

# **FERNANDINA BEACH MITIGATION STRATEGY**

## **DELIVERABLES FOR PHASES “A” AND “B”**

### **Section 1: INTRODUCTION**

#### **1. GENERAL**

a. This plan is to provide a frame work for identifying, prioritizing and identifying resources for those hazard mitigation projects that should be accomplished in order to reduce or eliminate long term risk to the citizens of Nassau County and their property from the effects of all hazards. In conjunction with the Florida Division of Emergency Management, Nassau County has contracted to provide local mitigation strategies for Nassau County and its’ municipalities in a four (4) distinct deliverable periods, Phases A, B, C and D.

b. The overall goal of this plan is to promote hazard mitigation and to provide guidelines for the management of post disaster recovery. This strategy is important to Fernandina Beach because of the vulnerability to many different hazards as outlined in the Nassau County Comprehensive Emergency Management Plan.

c. Recovering from a disaster without a proper hazard mitigation plan will become too expensive for the county’s established revenues to adsorb. As the cost of post disaster recovery continues to grow, it is essential that local governments, both county and municipality, take advantage of mitigation planning opportunities and available funding to reduce the impact and divert the long-term cost.

d. This plan is written to ensure a high level of involvement by state and local government representatives and includes the private sector. This section of the plan encompasses Phases A and B which includes Deliverables 1 and 2 from the Scope of Work of the Local Mitigation Contract requirements. Sub-contract points of contact, from the participating municipalities, are listed in Attachment A.

#### **2. PURPOSE:**

a. Initially, this Mitigation Strategy is to serve as a bridge between the following Fernandina Beach development documents: Comprehensive Plan, Emergency Management Plan, Land Development Regulations, Stormwater and Floodplain Ordinances, Building Codes and Regulations and Zoning and Planning Regulations

b. Perpetually, the Mitigation Strategy will be a precedent-setting document that inks out the path of economic growth in the City. It will allow the development of capital growth programs to continue on their rapid curve while maintaining a fiscally prudent and disaster mitigated community.

**3. ORGANIZATION:** The Mitigation Strategy is contained in Section II below and is divided into two parts, with three sections in each part.

**SECTION II: ORGANIZATION**

**PART 1: THE PROCESS**

**4. GOVERNMENT COORDINATION:**

a. The following state, regional and local governments are involved in developing our mitigation functions for pre and post disasters:

<b><u>AGENCY/ENTITIES</u></b>	<b><u>MITIGATION FUNCTIONS</u></b>	<b><u>PRE-DISASTER</u></b>	<b><u>POST DISASTER</u></b>
Florida Division of Emergency Management	Technical advice, Assistance, Grants and LMS Funding	YES	YES
North East Florida Regional Planning Council (RPC)	Technical assistance and Plan development and writing	YES	YES
Fernandina Beach City Commission	Policy, Guidance, Approval and Appointment of Mitigation W.G.	YES	YES
Nassau County Office of Emergency Management, Director	Plan manager, Strategy director, and LMS Vice Chairman	YES	YES
Nassau County School District	Retrofit of Emergency Shelters and Needs Transportation	YES	YES
Nassau County Board of County Commissioners	Input, Assistance, Development Partner, and Contractor	YES	YES
American Red Cross and the Salvation Army	Assistance in Shelter retrofit and shelter assistance provider	YES	YES
Nassau County Local Mitigation Working Group	Developers of the LMS, review committee for continued LMS.	YES	YES
General public of the City of Fernandina Beach	Input and guidance through public forums and seminars; members	YES	YES

b. **Supporting Agencies:** In addition to the above listed participants, the following state and county agencies have roles in mitigation as defined in the State of Florida Comprehensive Emergency Management Plan and other supporting documents:

Nassau County Emergency Management  
 Department of Agriculture and Consumer Services,  
 Office of the Attorney General  
 St. Johns River Water Management District

Department of Community Affairs  
Department of Environmental Regulations  
Department of Health and Rehabilitative Services  
Department of Natural Resources  
Department of Insurance  
Department of Transportation  
Department of Business Regulations  
Department of Highway Safety and Motor Vehicles  
Florida Department of Law Enforcement

c. **Entities with Variances to policies:** The City of Fernandina Beach is unaware of any governmental entities that have policies that are at variance with the policies that are outlined herein. It is not the intent of this policy to supplant any legal or formal policies that may be in conflict herewith.

d. **Active Intergovernmental Agreements that support Local Hazard Mitigation:** Nassau County and each of its' municipalities are signatories to the Statewide Mutual Aid Agreement. The City of Fernandina Beach is a sub-contractors to the County for LMS.

e. **Resolution to Governmental Conflicts:** Should conflicts arise between governmental entities relating to this mitigation strategy through the processes included in the Intergovernmental Coordination Element of each local government Comprehensive plan, effort will be made in coordination with the Regional Planning Council (RPC) to resolve such conflicts. Should this initiative be unsuccessful, the matter will be presented to the City of Fernandina Beach City Commission for its final decision on the matter. If conflict still persists, the conflict shall be addressed to the Division of Emergency Management, Local Mitigation Strategy Group, and the Joint City-County Planning Committee with adjudication by the Department of Community Affairs.

f. **Prioritization of City, Town and County Mitigation Projects:** The process to prioritize the final mitigation projects from the county and the municipalities, submitted for grant funding, will be accomplished in a joint meeting between the Nassau County Local Mitigation Strategy Working Group and the officials from the respective municipalities. Should the parties concerned be unable to agree on the priority list, the matter will be presented to the City-County Joint Planning Committee. This process will allow the mitigation projects to be presented for review and prioritization by the Chairman or Vice-Chairman of the Local Mitigation Strategy Working Group.

## 5. **PUBLIC PARTICIPATION:**

a. **Local Mitigation Strategy Working Group:** The Nassau County Board of County Commissioners approved the Local Mitigation Strategy contract on April 18<sup>th</sup>, 1998, and approved the formulation of the Local Mitigation Strategy Working Group on May 25<sup>th</sup>, 1998. The Working Group consists of elected officials, appointed members of county and municipality governments, members of the business community and its' infrastructure support, industry and members of the public sector. The

full Working Group has met and additional bi-monthly meetings were scheduled through the next year to complete Phases A, B, C and D.

b. **Procedures to Ensure Public Input and Community Involvement:** Periodic public meetings are conducted, per announcements in the local newspapers, inviting the public to comment and provide input for the mitigation projects and proposals. Newspaper interviews and published Local Mitigation advertisements, talks before civic clubs, school boards, school groups, business organizations and cable TV interviews are part of the scheduled education program with modifications as additional avenues open for keeping the public aware of the program. A public information sub-group will be formed during the HI/VAC phase to ensure proper media coverage of all aspects of mitigation.

c. **Procedures to Coordinate Mitigation Activities with the Business Community:** Some of the procedures as outlined above are used to coordinate mitigation activities with the local community. In addition, both Nassau County Chambers of Commerce and the local business and industrial community have representatives on the Working Group. Seminars for businesses and industries in Nassau County are being scheduled to discuss mitigation and other emergency management issues.

d. **Procedures for Formally Recognizing the Local Mitigation Strategy Program:** This Mitigation Plan and each of its Deliverable Phases will be approved by the City of Fernandina Beach City Commission and the Nassau County Board of County Commissioners and signed by the Chairman of the Board. All potential ordinances, drafted community development plan changes, committees and oversight boards recommended by the Working Group will be presented to the City of Fernandina Beach City Commission by the Vice-Chairman of the Working Group as agenda items for review and vote.

## 6. **EVALUATION AND ENHANCEMENT:**

a. **Procedures for Periodic Review of Fernandina Beach Mitigation Strategy:** The following actions will be accomplished, in accordance with the indicated schedule to ensure complete current and long term reviews of this plan and future modifications:

(1) The Nassau County Local Mitigation Strategy Working Group will meet bi-monthly throughout the contract deliverable phases ensuring proper mitigation projects and programs are addressed and presented. Post contract, the Working Group will continue on a quarterly schedule, unless a disaster or other type of emergency should occur in which case the meeting schedule will be increased to meet the mitigation situation. In a disaster situation, the Working Group will meet as early as possible in the recovery phase and assist in the disaster damage assessment process as required. Actions will commence during recovery to review the current strategy and to amend the current plan based on lessons learned from the response and recovery phases of the disaster.

(2) An annual assessment of all mitigation strategies will be made by the Working

Group in coordination with all other development committees and boards to ensure connectivity between the groups. This action will be accomplished annually during the month of July to ensure that the Mitigation Strategy is still consistent with Nassau County's Comprehensive Emergency Management Plan and the 5 Year Strategic Plan revisions for that year.

(3) Any proposed changes to the Local Mitigation Strategy Plan, as the result of the annual reviews or actions taken in subparagraphs (1) and (2), above, will be coordinated with the City of Fernandina Beach and Nassau County Board of County Commissioners. A public forum will be advertised to ensure proper public input is addressed prior to any approved changes. Notification of change will be sent to RPC, and DEM and will be disseminated throughout the county through media and newspaper articles.

(4) Total fiscal responsibility will be adhered to in development of this Strategy Plan. Any accomplishment of goals as developed in the Strategic Plan will be contingent upon the availability of funding.

**b. Procedures to Ensure Participation of all County Governments in Mitigation:**

During the review of each contract phase and prior to revisions in post contract periods, one or more meetings will be conducted with the Working Group and the elected officials of the City of Fernandina Beach. These meetings will address all proposed modifications and additions attained by the Working Group. After final coordination between all groups and the public, recommended changes shall be submitted to the City Commission of the City of Fernandina Beach for approval.

**c. Procedures for exercising the components of the Local Mitigation Strategic Plan:**

The components of mitigation strategy and current plans and policies are executable on a continuous basis throughout the county and municipalities. As mitigation initiatives are presented to the Working Group, appropriate officials will be invited, as necessary, to ensure their continual involvement in both planning and execution of the contract phases of the projects. Periodic site visitation will be accomplished to keep the Working Group and officials in tune with the project scope of work, thusly, mitigating any confusion and misdirection.

**PART II: THE MITIGATION PRODUCT**

**7. MITIGATION PROJECT OBJECTIVES:**

**a. Approved Goals:** The following is a list of initial hazard mitigation and long-term recovery goals which have been developed by the Local Mitigation Strategy Working Group, with input from public and private sectors. These goals are not all-inclusive, and will become more refined during the 4 contract phases. These goals include the development of mitigation measures that will identify tasks and milestones for completion of each identified project by the end of the mitigation contract deliverable phase D:

- (1) Complete the Citywide Stormwater Master Plan.

- (2) Reinforce the ocean revetment along Ocean Avenue.
- (3) Work with State regulatory agencies to establish schedules for the operation water control gates under Atlantic Avenue at Egan’s Creek.
- (4) Continue to explore alternatives to improve emergency evacuation of North Fletcher area.
- (5) Continue to pursue acquisition of property within the Egan’s Creek Floodplain for flood attenuator and passive recreation.
- (6) Encourage owners of structures with floodplains and coastal areas to upgrade structures to meet current flood protection and surge damage criteria.
- (7) Develop strategies for the funding and implementation of drainage improvements to be identified in the Stormwater Master Plan.
- (8) Continue to work with State and Federal agencies for beach renourishment to include serving as the local sponsor for such activities.
- (9) Develop funding alternatives for participation in State and Federal beach renourishment projects.
- (10) Develop an annual maintenance schedule for critical stormwater drainage structures and facilities.

**b. Mitigation Goals Matching or Interacting with Active County Wide Plans:**

<b><u>MITIGATION GOALS</u></b>	<b><u>EXISTING PLAN REFERENCE</u></b>
1. Complete the Citywide Stormwater Master Plan	Policy 4.05.02 FBCP
2. Reinforce the ocean revetment along Ocean Avenue	Policy 4.05.03 and 5a.02.07 FBCP
3. Work with State regulatory agencies to establish schedules for the operation water control gates under Atlantic Avenue at Egan’s Creek	Policy 4.05.02 FBCP
4. Continue to explore alternatives to improve emergency evacuation of North Fletcher area	Policy 1.06.02 FBCP

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|-----|--|---|
| 5.  | Continue to pursue acquisition of property within the Egan’s Creek Floodplain for flood attenuator and passive recreation                            | Policies 5a.08.02(c); 5b.04.01; 5b.04.02 and 6.04.01, FBCP    |
| 6.  | Encourage owners of structures with flood-plains and coastal areas to upgrade structures to meet current flood protection and surge damage criteria. | Policy 5a.08(a)(b) and (d), FBCP                              |
| 7.  | Develop strategies for the funding and implementation of drainage improvements to be identified in the Stormwater Master Plan                        | Policy 4.05.03, FBCP  |
| 8.  | Continue to work with State and Federal agencies for beach renourishment to include serving as the local sponsor for such activities.                | 1998 Annual Goals and Objectives; FY 1998/99 Operating Budget |
| 9.  | Develop funding alternatives for participation in State and Federal beach renourishment projects.  | 1998 Annual Goals and Objectives; FY 1998/99 Operating Budget |
| 10. | Develop an annual maintenance schedule for critical stormwater drainage structures and facilities.   | Policy 4.05.03, FBCP  |

**c. Contributing Program and Plan Linkage to the Development of a Local Mitigation Strategy:**

The linkages between the Nassau County Comprehensive Emergency Management Plan (CEMP) and the Local Mitigation Strategy are significant. The CEMP is a detailed vulnerability analysis and the foundation used to develop the strategy. The CEMP identifies the overall mitigation needs and requirements and the mitigation strategy then becomes the implementation arm for accomplishing the specific goals in order to meet Nassau County’s requirements.

**d. Specific Comprehensive Plan Goals Addressed in Local Mitigation:**

This strategy is not developed for the purpose of identifying new goals and objectives, but to provide a document to address those that already exist in the CEMP and 5-Year Strategic Plan. By reinforcing the goals and tasks of the CEMP and the 5-Year Strategic Plan, the mitigation strategy can be the engine to supplant positive initiatives, parallel to the above document’s completion paths. It is important that this strategy devotes itself to the continued effort to provide Nassau County the specific preparedness goals required to achieve timely and efficient response and recovery from all disasters.

**e. Mitigation Objectives that are at Variance with other Programs and Policies:**

It is the sole intent of this Local Mitigation Plan to support and be in strict accord with all other plans and procedures currently active in the City and County. Pursuant to the Mitigation Contract with Nassau County, this Mitigation Plan will identify and recommend a fundamental direction in regards to all future modifications to any and all plans and policy approved by the Fernandina Beach City Commission. Therefore, there are no known variances between Local Mitigation Strategy and approved procedures, plans or ordinances of the Fernandina Beach and Nassau County Commissioners.

**8. HAZARD IDENTIFICATION AND VULNERABILITY ASSESSMENT:**

This phase of the Local Mitigation Strategy Plan will be addressed in detail when **PHASE C** is completed and delivered to DEM by April, 1999. The items required to properly complete this Phase have commenced and are properly tracking to achieve this deliverable date. They include, but are not limited to, Mapping, GIS/GPS, Modeling, Inventory and Demographics, Storm and Flood Water Modeling, Hurricane Evacuation requirements, and vulnerability models for population and economic growth. This data will be properly summarized in **PHASE C**.

Current items applicable to DELIVERABLE TWO requirements of the contract:

**a. Mapping:**

(1) Copies of the City of Fernandina Beach maps are on file in the Development Services Department and the Public Works Department and are used to provide a multi-hazard map of the county. Areas that are prone to flooding (V, VE, AE, A and E zones) are shown on these maps. Information relating to the repetitive loss data is on file in the City of Fernandina Beach Public Works Department.

(2) Maps of current land use patterns that describe development trends are contained in the City of Fernandina Beach Future Land Use Map of the City of Fernandina Beach Comprehensive Plan adopted November 6, 1990. Particular note ~~is being~~ has been made of special sites such as mobile home parks, critical economic facilities of structures, hazardous waste and generator locations, as well as hospitals, nursing homes and other assisted living facilities (ALFs).

(3) The City of Fernandina Beach will enter into a base agreement to conduct geographic information systems (GIS) procedures with the County.

**b. Inventory:**

(1) The following information is furnished relative to the National Flood Insurance Program (NFIP) in Fernandina Beach:

(a) Number of NFIP policy holders: 2,273



(b) Total of NFIP coverage: 299,356,000

(c) Total paid out in claim losses during the past two (2) years: 126

(d.) Total properties that experienced repetitive damages during the past two (2) years: NONE

(2) Additional historical flood depth information, beyond that which is published in the FEMA flood prone area maps, is not currently available in Fernandina Beach. Information will be requested from the St. John's River Water District, Regional Planning Council and the Division of Emergency Management, LMS Working Group staff.

(3) All of those facilities and the facilities that are being identified in Phase C of this Mitigation Project are vulnerable to damage from disasters and are being identified and considered in this mitigation report.

(4) During deliverable Phase C, Fernandina Beach will conduct additional study and research to support greater loss reduction.

**c. Modeling:**

(1) The following information has been obtained from applying the SLOSH 1 model to predict storm damage to existing private structure and public infrastructure has been considered in the development of this mitigation strategy.

**d. Increased vulnerability to Predictive Models Relative to Population Growth:**

There is no increased vulnerability anticipated in the above predictive models due to population growth.

**e. Economic Profile of the Planning Area Included in the Vulnerability Assessment:**

Without the accomplishment of the mitigation goals outlined in paragraph 7 above, the increase in long term recovery from a disaster within Fernandina Beach would increase by approximately thirty-three (33%) percent.

**f. Summary of the Vulnerability Assessment for Deliverable B:**

The vulnerability assessment used in this document has been derived primarily from the Nassau County Comprehensive Emergency Management Plan (NCCEMP). The information and assistance in developing the models were obtained from several local agencies in the City and County. Data pertaining to City roads, bridges and culverts were obtained from historical information and technical data compiled within the Public Works Department. Information pertaining to flooding, flood damage,

flood damage to residential housing and repetitive losses and NFIP was obtained and assembled by the Development Services Department. Information pertaining to the sheltering program in Nassau County was assembled from data in the Office of Emergency Management, American Red Cross and the Nassau County School District. Information concerning economic development has been obtained from the Nassau County Economic Development Council Executive Director.

9. **MITIGATION INITIATIVES IDENTIFIED THROUGH THE LOCAL MITIGATION STRATEGY:**

a. **Policies Identified:**

(1) The Future Land Use Element requires that all land development conform to the Drainage Sub-Element to the Comprehensive Plan and that the City continue to enforce floodplain management regulations. It requires coordination with Nassau County's hurricane evacuation plan for the safe evacuation of the City's coastal population and five-year update. This element also requires that the City prepare a hurricane guide for its citizens.

(2) The Stormwater Sub-Element of the Sanitary Sewer, Solid Waste, Drainage, Water and Aquifer Recharge Element requires the preparation and adoption of a master drainage plan and drainage evaluation study to determine necessary drainage improvements.

(3) The Coastal High-Hazard Sub-Element of the Coastal/Conservation Element requires that additional medium- or high-density development be prohibited in the coastal high-hazard area and that all development be evaluated for impacts on evacuation routes, critical locations, and on-site hurricane shelter provisions.

The Coastal Zone Development Sub-Element requires the City to identify areas needing redevelopment for the elimination of unsafe conditions in coastal areas, mechanisms for the relocation of significantly damaged structures and land acquisition programs for estuarine properties which should not be redeveloped following a major hurricane.

The Dune Preservation Sub-Element requires regulations governing the location, construction and maintenance of development adjacent to the Atlantic shoreline to include construction standards in hurricane vulnerability zones and reconstruction of existing erosion control structures.

The Hurricane Sub-Element requires the City to reevaluate the effectiveness of its emergency preparedness immediately after a major disaster event and to include transportation and sheltering accommodations for the handicapped and indigent. This element also requires new public building to be suitable constructed for use as evacuation centers.

(4) The Recreation and Open Space Element requires the City to consider the use of floodplains for recreational land provided it does not endanger public health, safety, and welfare and to give high priority to the acquisition of lands in coastal high hazard areas and in or adjacent to

jurisdictional wetlands for recreational purposes.

**b. Mitigation Programs:**

(1) Fernandina Beach, in August, 1995, amended and adopted the Standard Building Code as the building code for the county.

(2) The above referenced building code, the Fernandina Beach Comprehensive Plan and Land Development Code provide the development and re-development guidance and regulations relating to hazard mitigation practices within the county.

(3) Fernandina Beach participates in the National Flood Insurance Program (NFIP) with 2,273 Policyholders.

(4) The coordination with the local business community in the development of existing and proposed mitigation activities is accomplished through the work of the Local Mitigation Strategy Working Group.

(5) The City of Fernandina Beach, as well as Nassau County, through the Local Mitigation Strategy Working Group, is currently developing a Land Acquisition Program which will target property in high hazard areas to mitigate through applicable grant programs.

**c. Prioritized Mitigation Projects:**

The following is a list of mitigation projects developed by the Local Mitigation Strategy Working Group. Projects are listed by priority, and costs where available:

<u>MITIGATION PROJECTS</u>	<u>LISTED IN PRIORITY</u>	<u>ESTIMATED COSTS</u>
1. Complete the Citywide Stormwater Master Plan	1	\$40,000
2. Reinforce the ocean revetment along Ocean Avenue	3	\$50,000
3. Work with State regulatory agencies to establish schedules for the operation water control gates under Atlantic Avenue at Egan's Creek	10	Grants
4. Continue to explore alternatives to improve emergency evacuation of North Fletcher area	2	\$2,000

5.	Continue to pursue acquisition of property within the Egan's Creek Floodplain for flood attenuation and passive recreation	9	Grant
6.	Encourage owners of structures with flood-plains and coastal areas to upgrade structures to meet current flood protection and surge damage criteria.	8	Grants
7.	Develop strategies for the funding and implementation of drainage improvements to be identified in the Stormwater Master Plan	6	Included in Stormwater Plan
8.	Continue to work with State and Federal agencies for beach renourishment to include serving as the local sponsor for such activities.	5	\$2 million
9.	Develop funding alternatives for participation in State and Federal beach renourishment projects.	4	\$10,000
10.	Develop an annual maintenance schedule for critical stormwater drainage structures and facilities.	7	Included in Stormwater Plan

**d. Project Funding:**

(1) The following figures reflect the average approximate annual expenditures on mitigation programs and projects that the City of Fernandina Beach has spent prior to the start of the mitigation program:

- (a) Pre-storm: \$50,000
- (b) Post Storm: None

(2) The following is a list of available funding mechanisms for mitigation programs and projects:

- (a) Hazard Mitigation Grant Program (HMGP) funding
- (b) Emergency Management Preparedness and Assistance Grant Programs for municipalities
- (c) FEMA's Flood Mitigation Assistance Program (FMAP)

(d) City Matching Funds

(3) The following information is furnished relative to the mitigation projects that have been identified for funding:

(a) Evaluation of each project has been made by the Nassau County Local Mitigation Strategy Working Group in conjunction with the City of Fernandina Beach.

1. Cost Effectiveness
2. Environmental effects
3. Technical feasibility
4. If each project contributes to the overall strategy outlined in this plan
5. If each project is in conformance with the minimum standards of the NFIP and F.A.C. 9J-5.
6. If each project is physically located in a NFIP participating municipality.

(b) The findings of each of the above evaluations produced positive results that support the continued planning and execution for each project that has been identified for a grant funding request. The attached appendix worksheet is provided as an evaluation working tool for project evaluations.

**ATTACHMENT A**  
**LOCAL MITIGATION STRATEGY SUB-CONTRACT**  
**CONTACT REPRESENTATIVES**

Fernandina Beach, Fl

Richard Diamond

904-277-7305

## ATTACHMENT B

### LOCAL MITIGATION STRATEGY WORKING GROUP MEMBERS (As of 10/01/98)

<u>NAME</u>	<u>INTEREST</u>	<u>AFFILIATION</u>
Richard Diamond	Fernandina Beach City Manager	Municipal Government
David Dobrzykowski	Fernandina Beach Fire Chief	Municipal Government
Jim Higginbotham	Fernandina Beach Public Works Director	Municipal Government
L. Douglas Jones	Fernandina Beach Development Services Director	Municipal Government
James Thompson	Fernandina Beach Acting Police Chief	Municipal Government
Brenda Rothwell	Fernandina Beach Code Enforcement Officer	Municipal Government

## **ATTACHMENT C**

### **WORKING GROUP MEETING AGENDA**

The following dates were assigned for Local Mitigation Strategy Working Group Meeting Dates during the first two deliverable phases in 1998:

September 25, 1998

October 6, 1998

October 15, 1998

October 20, 1998