\$1.01 Million	\$292.24 Thousand	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Level 5 (medium)	\$1.39 Million	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Level 6	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Level 7	\$544.31 Thousand	\$148.61 Thousand	\$ 2.28 Million	\$ 2.30 Million	\$ 2.33 Million	\$ 207.26 Thousand	\$ 0.00
Level 8	\$2.86 Million	\$182.20 Thousand	\$ 561.57 Thousand	\$ 1.43 Million	\$ 7.15 Million	\$ 2.60 Million	\$ 0.00
Level 9 (high)	\$8.84 Million	\$1.22 Million	\$ 1.05 Million	\$ 2.14 Million	\$ 5.43 Thousand	\$ 2.30 Million	\$ 0.00

Floods (Floodplains)

This data layer is the from the digital versions of the FEMA FIRMS

Unincorporated St. Johns County Structures at Risk/Vulnerable

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
AE	13052	7480	894	3638	579	291	170
X500	5221	3759	268	935	151	67	41
X	23488	14212	3058	3230	1285	362	1341
A	1556	569	369	224	88	36	270
ANI	1334	0	863	6	441	19	5
IN	0	0	0	0	0	0	0
VE	5572	894	3638	579	291	170	0
UNDES	1462	268	935	151	67	41	0
AO	9276	3058	3230	1285	362	1341	0
D	987	369	224	88	36	270	0
AH	1334	863	6	441	19	5	0
V	0	0	0	0	0	0	0
100IC	4678	3638	579	291	170	0	0

Unincorporated St. Johns County Potential Loss Estimates

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
AE	\$7.79 Billion	\$4.92 Billion	\$83.32 Million	\$1.80 Billion	\$400.33 Million	\$416.20 Million	\$164.93 Million
X500	\$3.84 Billion	\$2.86 Billion	\$26.85 Million	\$552.63 Million	\$192.09 Million	\$137.93 Million	\$69.80 Million
X	\$11.64 Billion	\$6.59 Billion	\$301.42 Million	\$1.53 Billion	\$976.65 Million	\$660.27 Million	\$1.59 Billion
A	\$1.05 Billion	\$223.62 Million	\$38.15 Million	\$83.43 Million	\$70.06 Million	\$137.71 Million	\$494.36 Million
ANI	\$1.49 Billion	\$ 0.00	\$1.03 Billion	\$594.60 Thousand	\$431.83 Million	\$33.45 Million	\$1.12 Million
IN	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
VE	\$2.87 Billion	\$83.32 Million	\$1.80 Billion	\$400.33 Million	\$416.20 Million	\$164.93 Million	\$ 0.00
UNDES	\$979.29 Million	\$26.85 Million	\$552.63 Million	\$192.09 Million	\$137.93 Million	\$69.80 Million	\$ 0.00
AO	\$5.05 Billion	\$301.42 Million	\$1.53 Billion	\$976.65 Million	\$660.27 Million	\$1.59 Billion	\$ 0.00
D	\$823.70 Million	\$38.15 Million	\$83.43 Million	\$70.06 Million	\$137.71 Million	\$494.36 Million	\$ 0.00
AH	\$1.49 Billion	\$1.03 Billion	\$594.60 Thousand	\$431.83 Million	\$33.45 million	\$1.12 Million	\$ 0.00
V	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
100IC	\$2.79 Billion	\$1.80 Billion	\$400.33 Million	\$416.20 Million	\$164.93 Million	\$ 0.00	\$ 0.00

City of St. Augustine Structures at Risk/Vulnerable

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
AE	4721	2740	89	906	708	256	22
X500	505	304	21	101	67	12	0
X	1249	702	112	235	148	48	4
A	1	0	1	0	0	0	0
ANI	0	0	0	0	0	0	0
IN	0	0	0	0	0	0	0
VE	1981	89	906	708	256	22	0
UNDES	201	21	101	57	12	0	0
AO	547	112	235	148	48	4	0
D	1	1	0	0	0	0	0
AH	0	0	0	0	0	0	0
V	0	0	0	0	0	0	0
100IC	1892	906	708	256	22	0	0

City of St. Augustine Potential Loss Estimates

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
AE	\$2.09 Billion	\$919.48 Million	\$4.70 Million	\$260.87 Million	\$352.20 Million	\$537.09 Million	\$19.99 Million
X500	\$149.81	\$1.01	\$1.01	\$27.46	\$35.88 Million	\$7.07	\$ 0.00

	Million	Million	Million	Million		Million	
X	\$226.86 Million	\$113.93 Million	\$7.86 Million	\$38.68 Million	\$36.79 Million	\$28.77 Thousand	\$ 822.67 Thousand
A	\$91.34 Thousand	\$ 0.00	\$91.34 Thousand	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
ANI	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
IN	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
VE	\$1.17 Billion	\$4.70 Million	\$260.87 Million	\$352.20 Million	\$537.09 Million	\$19.99 Million	\$ 0.00
UNDES	\$71.42 Million	\$1.01 Million	\$27.46 Million	\$35.88 Million	\$7.07 Million	\$ 0.00	\$ 0.00
AO	\$112.94 Million	\$7.86 Million	\$38.68 Million	\$36.79 Million	\$28.77 Million	\$822.67 Thousand	\$ 0.00
D	\$91.34 Thousand	\$91.34 Thousand	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
AH	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
V	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
100IC	\$1.17 Billion	\$260.87 Million	\$352.20 Million	\$537.09 Million	\$19.99 Million	\$ 0.00	\$ 0.00

City of St. Augustine Beach Structures at Risk/Vulnerable

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
AE	1470	644	30	720	68	7	2
X500	1363	682	4	612	62	3	0
X	446	217	3	213	11	1	1
A	0	0	0	0	0	0	0
ANI	0	0	0	0	0	0	0
IN	0	0	0	0	0	0	0
VE	827	30	720	68	7	2	0
UNDES	681	4	612	62	3	0	0
AO	229	3	213	11	1	1	0
D	0	0	0	0	0	0	0
AH	0	0	0	0	0	0	0
V	0	0	0	0	0	0	0
100IC	797	720	68	7	2	0	0

City of St. Augustine Beach Potential Loss Estimates

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
AE	\$6.68.87 Million	\$245.52 Million	\$2.21 Million	\$325.99 Million	\$88.98 Million	\$5.38 Million	\$788.75 Thousand
X500	\$637.95 Million	\$296.81 Million	\$337.72 Thousand	\$271.49 Million	\$53.67 Million	\$15.65 Million	\$ 0.00
X	\$211.00 Million	\$90.40 Million	\$199.40 Thousand	\$95.08 Million	\$24.69 Million	\$586.96 Thousand	\$42.55 Thousand
A	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
ANI	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
IN	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
VE	\$423.35 Million	\$2.21 Million	\$325.99 Million	\$88.98 Million	\$5.38 Million	\$788.75 Thousand	\$ 0.00
UNDES	\$341.14 Million	\$337.72 Million	\$271.49 Million	\$53.67 Million	\$15.65 Million	\$ 0.00	\$ 0.00

AO	\$120.60 Million	\$199.40 Million	\$95.08 Million	\$24.69 Million	\$586.96 Million	\$42.55 Thousand	\$ 0.00
D	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
AH	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
V	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
100IC	\$421.14 Million	\$325.99 Million	\$88.98 Million	\$5.38 Million	\$788.75 Thousand	\$ 0.00	\$ 0.00

Town of Hastings Structures at Risk/Vulnerable

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
AE	60	28	4	6	11	10	1
X500	82	40	10	8	8	6	10
X	61	24	6	6	17	1	7
A	0	0	0	0	0	0	0
ANI	0	0	0	0	0	0	0
IN	0	0	0	0	0	0	0
VE	32	4	6	11	10	1	0
UNDES	42	10	8	8	6	10	0
AO	37	6	6	17	1	7	0
D	0	0	0	0	0	0	0
AH	0	0	0	0	0	0	0
V	0	0	0	0	0	0	0
100IC	28	6	11	10	1	0	0

Town of Hastings Potential Loss Estimates

Zone	Total	Single Family Residential	Mobile Home	Multi-family Residential	Commercial	Agriculture	Government/ Institutional
AE	\$ 10.79 Million	\$ 3.37 Million	\$ 305.94 Thousand	\$ 2.28 Million	\$ 2.30 Million	\$ 2.33 Million	\$ 207.26 Thousand
X500	\$ 18.23 Million	\$ 5.67 Million	\$ 813.19 Thousand	\$ 561.57 Thousand	\$ 1.43 Million	\$ 7.15 Million	\$ 2.60 Million
X	\$ 9.53 Million	\$ 3.87 Million	\$ 159.47 Thousand	\$ 1.05 Million	\$ 2.14 Million	\$ 5.43 Thousand	\$ 2.30 Million
A	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
ANI	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
IN	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
VE	\$ 7.42 Million	\$ 305.94 Thousand	\$ 2.28 Million	\$ 2.30 Million	\$ 2.33 Million	\$ 207.26 Thousand	\$ 0.00
UND ES	\$ 12.55 Million	\$ 813.19 Thousand	\$ 561.57 Thousand	\$ 1.43 Million	\$ 7.15 Million	\$ 2.60 Million	\$ 0.00
AO	\$ 5.66 Million	\$ 159.47 Thousand	\$ 1.05 Million	\$ 2.14 Million	\$ 5.43 Thousand	\$ 2.30 Million	\$ 0.00
D	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
AH	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
V	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
100I C	\$ 7.12 Million	\$ 2.28 Million	\$ 2.30 Million	\$ 2.33 Million	\$ 207.26 Thousand	\$ 0.00	\$ 0.00

Drought/Heat Wave and Winter Storm/Freezes pose a risk to the entire County including municipalities. Vulnerability to drought/heat wave is low to moderate and moderate for winter storms/freezes. The extent of damage is greatest in the area of the County where the farms are located. The potential dollar losses to structures is none

To supplement the information that has been extracted from the outcome of the vulnerability and damage loss estimate, information from the St. Johns County Property Appraisers Office has been compiled in the following table.

St. Johns County Property Values (2009)

St. Johns COUNTY	Residential	Commercial	Industrial	Agricultural	Institutional	Government	Total
Value (\$)	22,020,489,997	2,198,468,649	266,524,187	1,627,258,991	491,093,031	1,309,642,688	27,913,477,543
Percentage (of total value)	78.89	7.88	0.95	5.83	1.76	4.69	100.0

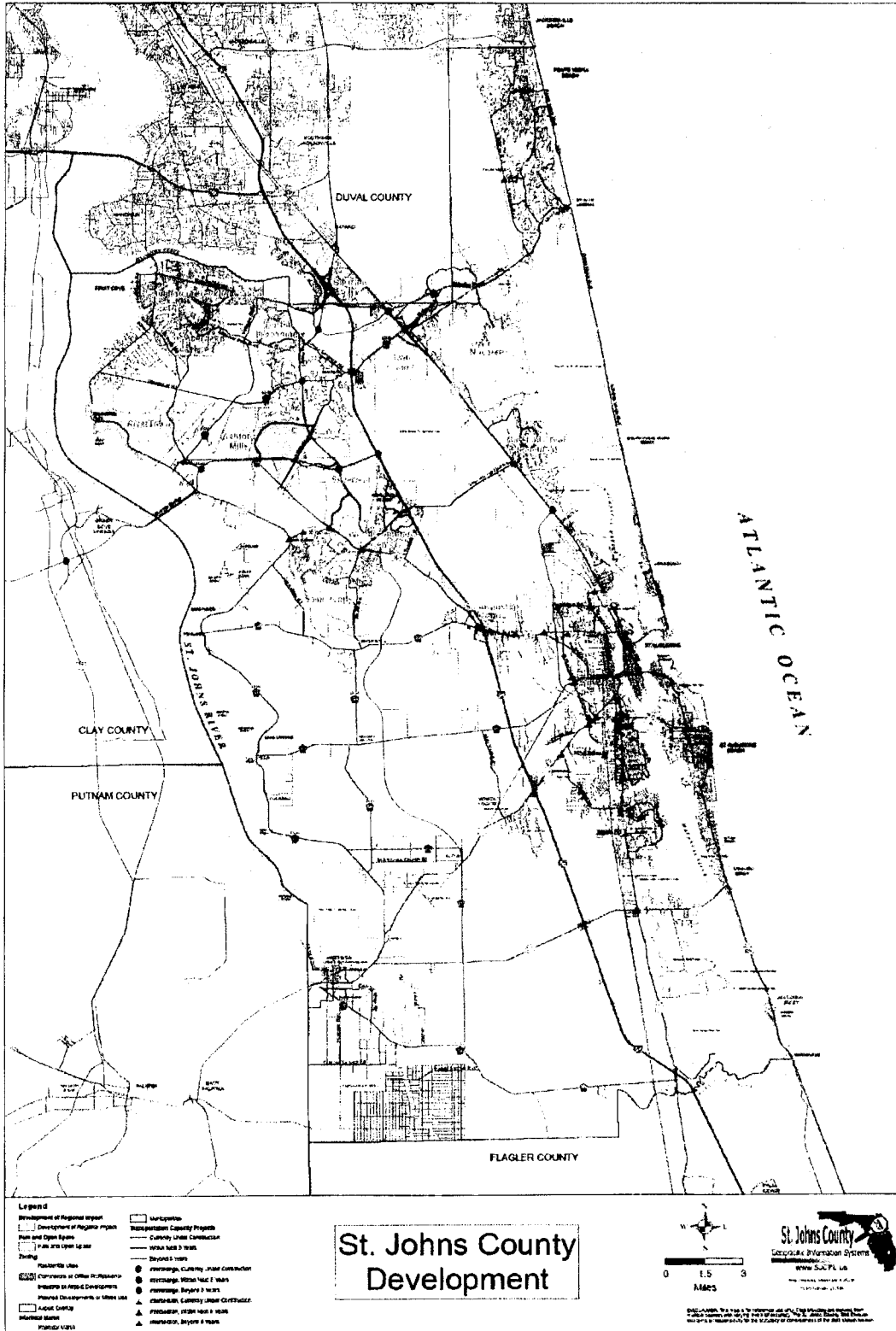
D. Future Vulnerable Facilities and Loss Estimates

To estimate future vulnerability and loss estimates several planning assumptions had to be made. For future vulnerability in St. Johns County only Developments of Regional Impact (DRI) were considered. Each DRI was then overlaid on a hazard map and the vulnerability of structures was determined by the general location in correlation with the hazard. The loss estimates were made by the compiling the total number of residential (single and multi-family) then comparing them to the average cost of each type of structure: single family - \$219,968 and multifamily - \$212,211; per the St. Johns County Property Appraisers Office Records as of October 2009. The Commercial Space is calculated using square footage and current market value in St. Johns County which averages approximately \$105 per square foot per Commercial Real Estate Companies.

Development of Regional Impact is a land use program adopted by the Florida Legislature in Florida Statute 380.06. The term "development of regional impact," as used in Florida Statutes, means any development which, because of its character, magnitude, or location, would have a substantial effect upon the health, safety, or welfare of citizens of more than one county. Due to these reasons we have chosen these areas to predict our future vulnerability and loss estimates. Map 12 identifies the location of all the Developments of Regional Impact currently approved and not yet completed in St. Johns County as of March 19, 2010.

Hurricanes (Storm Surge and High Wind) and Flooding (Floodplains) were the hazards used to determine future vulnerability and loss estimates. Tornadoes, Wildfires, Drought/Heat Wave and Winter Storm/Freezes pose a risk to the entire County including municipalities, thus future estimates are difficult if not impossible to determine. Information on vulnerability and loss estimates on future Infrastructure and Critical Facilities is not available at this time.

Development of Regional Impact Map



Developments of Regional Impact in St. Johns County, Florida

Approved Developments of Regional Impact	Date Approved	Potential Residential Structures		Commercial Structures (Square feet)	Total Acres	Storm Surge Zone	Flood Zone
		Single Family	Multi-Family				
Aberdeen	2003	1,623	395	N/A	1,313	None	AE, A, X
Ashford Mills	2006	1,919	714	N/A	1,520	5	AE, A, X
Bartram Park (partial – only areas in St. Johns County)	2000	356	N/A	418,914	128	None	AE, A, X
Caballos Del Mar (Marsh Landing and Sawgrass)	1975	5,896	N/A	UA	UA	3	AE, A, X
Durbin Crossing	2003	1,561	947	200,000	2,047	4, 5	AE, A, X
Julington Creek Plantation	1982	6,292	N/A	391,950	4,150	None	AE, A, X
Marshall Creek (Palencia)	1998	2,774	N/A	600,000	2,683	1,2,3,4, 5	AE, A, X
Nocatee	2001	8,811	3,228	4,090,000	1,323	2,3,4,5	A, XS, X
River Town	2004	3,700	800	N/A	4,170	None	A, AE, X
Saint Johns	1991	7,200	N/A	5,615,000	5,843	3,4,5	AE, X
Silverleaf Plantation	2006	6,800	3,900	1,740,000	7,285	None	A, X
St. Augustine Centre	1997	817	N/A	868,407	315	None	A, X
Twin Creeks	2005	2,000	3,000	2,900,000	3,050	None	A, X
World Commerce Center	2002	1,156	N/A	3,534,188	966	None	A, AE, X

U/A – Information is unavailable

N/A – Not applicable – area does not have that particular type of development

Since all the approved Developments of Regional Impact fall into at least one hazard category all have been included in the future potential loss estimate which are as follows:

Residential Single Family - \$11,197,471,040

Residential Multi-Family - \$2,755,347,624

Commercial - \$2,137,638,195

Total Area - 34,793 acres

Section V – Initiative Development

A. Project Selection and Submission Criteria

In St. Johns County there are numerous areas and locations that suffer or are vulnerable to disasters such as floods, accidental chemical releases and other natural and man made disasters. The mitigation initiatives that St. Johns County developed began with evaluating the guiding principles that were completed during the initial phases of the LMS process. The initiatives revolved around these principles regarding the reduction of County's vulnerability to natural and man made hazards that exist. The Taskforce, comprised of a variety of people in the public and private sector, created the initiatives, which reflected the needs of the community. The Taskforce reviewed a number of documents including: Future Land Use policies, Land Development Regulations and data collected from the Department of Public Safety.

The Taskforce over the process of several meetings discussed and listed potential projects in St. Johns County, which are discussed in detail in the following section. The projects were both structural and non-structural mitigation projects. These projects were then discussed in the context of cost, responsible entity, implementation time, funding and areas affected. After all the data was compiled, the taskforce ranked the projects. Each of the projects was evaluated against 14 criteria ranging from cost of the initiative compared with the number of people to benefit to consistency to other plans and programs. Parts B and C below explains in more detail the scoring and prioritizing process and the table shows the criteria that the projects were ranked against. As maintenance of the document continues, these criteria will continue to be used to rank new projects that are supported by the Task Force for inclusion into the LMS. A standard form has been developed for submission of new projects for consideration by the Task Force to determine if it should be included in the LMS. The standard form will cover all the criteria that the projects are scored upon.

B. Scoring and Prioritizing Projects

Each mitigation project chosen for inclusion in the Strategy by the Taskforce will benefit the community and preserve and protect life and property. However, each mitigation project represents a large investment of financial resources and/or personnel resources. Due to these facts a method to prioritize each project was adopted. This prioritization method will be a guide for those using the strategy. It will tell which projects have priority to be implemented when resources do become available for that type of project.

The Taskforce adopted a prioritization method early in the LMS process. The methodology has been reviewed and revised several times to produce a fair and easy to use system. The method considered and evaluated such factors as: consistency with the comprehensive plans, who would benefit by the project, availability of funding, and the time frame of implementing the project. The Task Force assigned a numerical figure ranking the project on the criteria mentioned earlier. The final ranking was drawn from the numerical figures assigned by the Taskforce.

The Task Force believes that project prioritization and reprioritization will be an ongoing responsibility. The completion of a project alone may be cause to reprioritize the remaining projects. However, the likelihood is that as additional projects are defined and presented the list of prioritized initiative will grow and become refined. In a process that will evolve with the change prioritize of time and an evolving community.

C. Project Prioritization Methodology

Hazard Mitigation Project Prioritization Method:

1. Feasibility Assessment

All potential mitigation efforts, whether educational, legislative, or structural, must meet certain standards to be considered as viable project or initiatives. Viability standards include the following:

- (1) Is the proposed project or initiative consistent with the Guiding Principles of St. Johns County Local Mitigation Strategy?
- (2) Does the project or initiative have clearly defined mitigation goals and objectives?
- (3) Does the project or initiative address a hazard to which the local community is clearly vulnerable?
- (4) Is the project or initiative technically feasible?
- (5) Is the project or initiative acceptable to, or does it have a reasonable expectation of gaining acceptance by the general public?
- (6) Can the project or initiative be accomplished without generating any major or prohibitive environmental impacts?

2. Prioritization Criteria

There are 12 categories which individual mitigation projects or initiatives are evaluated. Up to ten points may be awarded in categories one through four and categories six through nine; up to 15 points in category five, and up to five points each in the final three categories for a total possible point score of 110 points. Five point categories receive lower possible point scores because, while they are important considerations in terms of implementing mitigation projects or initiatives, they are not felt to be as critical as the preceding 10 categories. Detailed suggestions for scoring individual categories are presented below.

- (1) Containment within the Existing Comprehensive Growth Management Plans - Is the project or initiative consistent with or incorporated in an existing City or County Comprehensive Growth Management Plan.

If not incorporated into an existing Comprehensive Plan, is the project or initiative proposed for incorporation through submittal of an Application for a Comprehensive Plan Amendment?

If not incorporated into an existing Comprehensive Plan, is the project or initiative consistent with the applicable City or County Comprehensive Plan?

Projects or initiatives incorporated into an applicable Comprehensive Plan or proposed for incorporation through submittal of an amendment application will receive 10 points. Projects consistent with but not incorporated into a Comprehensive Plan will receive 5 points.

- (2) Consistent with Existing Regulatory Framework – Is the project or initiative consistent with existing legal and regulatory framework of the governing jurisdiction?

Does a proposed project require any changes or waivers in existing building, zoning, or environmental statutes or ordinances? Projects which fit within the existing legal and regulatory framework will receive 10 points. Projects which are in conflict with the existing regulatory framework will receive lower point scores depending upon the seriousness and numbers of regulatory barriers to be overcome in implementing the proposed project.

- (3) Community Rating System (CRS) Credit - Does the proposed project or initiative provide credit points toward improving the St. Johns County CRS Classification and reducing flood insurance rates in the County?

The National Flood Insurance Program determines the rate communities pay for flood insurance based on a 10-Class system. Class 1 communities receive the most premium credit and class 10 communities receive the least. Communities can improve their classification by conducting activities to reduce flood losses. Communities are awarded “Activity Credit Points” for a variety of flood mitigation activities including public information activities, mapping and regulatory activities, and structural projects to reduce flood losses. Projects and initiatives yielding the maximum number of CRS “Activity Credit Points” will be awarded 10 points under this criterion. Those receiving lower CRS ratings will receive lesser scores.

- (4) Community Benefit – Does the project further one of the principle five goals of the LMS as described below select the best fit:

- I. Protect the lives of the residents of St. Johns County and its Municipalities (15 points).
- II. Protect property to ensure that its intrinsic value is preserved (14 points).
- III. Protect infrastructure so that it is available during and after a disaster (13 points).

- IV. Protect business activities so that they continue to provide economic strength to the community (12 points).
- V. Protect the environment to ensure that quality of life and economic well being are preserved (11 points).

- (5) Community Exposure – Does the project mitigate a frequently occurring, high risk, or specific problem to which a community is particularly vulnerable?

How frequently does the problem the project is designed to mitigate actually occur? A maximum of 10 points may be awarded in this category based on the amount of funding required balanced against the relative and repetitive exposure of the community as determined under the vulnerability assessment.

- (6) Effectiveness – What is the benefit/cost ratio of the project when applying the Federal Emergency Management Act (FEMA) “Cost-effectiveness of Hazard Mitigation Projects” guidelines?

FEMA has produced detailed guidelines for evaluation for evaluating the cost effectiveness of mitigation projects. All mitigation projects using FEMA funding must have a benefit/cost ratio greater than 1. The higher the benefit/cost ratio, the bigger the “bang for the buck.” A total of 10 points will be awarded in this category based on the following:

Benefit/cost ratio = 4.0 or greater	= 10 points
Benefit/cost ratio = 3.0 to 3.9	= 8 points
Benefit/cost ratio = 2.0 to 2.9	= 6 points
Benefit/cost ratio = 1.0 to 1.9	= 4 points
Benefit/cost ratio = < 1.0	= 0 points

- (7) Effective Life Expectancy – How long will the community continue to receive the benefits of a particular mitigation project or initiative?

All mitigation projects and initiatives have an effective life span. Conditions change, new technology becomes available, and physical structures wear out. All these factors determine how long a community will receive benefits from money invested in a mitigation measure. 2 points will be awarded for every five years of effective benefit, with a maximum benefit of 25 years or 10 points.

Effective Life Span = Up to 25 or more	= 10 points
Effective Life Span = Up to 20 years	= 8 points
Effective Life Span = Up to 15 years	= 6 points
Effective Life Span = Up to 10 years	= 4 points
Effective Life Span = Up to 5 years	= 2 points

- (8) Public Support – Does the project have demonstrated public support and a demonstrated

need? A maximum of 10 points will be awarded to proposed projects based on their level of need and support as follows:

- Very High = 10 points
- High = 8 points
- Moderate = 6 points
- Low = 2 points

- (9) Funding Availability – Is funding currently available for this particular project?

If funding is anticipated but currently not available, points will be awarded as follows:

- Available in 1 year = 8 points
- Available in 3 years = 4 points
- Available in 4 years = 2 points

- (10) Sponsorship – Does the project have an active sponsor that will take responsibility for its management and implementation?

Up to 5 points will be awarded if a local government agency (City or County), or other entity identified by the funding source, will sponsor the project. An additional five points will be awarded to a project with a local sponsor willing to match funds with a funding entity.

- (11) Funding Source – Is there an identified funding source or entity for this project or initiative?

Five points will be awarded to all projects and initiatives for which funding source or entity already exists with the express purpose to fund projects of this type, even if funds for this specific project or initiative have not been made available to date.

- (12) Time Frame for Accomplishing Objectives – How long will it take for the proposed mitigation project to accomplish its stated goal?

Projects which can be accomplished quickly or have an inherent advantage over long term projects, although long term projects may ultimately be more beneficial to the community. The following weighted scale assigns points to proposed projects based on their duration.

- 1 year = 5 points
- 2 year = 4 points
- 3 year = 3 points
- 4 year = 2 points
- 5 year = 1 points

ST. JOHNS COUNTY LMS
POINT SYSTEM METHODOLOGY

CRITERIA CATEGORY	10 Points	8 Points	6 Points	5 points	4 Points	3 Points	2 Points	1 Point	0 Points
Contained Within the Comprehensive Plan	Incorporated into plan	NA	NA	Consistent with plan but not incorporated	NA	NA	NA	NA	Inconsistent with plan
Consistent with Existing Regulatory framework	Consistent	NA	NA	Partially Consistent	NA	NA	NA	NA	Inconsistent, many regulatory barriers
Provide Community Rating System Credits	Provides maximum number of CRS credits	NA	NA	Provides some CRS credits	NA	NA	NA	NA	Provides no CRS credits
Community Benefit	Protects lives of St. Johns Co. residents (15 points)	Protects Property (14 points)	Protects Infrastructure (13 points)	Protects business activities (12 points)	Protects environment (11 points)	NA	NA	NA	NA
Community Exposure	Mitigates a hazard of high frequency and risk	NA	NA	Mitigates a hazard of moderate freq. & risk	NA	NA	NA	Mitigates a hazard of low frequency and risk	Mitigates a hazard of negligible risk
Effectiveness	Benefit/cost ratio = 4.0 or greater	Benefit/cost ratio = 3.0 to 3.9	Benefit/cost ratio = 2.0 to 2.9	NA	Benefit/cost ratio = 1.0 to 1.9	NA	NA	NA	Benefit/cost ratio = <1.0
Effective Life Expectancy	Up to 25 or More Years	Up to 20 Years	Up to 15 Years	NA	Up to 10 Years	NA	Up to 5 Years	NA	NA
Public Support	Very High	High	Moderate Public support	NA	NA	NA	Low	NA	NA
Funding Availability	Public support	Public support	Available in 2 years	NA	Available in 3 years	NA	Available in 4 years	Available in 5 years	NA
Sponsorship	Identified sponsor willing to match funds	NA	NA	Project has identified sponsor	NA	NA	NA	NA	No identified sponsor
Identified Funding Source	NA	NA	NA	A funding source has been identified	NA	NA	NA	NA	A funding source has not been identified
Time Frame For Accomplishing Objectives	NA	NA	NA	1 year	2 years	3 years	4 years	5 years	NA

D. Project Implementation

In the project descriptions it provides information on who initiated the mitigation project and who will be responsible for overseeing the projects implementation. Individual agencies will be responsible for implementing the mitigation initiatives that they have had approved for funding.

Section VI – Mitigation Initiatives

A. Mitigation Initiatives

Mitigation initiatives are selected by the St. Johns County LMS Task Force and voted on and prioritized. The table shows each initiative's score and rank on the list.

B. Completed, Deleted, and Deferred Mitigation Initiatives

The following table represents the Mitigation Initiatives from the previously approved Local Mitigation Strategy (2004). This list identifies which items have been completed, deleted, or deferred as of the current LMS update (2010). If the item has been deferred an explanation of why no changes were made is included. The complete list of current Mitigation Initiatives is found at the end of this document.

Mitigation Initiative 2004	Status	Comments
Re-nourish Beaches Along Eroded Sections of County Coastline		
-Surfside Area	Deferred	No funding available in current economic climate
-Summer Haven	Deferred	In-process of re-nourishing with sand
-St. Augustine Beach (State Park to F St.)	Deferred	No funding available in current economic climate
-Walk-over @ Mariners Watch	Deferred	No funding available in current economic climate
Flagler Estates Drainage Improvement		
-Ashley Outfall	Deferred	Funding possibilities are being explored
-16 Mile Creek Surface Water Improvements	Deferred	Project is partially underway, awaiting more funding
Master Drainage and Improvements Countywide		
-Set up pre-contracts for temporary flood pumps	Deferred	Contracts are being established on an on-going basis
-Master plan for St. Augustine including incorporation of Maria Sanchez Lake	Deferred	Plan is currently under development
-Deep Creek Master Drainage Study	Deferred	Study is nearing completion, awaiting more funding
-Dam at Lake Belouthahatchee	Deferred	No funding available
-Flagler Estates Ashley Outfall	Deferred	Funding possibilities are

		being explored
-16 Mile Creek Surface Water Improvements	Deferred	Project is partially underway, awaiting more funding
-West King Street Corridor Improvement Concept Plan	Completed	
Flood Mitigation Activities / Repetitive Loss		
-S. Avenida Menendez Seawall Project	Deferred	No funding available in this current economic climate
-12 Oceanside Drive Flood Mitigation	Deferred	No funding available in this current economic climate
-County Acquisition at Petty Branch Ravine Park (FCT Project)	Deferred	Funding options are being explored
-Purchase Excavation Equipment (backhoes, etc.) for Flood Mitigation	Deferred	Excavation Equipment is being purchased as funding becomes available
Resurface and Pave the Shoulders of A1A North Between Vilano Beach and Micklers Cutoff.	Completed	
Amend LDR's To Include Mitigation Related Ordinances	Deferred	On-going process as the Comprehensive Plan for the County is undergoing revisions
Improved Countywide Emergency Communications		
-Mobile communications/media joint information center	Completed	
-Interoperability/Interagency Communications	Deferred	Funding options are being explored
Provide Metal Window Shutters For Police & Fire Stations & Other Govt. Bldgs.		
-Shutters for new Fire Administration Building	Completed	
-Town of Hastings Water/ Wastewater Operations Buildings	Deleted	
Construct non-corrosive aluminum shelters over 2 Control Panels of Emergency Pumps in St. Augustine Beach.	Deferred	No funding available in current economic climate
Vilano Beach Utility Poles (Straighten or replace)	Completed	
Hastings Potable Water System Improvement	Deferred	No funding available in current economic climate
Countywide NIMS Adoption		
-NIMS Compliance	Deferred	On-going process as the Comprehensive Plan and the

		CEMP for the County are re-written
-NIMS Training	Deferred	On-going process as individuals are hired and assigned different positions
Expand Waste Water Collection Systems Countywide (including municipalities)		
-Replace Septic Tanks	Deferred	Septic tanks are replaced as improvements are made to properties -- on-going
-Retrofit Collection Systems	Deferred	Project is on-going as funding becomes available
St. Augustine Municipal Marina Breakwater System	Deleted	
Improve County Evacuation Capacity		
-Improve Signage	Deferred	As older signs wear out and new roads are built signs are being upgraded – on-going
-A1A from Owens Avenue to SR 206 (Perform a safety study)	Deferred	No funding available in current economic climate
-SR 206 evacuation improvements study from AIA to end of 206	Deferred	No funding available in current economic climate
-May Street @ Douglas (flooding) and at San Marco (constriction)	Deferred	No funding available in current economic climate
-Mickler Road (from 210 to A1A) Improvements	Deferred	Project is underway and nearing completion
Improve Countywide Shelters		
-Pet Friendly Evacuation Shelter	Completed	
-Intermediate Care Evacuation Shelter	Deferred	No funding currently available
-Retrofit Schools	Deferred	Currently retro-fitting one school with shutters and will continue with retro-fitting as money becomes available
-Hastings Community Center Special Needs Shelters	Completed	
Provide Generators For essential government buildings & Critical Facilities		
-Pigtail buildings to accept temporary generators	Deferred	No funding available
-Provide portable generators for St. Augustine Beach	Deferred	No funding available
-Generator for the new Hastings Fire	Completed	

Station		
-Generator for new Fire Administration Building	Completed	
Wildfire Mitigation Activities	Deferred	On-going with control burns, mowing, and trimming
Develop Post-Disaster Redevelopment Standards For Infrastructure And Structures	Deferred	No funding available and a shortage of internal staff
Install System of Dry Fire Hydrants Countywide Including Priming Pumps Where Necessary		
-Flagler Estates Area Dry Fire Hydrants	Deferred	No funding available
Education		
-Educate Prospective Home Buyers & Real Estate Professionals About Floodplains & Base Floor Elevations	Deferred	Project is on-going through our CRS program
-Educate Residents Of Financial / Insurance Benefits Of Preparing Their Homes For Natural Disasters	Deferred	Project is on-going through our public outreach programs
-Education and Training for Hazardous Materials Incident Response Capability	Deferred	On-going through our Fire/Rescue and our LEPC committee
Consider Feasibility of Relocating Utilities Underground		
-St. Augustine Beach (2 miles along A1A)	Deferred	No funding available
-South Anastasia Island	Deferred	No funding available
-Summer Haven Water Utilities	Deferred	No funding available

Section VI - Funding

A. Funding Sources

The following table provides current information on sources of available funding that is used for hazard mitigation projects. The table includes the name of the grant, the sponsoring agency, type of assistance available and who is eligible. As additional or updated information becomes available the list will be amended accordingly.

NAME OF GRANT	SPONSORING AGENCY	TYPE OF ASSISTANCE AVAILABLE	ELIGIBILITY
Hazard Mitigation Grant Program	FEMA	Monetary	Only after a disaster
Pre-Disaster Mitigation Program	FEMA	Monetary	Pre-Disaster
National Flood Insurance Program	FEMA	Monetary and Technical	Flood Insurance
Flood Mitigation Assistance Program	FEMA	Monetary and Technical	States and Communities
Repetitive Flood Claims	FEMA/National Flood Insurance Program	Monetary and Technical	Individual flood claims reaching a pre-set threshold
Severe Repetitive Loss	FEMA/National Flood Insurance Program	Monetary and Technical	Individual flood claims reaching a pre-set threshold
Residential Construction Mitigation Program	State of Florida	Monetary and Technical	Assistance for individual hardening of homes

APPENDIX A

St. Johns County Hazards Quick Reference Table

Hazard	Hurricanes/ Coastal Storms
Description	A Hurricane is a tropical cyclone characterized by thunderstorms and defined surface wind circulation, developing over warm waters and caused by the atmospheric instability created by the collision of warm air with cooler air. Hurricane winds range from 75 mph to 155+ mph. Wind damage and storm surge are associated with hurricanes as well as tropical storms. Tropical storms are tropical cyclones with sustained winds greater than 39 mph and less than 74 mph.
Location and Extent	St. Johns County is a coastal county and may have storm surge and high wind associated with hurricanes along coastal areas, as well as surge effects associated with the St. Johns River. Areas of particular vulnerability include the entire shoreline of the St. Johns River and its associated tributaries. Coastal areas including St. Augustine, St. Augustine Beach, Ponte Vedra, Summer Haven, and Vilano Beach are not only vulnerable to storm surge, these areas are also vulnerable to the high winds associated with a hurricane as are areas at higher elevations.
Vulnerability*	High
Previous Occurrences	In 1964 Category 3 Hurricane Dora came ashore in Northern St. Johns County and is the most recent hurricane to make landfall in the Northeast region. The following storms, while not making landfall in northeast Florida caused damage in the area, Hurricane Floyd in 1999, Hurricane Irene in 1999, Tropical Storm Gabrielle in 2001, Hurricane Charley, Hurricane Frances, and Hurricane Jeanne in 2004, Tropical Storm Ophelia in 2005, Tropical Storms Alberto and Ernesto in 2006, and Tropical Storm Fay in 2008. Some coastal storms include the Thanksgiving storm of 1984 and the no-name storm of the winter of 1993.
Impact	The impact of Hurricanes/Coastal Storms could be devastating to the Jurisdictions within St. Johns County. The impacts would include partial and total destruction of homes, businesses and infrastructure from wind and floods and a disruption of services to the community. The population that does not evacuate could suffer dire consequences as a result of a Coastal Storm/Hurricane.
Probability of Future Occurrences*	High
Risk Level*	High
References	Hurricane Evacuation Study, www.floridadisaster.org , St. Johns County CEMP, TAOS, NWS
Map	Yes

St. Johns County Hazards Quick Reference Table

Hazard	Storm Surge
Description	A storm surge is an onshore surge of water associated with a low pressure weather system, typically a <u>tropical cyclone</u> . Storm surge is caused primarily by high winds pushing on the ocean's surface. The wind causes the water to pile up higher than the ordinary sea level. Low pressure at the center of a weather system also has a small secondary effect. It is this combined effect of low pressure and persistent wind over a shallow water body which is the most common cause of storm surge flooding problems.
Location and Extent	Areas of particular vulnerability include the entire coastline of St. Johns County, the Intercoastal Waterway and the shoreline of the St. Johns River and its associated tributaries.
Vulnerability*	High
Previous Occurrences	Hurricane Dora in 1964. No occurrences in the past 5 years.
Impact	The impact of Storm Surge on St. Johns County and the jurisdictions that lie within its boundaries would include partial and total destruction of homes, businesses and infrastructure from salt water intrusion and wave action, and a disruption to services to the community. The population that does not evacuate could suffer dire consequences as a result of storm surge.
Probability of Future Occurrences*	High
Risk Level*	High
References	Hurricane Evacuation Study, St. Johns County CEMP, TAOS
Map	Yes

St. Johns County Hazards Quick Reference Table

Hazard	Wind
Description	Strong damaging winds associated with powerful storms such as hurricanes, tropical storms and severe thunderstorms
Location And Extent	Areas along the coastline, the Intercoastal Waterway, and the St. Johns River appear to be most susceptible to high winds from a hurricane. All areas of the County are susceptible to high winds associated with thunderstorms.
Vulnerability*	High
Previous Occurrences	Hurricane Dora in 1964 caused damages from high winds. Between 1950 and 2004 there were 96 reported strong wind events associated with thunderstorms in St. Johns County. In 2004 Hurricanes Charley, Frances and Jeanne and Fay in 2008 caused some wind damage in areas throughout the County. Between 1950 and 2009 there were 149 reports of high winds associated with severe thunderstorms, between 2005 – 2009 there have been 36 occurrences.
Impact	The impacts of high winds can include a failure of structures, homes and businesses, damage to infrastructure, including the electrical grid, and a disruption in services to the community. The population could suffer severe injuries and possibly death.
Probability of Future Occurrences*	High
Risk Level*	High
References	National Climatic Data Center, St. Johns County CEMP, TAOS
Map	Yes

St. Johns County Hazards Quick Reference Table

Hazard	Tornado
Description	A violently rotating column of air that extends from a thunderstorm down to the ground, and can reach wind speeds of 250 mph or more.
Location And Extent	All of St. Johns County is susceptible to the effects of a tornado if one touched down. However, the County is in the low frequency zone.
Vulnerability*	High
Previous Occurrences	Between 1950 and 2009, 49 tornadoes were reported in St. Johns County, Including 2 in 2007, 1 in 2008 and 1 in 2009
Impact	The impacts to St. Johns County and its municipalities could include complete destruction of homes, businesses, infrastructure and a disruption in services to the community. The population could suffer severe injuries and possibly death
Probability of Future Occurrences*	Medium
Risk Level*	High/Medium
References	National Climatic Data Center, National Weather Service Storm Prediction Center, St. Johns County CEMP, TAOS
Map	Yes

St. Johns County Hazards Quick Reference Table

Hazard	Wildfire
Description	An uncontrolled fire that spreads through and consumes vegetative fuels and any other flammable materials in its path.
Location And Extent	St. Johns County is transforming from a rural county, to one which is much more urban in nature, but a large percentage of its land area is still covered in forest. As a result many areas of the County are susceptible to wildfire. The most vulnerable areas are those generally located at the urban/wildland interface. These are areas where subdivisions occur adjacent to large undeveloped areas of forested lands.
Vulnerability*	Medium. Extreme during drought conditions; High, December through June when rainfall amounts typically decrease. Very active fire events in the past have commonly occurred in May-June.
Previous Occurrences	Significant wildfire events have been recorded in St. Johns County in 1985, 1990, 1993, 1998, 1999, 2004 and 2007. These wildfire events correlated with drought periods and the typical Florida dry season.
Impacts	The impacts to St. Johns County and its municipalities could include complete destruction of homes, businesses, infrastructure and a disruption in services to the community. The environment could suffer long term effects and the population could suffer severe injuries and possibly death.
Probability of Future Occurrences*	High
Risk Level*	Medium/High
References	Florida Division of Forestry; St. Johns County CEMP
Map	Yes

St. Johns County Hazards Quick Reference Table

Hazard	Floods
Description	Floods happen when the water draining from a watershed, from excessive rainfall, exceeds the capacity of the river or stream channel to hold it. Water overflows onto the nearby low-lying lands called "floodplains". In relatively flat flood plains, land may stay covered with shallow, slow moving water for days or even weeks. Some coastal flooding may be caused by the storm surge associated with tropical storms and hurricanes.
Location and Extent	St. Johns County has an abundance of low lying areas that flood with excessive rainfall and/or storm surge. Areas that can experience extreme flooding are downtown St. Augustine, Hastings, and Flagler Estates. In these areas roads may have to be closed due to localized flooding.
Vulnerability*	Medium
Previous Occurrences	Between 1950 and 2009 St. Johns County has had 22 reported flood events. In 2007 there were 4 reported flood events and 1 in 2009.
Impact	The impacts to St. Johns County and its municipalities could include complete destruction of homes, businesses, infrastructure and a disruption in services to the community. The environment could suffer long term effects and the population could suffer severe injuries and possibly death
Probability of Future Occurrences*	High
Risk Level*	Medium/High
References	National Climatic Data Center; St. Johns County CEMP; TAOS
Map	Yes

St. Johns County Hazards Quick Reference Table

Hazard	Hazardous Materials Accident
Description	The accidental release or spill of hazardous chemicals into the environment where human, plant, or animal life would be endangered.
Location And Extent	Areas in the vulnerability zone around facilities that contain hazardous materials are susceptible to hazards associated with accidents and/or spills. Areas adjacent to main transportation routes that transport hazardous materials are also susceptible to the hazards associated with accidents and spills.
Vulnerability*	Medium
Previous Occurrences	2004 - Hydro Aluminum – Transport truck experienced a severe acid leak while still on property. 2008 – Suburban Propane – Large Propane tank used to fill trucks started leaking and caused a 1 square mile evacuation. 2009 – Fuel truck on Interstate 95 was shot and began leaking. Hazardous Materials team was called and patched the hole.
Impact	The impacts to St. Johns County and its municipalities could include a disruption in services to the community. The environment could suffer long term effects and the population could suffer severe injuries and possibly death
Probability of Future Occurrences*	Medium
Risk Level*	Medium
References	St. Johns County CEMP; St. Johns County Terrorism Annex
Map	Yes

St. Johns County Hazards Quick Reference Table

Hazard	Freeze/Winter Storm
Description	A winter storm is a meteorological event in which the dominant varieties of precipitation are forms that only occur at cold temperatures, such as snow or sleet, or a rainstorm where ground temperatures are cold enough to allow ice to form. These storms can cause rough surf and high winds that can lead to coastal erosion. Freezing occurs when temperatures are below freezing over a wide spread area for a significant period of time.
Location And Extent	All of St. Johns County is susceptible to the effects of a freeze, which could damage agricultural crops, but winter storms are not common to this area.
Vulnerability*	Medium
Previous Occurrences	"No Name" Storm of March 1993. Northeasters in 1996 and two in 2007
Impact	The impacts to St. Johns County and its municipalities could include damage to infrastructure and a disruption in services to the community. The environment, especially crops, could suffer effects of freezing temperatures and the population could suffer severe injuries and possibly death
Probability of Future Occurrences*	Medium
Risk Level*	Medium
References	St. Johns Co. CEMP, NWS
Map	No

St. Johns County Hazards Quick Reference Table

Hazard	Drought/Heat Wave
Description	Drought is a normal climatic occurrence and is recognized as a deficiency of precipitation over an extended period of time. Drought is measured with the Keetch-Byram Drought Index which measures soil moisture. Typically May-June have the highest drought numbers. A heat wave is when temperatures are abnormally and uncomfortably hot for an extended period of time.
Location And Extent	All of St. Johns County is susceptible to the effects of drought caused by low precipitation levels. Agricultural lands and forest lands are the most at risk during drought due to the loss of crops and the increased potential for wildfires.
Vulnerability*	Low – Even though extended periods of drought are common due to fluctuating rainfall patterns.
Previous Occurrences	The NWS has recorded a rainfall deficit in 1997-2002 coinciding with a La Nina event. The Palmer Drought Severity Index is a long term drought indication index that measures trends in rainfall and soil moisture amounts. The Palmer index shows that the years 1999-2001 were severe drought years for St. Johns County. A short Term Drought was reported for 2007 in St. Johns County
Impact	The impacts to St. Johns County and its municipalities could include a disruption in services to the community. The environment, especially agriculture, could suffer long term effects and the population could suffer severe injuries and possibly death
Probability of Future Occurrences*	Low-Moderate Low
Risk Level*	Low
References	Florida Division of Forestry; St. Johns Co. CEMP, NWS
Map	No

St. Johns County Hazards Quick Reference Table

Hazard	Terrorism
Description	A violent act, economically destructive act, or any act dangerous to human life, including the unlawful force or violence against a person or property to intimidate or coerce government, civilians, or any segment thereof, usually for political or ideological purposes.
Location And Extent	St. Johns County is not generally susceptible to acts of terrorism; however acts of terrorism can potentially occur anywhere in the county, although there are few targets.
Vulnerability*	Low
Previous Occurrences	None
Impact	The impacts to St. Johns County and its municipalities could include complete destruction of homes, businesses, infrastructure and a disruption in services to the community. The environment could suffer long term effects and the population could suffer severe injuries and possibly death
Probability of Future Occurrences*	Low
Risk Level*	Low
References	St. Johns County CEMP; St. Johns County Terrorism Annex
Map	Yes

* Probability and Vulnerability from the St. Johns County Comprehensive Emergency Management Plan and apply to County and Municipalities. Risk=Vulnerability/Probability of Future Occurrences.

* Probability of future occurrence in defined as high, medium and low: High – nearly 100% likelihood, Medium – about 50% likelihood, Low – less than 25% likelihood

* Vulnerability - An adjective description (High, Medium, or Low) of the potential impact a hazard could have on St. Johns County. It is the ratio of population, property, commerce, infrastructure and services at risk relative to the entire County.

- **HIGH:** The total population, property, commerce, infrastructure and services of the county are uniformly exposed to the effects of a hazard of potentially great magnitude. In a worse case scenario there could be a disaster of major to catastrophic proportions.
- **MEDIUM:** The total population, property, commerce, infrastructure and services of the county are exposed to the effects of a hazard of moderate influence; or the total population, property, commerce, infrastructure and services of the county are exposed to the effects of a hazard, but not all to the same degree; or an important segment of population, property, commerce, infrastructure or service is exposed to the effects of a hazard. In a worse case scenario there could be a disaster of moderate to major, though not catastrophic, proportions
- **LOW:** A limited area or segment of population, property, commerce, infrastructure or service is exposed to the effects of a hazard. In a worse case scenario there could be a disaster of minor to moderate proportions.

Appendix B

Plans, Studies, Reports, and Other Document Reviewed

- St. Johns County Comprehensive Plan
- City of St. Augustine Comprehensive Plan
- City of St. Augustine Beach Comprehensive Plan
- Town of Hastings Comprehensive Plan
- St. Johns County Comprehensive Emergency Management Plan

Appendix C

**CHAPTER 29D-6
NORTHEAST FLORIDA REGIONAL COUNCIL
DISPUTE RESOLUTION**

29D-6.001 Purpose.

(1) In recognition of the Northeast Florida Regional Planning Council's (NEFRPC) role in facilitating intergovernmental problem solving, a voluntary regional dispute resolution process (RDRP) is hereby established to reconcile differences on planning, growth management, disputes arising from the intergovernmental review required by local government intergovernmental coordination element, or inconsistencies between port master plans and local government comprehensive plan, and other issues among local governments, regional agencies and private interests. Components of the RDRP consists of: process initiation; situation assessment; settlement meetings, mediation or advisory decision making; and settlement agreements.

(2) Use of this process shall not alter a jurisdiction's, organization's, group's or individual's right to judicial or administrative determination of any issue if that entity is entitled to such a determination under statutory or common law.

(3) Participation in the RDRP as a named party or in any other way does not convey or limit intervenor status or standing in any judicial or administrative proceedings.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History--New 7-5-94.

29D-6.002 Definitions.

(1) Situation Assessment – is a procedure of information collection that may involve review of documents, interviews and/or assessment meetings leading to a written and/or verbal report(s) identifying: the issues in the dispute; the stakeholders; information needed before a decision can be made; and a recommendation on the best dispute resolution procedures.

(2) Pre-initiation meetings – are opportunities for a party to discuss the suitability to the RDRP with the RPC staff for resolving their dispute before formally initiating the RDRP.

(3) Facilitation – is a procedure in which a facilitator helps the parties design and follow a meeting agenda and assists parties to communicate more effectively throughout the process. The facilitator has no authority to make or recommend a decision.

(4) Mediation – is a procedure in which a neutral third party assists disputing parties in a negotiation process to explore their interests, develop and evaluate options, and reach a mutually acceptable agreement without prescribing a resolution. A mediator may take more control of the process than a facilitator and usually works in more complex cases where a dispute is more clearly defined.

(5) Advisory Decision Making – is a procedure aimed at enhancing the effectiveness of negotiations and helping parties more realistically evaluate their negotiation positions. This procedure may include fact finding, neutral evaluation, and/or advisory arbitration in which a neutral party or panel listens to the facts and arguments presented by the parties and renders a non-binding advisory decision.

(6) Jurisdiction – is any local government or regional agency.

(7) Named Party(ies) – shall be any jurisdiction, public or private organization, group or individual who is named in an initiation letter, including the initiating jurisdiction, or is

admitted by the named parties to participate in settlement of a dispute pursuant to subsections 29D-6.003(1), (2) and (3), F.A.C. Being a named party in the RDRP does not convey or limit standing in any judicial or administrative proceeding.

(8) Representative – is an individual who is given guidance and authority to act, to the extent possible; by a named party in a RDRP case. This individual shall be designated by the process set forth pursuant to Rule 29D-6.003, F.A.C.

(9) Initiation Letter – is a letter from a jurisdiction formally identifying a dispute and asking named parties to engage in this process to resolve the dispute, and, at a minimum, attend the initial settlement meeting. Rule 29D-6.010, F.A.C., specifies what is required in an initiation letter.

(10) Response Letter – is a letter which formally notifies the initiator, the Northeast Florida Regional Planning Council, and other named parties that a party is willing to participate in the RDRP and, at a minimum, attend at least one settlement meeting. Subsection 29D-6.010(3), F.A.C., specifies what must be included in a response letter.

(11) Settlement Agreement – may be voluntarily approved by the individual or governing body authorized to bind the named party. Agreements may take the form of memorandums of understanding, contracts, interlocal agreements or other for mutually agreed to by the signatory parties or as required by law. A settlement, may be agreed to by some or all of the named parties.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History–New 7-5-94.

29D-6.003 Participation.

(1) Named parties shall automatically be allowed to participate in the RDRP. Other jurisdictions, public or private organizations, groups, or individuals suggested by a named party in response letters or during RDRP meetings or submitting a petition to participate, may become named parties if agreed to by two-thirds majority of the named parties, except as provided in subsection 29D-6.003(2), F.A.C.

(2) All initiation and response letters made in accordance with intergovernmental coordination elements (ICE) of local government comprehensive plans; or involving consistency between port master plans and local comprehensive plans shall only list affected jurisdictions as named parties. The named parties may at the initial settlement or subsequent RDRP meetings add public or private named parties by mutual agreement of all the current named parties.

(3) Other jurisdictions, public or private organizations, groups or individuals seeking to become a named party shall submit to the Northeast Florida Regional Planning Council staff a written petition to participate, including reasons for the request and information required in subsection 29D-6.010(2), F.A.C. Such jurisdictions, public or private organizations, groups, or individuals shall become named parties if agreed to by a two-thirds majority of the named parties, prior to or during RDRP meetings; except as pursuant to subsection 29D-6.003(2), F.A.C. Named parties who do not respond within 10 calendar days of the initiation letter may not participate in the RDRP unless they submit a petition to participate.

(4) Each named party shall designate a representative in writing, or be represented by the chief executive officer. Jurisdictions are encouraged to designate a representative to participate in the RDRP in advance of initiating or receiving a request.

(5) Any named party may invite individuals or organizations to attend meetings under this process who can provide information and technical assistance useful in the resolution of the dispute. The parties, by agreement, or the presiding neutral shall determine when and under what circumstances such invited parties may provide input.

(6) All communications by a named party called for in this process shall be submitted to all other named parties and the NEFRPC staff in writing.

(7) All named parties who agree to participate in this process commit to a good faith effort to resolve problems or disputes.

(8) Any named party may withdraw from participation in the RDRP upon written notice to all other parties and the Northeast Florida Regional Planning Council staff.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History--New 7-5-94.

29D-6.004 Cost.

(1) The Northeast Florida Regional Planning Council shall be reimbursed for actual costs, both direct and indirect, associated with the implementation of this process.

(2) The costs of administration, situation assessment, settlement meetings, mediation or advisory arbitration shall be split equally between the parties or according to other agreed upon allocation.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History--New 7-5-94.

29D-6.005 Timeframes.

(1) The initial settlement meeting shall be scheduled and held within 30 days of the date of the initiation letter at a time and place convenient to the named parties.

(2) Additional settlement meetings, mediation or advisory decision-making shall be completed within forty-five (45) days of the date of conclusion of the initial settlement meeting.

(3) Where necessary to allow this process to be effectively carried out, named parties should address deferring or seeking stays of judicial or administrative proceedings.

(4) All timeframes specified in this rule may be shortened or extended by mutual agreement of the named parties.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History--New 7-5-94.

29D-6.006 Administrative Protocols.

(1) The Council is responsible for implementation of RDRP. Council staff shall serve as facilitator, if agreeable to the named parties, and shall perform the administrative procedures necessary to implement the processes set forth in this rule. A Council

member(s) or Council staff may serve as mediator or arbitrator if agreeable to the named parties.

(2) Administrative duties provided by the Council staff may include: conducting pre-initiation meetings; administering procedures related to process initiation; conducting situation assessments; maintaining a list of qualified mediators; securing the services of mediators; arranging meetings; and invoicing.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History–New 7-5-94.

29D-6.007 Public Notice Records and Confidentiality.

(1) Applicable public notice and public records requirements shall be observed as required by Chapters 119, 120, 286 or other Florida Statutes.

(2) Participants in this process agree by their participation that no comments, meeting records, or written or verbal offers of settlement shall be entered by them as evidence in subsequent judicial or administrative action.

(3) To the extent permitted by law, mediation under this process will be governed by the confidentiality provisions of Chapter 44.302(2), F.S.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History–New 7-5-94.

29D-6.008 Pre-Initiation Meeting.

A jurisdiction, organization, group, or individual contemplating initiation of this process may request an informal pre-initiation meeting with Council staff in order to ascertain whether the potential dispute would be appropriate for this process.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History–New 7-5-94.

29D-6.009 Situation Assessment.

(1) A jurisdiction, organization, group, or individual may request that the RPC staff or other neutral party perform a situation assessment at any time, before or after initiation of the process.

(2) The situation assessment may involve examination of documents, interviews and/or assessment meetings, and shall recommend issues to be addressed, parties that may participate, appropriate resolution procedures and a proposed schedule.

(3) The situation assessment is intended to examine the nature of the dispute; identify affected and potential parties; and assist the parties to evaluate appropriate dispute resolution procedures.

(4) The situation assessment shall be performed by Council staff, unless the Council is a named party. In those cases where the Council is a named party, the situation assessment will be performed by a neutral agreeable to all the named parties.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History–New 7-5-94.

29D-6.010 Initiation of the Procedure.

(1) This process is initiated by an initiation letter from the representative of the governing body of a jurisdiction to the named parties involved in the dispute and to the NEFRPC staff. The initiation letter must be accompanied by a resolution of the governing body authorizing initiation or by a copy of a written authorization of a representative to initiate requests to use the RDRP.

(2) Such an initiation letter shall identify: the issue to be discussed; named parties to be involved in the dispute resolution process; the initiating party's representatives and others who will attend, and a brief history of the dispute indicating why it is appropriate for this process.

(3) Private interests may ask any jurisdiction to initiate the process.

(4) Named parties shall send a response letter to the NEFRPC staff, and all other parties confirming their willingness to participate in a settlement meeting within ten 10 calendar days of receipt of the initiation letter. This response shall include any additional issues and potential named parties the respondent wishes considered, as well as, a brief history of the dispute and description of the situation from the respondent's point of view.

(5) Upon receipt of a request the NEFRPC shall assess its interest in the case. If the NEFRPC is a named party or sees itself as a potential party, it shall notify the named parties of the nature of its interest and ascertain whether the parties desire an outside facilitator for the initial settlement meeting.

(6) The NEFRPC may not initiate the RDRP but may recommend that a potential dispute is suitable for this process and transmit its recommendation to potential parties, who may, at their discretion, initiate the RDRP.

(7) The NEFRPC staff shall schedule a meeting at the most convenient time within thirty (30) days of the date of the initiation request.

(8) Any dispute which arise from the intergovernmental review required by local government intergovernmental coordination element, or from inconsistencies between port master plans and local government comprehensive plan shall automatically be accepted for dispute resolution by the NEFRPC.

(9) In the event that a dispute involves jurisdictions under two or more regional planning councils, the process adopted by the region of the initiating jurisdiction shall govern, unless the named parties agree otherwise.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History—New 7-5-94.

29D-6.011 Settlement Meetings.

(1) Settlement meetings shall, at a minimum, be attended by the named parties' representatives designated pursuant to subsection 29D-6.003(3), F.A.C.

(2) Settlement meetings may be facilitated by a NEFRPC staff member or other neutral facilitator acceptable to the parties and shall be held at a time and place acceptable to the parties.

(3) At the settlement meeting, the parties shall consider adding named parties, consider guidelines for participation, identify the issues to be addressed, present their concerns and constraints, explore options for a solution, and seek agreement.

(4) The parties shall submit a settlement meeting report in accordance with subsection 29D-6.015(4), F.A.C., of this process.

(5) If an agreed upon settlement meeting is not held or a settlement meeting produces no agreement to proceed to additional settlement meetings, mediation or advisory decision making, any party who has agreed to participate in this procedure may proceed to: a joint meeting of governing bodies pursuant to Chapter 164, F.S., litigation, administrative hearing or arbitration, as appropriate.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History—New 7-5-94.

29D-6.012 Mediation.

(1) If two or more of the named parties submit a request for mediation to the NEFRPC staff, the NEFRPC shall assist them to select and retain a mediator or the named parties may request that the NEFRPC select a mediator.

(2) All disputes shall be mediated by a mediator who understands Florida growth management issues, has mediation experience and is acceptable to the parties. Parties shall consider but not be limited to mediators who are on the Florida Growth Management Conflict Resolution Consortium rosters or any other mutually acceptable mediator. Mediators shall be guided by the Standards of Professional Conduct, Florida Rules of Civil Procedure, Rule 10, Part II, Section 020-150.

(3) The parties shall submit a mediation report in accordance with subsection 29D-6.015(4), F.A.C., of this process.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History—New 7-5-94.

29D-6.013 Advisory Decision-Making.

(1) If two or more named parties submit a request for advisory decision making to the NEFRPC the NEFRPC shall assist the parties to select and retain an appropriate neutral or the parties may request the NEFRPC make the selection.

(2) All disputes shall be handled by a neutral who understands Florida growth management issues, has appropriate experience and is acceptable to the parties.

(3) The parties shall submit an advisory decision-making report in accordance with subsection 29D-6.015(4), F.A.C., of this process at the conclusion.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History—New 7-5-94.

29D-6.014 Settlement Agreements and Reports.

(1) The form of all settlements reached through this process shall be determined by the named parties, and may include interlocal agreements, concurrent resolutions, memoranda of understanding, plan amendments, deed restrictions or other forms as appropriate.

(2) Agreements signed by designated representatives shall be in the form of recommendations to formal bodies and subject to their formal approval.

(3) Agreements may be reached by two or more named parties even if all of the named parties do not agree or do not sign a formal agreement if the agreement does not effect the rights of the other named parties that do not sign the agreement.

(4) After settlement meetings, mediation, or advisory decision making under this process, the named parties shall submit a joint report to the NEFRPC staff which shall, at a minimum, include:

(a) Identification of the issues discussed and indicating which were resolved;

(b) A list of potentially affected or involved jurisdictions, organizations, groups, or individuals (including those which may not be named parties);

(c) A description of agreed upon next steps, if any, including measures for implementing agreements reached;

(d) A time frame for starting and ending informal negotiations, additional settlement meetings, mediation, advisory decision-making, joint meetings of elected bodies, administrative hearings or litigation, and;

(e) Any additional NEFRPC assistance requested.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History—New 7-5-94.

29D-6.015 Other Dispute Resolution Processes.

(1) In addition to the RDRP under Section 186.509, Florida Statutes, parties may consider the applicability of other resolution processes within Florida Statutes, including: Intergovernmental Coordination Element, Section 163.3177(6)(h)(1) & (2), F.S., Port Master Plans, Section 163.3178, F.S.; Community Residential Homes, Section 419.001(5), F.S.; Cross Acceptance Negotiation Process, Section 186.505(22), F.S.; Location of Spoil Sites, Section 380.27, F.S.; Administrative Procedures Act, Chapter 120, F.S.; Florida Governmental Cooperation Act, Chapter 164, F.S.; Mediation Alternatives to Judicial Action, Chapter 44, F.S.

(2) When appropriate, parties may obtain a stay of judicial or administrative proceedings to provide time for RDRP negotiations.

Specific Authority 186.509 FS.

Law Implemented 186.509 FS.

History—New 7-5-94.

APPENDIX D

RECEIVED
NOV 18 2013

BY *Richard M. Stought*

RESOLUTION NO 13-01

**RESOLUTION OF THE ST. JOHNS COUNTY LOCAL MITIGATION
STRATEGY TASKFORCE, ACCEPTING THE ST. JOHNS COUNTY LMS
DOCUMENT**

WHEREAS, The St. Johns County Local Mitigation Strategy (LMS) Taskforce was created in August 1998, with the responsibility of developing a disaster mitigation plan; and

WHEREAS, St. Johns County initiated the local Mitigation Strategy Plan development by entering into a contract with the Florida State Division of Emergency Management,

WHEREAS, the St. Johns County LMS Taskforce has completed a Local Mitigation Strategy plan which has been reviewed by the Florida State Division of Emergency Management as meeting the criteria for such plans; and

WHEREAS, this Local Mitigation Strategy plan is intended to provide a strategy to mitigate dangers and costs associated with weather and man made hazards and to provide a priority for recovery in the event of a hazardous event occurring in St. Johns County.

NOW, THEREFORE, BE IT RESOLVED that the St. Johns County LMS Taskforce, hereby accepts the St. Johns County Local Hazard Mitigation Plan.

Unanimously adopted by the St. Johns County LMS Taskforce in a special meeting via a conference call organized by St. Johns County Emergency Management, November 18, 2013.

Kelly Wilson

Kelly Wilson
LMS Taskforce Chairperson

RESOLUTION NO. 2008 - 171

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA APPROVING AND ADOPTING THE ST. JOHNS COUNTY LOCAL MITIGATION STRATEGY PLAN.

WHEREAS, this Local Mitigation Strategy Plan is intended to provide a strategy to mitigate dangers and costs associated with weather and man made hazards and to provide a priority for recovery of hazardous events occurring in St. Johns County; and

WHEREAS, the St. Johns County Local Mitigation Strategy (LMS) Taskforce was created in August 1998, with the responsibility of developing a Local Hazard Mitigation Plan; and

WHEREAS, the St. Johns County Local Mitigation Strategy Taskforce has completed a Local Mitigation Strategy Plan which has been reviewed by the Florida State Division of Emergency Management as meeting the criteria for such plans and was last approved by the St. Johns County Board of County Commissioners in 2005; and

WHEREAS, St. Johns County in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended (42 U.S.C 5121-5206) shall prepare and adopt a jurisdiction wide Local Mitigation Strategy Plan as a condition of receiving project grant funds under the Hazard Mitigation Grant Program; and

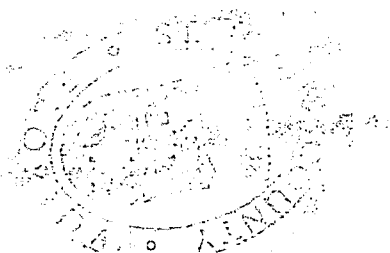
WHEREAS, the Local Mitigation Strategy Taskforce accepted the revised Plan by unanimous vote on February 21, 2008;

NOW THEREFORE, BE IT RESOLVED by the Board of County Commissioners of St. Johns County that:

The Local Mitigation Strategy Plan attached and incorporated herein as Exhibit A is hereby approved and adopted effective immediately.

The St. Johns County Director of Emergency Management is hereby directed to timely notify the State Division of Emergency Management of the date of the County's approval and adoption of the Local Mitigation Strategy Plan.

PASSED AND ADOPTED by the Board of County Commissioners of St. Johns County, State of Florida, this 24th day of June, 2008.



ATTEST: CHERYL STRICKLAND, CLERK

By: Pam Halterman
Deputy Clerk

BOARD OF COUNTY COMMISSIONERS
OF ST. JOHNS COUNTY, FLORIDA

By: [Signature]

Chairman

RENDITION DATE 6/27/08

RESOLUTION NO. 2009-4

RESOLUTION OF THE FLAGLER ESTATES ROAD AND WATER CONTROL DISTRICT BOARD OF SUPERVISORS, ACCEPTING THE ST. JOHNS COUNTY LOCAL HAZARD MITIGATION PLAN DOCUMENT

WHEREAS, The St. Johns County Local Mitigation Strategy (LMS) Taskforce was created in August 1998, with the responsibility of developing a Local Hazard Mitigation Plan; and

WHEREAS, St. John's County and its incorporated municipalities initiated development of the Local Mitigation Strategy Plan by entering into a contract with the Florida State Department of Community Affairs Division of Emergency Management, and

WHEREAS, the St. Johns County LMS Taskforce has completed a revised Local Mitigation Strategy Plan which has been reviewed by the Florida State Department of Community Affairs as meeting the criteria for such plans; and


WHEREAS, on June 24, 2008, the St. Johns County Board of County Commissioners passed Resolution 2008-171 and adopted a revised LMS for St. Johns County, and

WHEREAS, on June 9, 2009, the St. Johns County Emergency Management Director requested that the Flagler Estates Road and Water Control District adopt the revised LMS for St. Johns County; and

WHEREAS, this Local Mitigation Strategy Plan is intended to provide a strategy to mitigate dangers and costs associated with weather and man made hazards and to provide a priority for recovery in the circumstances of hazardous events occurring in St. Johns County; and

NOW, THEREFORE, BE IT RESOLVED that the Flagler Estates Road and Water Control District Board of Supervisors hereby accepts the revised St. Johns County Local Hazard Mitigation Plan.

Adopted by the Flagler Estates Road and Water Control District Board of Supervisors in the regular meeting assembled in the offices of the Flagler Estates Road and Water Control District on August 20, 2009.


President
Flagler Estates Road and Water Control District

RESOLUTION 2013-43

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF ST. AUGUSTINE, FLORIDA ADOPTING A REVISED LOCAL MITIGATION STRATEGY AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Section 252, Part I, Florida Statutes, provides for the State Emergency Management Act; and

WHEREAS, Section 252.46, Florida Statutes, provides the specific authority for Sections 9G-22.001 through 9G-22.007, Florida Administrative Code, which describes the process for application, project selection and distribution of funds under the Hazard Mitigation Grant Program; and

WHEREAS, Sections 9G-22.001 through 9G-22.007, Florida Administrative Code, define Local Mitigation Strategy (LMS) as a plan to reduce the identified hazards within a county; and

WHEREAS, on July 11, 2005, the City Commission passed and adopted Resolution 2005-14 and adopted the St. Johns County LMS; and

WHEREAS, over time, the City Commission has passed and adopted revisions to the St. Johns County LMS; and

WHEREAS, Sections 9G-22.001 through 9G-22.007, Florida Administrative Code, provide for the adoption of a LMS by resolution of the City Commission;

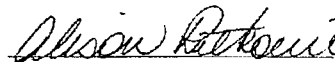
NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF ST. AUGUSTINE, FLORIDA, AS FOLLOWS:

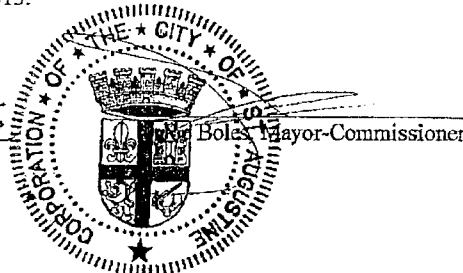
Section 1. Adoption of Local Mitigation Strategy. The City of St. Augustine hereby adopts the St. Johns County Local Mitigation Strategy, originally adopted by the St. Johns County LMS Task Force in 2004, with most current update and adoption in 2010, and revisions and updates made by the St. Johns County LMS Task Force in February, 2010, May, 2010, February, 2013 and September, 2013, attached hereto and incorporated herein by reference.

Section 2. Effective Date. This Resolution shall become effective immediately upon adoption.

PASSED AND ADOPTED by the City Commission for the City of St. Augustine, Florida this 28th day of October, 2013.

ATTEST:


Alison Ratkovic, City Clerk
(SEAL)



Boles, Mayor-Commissioner

Resolution #2009-06

RESOLUTION OF THE TOWN COMMISSION OF THE TOWN OF
HASTINGS ACCEPTING THE ST. JOHNS COUNTY LOCAL HAZARD
MITIGATION PLAN DOCUMENT

WHEREAS, the St. Johns County Local Mitigation Strategy (LMS) Taskforce was created in August 1998, with the responsibility of developing a Local Hazard Mitigation Plan; and

WHEREAS, St. Johns County and its incorporated municipalities initiated development of the Local Mitigation Strategy Plan by entering into a contract with the Florida State Division of Emergency Management; and

WHEREAS, the St. Johns County LMS Taskforce has completed a Local Mitigation Strategy Plan which has been reviewed by the Florida State Department of Division of Emergency Management as meeting the criteria for such plans; and

WHEREAS, this Local Mitigation Strategy Plan is intended to provide a strategy to mitigate dangers and costs associated with weather and man made hazards and to provide a priority for recovery in the event of a hazardous events occurring in St. Johns County; and

WHEREAS, the Local Mitigation Strategy Taskforce accepted the Plan to be complete on July 16, 2009.

NOW, THEREFORE, BE IT RESOLVED that the Town Commission of the Town of Hastings hereby accepts the St. Johns County Local Hazard Mitigation Plan.,

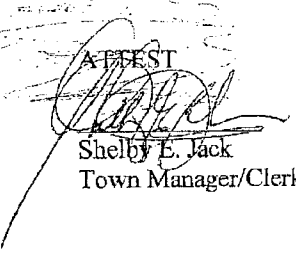
Adopted by the Town Commission of the Town of Hastings in Regular Session assembled in the offices of the Town Commission on this 10th Day of August, 2009.



Town Ward
Mayor



ATTEST



Shelby E. Jack
Town Manager/Clerk

RESOLUTION 09-06

CITY OF ST. AUGUSTINE BEACH
ST. JOHNS COUNTY
FLORIDA

RE: TO ADOPT THE ST. JOHNS
COUNTY LOCAL MITIGATION
STRATEGY PLAN

The City Commission of St. Augustine Beach, St. Johns County, Florida, in regular meeting duly assembled on Monday, July 6, 2009, resolves as follows:

WHEREAS, the St. Johns County Local Mitigation Strategy (LMS) Taskforce was created in August 1998, with the responsibility of developing a Local Hazard Mitigation Plan; and

WHEREAS, St. Johns County initiated development of the Local Mitigation Strategy Plan by entering into a contract with the Florida State Department of Community Affairs Division of Emergency Management; and

WHEREAS, the St. Johns County LMS Taskforce has completed a Local Mitigation Strategy Plan which has been reviewed by the Florida State Department of Community Affairs as meeting the criteria of such plans; and

WHEREAS, this Local Mitigation Strategy Plan is intended to provide a strategy to mitigate dangers and costs associated with weather and man-made hazards and to provide a priority for recovery of hazardous events occurring in St. Johns County; and

WHEREAS, the Local Mitigation Strategy Taskforce accepted the Plan as completed on February 21, 2008

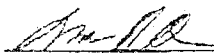
NOW, THEREFORE, BE IT RESOLVED, that the City Commission of the City of St. Augustine Beach, St. Johns County, Florida adopts the Local Mitigation Strategy Plan prepared by the St. Johns County Local Mitigation Strategy Taskforce and the Northeast Florida Regional Council.

RESOLVED AND DONE, this 6th day of July, 2009 by the City Commission of the City of St. Augustine Beach, St. Johns County, Florida



Mayor-Commissioner

ATTEST:



City Manager

APPENDIX E

THE ST. AUGUSTINE RECORD

COPY OF ADVERTISEMENT

SJC EMERGENCY MANAGEMENT
100 EOC DRIVE
SAINT AUGUSTINE FL. 32095

Ref#: L1485-11
P.O.#:

PUBLISHED EVERY MORNING SUNDAY THRU SATURDAY
ST. AUGUSTINE AND ST. JOHNS COUNTY, FLORIDA

STATE OF FLORIDA,
COUNTY OF ST. JOHNS

Before the undersigned authority personally appeared **BRI HALL**
who on oath says that he/she is an Employee of the St. Augustine Record,
a daily newspaper published at St. Augustine in St. Johns County, Florida:
that the attached copy of advertisement being a **NOTICE OF MEETING**
In the matter of **MITIGATION STRATEGY - JUNE 16,2011**
was published in said newspaper on **06/06/2011**

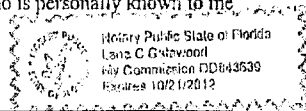
Affiant further says that the St. Augustine Record is a newspaper published
at St. Augustine, in said St. Johns County, Florida, and that the said newspaper
heretofore has been continuously published in said St. Johns County, Florida,
each day and has been entered as second class mail matter at the post office in the
City of St. Augustine, in said St. Johns County, for a period of one year preceding
the first publication of the copy of advertisement; and affiant further says that
he/she has neither paid nor promised any person, firm or corporation any discount,
rebate, commission or refund for the purpose of securing the advertisement for
publication in the said newspaper.

Sworn to and subscribed before me this 6 day of June 2011

by Bri Hall who is personally known to me
or who has produced as identification

Lana C. Getwood

(Signature of Notary Public)



(Seal)

PUBLIC NOTICE

The quarterly meeting of the St. Johns County Local Mitigation Strategy Task Force will take place at 9:00 a.m. on Thursday, June 16, 2011, in the St. Johns County Emergency Operations Center, located at 100 EOC Dr., St. Augustine, FL, 32092. All interested persons are invited to attend.

In accordance with the Americans with Disabilities Act, persons needing special accommodations to participate in the proceedings should contact St. Johns County Emergency Management at 904-824-5550.

L1485-11 June 6,2011

THE ST. AUGUSTINE RECORD

COPY OF ADVERTISEMENT

SJC EMERGENCY MANAGEMENT
100 EOC DRIVE
SAINT AUGUSTINE FL 32095

PUBLIC NOTICE
The quarterly meeting of the St. Johns County Local Mitigation Strategy Task Force will take place at 9:00 a.m. on Thursday, October 27, 2011, in the St. Johns County Emergency Operations Center, located at 100 EOC Dr., St. Augustine, FL, 32092. All interested persons are invited to attend.
In accordance with the Americans with Disabilities Act, persons needing special accommodations to participate in the proceedings should contact St. Johns County Emergency Management at 904-824-5550.
L2705-11 Oct 17, 2011

Ref#: L2705-11
P.O.#: MTG 10-27

PUBLISHED EVERY MORNING SUNDAY THRU SATURDAY
ST. AUGUSTINE AND ST. JOHNS COUNTY, FLORIDA

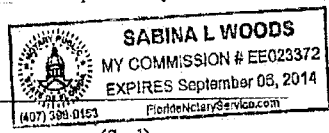
STATE OF FLORIDA,
COUNTY OF ST. JOHNS

Before the undersigned authority personally appeared **SHAWNE' H ORDONEZ** who on oath says that he/she is an Employee of the St. Augustine Record, a daily newspaper published at St. Augustine in St. Johns County, Florida: that the attached copy of advertisement being a **NOTICE OF MEETING** In the matter of **MITIGATION STRAT MTG - MEETING OCTOBER 27, 2011** was published in said newspaper on **10/17/2011**

Affiant further says that the St. Augustine Record is a newspaper published at St. Augustine, in said St. Johns County, Florida, and that the said newspaper heretofore has been continuously published in said St. Johns County, Florida, each day and has been entered as second class mail matter at the post office in the City of St. Augustine, in said St. Johns County, for a period of one year preceding the first publication of the copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing the advertisement for publication in the said newspaper.

Sworn to and subscribed before me this 17th day of October, 2011 by Shawne' H. Ordonez who is personally known to me or who has produced as identification

Sabina L. Woods
(Signature of Notary Public)



(Seal)

THE ST. AUGUSTINE RECORD

COPY OF ADVERTISEMENT

SJC EMERGENCY MANAGEMENT
100 EOC DRIVE
SAINT AUGUSTINE FL 32095

ref.#: L246-12
C.O.#: MTG 02-09

PUBLIC NOTICE
The quarterly meeting of the St. Johns County Local Mitigation Strategy Task Force will take place at 9:00 a.m. on Thursday, February 9, 2012, in the St. Johns County Emergency Operations Center, located at 100 EOC Dr., St. Augustine, FL, 32092. All interested persons are invited to attend.
In accordance with the Americans with Disabilities Act, persons needing special accommodations to participate in the proceedings should contact St. Johns County Emergency Management at 904-834-5550.
L246-12-Jan 30, 2012

PUBLISHED EVERY MORNING SUNDAY THRU SATURDAY
ST. AUGUSTINE AND ST. JOHNS COUNTY, FLORIDA

STATE OF FLORIDA,
COUNTY OF ST. JOHNS

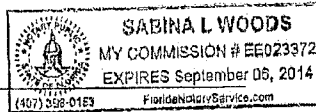
before the undersigned authority personally appeared **SHAWNE' H ORDONEZ**
who on oath says that he/she is an Employee of the St. Augustine Record,
daily newspaper published at St. Augustine in St. Johns County, Florida;
that the attached copy of advertisement being a **NOTICE OF MEETING**
in the matter of **LOCAL MITIG STRATEGY - MEETING FEBRUARY 9, 2012**
was published in said newspaper on **01/30/2012**

Affiant further says that the St. Augustine Record is a newspaper published at St. Augustine, in said St. Johns County, Florida, and that the said newspaper heretofore has been continuously published in said St. Johns County, Florida, each day and has been entered as second class mail matter at the post office in the City of St. Augustine, in said St. Johns County, for a period of one year preceding the first publication of the copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing the advertisement for publication in the said newspaper.

Sworn to and subscribed before me this 30 day of January 2012
Shawne' H. Ordonez who is personally known to me
or who has produced as identification

Sabina L. Woods

(Signature of Notary Public)



(Seal)

THE ST. AUGUSTINE RECORD

COPY OF ADVERTISEMENT

SJC EMERGENCY MANAGEMENT
100 EOC DRIVE
SAINT AUGUSTINE FL 32095

PUBLIC NOTICE
The quarterly meeting of the St. Johns County Local Mitigation Strategy Task Force will take place at 7:00 a.m. on Thursday, June 7, 2012, in the St. Johns County Emergency Operations Center, located at 100 EOC Dr., Saint Augustine, FL, 32092. All interested persons are invited to attend.
In accordance with the Americans with Disabilities Act, persons needing special accommodations to participate in the proceedings should contact St. Johns County Emergency Management at 904-424-5550.
L1447-12 May 28, 2012

Ref.#: L1447-12
P.O.#: MTG 06-07

PUBLISHED EVERY MORNING SUNDAY THRU SATURDAY
ST. AUGUSTINE AND ST. JOHNS COUNTY, FLORIDA

STATE OF FLORIDA,
COUNTY OF ST. JOHNS

Before the undersigned authority personally appeared **STEVEN SMITH** who on oath says that he/she is an Employee of the St. Augustine Record, a daily newspaper published at St. Augustine in St. Johns County, Florida; that the attached copy of advertisement being a **NOTICE OF MEETING** In the matter of **Q'LY LOCAL MITIG STR - MEETING JUNE 7, 2012** was published in said newspaper on **05/28/2012**

Affiant further says that the St. Augustine Record is a newspaper published at St. Augustine, in said St. Johns County, Florida, and that the said newspaper heretofore has been continuously published in said St. Johns County, Florida, each day and has been entered as second class mail matter at the post office in the City of St. Augustine, in said St. Johns County, for a period of one year preceding the first publication of the copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing the advertisement for publication in the said newspaper.

Sworn to and subscribed before me this 29th day of May 2012
by Steven Smith who is personally known to me
or who has produced as identification

Tiffany M. Lowe

(Signature of Notary Public)



THE ST. AUGUSTINE RECORD

COPY OF ADVERTISEMENT

PUBLIC NOTICE

The quarterly meeting of the St. Johns County Local Mitigation Strategy Task Force will take place at 7:00 a.m. on Thursday, October 4, 2012, in the St. Johns County Emergency Operations Center, located at 100 EOC Dr., St. Augustine, FL 32082. All interested persons are invited to attend.

In accordance with the Americans with Disabilities Act, persons needing special accommodations to participate in the proceedings should contact St. Johns County Emergency Management at 904-824-5556. L7856 12 Sep 24, 2012

SJC EMERGENCY MANAGEMENT
100 EOC DRIVE
SAINT AUGUSTINE FL 32095

Ref.#: L2658-12
P.O.#: MTG 10-04

PUBLISHED EVERY MORNING SUNDAY THRU SATURDAY
ST. AUGUSTINE AND ST. JOHNS COUNTY, FLORIDA

STATE OF FLORIDA,
COUNTY OF ST. JOHNS

Before the undersigned authority personally appeared **STEVEN SMITH** who on oath says that he/she is an Employee of the St. Augustine Record, a daily newspaper published at St. Augustine in St. Johns County, Florida; that the attached copy of advertisement being a **NOTICE OF MEETING** in the matter of **MITIGATION TASK FORC - MEETING OCTOBER 4, 2012** was published in said newspaper on **09/24/2012**

Affiant further says that the St. Augustine Record is a newspaper published at St. Augustine, in said St. Johns County, Florida, and that the said newspaper heretofore has been continuously published in said St. Johns County, Florida, each day and has been entered as second class mail matter at the post office in the city of St. Augustine, in said St. Johns County, for a period of one year preceding first publication of the copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, fee, commission or refund for the purpose of securing the advertisement for publication in the said newspaper.

to and subscribed before me this 24th day of SEP -- 2012

Steven Smith who is personally known to me as produced as identification

Shawne H. Ordonez



(Notary Public)

(Seal)

THE ST. AUGUSTINE RECORD

SJC EMERGENCY MANAGEMENT
100 EOC DRIVE
SAINT AUGUSTINE FL 32095

PUBLIC NOTICE
The quarterly meeting of the St. Johns County Local Mitigation Strategy Task Force will take place at 1:00 p.m. on Thursday, February 21, 2013, in the St. Johns County Emergency Operations Center, located at 100 EOC Dr., St. Augustine, FL, 32092. All interested persons are invited to attend.
In accordance with the Americans with Disabilities Act, persons needing special accommodations to participate in the proceedings should contact St. Johns County Emergency Management at 904-824-5550.
L473-13 Feb 11, 2013

Ref.#: L473-13
P.O.#: MTG 02-21

PUBLISHED EVERY MORNING SUNDAY THRU SATURDAY
ST. AUGUSTINE AND ST. JOHNS COUNTY, FLORIDA

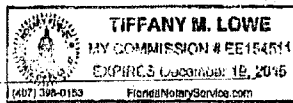
STATE OF FLORIDA,
COUNTY OF ST. JOHNS

Before the undersigned authority personally appeared **STEVEN SMITH** who on oath says that he/she is an Employee of the St. Augustine Record, a daily newspaper published at St. Augustine in St. Johns County, Florida; that the attached copy of advertisement being a **NOTICE OF MEETING** in the matter of **MIT STRAT TASK FORCE - MEETING FEBRUARY 21, 2013** was published in said newspaper on **02/11/2013**

Affiant further says that the St. Augustine Record is a newspaper published at St. Augustine, in said St. Johns County, Florida, and that the said newspaper heretofore has been continuously published in said St. Johns County, Florida, each day and has been entered as second class mail matter at the post office in the City of St. Augustine, in said St. Johns County, for a period of one year preceding the first publication of the copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing the advertisement for publication in the said newspaper.

Sworn to and subscribed before me this 11 day of FEB 11 2013
by Steven Smith who is personally known to me
or who has produced as identification

Tiffany M. Lowe
(Signature of Notary Public)



(Seal)

THE ST. AUGUSTINE RECORD

COPY OF ADVERTISEMENT

SJC EMERGENCY MANAGEMENT
100 EOC DRIVE
SAINT AUGUSTINE FL 32095

PUBLIC NOTICE
The quarterly meetings of the St. Johns County Local Mitigation Strategy Task Force will take place at 9:00 a.m. on Thursday, May 23, 2013, in the St. Johns County Emergency Operations Center, located at 100 EOC Dr., St. Augustine, FL 32092. All interested persons are invited to attend.

In accordance with the Americans with Disabilities Act, persons needing special accommodations to participate in the proceedings should contact St. Johns County Emergency Management at 904-874-5550. L1520-13 May 13, 2013

Ref#: L1520-13
P.O.#: MITG 05-23

DOUBLE THE DAILY EDITIONS ON SUNDAY THRU SATURDAY
ST. AUGUSTINE AND ST. JOHN COUNTY, FLORIDA

STATE OF FLORIDA
COUNTY OF ST. JOHNS

Before the undersigned authority personally appeared **STEVEN SMITH** who on oath says that he/she is an Employee of the St. Augustine Record, a daily newspaper published at St. Augustine in St. Johns County, Florida; that the attached copy of advertisement being a **NOTICE OF MEETING** in the matter of **Q13 MITIG STRATEGY - MEETING MAY 23, 2013** was published in said newspaper on **05/13/2013**

Affiant further says that the St. Augustine Record is a newspaper published at St. Augustine in St. Johns County, Florida, and that the said newspaper heretofore has been continuously published in said St. Johns County, Florida, each day and has been entered as second class mail matter at the post office in the City of St. Augustine, said St. Johns County, for a period of one year preceding the first publication of the copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or fund for the purpose of securing the advertisement for publication in the said newspaper.

Sworn to and subscribed before me this day of **MAY 13 2013**
by *St. Smith* who is personally known to me
or who has produced identification

Tiffany M. Louce
(Signature of Notary Public)



(Seal)

THE ST. AUGUSTINE RECORD

COPY OF ADVERTISEMENT
PUBLIC NOTICE

SJC EMERGENCY MANAGEMENT
100 EOC DRIVE
SAINT AUGUSTINE FL 32095

The quarterly meeting of the St. Johns County Local Mitigation Strategy Task Force will take place at 9:00 a.m. on Thursday, September 26, 2013, in the St. Johns County Emergency Operations Center, located at 100 EOC Dr., St. Augustine, FL, 32092. All interested persons are invited to attend.
In accordance with the Americans with Disabilities Act, persons needing special accommodations to participate in the proceedings should contact St. Johns County Emergency Management at 904-894-5550. L2836-13 Sep 13, 2013

Ref#: L2838-13
P.O.#: MTG 09-26

PUBLISHED EVERY MORNING SUNDAY THRU SATURDAY
ST. AUGUSTINE AND ST. JOHNS COUNTY, FLORIDA

STATE OF FLORIDA,
COUNTY OF ST. JOHNS

Before the undersigned authority personally appeared **STEVEN SMITH** who on oath says that he/she is an Employee of the St. Augustine Record, a daily newspaper published at St. Augustine in St. Johns County, Florida; that the attached copy of advertisement being a **NOTICE OF MEETING** In the matter of **MITIG STRAT TASK FOR - MEETING SEPTEMBER 26, 2013** was published in said newspaper on **09/13/2013**

Affiant further says that the St. Augustine Record is a newspaper published at St. Augustine, in said St. Johns County, Florida, and that the said newspaper heretofore has been continuously published in said St. Johns County, Florida, each day and has been entered as second class mail matter at the post office in the City of St. Augustine, in said St. Johns County, for a period of one year preceding the first publication of the copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing the advertisement for publication in the said newspaper.

Sworn to and subscribed before me this 13 day of SEP 13 2013

by St. Smith who is personally known to me or who has produced as identification

[Signature]



(Signature of Notary Public)

(Seal)

APPENDIX F

**ST. JOHNS COUNTY LOCAL MITIGATION STRATEGY
INVENTORY OF RANKED PROJECTS**

PROJECT YEAR - PROJECT NUMBER	PROJECT RANK	PROJECT DESCRIPTION	RANKING CRITERIA										Total Points Awarded	
			Consistent With Comprehensive Plan	Consistent With Regulatory Framework	Provides Community Rating System Credits	Community Benefit	Community Exposure	Effectiveness	Public Life Expectancy	Public Support	Funding Availability	Sponsorship		Identified Funding Source
07-03	01	Reinforce Beaches Along Eroded Sections of County Coastline A. Surfside Area B. Summer Haven C. St. Augustine Beach (State Park to F St.) D. Walk-over @ Mariners Watch E. Mainland Area from north end of rement to northern Town limits (Underground sand barrier)	10	10	10	14	5	10	8	8	10	5	5	95
07-02	02	Flood Mitigation Activities / Repetitive Loss A. County Acquisition at Petty Branch Ravine Park (FCT Project) B. Flood Mitigation at S. Avenida Menendez Seawall Project C. Flood Mitigation at 12 Oceaniside Drive D. Purchase Excavation Equipment (backhoes, etc.) for Flood Mitigation E. Acquisition of Cora C. Harrison Preserve	10	10	5	14	5	10	6	6	10	5	3	84
09-02	02	Flood Mitigation Activities / Repetitive Loss A. Flood Mitigation on King Street	10	10	5	14	5	10	6	6	10	5	3	84
10-02	02	Flood Mitigation Activities / Repetitive Loss A. Relocation of Fire Station 11 out of Flood Zone	10	10	5	14	5	10	6	6	10	5	3	84
07-03	03	Master Drainage and Improvements Countywide A. Set up pre-contracts for temporary flood pumps B. Master plan for St. Augustine including incorporation of Maria Sanchez Lake C. Deep Creek Master Drainage Study D. Dam at Lake Beloutrahatchee E. Jack Wright Island Road Drainage Basin Improvements F. 16 Miles Creek Surface Water Improvements G. West King Street Corridor Improvement Plan H. Crookshank School Drainage (Ravenswood) I. Deep Creek Revitalization J. Dobb's Road Basin Improvements K. Poinsett/Kings Estates Road/South Fox Creek L. Fruit Cove Barlin Drainage Basin M. Fruit Cove North Drainage Basin N. Fruit Cove South Drainage Basin O. Intra-coastal Wilderness Basin P. Masters Drive Rehabilitation/Drainage Q. North Beach Drainage R. Oyster Creek Basin Drainage Improvements S. Irma Way Sub. Drainage T. Roscoe Blvd. Outfall Improvements U. St. Augustine South Drainage (Harvard, Cornell, Mimosa) V. Sunset Park Subdivision (Matanzas River/East Creek)	10	10	5	14	5	10	10	4	10	0	3	81
08-03	03	Master Drainage and Improvements Countywide A. Kavenwood Drainage - Phase I	10	10	5	14	5	10	10	4	10	0	3	81
11-03	03	Master Drainage and Improvements Countywide A. City of St. Augustine Citywide Stormwater Master Plan B. Intersection Improvements within Flagler Estates Road and Water District	10	10	5	14	5	10	10	4	10	0	3	81
13-03	03	Master Drainage and Improvements Countywide A. Maria Sanchez Lake Drainage Improvements (Cordova, Granada, Bridge)	10	10	5	14	5	10	10	4	10	0	3	81
07-04	04	Improved Countywide Emergency Communications A. Interoperability/Emergency Communications	5	10	0	15	10	2	8	8	10	5	5	78
10-04	04	Improved Countywide Emergency Communications A. Construct a new Communications Center outside the storm surge zone	5	10	0	15	10	2	8	8	10	5	5	78
07-05	05	Provide Miami-Dade Standard Window Protection of Current Florida Building Code For Police & Fire Stations & Other Gov. Bldgs. - Existing A. St. Augustine Fire Station 41	5	10	10	14	5	10	10	4	5	0	5	78

13-05	05	Provide Miami-Dade Standard Window Protection or Current Florida Building Code For Police & Fire Stations & Other Govt. Bldgs. - Existing A. St. Johns County Fire Station 7	5	10	10	14	5	10	10	4	5	0	5	78
09-08	06	Improve Facilities for County Emergency Support Functions A. Construct new Sheriff's Office Regional Command Centers	5	10	5	10	5	10	8	6	10	5	3	77
09-07	07	Potable Water System Improvements A. Town of Hastings	5	10	0	13	5	10	10	4	5	5	5	72
13-07	07	Potable Water System Improvements A. Expansion City of St. Augustine Water Treatment Facility	5	10	0	13	5	10	10	4	5	5	5	72
07-08	08	Countywide NIMS Implementation A. NIMS Compliance B. NIMS Training	5	5	0	15	10	2	5	8	10	5	5	71
07-09	08	Expand Waste Water Collection Systems Countywide (including municipalities) A. Replace Septic Tanks B. Retrofit Collection Systems	10	10	0	11	5	8	8	4	5	5	4	70
09-09	08	Expand Waste Water Collection Systems Countywide (including municipalities) A. Rehabilitation of existing sewer system in the Town of Hastings	10	10	0	11	5	8	8	4	5	5	4	70
13-09	08	Expand Waste Water Collection Systems Countywide (including municipalities) A. Rehabilitation of existing sewer system in Oyster Creek	10	10	0	11	5	8	8	4	5	5	4	70
07-10	10	Improve County Evacuation Capacity A. Improve Signage B. A1A from Owens Avenue to SR 206 (Perform a safety study) C. SR 206 evacuation improvements study from A1A to end of 206 D. May Street @ Douglas (flooding) and at San Marco (construction) E. Michler Road from 210 to A1A improvements	10	10	0	15	5	10	10	1	5	0	1	67
07-11	11	Improve Countywide Shelters A. Functional Needs Evacuation Shelter B. Retrofit Schools	5	10	0	15	5	10	10	0	5	0	5	66
07-12	12	Provide Generators For essential government buildings & Critical Facilities A. Pigeil buildings to accept temporary generators B. Provide portable generators for St. Augustine Beach C. LRT Stations	5	10	0	15	5	4	10	4	5	0	5	63
10-13	13	Wildfire Mitigation Activities	5	5	0	14	5	2	5	5	10	5	3	61
06-14	14	Develop Post-Disaster Redevelopment Standards For Infrastructure And Structures	10	10	0	15	5	2	10	0	0	0	5	57
07-15	15	Install System of Dry Fire Hydrants Countywide Including Priming Pumps Where Necessary A. Flagler Estates Area Dry Fire Hydrants	5	5	0	15	10	8	10	1	0	0	1	55
07-16	16	Education A. Educate Prospective Home Buyers & Real Estate Professionals About Floodplains & Base Floor Elevations B. Educate Residents Of Financial / Insurance Benefits Of Preparing Their Homes For Natural Disasters C. Education and Training for Hazardous Materials Incident Response Capability D. GIS Enhancements for Mitigation Activities Countywide	5	10	0	15	5	2	6	8	5	5	5	66
07-17	17	Consider Feasibility Of Retrofitting Electric Utilities Underground A. St. Augustine Beach (2 miles along A1A) B. South Anastasia Island C. Beaches Energy Services underground utilities. FVB	5	10	0	13	5	8	7	0	5	0	0	53
07-18	18	Foliage Mitigation A. Clearing Ditches B. Pruning Trees	5	5	0	13	5	2	6	8	10	5	5	64
08-19	19	Restoration of Emergency Barns A. Summer Haven												
09-20	20	Upgrade Signification County-wide A. A1A and Coastal Highway B. A1A and L'Arion Drive C. A1A and Marlin Avenue D. A1A and PGA Tour Boulevard E. A1A and Ponte Vedra Lakes F. A1A and Solano G. Wildwood Drive and U.S. 1 H. U.S. 1 and Health Park Boulevard												

Updated - 09/20/13

ST. JOHNS COUNTY LOCAL MITIGATION STRATEGY INVENTORY OF RANKED PROJECTS INFORMATION - 2013

PROJECT DESCRIPTION	PROJECT STATUS	Mitigation action addresses New or Existing	Continued Compliance with NFIP	Jurisdiction*	Responsible for Project Implementation**	Project Time-frame*** Hazard****
Renourish Beaches Along Eroded Sections of County Coastline						
A. Surfside Area	On-going	Existing	NFIP	St. Johns County	St. Johns County Public Works	On-going H, SS
B. Summer Haven	On-going	Existing	NFIP	St. Johns County	St. Johns County Public Works	On-going H, SS
C. St. Augustine Beach (State Park to F St.)	On-going	Existing	NFIP	City of St. Augustine	COSAB and SJC	On-going H, SS
D. Walk-over @ Marrins Watch	On-going	Existing	NFIP	St. Johns County	St. Johns County Public Works	On-going H, SS
E. Marmelard - Area from north end of revetment to northern Town limits (Underground sand barrier)	On-going	Existing	NFIP	St. Johns County	St. Johns County Public Works	On-going H, SS
Flood Mitigation Activities / Repetitive Loss						
A. County Acquisition at Petty Branch Ravine Park (FCT Project)	Not Started	Existing	NFIP	St. Johns County	SJC Parks and Recreation	1 year F
B. Flood Mitigation at S. Avenida Menendez Seawall Project	Started	Existing	NFIP	City of St. Augustine	COSA Public Works	2 years F
C. Flood Mitigation at 12 Ocean Side Drive	Not Started	Existing	NFIP	City of St. Augustine Beach	COSAB Public Works	1-2 years F
D. Purchase Excavation Equipment (backhoes, etc.) for Flood Mitigation	On-going	Existing	NFIP	ALL	ALL	1-2 months F
E. Acquisition of Cora C Harrison Preserve	Complete	Existing	NFIP	Town of Hastings	Town of Hastings	1 year F
F. Relocation of Fire Station 11 out of Flood Zone	Not Started	Existing	NFIP	St. Johns County	SJC Fire Rescue	1-2 years F, SS
G. Flood Mitigation on King St.	On-going	Existing	NFIP	City of St. Augustine	COSA Public Works	On-going H, SS, F
Amend LDR's To Include Mitigation Related Ordinances	Completed	Existing and New	NFIP	ALL	ALL	On-going ALL
Master Drainage and Improvements Countywide						
A. Set up pre-contracts for temporary flood pumps	On-going	Existing and New	NFIP	ALL	ALL	On-going SS, F
B. Master plan for St. Augustine including incorporation of Marina Sanchez Lake	Complete	Existing and New	NFIP	City of St. Augustine	COSA Public Works	1-2 years SS, F
C. Deep Creek Master Drainage Study	Started	Existing	NFIP	St. Johns County	SJC Public Works	1 year F
D. Dam at Lake Belouhahatchee	Not Started	Existing	NFIP	St. Johns County	SJC Public Works	2 years F
E. Flagler Estates Ashley Outfall	Completed	Existing	NFIP	St. Johns County	Flagler Estates Road & Water District	2 years F
F. 16 Mile Creek Surface Water Improvements	Not Started	Existing	NFIP	St. Johns County	SJC Public Works & FERWD	5 years F
G. West King Street Corridor Improvement Plan	Started	Existing	NFIP	City of St. Augustine	COSA and SJC Public Works	2 years F
H. Crookshank School Drainage (Ravenwood)	Complete	Existing	NFIP	St. Johns County	SJC Public Works	2 years F
I. Deep Creek Revitalization	Not Started	Existing	NFIP	St. Johns County	SJC Public Works	3 years F
J. Dobbs Road Basin Improvements	Started	Existing	NFIP	St. Johns County	SJC Public Works	3 years F
K. Poinsett/Kings Estates Road/South Fox Creek	Started	Existing	NFIP	St. Johns County	SJC Public Works	3 years F
L. Fruit Cove Bardin Drainage Basin	Complete	Existing	NFIP	St. Johns County	SJC Public Works	2 years F
M. Fruit Cove North Drainage Basin	Complete	Existing	NFIP	St. Johns County	SJC Public Works	2 years F
N. Fruit Cove South Drainage Basin	Complete	Existing	NFIP	St. Johns County	SJC Public Works	2 years F
O. Intracoastal Wilderness Basin	Complete	Existing	NFIP	St. Johns County	SJC Public Works	3 years F
P. Masters Drive Rehabilitation/Drainage	Started	Existing	NFIP	COSA and SJC	COSA and SJC Public Works	2 years F
Q. North Beach Drainage	Started	Existing	NFIP	St. Johns County	SJC Public Works	2-3 years F
R. Oyster Creek Basin Drainage Improvements	Started	Existing	NFIP	COSA and SJC	COSA and SJC Public Works	3 years F
S. Irma Way Sub Drainage	Started	Existing	NFIP	St. Johns County	SJC Public Works	2 years F
T. Roscoe Blvd. Outfall Improvements	Started	Existing	NFIP	St. Johns County	SJC Public Works	2 years F
U. St. Augustine South Drainage (Harvard, Cornell, Mimosas)	Started	Existing	NFIP	St. Johns County	SJC Public Works	2 years F
V. Sunset Park Subdivision (Matanzas River/East Creek)	Complete	Existing	NFIP	St. Johns County	SJC Public Works	2 years F
W. Jack Wright Island Road Drainage Basin Improvements	Not Started	Existing	NFIP	St. Johns County	SJC Public Works	1 year F
X. Ravenswood Drainage-Phase 1	Not Started	Existing	NFIP	St. Johns County	SJC Public Works	1-2 years F
Y. City of St. Augustine Citywide Stormwater Master Plan	Complete	Existing	NFIP	City of St. Augustine	COSA Public Works	2 years F
Z. Intersection Improvements within Flagler Estates Road and Water District	On-going	Existing	NFIP	St. Johns County	FERWD/SJC Public Works	On-going H, SS, F
AA. Marina Sanchez Lake Drainage Improvements - Cordova, Granada, Bridge	Not Started	Existing	NFIP	City of St. Augustine	COSA Public Works	2 years H, SS, F
Improved Countywide Emergency Communications						

A. Interoperability/Interagency Communications	On-going	New and Existing		ALL		SJC, COSA, COSAB Public Safety	On-going	ALL
B. Construct a new Communications Center outside storm surge zones	Not Started	New	NFIP	St. Johns County		SJC Public Safety	1 year	H, SS, HW, F
Provide Miami-Dade Standard Window Protection or current Florida Building Code for Police & Fire Stations & Other Govt. Bldgs.								
A. St. Augustine Fire Station #41	Not Started	Existing		City Of St. Augustine		City of St. Augustine FD	6 months	H, HW
B. St. Johns County Fire Station #7	Not Started	Existing		St. Johns County		St. Johns County, FR	6 months	H, HW
Improve Facilities for County Emergency Support Functions								
A. New Sheriff's Office Regional Command Centers	Not-started	New		St. Johns County		SJC Sheriff's Office	1 year	ALL
Potable Water System Improvement								
A. Expansion City of St. Augustine Water Treatment Facility	Not Started	Existing		City of St. Augustine		COSA Public Works	2 years	H, SS, F, D
B. Town of Hastings	On-Going	Existing		Town of Hastings		Town of Hastings	1-2 years	H, SS, F, D
Countywide NIMS Adoption								
A. NIMS Compliance	On-going	N/A		ALL		SJC Emergency Management	On-going	ALL
B. NIMS Training	On-going	N/A		ALL		SJC Emergency Management	On-going	ALL
Expand Waste Water Collection Systems Countywide (including municipalities)								
A. Replace Septic Tanks	On-Going	Existing		ALL		ALL	On-going	SS, F, D
B. Retrofit Collection Systems	On-Going	Existing		ALL		ALL	On-going	SS, F, D
C. Rehabilitation of existing sewer system in the Town of Hastings	On-Going	Existing		Town of Hastings		Town of Hastings	3-4 years	F, D
D. Rehabilitation of existing sewer system in Oyster Creek	Not Started	Existing		City of St. Augustine		COSA Public Works	3-4 years	SS, F
E. Rehabilitation of existing sewer system in the Abbott Tract	Not Started	Existing		City of St. Augustine		COSA Public Works	3-4 years	SS, F
Improve County Evacuation Capacity								
A. Improve Signage	On-Going	New and Existing		St. Johns County		SJC Public Works	On-going	H, SS, HW, F, W, HM
B. A1A from Owens Avenue to SR 206 (Perform a safety study)	Not started	Existing		St. Johns County		SJC Public Works	1 year	H, SS, HW, F, W, HM
C. SR 206 evacuation improvements study from A1A to end of 206	Not started	Existing		St. Johns County		SJC Public Works	3 years	H, SS, HW, F, W, HM
D. May Street @ Douglas (flooding) and at San Marco (constriction)	Not started	Existing		City of St. Augustine		COSA Public Works	1-2 years	F, W, HM, H, SS, HW, F, W, HM
E. Mickler Road (from 210 to A1A) Improvements	Started	Existing		St. Johns County		SJC Public Works	2 years	F, W, HM
Improve Countywide Shelters								
A. Functional Needs Evacuation Shelter	Not Started	New		St. Johns County		SJC EM and School Board	1-2 years	ALL
B. Retrofit Schools	On-going	Existing		St. Johns County		SJC EM and School Board	6 months	ALL
Provide Generators for essential government buildings & critical facilities								
A. Pital buildings to accept temporary generators	On-Going	Existing		ALL		Utilities	2 months	ALL
B. Lift Stations	On-Going	Existing and New		ALL		Utilities	1 month	ALL
C. Provide portable generators for St. Augustine Beach	Not Started	Existing		City of St. Augustine Beach		COSAB Public Works	1 month	ALL
Wildfire Mitigation Activities								
Wildfire Mitigation Activities	On-Going	New and Existing		ALL		SJC Emergency Management	On-going	W
Develop Post-Disaster Redevelopment Standards For Infrastructure And Structures	Not started	New		ALL		ALL	On-going	ALL
Install System of Dry Fire Hydrants Countywide Including Pivoting Pumps Where Necessary								

A. Flagler Estates Area Dry Fire Hydrants	Not started	New		St. Johns County	SJC Fire Rescue	1-2 years	W, HM, TR
Education							
A. Educate Prospective Home Buyers & Real Estate Professionals About Floodplains & Base Floor Elevations	On-going	New and Existing	NFIP	ALL	SJC Emergency Management	On-going	SS, F
B. Educate Residents Of Financial / Insurance Benefits Of Preparing Their Homes For Natural Disasters	On-going	New and Existing	NFIP	ALL	SJC Emergency Management	On-going	ALL
C. Education and Training for Hazardous Materials Incident Response Capability	On-going	New and Existing		ALL	SJC Fire Rescue	On-going	HM, TR
D. GIS Enhancements for Mitigation Activities Countywide	On-going	New and Existing		ALL	SJC Geographic Information Systems	On-going	ALL
Consider Feasibility of Relocating Electric Utilities Underground							
A. St. Augustine Beach (2 miles along A1A)	Not started	New		St. Johns County	Florida Power and Light	1-2 years	H, HW, T, W, FR
B. South Anastasia Island	Not started	New		St. Johns County	Florida Power and Light	1-2 years	H, HW, T, W, FR
C. Beaches Energy Services underground utilities, PVB	Not started	New and Existing		St. Johns County	Beaches Energy	1-2 years	H, HW, T, W, FR
Foliage Mitigation							
A. Clearing Drainage Ditches	On-Going	New and Existing	NFIP	ALL	ALL, FPL, JEA	On-going	H, HW, W, FR
B. Pruning Trees	On-Going	New and Existing		ALL	ALL, FPL, JEA	On-going	H, HW, W, FR
Restoration of Emergency Berms							
A. Summer Haven	On-going	Existing		St. Johns County	Summer Have Homeowner Ass.	On-going	H, SS
Upgrade Signization County-wide							
A. A1A and Coastal Highway	Complete	Existing		St. Johns County	St. Johns County Public Works	3 months	H, HW, FR
B. A1A and Latham Drive	Not started	Existing		St. Johns County	St. Johns County Public Works	3 months	H, HW, FR
C. A1A and Martin Avenue	Not started	Existing		St. Johns County	St. Johns County Public Works	3 months	H, HW, FR
D. A1A and PGA Tour Boulevard	Not started	Existing		St. Johns County	St. Johns County Public Works	3 months	H, HW, FR
E. A1A and Ponte Vedra Lakes	Not started	Existing		St. Johns County	St. Johns County Public Works	3 months	H, HW, FR
F. A1A and Solano	Not started	Existing		St. Johns County	St. Johns County Public Works	3 months	H, HW, FR
G. Wildwood Drive and U.S. 1	Started	Existing		St. Johns County	St. Johns County Public Works	3 months	H, HW, FR
H. U.S. 1 and Health Park Boulevard	Not started	Existing		St. Johns County	St. Johns County Public Works	3 months	H, HW, FR
St. Johns County - SJC; City of St. Augustine - COSA; City of St. Augustine Beach - COSAB; Town of Hastings - TOH; Flagler Estates Road and Water District - FERWD; Florida Power and Light - FPL; Jacksonville Electric Authority - JEA							
*Jurisdictions - This category identifies which jurisdiction the Mitigation Project is actually located in. When ALL is used in the Jurisdiction Category is is meant to include St. Johns County, City of St. Augustine Beach, and the Town of Hastings.							
**Responsible for Project Implementation - When ALL is used in the Responsible for Project Implementation Category is is meant to include St. Johns County, City of St. Augustine Beach, and the Town of Hastings.							
***Timeframe is considered time the project will take to complete once it is actually started and are only estimates. On-going is for projects that have no end time as they are things that are continually mitigated, such as education							
****Hazard - the following abbreviations will be used to signify which Hazards will be mitigated by a particular Mitigation Project: H - Hurricanes; SS - Storm Surge; HW - High Winds; T - Tornado; F - Flooding; W - Wildfires; HM - Hazardous Materials; TR - Terrorism; D - Drought/Heat Wave; FR - Freeze/Winter Storm; ALL - Indicates that a Mitigation Project will mitigate against all hazards							
Updated - September 27, 2013							