

TO: Fort Myers Beach LPA  
FROM: Marilyn W. Miller *MWM*  
DATE: January 31, 2013  
RE: Post Disaster Redevelopment Ordinance

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Attached is a copy of the Draft Post-Disaster Recovery and Reconstruction Ordinance prepared by Anne Dalton in 2008. I am also including, for your consideration, a "Post disaster Recovery" ordinance that was adopted by Lee County in 2007; Post disaster Redevelopment Plan regulations adopted by another coastal community, the Town of Longboat Key; and a planning guide developed by the former Florida Department of Community Affairs (now known as the Department of Economic Opportunity).

I am forwarding this to you in advance of the next LPA meeting so we can discuss how to proceed.

If you have any questions, please do not hesitate to contact me.

Attachments

cc: Walter Fluegel, Community Development Director

TOWN OF FORT MYERS BEACH  
ORDINANCE NO. 08-\_\_\_

AN ORDINANCE OF THE TOWN OF FORT MYERS BEACH, FLORIDA, TO BE KNOWN AS THE TOWN OF FORT MYERS BEACH PRE-EVENT PLANNING, EMERGENCY RESPONSE AND POST-DISASTER RECOVERY AND RECONSTRUCTION ORDINANCE; PROVIDING FOR AUTHORITY; PURPOSES; DEFINITIONS; **REPEALING TOWN ORDINANCES 96-19, 99-06, 04-14, 05-16, 05-17 AND 06-12;** RECOVERY ORGANIZATION; RECOVERY PLAN; GENERAL PROVISIONS; TEMPORARY REGULATIONS; DEMOLITION OF DAMAGED BUILDINGS; TEMPORARY AND PERMANENT HOUSING; HAZARD MITIGATION PROGRAM; RECOVERY AND RECONSTRUCTION STRATEGY; PENALTIES; CONFLICT AND SEVERABILITY; AND AN EFFECTIVE DATE.

WHEREAS, the Town of Fort Myers Beach (Town) is vulnerable to various natural hazards, including but not limited to tropical storms, hurricanes, flooding, and wind, resulting in disasters causing substantial loss of life and/or property and it is essential to the well-being of the Town to expedite recovery and reconstruction, mitigate hazardous conditions, and improve the community after such disasters; and

WHEREAS, Chapter 252, Florida Statutes, authorizes the waiver of procedures and formalities, otherwise required of political subdivisions, to take whatever action is necessary to ensure the health, safety, and welfare of its residents, visitors, business community, and property before, during and after such disasters; and

WHEREAS, Florida Statute 252.38 authorizes and encourages municipalities to create municipal emergency management programs, and requires that such program activities be coordinated with those of the county emergency management agency and it is also mutually beneficial to cooperatively plan activities needed between and among the Town, Lee County, other local municipalities, and state and federal governmental authorities; and

WHEREAS, preparation of a pre-event plan for emergency response and disaster recovery and reconstruction can help the Town organize to expedite recovery in advance of a disaster and to identify and mitigate hazardous conditions, both before and after such a disaster; and

WHEREAS, recovery can be expedited by pre-event adoption of an ordinance authorizing certain extraordinary governmental actions to be taken during the declared local emergency to expedite implementation of emergency response and disaster recovery and reconstruction measures identified in a pre-event plan; and

WHEREAS, disaster recovery and reconstruction can be facilitated by establishing a recovery organization within the Town to plan, coordinate, and expedite recovery and long-term reconstruction activities; and

\\FMB-DC1\Folders 2\Community Development\Local Planning Agency\Ordinance Cases\Post Disaster Recovery\080609 Draft Post Disaster R&R Ordinance.doc: AS AMENDED 060808

WHEREAS, Article VIII, Section 2 of the State Constitution and Chapter 166 of the Florida Statutes provide that municipalities shall have the governmental, corporate, and proprietary powers to enable them to conduct municipal government, perform municipal functions, and render municipal services, and exercise any power for municipal purposes, except when expressly prohibited by law; and

WHEREAS, Article X of the Town Charter empowers the Town to adopt, amend, or repeal such ordinances and resolutions as may be required for the proper governing of the Town; and

WHEREAS, the measures set forth in this Ordinance are necessary to provide for the protection of public health, safety, and welfare and to preserve the lives and property of the people of the Town.

IT IS HEREBY ORDAINED BY THE TOWN OF FORT MYERS BEACH AS FOLLOWS.

Section 1. Adoption of Recitals. The above recitals as set forth in the various “Whereas” clauses are hereby adopted and incorporated into the body of this Resolution.

Section 2. Purposes. It is the intent of the Town under this Ordinance to:

- A. Authorize creation of an organization to plan and prepare in advance of a disaster for orderly and expeditious post-disaster recovery and to direct and coordinate recovery and reconstruction activities; and
- B. Direct the preparation of a pre-event plan for emergency response and post-disaster recovery and reconstruction to be updated on an ongoing basis; and
- C. Authorize in advance of a disaster the exercise of certain planning and regulatory powers related to disaster recovery and reconstruction to be implemented upon declaration of a local emergency; and
- D. Identify means by which the Town will take cooperative action with other governmental entities in expediting recovery.

Section 3. Authority of the Town Council. Nothing in this Ordinance shall be construed to limit the authority of the Town Council to take any action authorized by law.

Section 4. Definitions. The following definitions apply in this ordinance. The words “must” and “will” are mandatory and not discretionary.

**A. Damage assessment survey** means a field survey to determine levels of damage for structures and to identify the condition of structures.

**B. Development moratorium** means a temporary hold, for a defined period of time, on the issuance of building permits, approval of land-use applications or other permits and entitlements related to the use, development, redevelopment, repair, and occupancy of private property in the interests of protection of life, safety and property.

**C. Disaster Field Office (DFO).** A center established by FEMA for coordinating disaster response and recovery operations, staffed by representatives of federal, state, and local agencies as identified in the Federal Response Plan (FRP) and determined by disaster circumstances.

**D. Disaster** means any natural catastrophe, including any hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, landslide, mudslide, or drought, or, regardless of cause, any fire, flood, or explosion, that in the determination of the federal and/or state government causes damage of sufficient severity and magnitude to warrant disaster assistance under the Stafford Act and/or state relief provisions to supplement the efforts and available resources of the state, ancillary jurisdictions, and/or disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.

**E. Disaster Recovery Center (DRC)** means a multi-agency center organized by FEMA and/or other federal and/or state and/or Town or other municipal government for coordinating assistance to disaster victims.

**F. Damage Survey Report (DSR)** means a report that forms the basis of a claim by the Town for financial reimbursement for repair or replacement of a public facility damaged in a disaster, as authorized under the Stafford Act and other federal and/or state regulations, plans, and policies.

**G. Emergency** means a local emergency that has been declared by the Town or County for a specific disaster and that has not been terminated.

**H. Event** means any natural occurrence resulting in the declaration of a state of emergency and will include, but not be limited to, an earthquake, fire, flood, wind storm, hurricane, and/or tropical storm.

**I. Federal Response Plan (FRP)** means a plan to coordinate efforts of the Town and other governments in providing response to disasters and other incidents requiring federal assistance under the Stafford Act in an expeditious manner.

**J. Flood Insurance Rate Map (FIRM)** means an official map of the Town, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community.

**K. Hazard Mitigation Grant Program (HMGP)** means a federal program that assists states and local communities in implementing long-term hazard mitigation measures following a disaster declaration.

**L. Reconstruction** means the rebuilding of permanent replacement housing, construction of large-scale public or private facilities badly damaged or destroyed in a disaster, addition of community improvements, and full restoration of a healthy economy in the Town.

**M. Recovery** means the process by which most of private and public buildings and structures not severely damaged or destroyed in a disaster are repaired and most public and commercial services are restored to normal.

**N. Recovery organization** means an interdepartmental organization coordinates actions of the Town staff in planning and implementing disaster recovery and reconstruction functions

**O. Recovery plan** means a pre-event plan for emergency response and post-disaster recovery and reconstruction, composed of policies, plans, implementation actions, and designated responsibilities related to expeditious and orderly post-disaster recovery and rebuilding, with an emphasis on mitigation.

**P. Recovery strategy** means a post-disaster strategic program identifying and prioritizing actions contemplated or under way regarding such essential recovery functions as business resumption, economic reinvestment, industrial recovery, housing replacement, infrastructure restoration, and potential sources of financing to support these functions.

**Q. Responsible Official** means the following Town Officials in the order indicated: first, the Mayor of the Town Council; secondly, in the absence, unavailability, or incapacity of the Mayor, the Vice-Mayor of the Town Council; thirdly, in the absence, unavailability, or incapacity of the Mayor and the Vice-Mayor, the Town Manager; fourthly, in the absence, unavailability, or incapacity of the Mayor, the Vice-Mayor and the Town Manager, such designee(s) as may be appointed by the Town Manager.

**R. Stafford Act** means the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288, as amended).

**S. Town Manager** means the Town Manager of the Town of Fort Myers Beach or designee.

Section 5. Disaster Recovery Organization. There is hereby created the Town of Fort Myers Beach Disaster Recovery Organization (DRO) for the purpose of coordinating the actions of the Town with other nearby municipalities, Lee County, and state and federal

jurisdictions in planning and implementing disaster recovery and reconstruction activities.

**A. Powers and duties.** The DRO will have such powers as are required or advisable to enable it to carry out the purposes, provisions, and procedures of this ordinance.

**B. Disaster Recovery Task Force.** The DRO will include the Town Disaster Recovery Task Force (DRTF) comprised of the following members:

1. The Town Manager or designee, who will be Chair
2. The Town Community Development Director or designee who will be Vice-Chair;
3. The Town Public Works Director or designee who will act as Vice-Chair in the absence of the Town Community Development Director; and
4. The Town Attorney who will be Legal Adviser; and
5. A member of Town Council, as selected by Town Council no later than June 1 of each year in a regularly scheduled meeting. Such member shall serve in an ex officio capacity.
6. Other members as appointed by the Town Manager and who may serve on an ad hoc or ex officio basis, including the Chief of the Fort Myers Beach Fire Control District or his designee, the emergency management coordinator, **the historic preservation board chair** or designee, the Lee County Sheriff or designee, a media contact person, the manager of utilities, and representatives from such other entities as may be deemed necessary for effective operation by the Chair or designee.

**C. Operations and Meetings.** The Chair will be responsible for DRO operations. When an emergency declaration is not in force, the DRTF will meet as necessary, upon call of the Chair. After a declaration of an emergency, and for the duration of declared emergency period, the DRTF will meet as set forth in the Town Emergency Operations Plan or as frequently as determined by the Chair.

**D. Succession.** In the absence of the Chair, the Vice-Chair shall serve as Acting Chair and shall be empowered to carry out the duties and responsibilities of the Chair. On or before May 1<sup>st</sup> of each year, the Chair will name the succession of persons to carry on the duties of the Chair, and to serve as Acting Chair in the event of the unavailability of the Town Manager. In the absence of such written document, the succession in place from the prior year shall continue in full force and effect.

**E. Organization.** The DRTF may create such standing or ad hoc committees as it determines necessary.

**F. Relation to County.** The DRO will work in concert with the Lee County departments charged with interrelated functions.

**G. Open Communications.** It is hereby declared the policy of that Town that all decisions by the DRO and by the DRTF shall be communicated to residents and property owners of the Town as soon as practicable.

Section 6. Recovery Plan

**A. Pre-Disaster Planning.** The DRTF is responsible for preparing Pre-event Planning and the Emergency Response and Post-Disaster Recovery Plan (Recovery Plan)

**B. Pre-Event Planning and Recovery Plan Content.** The pre-event plan will include policies regarding implementation actions and designated responsibilities when a disaster appears imminent. The Recovery Plan will include the pre-event planning and post-disaster policies of implementation actions and designated responsibilities for such subjects as business resumption, damage assessment, demolitions, debris removal and storage, expedited repair permitting, fiscal reserves, communication to residents and business owners, hazard evaluation, hazard mitigation, historical buildings, unlawful buildings and uses, development moratorium procedures, nonconforming buildings and uses, rebuilding plans, redevelopment procedures, relation to comprehensive plan, restoration of infrastructure, restoration of standard operating procedures, temporary and replacement housing, and/or such other subjects as may be appropriate to expeditious and wise pre-event planning and emergency response and post-disaster recovery, including provision for redundancies in pre-event and post-disaster recovery operations and services.

**C. Coordination of Recovery Plan with County and Regional Plans, FEMA, and other Agencies.** The Recovery Plan will identify relationships of planned response and recovery actions with those of adjacent communities and county, state, federal, and/or mutual aid agencies involved in disaster recovery and reconstruction, including but not limited to the Federal Emergency Management Agency (FEMA), the American Red Cross, the Department of Housing and Urban Development (HUD), the Small Business Administration (SBA), the Environmental Protection Administration (EPA), the Department of Transportation (DOT), the State emergency agency or agencies, the County emergency agency or agencies, and other entities that may provide assistance in the event of a disaster. The Town Manager will provide a copy of the plan to the appropriate state and county officials.

**D. Recovery Plan Adoption.** Following formulation, the Recovery Plan will be transmitted to the Local Planning Agency (LPA) and Town Council pursuant to the requirements of the Town of Fort Myers Beach Land Development Code (LDC) for review and approval. The Town Council will hold one or more public hearings to receive comments from the public on the Recovery Plan. Following one or more public hearings, the Town Council will adopt the Recovery Plan, including any modifications deemed appropriate, or transmit the plan back to the DRTF and/or the LPA for further modification and review prior to final action.

**E. Recovery Plan Implementation.** The DRTF will be responsible for implementation of the Recovery Plan both before and during an emergency and after a disaster, as applicable. The Chair will prepare reports annually, or more frequently as necessary, to fully advise the Town Council on the progress of preparation or implementation of the Recovery Plan. After a declaration of emergency in a disaster, the Chair will report to the Town Council as often as necessary on implementation actions taken in the post-disaster setting, identify policy and procedural issues, and receive direction and authorization to proceed with plan modifications necessitated by specific circumstances.

**F. Recovery Plan Training and Exercises.** The DRTF will organize and conduct periodic training and exercises annually, or more often as necessary, in order to develop, convey, and update the contents of the Recovery Plan. Such training and exercises will be conducted in coordination with similar training and exercises related to Lee County's emergency operations plan.

**G. Recovery Plan Consultation with Citizens.** The DRTF may schedule and conduct community meetings, periodically convene advisory committees comprised of representatives of homeowner, resident, business and community organizations, or implement such other means as to provide information and receive input from members of the public regarding preparation, adoption, or amendment of the Recovery Plan.

**H. Recovery Plan Amendments.** During implementation of the Recovery Plan, the DRTF will address key issues, strategies and information bearing on the orderly maintenance and periodic revision of the Recovery Plan. In preparing modifications to the Recovery Plan, the DRTF will consult with departments, businesses, community organizations, and other government entities to obtain information pertinent to possible Recovery Plan amendments and any such modifications shall be heard by the Local Planning Agency prior to hearing by Town Council.

**I. Recovery Plan Coordination with Related Plans.** The Recovery Plan will be prepared in coordination with related elements of the Town Comprehensive Plan, provisions of the LDC, and such other plan(s) as may be pertinent. Town Council will amend such related documents as necessary to be mutually consistent.

Section 7. General Provisions.

The following general provisions will be applicable to implementation of this Ordinance following a disaster:

**A. Powers, Procedures, and Duration.**

1. Following a declaration of local emergency contemporaneous to a disaster and while such declaration is in force, the Chair and the DRTF will have authority to exercise powers and procedures authorized by this ordinance, subject to extension, modification, or replacement of all or portions of these provisions by

separate ordinances adopted by the Town Council. The provisions of this ordinance will be in effect for a period of six months from the date of a local emergency declaration contemporaneous to a disaster or until termination of a state of local emergency, whichever occurs later, or until these provisions are extended, modified, replaced by new provisions, or terminated, in whole or in part, by action of the Town Council through separate ordinance(s).

2. Up to 72 hours prior to an impending storm event, the Chair and the DRTF will have authority to require and effect the removal of signs, barricades, and other potentially dangerous or damaging projectiles, and the removal or securing of portable latrines, construction materials, construction debris, and commercial, construction, and residential dumpsters.

**B. Pre-event Planning and Post-Disaster Operations.** The Chair will direct and control pre-event planning, emergency response and post-disaster recovery and reconstruction operations, which may include, but are not limited to, the following:

1. Activate and deploy hazard evaluation teams to locate and determine the severity of hazards that may influence the location, timing, and procedures for repair and rebuilding processes;
2. Activate and deploy damage assessment teams to identify damaged structures and to determine further actions that should be taken regarding such structures;
3. Cooperate with Lee County, state emergency personnel, and other public and private entities, such as FEMA, and the American Red Cross in providing necessary information on damaged and destroyed buildings or infrastructure, natural and technological hazards, street and utility restoration priorities, temporary housing needs and similar recovery concerns;
4. Recommend to the Town Council and other appropriate entities necessary actions for reconstruction of damaged infrastructure;
5. Prepare plans and proposals for action by the Town Council for redevelopment projects, redesign of previously established projects or other appropriate special measures addressing reconstruction of heavily damaged areas;
6. Establish a development moratorium subject to the Town Council ratification;
7. Activate streamlined procedures to expedite repair and rebuilding of properties damaged or destroyed in the disaster;
8. Establish a “one-stop” field office staffed to provide information about repair and rebuilding procedures, issue repair and reconstruction permits, and provide information and support services on such matters as business resumption, and temporary and permanent housing;
9. Formulate proposals for action by the Town Council to amend the comprehensive plan, land development code, or other Town ordinances and other relevant plans, programs, and regulations in response to new needs resulting from a disaster;
10. Implement such other emergency response and post-disaster recovery and reconstruction activities identified in the Recovery Plan or by this ordinance, or as deemed by the Chair as necessary to public health, safety, and well-being.

**C. Coordination with FEMA and Other Agencies.** The Chair and the DRTF will coordinate recovery and reconstruction actions with those of state, federal, or mutual aid agencies involved in disaster response and recovery, including but not limited to the Federal Emergency Management Agency (FEMA), the American Red Cross, the Department of Housing and Urban Development (HUD), the Small Business Administration (SBA), the Florida Department of Community Affairs and other entities that provide assistance in the event of a disaster.

**D. Essential Service and Facility Restoration Priorities.**

1. The following priorities will govern power and communication service restoration once damaged electrical transmission systems, substations and distribution systems are restored:
  - a. Priority # 1 – Emergency response and recovery facilities having no emergency power or telephone service (community emergency operations or command centers, response/recovery centers); medical facilities having no emergency power; repairing emergency communication centers and facilities; and designated facilities providing emergency food, water and ice.
  - b. Priority #2 – Water treatment and pumping facilities, special care centers, nursing home facilities having no emergency power, law enforcement and fire stations having no emergency power, staging areas and distribution centers requiring emergency power.
  - c. Priority #3 – Wastewater treatment plants and lift stations, general telephone service, solid waste facilities, medical facilities having emergency power, nursing homes having emergency power, law enforcement and fire stations having emergency power, public shelters still housing evacuees and the homeless, adult congregate living facilities, facilities serving as disaster application centers for federal disaster relief, and public and private facilities necessary for resource management and distribution activities (governmental facilities handling emergency purchasing, designated grocery store/restaurant outlets).
  - d. Priority #4 – Community areas receiving damage, and other government facilities.
2. Procedures regarding restoration of water service shall be set forth in the Plan.
3. Procedures regarding wastewater service restoration shall be set forth in the Plan.

4. Procedures for the return of the evacuees to their home: Upon the satisfactory restoration of the water supply to fight fires; an operational sewer system and after assessment of the structural damage, properly identified residents, property owners and business owners will be permitted on island. Prior to that time, such persons shall be permitted limited visits to their home and/or place of business, as safety permits.

**E. Damage Assessment.** The Chair will direct damage assessment teams having authority to conduct field surveys of damaged structures and post color-coded placards designating the condition of such structures as follows:

1. A placard indicating "Inspected – Lawful Occupancy Permitted" is to be posted on any building in which no apparent structural hazard has been found. This does not mean there are not other forms of damage that may temporarily affect occupancy. These will be the "green tag placard."
2. A placard indicating "Restricted Use" is to be posted on any building in which damage has resulted in some form of restriction to continued occupancy. The individual posting this placard will note in general terms the type of damage encountered and will clearly and concisely note the restrictions on continued occupancy. This will be the "yellow tag placard."
3. A placard indicating "Unsafe – Do Not Enter or Occupy" is to be posted on any building that has been damaged to the extent continued occupancy poses a threat to life safety. Buildings posted with this placard will not be entered under any circumstances except as authorized in writing by the department that posted the building or by authorized members of damage assessment teams. The individual posting this placard will note in general terms the type of damage encountered. This placard is not to be considered a demolition order. This will be the "red tag placard."
4. Reference to this Ordinance, including the section number, plus the name of the initiating department, its address, and phone number will be permanently affixed to each placard.
5. Once a placard has been attached to a structure, the placard must not be removed, altered, or covered until done so by an authorized representative of the Town or upon written notification from the Town. Failure to comply with this prohibition will be considered a violation of the LDC punishable as provided therein.
6. The owner of the affected property shall have the right to contest the Damage Assessment provided for in this section by filing a Notice of Contesting Damage Assessment with the Town Clerk within 10 days of the determination by the Damage Assessment Team. Such Notice shall be deemed to be a request for

review by the Special Magistrate pursuant to Article V. of the LDC. Such review shall be conducted by the Special Magistrate pursuant to Sections 2-425, 2-426, 2-427 and 2-429 of the LDC, as amended from time to time.

**F. Debris Removal.** The Chair will have the authority to order removal from public rights-of-way of debris and rubble, trees, damaged or destroyed cars, trailers, equipment and other private property, without notice to owners, for protection of life and property, provision of emergency evacuation, assurance of firefighting or ambulance access, mitigation of otherwise hazardous conditions, or restoration of public infrastructure. The Chair will also have the authority to secure emergency waivers of environmental regulations from state and federal authorities and to call upon outside support from such agencies for debris clearance, hazardous materials spills, and restoration of ground access.

**G. One-Stop Center for Permitting.** The Chair may establish a one-stop center, staffed for the purpose of establishing and implementing streamlined permit processing to expedite repair and reconstruction of buildings, and may provide information support for provision of temporary housing and encouragement of business resumption. The Chair will have the authority to establish such center and procedures in coordination with other governmental entities that may provide services and support, such as FEMA, SBA, HUD, and/or applicable state or county emergency personnel.

**H. Temporary Use Permits.** The Chair will have the authority to issue permits in any residential, commercial, or other zone for the temporary use of property that will aid in the immediate restoration of an area adversely impacted by a disaster, subject to the following provisions:

1. **Critical response facilities.** Any police, fire, emergency medical, or emergency communications facility that will aid in the immediate restoration of the area may be permitted in any zone for the duration of the declared emergency.
2. **Other temporary uses.** Temporary use permits may be issued in any zone, with conditions, as necessary, provided written findings are made establishing a factual basis that the proposed temporary use:
  - a. will not be detrimental to the immediate neighborhood;
  - b. will not adversely affect the (comprehensive plan or any applicable specific plan); and
  - c. will contribute in a positive fashion to the reconstruction and recovery of areas adversely impacted by the disaster.

Temporary use permits may be issued for a period of one year following the declaration of local emergency and may be extended for an additional year, to a maximum of two years from the declaration of emergency, provided such findings

are determined to be still applicable by the end of the first year. If during this period, substantial evidence contradicting one or more of the required findings comes to the attention of the Chair, the temporary use permit will be revoked.

**I. Emergency Permitting System.** Following a declaration of disaster, temporary emergency repairs may be undertaken to secure structures and property damaged in the disaster against further damage or to protect adjoining structures or property. The Chair or designee must be notified of such repairs by the owner or person making the repair(s) within five (5) working days of such repair being initiated, and regular permits with fees may then be required by the Town. Except for temporary emergency repairs performed pursuant to this ordinance, all other repairs, restoration, and reconstruction of buildings damaged or destroyed in a disaster must be pursued through application for approval(s) under the provisions of the LDC.

**SECTION 9. DEMOLITION OF DAMAGED BUILDINGS.** The Chair will have authority to order the demolition of buildings and structures damaged in the disaster in accordance with the standard provisions of the Land Development Code and other applicable state and federal laws. Absent an emergency materially affecting life, safety or welfare of the public, the owner of the affected property shall have the right to contest the order of demolition provided for in this section by filing a Notice of Contesting Demolition Order with the Town Clerk within 5 days of such determination by the Chair. Such Notice shall be deemed to be a request for review by the Special Magistrate pursuant to Article V. of the LDC. Such review shall be conducted by the Special Magistrate pursuant to Sections 2-425, 2-426, 2-427 and 2-429 of the LDC, as amended from time to time. In the event of an emergency which materially affects life, safety or welfare of the public, the Chair shall not have an obligation to wait for the expiration of the 5 day period provided for in this section.

#### **SECTION 10. TEMPORARY AND PERMANENT HOUSING**

The Chair may assign staff to work with FEMA, SBA, HUD, the state, Lee County, and other appropriate governmental and private entities to identify special programs by which provisions can be made for temporary or permanent replacement housing that will help avoid undue displacement of people and businesses. Such programs may include deployment of manufactured housing and manufactured housing developments under the temporary use permit procedures provided elsewhere in this ordinance, use of SBA loans, and available Section 8 and Community Development Block Grant funds to offset repair and replacement housing costs, and other initiatives appropriate to the conditions found after a disaster.

#### **SECTION 11. HAZARD MITIGATION PROGRAM**

Prior to a disaster, the Chair will establish a comprehensive hazard mitigation program that includes both long-term and short-term components.

**A. Long-Term Hazard Mitigation Program.** The long-term hazard mitigation program will be prepared and adopted by resolution of the Town Council for the purpose of enhancing long-term safety against future disasters. The long term Hazard Mitigation Program will identify the presence, location, extent, and severity of natural hazards, such as, but not limited to:

1. severe flooding;
2. wildland and urban fires;
3. seismic hazards such a ground shaking and deformation, fault rupture, liquefaction, tsunamis, and dam failure;
4. slope instability, mudslides, landslides, and subsidence;
5. coastal erosion;
6. hurricanes and other tropical storms;
7. technological hazards, such as oil spills, natural gas leakage and fires, hazardous and toxic materials contamination, and nuclear power plant and radiological accidents;
8. epidemics.

**B. Short-Term Hazard Mitigation Program.** A short-term hazard mitigation program will be included in the Recovery Plan. It will be comprised of hazard mitigation program elements of highest priority for action, including preparation and adoption of separate ordinances dealing with specific hazard mitigation and abatement measures, as necessary. Such ordinances may require special site planning, land-use, and development restrictions or structural measures in areas affected by flooding, fire, wind, seismic, or other natural hazards, or remediation of known technological hazards, such as oil spills, natural gas leakage and fires, hazardous and toxic materials contamination.

**C. Post-Disaster Actions.** Following a disaster, the Chair may participate in developing a mitigation strategy with FEMA and other entities, as called for in Section 409 of the Stafford Act and related federal regulations. As appropriate, the Chair may recommend to the Town Council that the Town participate in the state's Hazard Mitigation Grant Program, authorized in Section 404 of the Stafford Act, in order to partially offset costs of recommended hazard mitigation measures.

**D. New Information.** As new information is obtained regarding the presence, location, extent, and severity of natural or technological hazards, or regarding new mitigation techniques, such information will be made available to the public, and will be incorporated as soon as practicably possible within the Town comprehensive plan Recovery Plan, LDC, and Town Ordinances, as appropriate.

## **SECTION 12. RECOVERY AND RECONSTRUCTION STRATEGY**

At the earliest practicable time following the declaration of local emergency in a disaster, the Chair and the DRTF will prepare a strategic program for recovery and reconstruction based on the Recovery Plan and its policies.

**A. Functions.** To be known as the Recovery Strategy, the proposed strategic program will identify and prioritize major actions contemplated or under way regarding such essential functions as business resumption, economic re-investment, housing replacement, infrastructure restoration, and potential sources of financing to support these functions.

**B. Review.** The recovery strategy will be provided to the Town Council for review and approval following consultation with other governmental agencies and business and citizen representatives as appropriate. The recovery strategy will provide detailed information as appropriate regarding proposed and ongoing implementation of initiatives necessary to the expeditious fulfillment of critical priorities and will identify amendments to any plans, codes, or ordinances that might otherwise contradict or block strategic action. The Chair will periodically report to the Town Council regarding progress toward implementation of the recovery strategy, together with any adjustments that may be called for by changing circumstances and conditions.

### **SECTION 15. 13. PENALTIES**

**A.** Any person who fails to comply with any provision of this Ordinance, or the emergency measures made effective pursuant to this Ordinance is guilty of a code violation and subject to enforcement and penalties as provided in the Town of Fort Myers Beach Land Development Code. Each day of continued non-compliance or violation will constitute a separate offense.

**B.** Nothing contained in this Section prevents the Town from taking such other lawful action in any court of competent jurisdiction as is necessary to prevent or remedy and failure to comply with, or violation of, this Ordinance or the emergency measures that may be made effective according to this Ordinance. Other lawful action will include, but is not limited to, an equitable action for injunctive relief or an action at law for damages.

Section XX. Repeal of Prior Town Ordinances. Town Ordinances 96-19, 04-14, 05-16, and 06-12 are hereby repealed in their entirety and have no force or effect.

### **SECTION 14. SEVERABILITY**

If any provision of this ordinance is found to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such invalidity will not affect the remaining provisions that can be implemented without the invalid provision, and, to this end, the provisions of this ordinance are declared to be severable.

The foregoing Resolution was adopted by the Town Council upon a motion by Council Member \_\_\_\_\_ and seconded by Council Member \_\_\_\_\_ and, upon being put to a vote, the result was

as follows:

\\FMB-DC1\Folders 2\Community Development\Local Planning Agency\Ordinance Cases\Post Disaster Recovery\080609 Draft Post Disaster R&R Ordinance.doc: AS AMENDED 060808

Larry Kiker, Mayor  
Tom Babcock, Councilmember  
Bob Raymond, Councilmember

Herb Acken, Vice Mayor  
Jo List, Councilmember

DULY PASSED AND ADOPTED this \_\_\_ day of \_\_\_\_, 2008

ATTEST:

TOWN OF FORT MYERS BEACH

By: \_\_\_\_\_  
Michelle Mayher, Town Clerk

By: \_\_\_\_\_  
Larry Kiker, Mayor

Approved as to legal sufficiency by:

\_\_\_\_\_  
Anne Dalton, Town Attorney

DRAFT 060808

LEE COUNTY ORDINANCE NO. 07-20

AN ORDINANCE REPEALING AND REPLACING LEE COUNTY ORDINANCE NO. 95-14; TO BETTER MANAGE RECOVERY, RECONSTRUCTION AND MITIGATION ACTIVITIES FOLLOWING A MAJOR OR CATASTROPHIC DISASTER WITHIN THE UNINCORPORATED AREAS OF LEE COUNTY, FLORIDA; PROVIDING FOR THE PURPOSE AND INTENT OF THE ORDINANCE; PROVIDING FOR JURISDICTION; PROVIDING DEFINITIONS; PROVIDING FOR THE CREATION, COMPOSITION, DUTIES AND RESPONSIBILITIES, DURATION, AND CHAIR OF A DISASTER ADVISORY COUNCIL; PROVIDING FOR THE CREATION, DURATION, DUTIES AND RESPONSIBILITIES OF A POST-DISASTER RECOVERY TASK FORCE AND CERTAIN MEMBERS THEREOF; PROVIDING FOR THE COMPOSITION AND DUTIES OF AN EMERGENCY REVIEW BOARD; PROVIDING PRIORITIES FOR POST-DISASTER REDEVELOPMENT; PROVIDING PRIORITIES FOR ESSENTIAL SERVICES AND FACILITIES RESTORATION; PROVIDING DEBRIS CLEARANCE, REMOVAL AND DISPOSAL STRATEGIES; PROVIDING FOR DETERMINATION OF DAMAGE; PROVIDING FOR IMPLEMENTATION OF A BUILD-BACK POLICY; PROVIDING FOR A DECLARATION OF AN INITIAL BUILDING MORATORIUM AND ESTABLISHING RELATED MORATORIA PERTAINING TO BUILDING PERMIT INSPECTIONS, DEVELOPMENT ORDERS AND SITE PLANS PROVIDING PROVISIONS FOR MORATORIA; PROVIDING FOR EMERGENCY REPAIRS; PROVIDING FOR AN EMERGENCY PERMITTING SYSTEM; PROVIDING POLICIES FOR ECONOMIC REDEVELOPMENT; PROVIDING GUIDELINES FOR ACQUIRING DAMAGED PROPERTY; PROVIDING FOR AUTHORITY; PROVIDING PENALTIES; PROVIDING CONFLICT AND SEVERABILITY PROVISIONS; AND PROVIDING FOR AN EFFECTIVE DATE.

**WHEREAS**, Southwest Florida and the Lee County area are vulnerable to a variety of hazards which may result in major or catastrophic disasters causing substantial injury or harm to the population and substantial damage to or loss of property; and

**WHEREAS**, safeguarding the life and property of its citizens is an innate responsibility of the Lee County Board of County Commissioners; and

**WHEREAS**, Chapter 252, Florida Statutes, confers upon the Board of County Commissioners of Lee County the authority to declare a state of local emergency and take

all actions necessary to ensure the safety and well being of its residents, visitors and their property during disasters caused by these hazards; and

**WHEREAS**, Section 163.3177(6)(g), Florida Statutes, requires a comprehensive planning element for coastal management; and

**WHEREAS**, Section 163.3178(2)(h), Florida Statutes, affords discretion to the Board of County Commissioners to apply mitigation and redevelopment policies to designated high-hazard coastal areas; and

**WHEREAS**, Section 163.3178(8), Florida Statutes, requires that Lee County identify and prioritize coastal properties for acquisition according to criteria which include, amongst others, recognition of hazard mitigation; and

**WHEREAS**, the 1995 Florida Land Plan: the State Land Development Plan proposes goals, objectives and policies in Priority Issue VI - Emergency Management - to reduce vulnerability and exposure of the public and public facilities to natural and technological disasters; and

**WHEREAS**, the Strategic Regional Policy Plan of the Southwest Florida Regional Planning Council proposes goals and policies, which would require local governments to have effective risk reduction and recovery components in their emergency management program; and

**WHEREAS**, the Board of County Commissioners of Lee County, Florida amended the Lee Plan on October 12, 2005, which became effective January 9, 2006; and

**WHEREAS**, the Lee Plan Goal 111: Post-Disaster Redevelopment, requires Lee County to provide for planning and decision-making to guide redevelopment during the response and recovery period following major emergencies, such as tropical storms and hurricanes; and

**WHEREAS**, the Lee Plan Objective 111.1: Post-Disaster Strategic Plan, requires that the County establish and maintain post-disaster institutions and procedures to guide County actions following a natural or technological disaster; and

**WHEREAS**, the Lee Plan Policy 111.1.1, as amended, requires that the Post-Disaster Strategic Plan establish and maintain a Recovery Task Force to work with state and federal emergency officials, assess damage, review emergency actions, prepare a redevelopment plan, and recommend needed changes to the Strategic Plan and to the Lee County Comprehensive Plan; and

**WHEREAS**, the Lee Plan Objective 111.2: Post-Disaster Ordinance, requires that the County adopt an ordinance to implement (where necessary) regulations that may be needed following a natural or technological disaster; and

**WHEREAS**, the Lee Plan Policy 111.2.1 requires that the Post-Disaster Ordinance will provide for enactment of a temporary moratorium on rebuilding not immediately needed for the public health, safety and welfare (e.g., to allow repairs to water, power, fire, police, and medical facilities; debris removal; stabilization or removal of structures in danger of collapsing; and minimal repairs to make dwellings habitable); and

**WHEREAS**, the Lee Plan Policy 111.2.3 requires that the Post-Disaster Ordinance implement the County build-back policy; and

**WHEREAS**, the Post-Disaster Redevelopment Plan - Section 3 of the Lee County Comprehensive Emergency Management Plan - is intended to guide redevelopment activities within unincorporated Lee County in the event of a major or catastrophic disaster; and

**WHEREAS**, experience in post-disaster situations has shown that provisions addressing rehabilitation of historic resources must be included in post-disaster recovery efforts in order to preserve their historic character; and

**WHEREAS**, Section 125.01(t), Florida Statutes, provides the authority for the Board of County Commissioners of Lee County, Florida to adopt ordinances necessary for the exercise of its powers and prescribe fines and penalties; and

**WHEREAS**, it is the intent of Lee County to take reasonable action to guide redevelopment during the response and recovery period following a major or catastrophic disaster, such as tropical storms and hurricanes.

**NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA:**

**SECTION ONE: PURPOSE AND INTENT OF ORDINANCE**

**REPEALER CLAUSE:** It is the intent of this ordinance to repeal and declare null and void and of no further effect Lee County Ordinance 95-14.

The provisions of this ordinance may be cited as the "Post-Disaster Recovery Ordinance."

It is the intent of the County to establish, prior to a storm event or emergency constituting a major or catastrophic disaster, organizations that will oversee the recovery

and reconstruction process and also serve to advise the Board of County Commissioners on recovery and reconstruction issues. These organizations will also identify opportunities to mitigate future damages through the management of recovery and reconstruction. It is further the intent of the County to allow rebuilding and reconstruction in an orderly manner by controlling the issuance of building permits, development orders and site plans in order to manage the location, timing, and sequence of reconstruction and repair. Although usual preservation procedures cannot be followed in the aftermath of a disaster, generally accepted standards for historic preservation will be followed in the post-disaster response. To further this intent, the County will make every effort to develop its capacity to identify and coordinate various post-disaster recovery and reconstruction resources while at the same time ensuring maximum local control over the recovery and reconstruction process.

Following a major or catastrophic disaster, sufficient time must be provided to conduct damage assessment, classify and categorize individual structure damage, evaluate the effectiveness and enforcement of the existing building code.

In the event of a major or catastrophic disaster occurring in the County, a public health and safety threat may result from the generation of widespread debris. Such debris constitutes a hazardous environment for all modes of movement and transportation of residents as well as emergency aid and relief services, endangerment to all properties of the County, an environment conducive to breeding disease and vermin, and greatly increased risk of fire. Under these circumstances, it is in the public's interest to collect and remove disaster debris from properties whether public lands, public or private roads, and gated communities to eliminate an immediate threat to life, public health and safety, to reduce the threat of additional damage to improved property, and to promote economic recovery of the community at large.

## **SECTION TWO: JURISDICTION**

This ordinance applies to all areas within Lee County, Florida under the jurisdiction of the Lee County Board of County Commissioners. Every incorporated city within Lee County is encouraged to adopt provisions of this ordinance, either through ordinance revisions or interlocal agreements.

## **SECTION THREE: DEFINITIONS**

The following terms and definitions apply for the purposes of this ordinance.

- A. "Building Value" means the latest total assessment of all improvements on a parcel of land recorded on the Lee County Property Appraiser's file before the structure was damaged.

- B. "Catastrophic Disaster" means a disaster that will require massive state and federal assistance including immediate military involvement.
- C. "Chief Building Official" means the Director of the Division of Codes and Building Services or his/her designee, who is hereby designated by the Board of County Commissioners of Lee County, Florida to implement, administer and enforce the building permit moratoria provisions of this ordinance.
- D. "Current regulatory standards for new construction" means the following:
  - 1. Federal requirements for elevation above the 100-year flood level.
  - 2. Building code requirements for flood-proofing.
  - 3. Repair work meets current building and life safety codes.
- E. "Damage Assessment" means a systematic procedure for evaluating damage to public and private property, based on current replacement cost. The assessment may be used to determine if the damaged area can qualify for federal or state disaster assistance.
- F. "Destroyed Structure" means a structure that is a total loss or damaged to such an extent that repairs are not technically or economically feasible. The indicator for this category is if the cost to repair exceeds fifty percent (50%) of the replacement value at the time of damage or destruction.
- G. "Disaster Advisory Council" means a group of officials designated by this ordinance for the effectuation of its purposes.
- H. "Emergency Review Board" means a committee of three members from the Post-Disaster Recovery Task Force established for the purposes of this ordinance.
- I. "Historic Resource" means any prehistoric or historic district, site, building, structure, object or other real or personal property of historical, architectural or archaeological value. Historic resources may include but are not limited to monuments, memorials, Indian habitations, ceremonial sites, abandoned settlements, sunken or abandoned ships, engineering works or other objects with intrinsic historical or archaeological value, or any part thereof, relating to the history, government or culture of the county, the state or the United States.
- J. "Local Damage Assessment Team" means a group of individuals designated by the local jurisdiction to perform damage assessment according to state and federal requirements.

- K. "Major Damage Structure" means a structure that can be made habitable with extensive repairs. Damage may include foundation, roof structure, and major structure components. The indicator for this category is if the cost to repair is greater than twenty-five point zero one percent (25.01%) and up to and including fifty percent (50%) of the replacement value at the time of damage.
- L. "Major Disaster" means a disaster that will likely exceed local capabilities and require a broad range of state and federal assistance.
- M. "Minor Damage Structure" means a structure that can be made habitable in a short period of time with minimal repairs. Damages may include doors, windows, floors, roofs, central air conditioners, and other minor structure damage. The indicator for this category is if the cost to repair is twenty-five percent (25%) or less than the replacement value at the time of damage.
- N. "Minor Disaster" means a disaster that is likely to be within the response capabilities of local government and to result in only a minimal need for state or federal assistance.
- O. "Post-Disaster Recovery Task Force" means a group of officials designated by and for the purposes of this ordinance.
- P. "Replacement Cost" means the actual cost to repair, reconstruct, rebuild or replace a damaged structure. It will not include the following parts of a structure or items not considered a permanent part of the structure: building plans, surveys, permits, sidewalks, pools, screens, sheds, gazebos, fences, furniture and carpeting. For purposes of this ordinance, the replacement cost will be compared to the structure's replacement value to determine the percent of the structure damaged.
- Q. "Replacement Value" of a structure means the market building value contained in the Lee County Property Appraiser's file multiplied by one of the following factors:
1. 120% in a major disaster, or
  2. 150% in a catastrophic disaster.
- The structure's owner may opt to establish replacement value by hiring a state certified property appraiser rather than use the formula stated in this definition.
- R. "Structure" means that building or accessory building which is built or constructed.

**SECTION FOUR: DISASTER ADVISORY COUNCIL, RECOVERY TASK FORCE AND EMERGENCY REVIEW BOARD**

- A. A Disaster Advisory Council is hereby established to carry out the provisions of this ordinance. The Council's functions will primarily be pre-disaster planning and post-disaster recommendations.
- B. The Disaster Advisory Council will meet on a continuing and regularly scheduled basis to discuss its specific roles and responsibilities in accordance with this ordinance, and relative issues associated with recovery from a major or catastrophic disaster. The Council's duties and responsibilities include, but are not limited to:
1. Overseeing the recovery and reconstruction process.
  2. Advising the Board of County Commissioners on relevant recovery and reconstruction issues.
  3. Identifying opportunities to mitigate future loss of life and property damage through the management of recovery and reconstruction.
  4. Maintaining a Post-Disaster Redevelopment Plan for the County, including recommending changes regarding the Lee County Post-Disaster Strategic Plan, the Lee County Comprehensive Plan and the Post-Disaster Ordinance to the Board of County Commissioners.
  5. Developing procedures to carry out the County's build-back policy, as defined by the Lee Plan and the Post-Disaster Redevelopment Plan.
  6. Maintaining established policies for redeveloping high hazard land areas that have sustained repeated damage from flooding or hurricanes.
  7. Defining principles and establishing criteria for prioritizing acquisition of property damaged as the result of a major or catastrophic disaster.
  8. Establishing special committees and subcommittees within the Disaster Advisory Council to deal with specific issues arising during the disaster recovery process.
  9. Implementing a management system that allows for rebuilding and reconstruction to be conducted in an orderly and timely manner through control of the issuance of building permits, development orders and site plans considering the location, timing, and sequence of reconstruction and repair.

10. Developing procedures that promote the mitigation of future disaster damage through activities carried out during recovery and reconstruction.
11. Setting priorities to guide community redevelopment following a major or catastrophic disaster, including, but not limited to:
  - a. priorities in restoring essential community services (electrical power, communications, water, and waste water service), and
  - b. predetermined strategies for clearing, removal and disposing of disaster-caused debris.
12. Establishing an education program to advise the public of the County's Post-Disaster Redevelopment Plan.
13. Developing and recommending procedures to document actual uses, densities and intensities, and compliance with regulations in effect at the time of construction, through such means as photographs, diagrams, plans, affidavits, permits, appraisals, tax records, etc.
14. If considered necessary, recommending changes in approved land uses in land areas with sustained, repeated damage from flooding or hurricanes in accordance with the criteria set forth in Section Ten of this ordinance.
15. Making recommendations for participation in federal and state post-disaster hazard mitigation planning.
16. Evaluating damaged public facilities and formulating alternative mitigation options (i.e., repair, replace, modify or relocate).
17. Making recommendations for revision of the County's redevelopment plan in conjunction with federal, state, and local emergency officials.
18. Recommending any change in the Comprehensive Plan, development standards, zoning regulations, setback, density, open space, buffering and elevation requirements, building codes, or any other ordinances necessary or advisable to prevent a recurrence of damage.
19. Developing procedures to address the rehabilitation of historic resources in a manner that preserves their historic integrity.

C. Composition of Disaster Advisory Council. The Disaster Advisory Council will consist of the following officials and such other officials as may be approved annually by the Board of County Commissioners:

1. County Manager
2. County Attorney
3. County Administrative Services Director
4. County Public Safety Director
5. County Parks and Recreation Director
6. County Community Development Director
7. County Transportation Director
8. County Transit Director
9. County Human Services Director
10. County Public Works Director
11. County Visitor & Convention Bureau Director
12. County Port Authority Director
13. County Equal Opportunity Manager
14. County Health Department Director
15. County Medical Examiner
16. County Economic Development Director
17. County Utilities Director
18. County Solid Waste Director
19. Local Planning Agency Member

20. Representatives of the community such as representatives from Chamber of Commerce, hospital, religious community, private water or wastewater utilities and power companies.
21. Representative from the Lee County Fire Chief's Association
22. City of Cape Coral Liaison
23. City of Fort Myers Liaison
24. City of Sanibel Liaison
25. Town of Fort Myers Beach Liaison
26. City of Bonita Springs Liaison
27. County Sheriff Liaison
28. County School District Liaison
29. SW Florida Regional Planning Council Liaison
30. South Florida Water Management District Liaison
31. Member of the Lee County Historic Preservation Board
32. A Representative as appointed by each member of the Board of County Commissioners

The officials set forth above may be represented by a designee chosen to serve in their place providing the appointment is made in writing to the Disaster Advisory Council Chair.

- D. Chair of the Disaster Advisory Council. The County Manager (or designee) will serve as the Chair of the Disaster Advisory Committee. County Public Safety and Emergency Management personnel will serve as staff for the Disaster Advisory Council.
- E. Post-Disaster Recovery Task Force. A Post-Disaster Recovery Task Force is established that will be comprised of the following nine officials:
  1. County Manager,

2. Public Safety Director,
3. Chief Building Official,
4. Public Works Director,
5. Financial Recovery Coordinator (County Administrative Services Director or designee),
6. Economic Recovery Coordinator (County Economic Development Director or designee),
7. Hazard Mitigation Coordinator (County Public Safety Director or designee),
8. Tourism Recovery Coordinator (County Visitor and Convention Bureau Director or designee), and
9. Long Term Recovery Coordinator (County Human Services Director or designee).

Additionally, all Disaster Advisory Council members will be ex-officio members of the Post-Disaster Recovery Task Force.

- F. Activation of Post-Disaster Recovery Task Force. For post-disaster responsibilities, the Post-Disaster Recovery Task Force will be activated and mobilized by a major or catastrophic disaster declaration made by the Board of County Commissioners under the provisions of this ordinance and the procedures set forth in Lee County Ordinance 87-1 or the Office of the Governor of the State of Florida.
- G. Duration of Post-Disaster Recovery Task Force. In the event of a disaster declaration, the Post-Disaster Recovery Task Force will activate and mobilize for a minimum period of sixty (60) days. Unless the Board of County Commissioners extend its tenure, the Post-Disaster Recovery Task Force's post-disaster function will de-activate after sixty (60) days.
- H. Repealing or Extending of Post-Disaster Recovery Task Force. The Board of County Commissioners may, by resolution, extend or repeal the activation of the Post-Disaster Recovery Task Force.
- I. Responsibilities of the Post-Disaster Recovery Task Force. The Post-Disaster Recovery Task Force will be responsible for advising the Disaster Advisory Council or the Board of County Commissioners on a wide range of post-disaster recovery,

reconstruction, and mitigation issues. The Post-Disaster Recovery Task Force will have the following responsibilities:

1. To receive and review damage reports and other analyses of post-disaster circumstances and to compare these circumstances with mitigation opportunities identified prior to the disaster in order to identify areas for post-disaster change and innovation. Where needed, the Post-Disaster Recovery Task Force may review alternative mechanisms for achieving these changes and recommend the coordination of internal and external resources for achieving these ends.
2. In addition to the responsibilities above, the Post-Disaster Recovery Task Force may:
  - a. Initiate recommendations for the enactment, repeal or extension of emergency ordinances and resolutions.
  - b. Review the nature of damages, identify and evaluate alternate program objectives for repairs and reconstruction, and formulate recommendations to guide community recovery, and assist local municipalities with their programs.
  - c. Formulate special committees and sub-committees as conditions may warrant.
  - d. Recommend and implement an Economic Recovery Program focusing on rapid recovery of the tourism industry, utilizing funds set aside for recession periods as per Lee County Resolution 90-07-27.
  - e. Recommend rezoning changes in areas of damage, when deemed appropriate.
  - f. Set a calendar of milestones for recovery tasks.
  - g. Recommend repealing or extending any moratorium.
  - h. Recommend land areas and land use types that will receive priority in recovery operations.
  - i. As conditions may warrant, appoint an Historic Rehabilitation Coordinator responsible for: evaluating the extent and type of historic rehabilitation activities needed based upon assessments of damage; assisting the Chief Building Official and staff in related historic

resource rehabilitation activities; providing information on historic resource rehabilitation and redevelopment in historic districts to interested parties to coordinate and maximize such efforts; and fulfill other duties assigned by the Disaster Advisory Council or the Board of County Commissioners.

- j. Recommend changes to procedures to document actual uses, densities and intensities, and compliance with regulations in effect at the time of construction, through such means as photographs, diagrams, plans, affidavits, permits, appraisals, tax records, etc.
  - k. Evaluate hazards and the effectiveness of mitigation policies and recommend appropriate amendments, if considered advisable.
  - l. If considered necessary, recommend changes in approved land uses in land areas which sustained repeated damage from flooding or hurricanes in accordance with the criteria set forth in Section Ten of this ordinance.
  - m. Initiate recommendations for acquisition of damaged property.
  - n. Make recommendations for participation in federal and state Post-Disaster Hazard Mitigation Planning.
  - o. Recommend hazard mitigation projects or programs for consideration of post-disaster state or federal funding.
  - p. Evaluate damaged public facilities and formulate alternative mitigation options (i.e., repair, replace, modify or relocate).
  - q. Make recommendations for revision of the County's redevelopment plan in conjunction with federal, state, and local emergency officials.
  - r. Review emergency actions and recommend amendments to Lee County's: 1) Post-Disaster Ordinance; 2) Post-Disaster Strategic Plan; 3) Comprehensive Emergency Management Plan; 4) Emergency Operations Center's Standard Operating Procedures; and 5) relevant Administrative Codes.
3. The Post-Disaster Recovery Task Force may recommend any changes in the Comprehensive Plan, Land Development Code, or any other ordinances which it deems necessary or advisable to prevent recurring damage or mitigate hazards.

4. The Post-Disaster Recovery Task Force may also recommend that the Disaster Advisory Council or the Board of County Commissioners consider objectives such as the following:
  - a. Enhancing local recreational and open space opportunity.
  - b. Enhancing public access to estuarine, riverine and gulf beaches.
  - c. Enhancing and restoring local natural ecosystems.
  - d. Reducing traffic congestion, noise, and other transportation-related problems.
  - e. Enhancing long-term economic vitality of the local commercial and industrial base.
  - f. Enhancing and rehabilitating historic resources.

J. Function and Duties of Certain Post-Disaster Recovery Task Force Members.

1. Financial Recovery Coordinator.

- a. Purpose. To coordinate disaster assistance available from the federal government and state agencies to Lee County following a major or catastrophic disaster.
- b. Duties. Will consist of, but not be limited to, the following:
  - (1) Determine the types of assistance available to the County and the types of assistance most needed.
  - (2) Assist in the local coordination of federal and state financial recovery efforts.
  - (3) Provide local assistance to facilitate federal and state disaster assistance programs.
  - (4) Act as facilitator in securing federal or state disaster assistance.
  - (5) Inform the community of types of disaster assistance available.

- (6) Fulfill other duties as directed by the Disaster Advisory Council or the Board of County Commissioners.

2. Economic Recovery Coordinator.

- a. Purpose. To coordinate economic recovery with the business community following a major or catastrophic disaster.
- b. Duties. Will consist of, but not be limited to, the following:
  - (1) Determine the potential or actual impacts to the local economy and determine short and long term strategies to be considered by the Post-Disaster Recovery Task Force.
  - (2) Assist in the local coordination of federal and state economic recovery efforts.
  - (3) Disseminate accurate information to and from the business community.
  - (4) Inform the business community of types of disaster assistance available.
  - (5) Fulfill other duties as directed by the Disaster Advisory Council or the Board of County Commissioners.

3. Hazard Mitigation Coordinator.

- a. Purpose. To coordinate hazard mitigation assistance available from the federal government and state agencies to Lee County following a major or catastrophic disaster.
- b. Duties. Will consist of, but not be limited to, the following:
  - (1) Determine the types of hazard mitigation assistance or funding available to the County and the types of assistance most needed.
  - (2) Assist in the local coordination of federal and state hazard mitigation efforts.
  - (3) Provide local assistance to facilitate federal and state hazard mitigation assistance programs.

- (4) Act as facilitator in securing federal or state hazard mitigation funding for hazard mitigation projects to local entities.
- (5) Fulfill other duties as directed by the Disaster Advisory Council or the Board of County Commissioners.

4. Tourism Recovery Coordinator.

- a. Purpose. To coordinate tourism recovery with the visitor and convention community following a major or catastrophic disaster.
- b. Duties. Will consist of, but not be limited to, the following:
  - (1) Determine the potential and actual impacts to the local tourism industry and its economy and determine short and long term strategies for expedient recovery.
  - (2) Acquire and disseminate accurate information from and to the tourism industry and to and from the local, state, national and international media.
  - (3) Inform the tourism industry of types of disaster assistance available.
  - (4) Fulfill all other duties as directed by the Disaster Advisory Council or the Board of County Commissioners.

5. Long Term Recovery Coordinator.

- a. Purpose. To expedite the recovery of disaster survivors effectively using available local, state and federal resources, and advocate the community's needs for recovery.
- b. Duties. Will consist of, but not be limited to, the following:
  - (1) Organize and maintain a Long Term Recovery Committee to enhance the coordinated response needed to address the unmet needs of communities, families, and individuals following a disaster.
  - (2) Assist in coordination of the setting up of disaster recovery centers.

- (3) Coordinate transitional, temporary, and long term housing assistance with local, state and federal agencies.
- (4) Secure funding for case managers to address unmet needs.
- (5) Receive and handle unmet need cases from voluntary relief agencies through long term case manager resources.
- (6) Fulfill all other duties as directed by the Disaster Advisory Council or the Board of County Commissioners.

K. Quorum. For all meetings of the Post-Disaster Recovery Task Force or Disaster Advisory Council those members present will constitute a quorum.

L. Emergency Review Board.

1. An Emergency Review Board is established in major or catastrophic disasters to review disputes arising from the implementation of the County's build-back policy. The Emergency Review Board will consist of three (3) representatives from the Post-Disaster Recovery Task Force appointed by the Director of Community Development. Decisions rendered by the Emergency Review Board may be appealed to the Lee County Hearing Examiner through the administrative appeals process.
2. The Emergency Review Board may refer and make recommendations to the appropriate County department for any requests for modifications that are beyond those authorized in this ordinance.

#### **SECTION FIVE: POST-DISASTER REDEVELOPMENT PRIORITIES**

The following priority sequence will govern community rebuilding and redevelopment efforts:

- A. Reestablishing services that meet the physical and safety needs of the community: to include water, food, ice; medical care; emergency access; continuity of governmental operations; emergency communications; security of residents and possessions from harm; health; and temporary housing.
- B. Reestablishing infrastructure necessary for community reconstruction (i.e., electrical distribution systems; potable water and sanitary sewer service; restoring medical and health care; rebuilding damaged transportation facilities; and housing facilities).

- C. Restoring the community's economic base, as defined by the Lee Plan or accepted econometric principles and practices.
- D. Improving the community's ability to withstand the effects of future major or catastrophic disasters.

**SECTION SIX: ESSENTIAL SERVICE AND FACILITY RESTORATION PRIORITIES**

- A. The following priorities will govern power and communication service restoration once damaged electrical transmission systems, substations and distribution systems are restored:
  - 1. Priority #1 - Emergency response and recovery facilities having no emergency power or telephone service (community emergency operations or command centers, response/recovery centers); medical facilities having no emergency power; repairing emergency communication centers and facilities; and designated facilities providing emergency food, water and ice.
  - 2. Priority #2 - Water treatment and pumping facilities, special care centers, nursing home facilities having no emergency power, law enforcement and fire stations having no emergency power, the Southwest Florida International Airport, Page Field, staging areas and distribution centers requiring emergency power, and county/state detention centers (the jail, stockade).
  - 3. Priority #3 - Wastewater treatment plants and lift stations, general telephone service, solid waste facilities, medical facilities having emergency power, nursing homes having emergency power, law enforcement and fire stations having emergency power, public shelters still housing evacuees and the homeless, adult congregate living facilities, facilities serving as disaster application centers for federal disaster relief, and public and private facilities necessary for resource management and distribution activities (government facilities handling emergency purchasing, designated grocery store/restaurant outlets).
  - 4. Priority #4 - Community areas receiving minor damage, and other government facilities.
  - 5. Priority #5 - Community areas receiving major damage.
  - 6. Priority #6 - Community areas receiving catastrophic damage.

B. The following procedures will govern restoration of water service:

1. Valve off major leak areas.
2. Work with private franchises providing service to determine extent of damaged facilities and reestablish service.
3. Identify highly damaged areas.
4. Assess and provide service to meet critical customer needs (i.e., emergency response and recovery facilities, Southwest Florida International Airport, hospitals, nursing homes, emergency public shelters, kidney dialysis patient facilities, and other identified emergency response facilities).
5. Establish emergency water sites as necessary.
6. Establish priorities and repair damaged facilities in the following order: treatment plants, trunk mains, distribution mains, service connections.
7. Repressurize area water systems as necessary.
8. Establish area water potability.

C. The following procedures will govern wastewater service restoration:

1. Assess damages to system (wastewater treatment plants, lift stations, electrical support systems, to include evaluating the need to take lift stations off line in flooded evacuated areas to avoid damage to property when power is restored).
2. Work with private franchises providing service to determine extent of damaged facilities and reestablish service.
3. Coordinate recovery operations in determining and repairing any damages to wastewater treatment plants within Lee County.
4. Determine need and provide emergency service to emergency response and recovery facilities, Southwest Florida International Airport and Page Field, and hospitals.
5. Repair damaged facilities in the following sequence: treatment plants first, then lift stations starting with those closest to the treatment plants.

6. Reestablish wastewater service to franchise areas as power and water service are restored.

**SECTION SEVEN: POST-DISASTER DEBRIS CLEARANCE AND DISPOSAL STRATEGIES**

- A. The following policies will govern emergency debris clearance, removal and disposal strategies:
  1. Emergency access to aid search and rescue operations,
  2. Major arterial roadways linking Lee County to intercounty traffic,
  3. Major arterial roadways providing access to designated response/recovery centers (Lee Civic Center, Lee County Sports Complex), the Southwest Florida International Airport, public/private utility companies providing water service, and entry roads to the County's designated solid waste disposal facilities,
  4. Major arterial roadways providing access to roadways carrying intercounty traffic,
  5. Roadways providing access to designated staging areas and distribution centers supporting disaster relief efforts,
  6. Roadways providing access to major commercial activity centers,
  7. Minor arterial roadways coming under County maintenance responsibility,
  8. Collector roadways under County maintenance responsibility,
  9. Other roadways under County maintenance responsibility, and
  10. Private roadways, including gated communities, within the unincorporated area of Lee County.
- B. Once road clearing operations supporting search and rescue operations, clearing intercounty roadways, and providing access to designated response/recovery centers are completed, debris clearance will be guided by the following priority sequence:
  1. Area medical facilities with emergency rooms, areas designed for field medical sites, areas designated for staging and distributing disaster relief aid,

2. Facilities designed as centers for emergency response operations, fire district and law enforcement stations,
  3. Areas with minor damage,
  4. Areas with major damage,
  5. Areas with catastrophic damage, and
  6. Private roadways, including gated communities, within the unincorporated area of Lee County.
- C. Debris will be separated to avoid mixing hazardous materials and hazardous waste with other types of debris.
- D. Agencies or organizations contracted to clear, remove and dispose of debris will follow the following principles:
1. Debris collection and removal procedures from residential and commercial properties will adhere to the collection sequence priority established by the County. Instructions will be provided to the public to separate debris. Notification will also be provided of the established schedule for picking up general debris classes.
  2. Storage areas will be operational within seven (7) to ten (10) days after the disaster to separate debris that does not fall under the residential and commercial property programs.
  3. Open pit burning, burning by incineration, mulching or chipping horticultural debris, hauling mulched or chipped debris out of the County, disposal of approved solid waste sites and debris reuse and recycling will be acceptable methods of debris disposal, provided these methods meet all applicable rules and regulations established for such operations.

**SECTION EIGHT: DETERMINATION OF DAMAGE, BUILD-BACK POLICY, MORATORIA, EMERGENCY REPAIRS AND EMERGENCY PERMITTING SYSTEM**

- A. Determination of Damage. The primary task of the local damage assessment team is to identify structures damaged as a result of the disaster. The County damage assessment team will catalogue and report to the Chief Building Official those structures which have: (1) been destroyed; (2) received major damage; and (3) received minor damage. The Chief Building Official will then inspect the damaged

structures and place each structure in one of the damaged categories. The assessment will also serve as a basis for determining if a disaster declaration is warranted.

- B. County Build-Back Policy. Structures which have been damaged by fire or other natural forces to the extent that the cost of their reconstruction or repair exceeds fifty percent (50%) may be reconstructed at (but not to exceed) the legally documented actual use, density, and intensity existing at the time of destruction, thereby allowing those structure to be rebuilt or replaced to the size, style, and type of their original construction, including original square footage; provided, however, that the affected structure, as rebuilt or replaced, complies with all federal and state regulations, local building and life safety regulations, and other local regulations, which do not preclude reconstruction otherwise intended by this policy.

In accordance with this policy, this ordinance provides:

1. Structures damaged up to and including fifty percent (50%) may be rebuilt to their original conditions, with repair work subject to current building and life safety codes, except that structures damaged by flood waters in a disaster by more than twenty-five percent (25%) which have recorded one or more national flood insurance losses of one thousand dollars (\$1,000.00) or more since 1978, must be brought into compliance with current regulatory standards for new construction.
2. Structures damaged more than fifty percent (50%) may be rebuilt to their original square footage and density, provided they comply with:
  - a. federal requirements for evaluation above the 100-year flood level;
  - b. building code requirements for floodproofing;
  - c. repair work meets current building and life safety codes;
  - d. Coastal Construction Control Lines regulations (if applicable);
  - e. disability access regulations; and
  - f. any required zoning and other development regulations (other than density or intensity), unless compliance with those regulations would preclude reconstruction otherwise intended by the build-back policy as may be determined by the Emergency Review Board set forth below.

3. To minimize the need for individual variances or compliance determinations before reconstruction or redevelopment of structures damaged more than fifty percent (50%), and in order to expedite the processing of the large number of anticipated applications for reconstruction, the development regulations affecting setback, parking, buffering and open space in any area declared a disaster may be modified by majority action of the Emergency Review Board as set forth below. Additionally, the listed development regulations will be evaluated for their applicability to allow reconstruction or redevelopment that will most closely comply with current regulations. These regulations will be prioritized as to their relative importance based upon, among other factors, the sites' use, location, size, and the condition of any remaining pre-existing structures. More specific guidelines will be established by Administrative Code.
  - a. For single family, two family and duplexes and their accessory structures - The Emergency Review Board is authorized to apply and modify development regulations for lot area and dimension, setbacks, lot coverage, height, handicapped access and open space.
  - b. For multiple family, commercial and industrial buildings - The Emergency Review Board is authorized to modify development regulations for lot area and dimensions, setbacks, lot coverage, height, handicapped access, buffering, open space, loading space and parking.
  - c. Any modifications granted will be the minimum necessary. No modifications will be granted that will totally eliminate buffering or open space, or that will allow buildings to exceed the special height limitations specified in Land Development Code, Section 34, Zoning, Division 30, Property Development Regulations, Subdivision II, Height.
  - d. The Emergency Review Board is specifically authorized to modify street, rear side or waterbody setback requirements under the following circumstances:
    - (1) Street, rear, side, or waterbody setbacks may be modified to permit the reconstruction of, or additions to, pre-existing structures that are nonconforming with regard to a specific setback as long as:
    - (2) Prior to approving any modification of street or street easement setbacks a determination will be made through consultation

with Lee County Department of Transportation regarding future road widening requirements.

- (a) the reconstruction will not result in a further diminution of the setback, however, the Emergency Review Board may approve bay windows, chimneys and similar architectural features that encroach further into a setback provided the encroachment does not protrude beyond the pre-existing overhang of the building; and
    - (b) setbacks may be modified to allow the replacement of stairs or decking that will provide access into a reconstructed dwelling unit.
  - e. The Emergency Review Board is specifically authorized to modify the parking requirements under the following circumstances:
    - (1) To improve ingress and egress to the site.
    - (2) To eliminate or reduce the instances where parked vehicles were required to back out onto thoroughfares to gain access to the roadway system.
    - (3) To provide on-site handicapped parking.
  - f. The Emergency Review Board is specifically authorized to modify buffering requirements to accommodate modifications to parking or additional proposed parking.
  - g. The Emergency Review Board may also consider other modifications, conditions or variances necessary to reconstruct a pre-existing structure in a timely and expeditious manner, including requests for reconstruction not specifically set forth above.
  - h. The Emergency Review Board may require documentation as to the actual uses, densities and intensities in existence at the time of earlier construction through such means as photographs, diagrams, plans, affidavits, permits, etc. before authorizing modifications to the requirements referenced above.
5. No provision is made to redevelop property containing damaged structures for a more intense use or at a density higher than that which existed prior to a major or catastrophic disaster. No redevelopment at a higher density or

more intense use will be permitted unless appropriate Zoning, Development Review, Building Permit and other applicable land development approvals are granted.

C. Moratoria. The following moratoria will apply for the purpose of prioritizing repair and reconstruction immediately needed for public health, safety and welfare purposes.

1. Initial Building Moratorium.

a. Effective date of an Initial Building Moratorium. An initial building moratorium will become effective when one or more of the following actions or findings occur:

- (1) The Governor of the State of Florida or the President of the United States declares the County a disaster area.
- (2) The Chief Building Official determines that one hundred (100) or more structures have received major damage or have been destroyed.
- (3) Upon a finding by the Board of County Commissioners of the existence of a state of local emergency in accordance with Chapter 252 of the Florida Statutes.
- (4) The County is unable to maintain acceptable levels of public service expected during non-emergency situations.

b. Duration. The initial building moratorium will remain in effect for up to seventy-two (72) hours. No building permits may be issued during this time period. After expiration of this initial building moratorium, the following moratoria will become immediately effective unless modified by the Board.

2. Destroyed Structure Moratorium. No building permit may be issued within thirty (30) days following the expiration of the initial building moratorium for the replacement of any structure which has been destroyed.

3. Major Damaged Structure Moratorium. No building permit for repairs of a major damaged structure may be issued for at least ten (10) days following the expiration of the initial building moratorium.

4. Minor Damaged Structure Moratorium. No building permits for the repair or minor damaged structures may be issued for at least four (4) days following the expiration of the initial building moratorium
5. No Development Moratorium. No building permit for new construction or reconstruction unrelated to rebuilding or repairing disaster damaged structures may be issued for at least thirty (30) days following the expiration of the initial building moratorium in order to allow an examination of existing building and life safety codes. The Disaster Advisory Committee or Post-Disaster Recovery Task Force will determine and advise the Board of County Commissioners whether a new development moratorium is necessary based upon the results of damage assessment and recommendations from the Chief Building Official and the Recovery Task Force.
6. Outstanding Building Permit Inspection Moratorium.
  - a. With the exception of inspections for certificates of occupancy, inspections for all building permits issued prior to the disaster will be suspended for a minimum period of thirty (30) days following the expiration of the initial building moratorium, unless the Chief Building Official determines on an area wide or case-by-case basis that sufficient inspection staff will be available to inspect the structures. Suspension of inspections of building permits process means that except as allowed by the Chief Building Official no building permit inspections by the Lee County Division of Codes and Building Services will be performed during the moratorium period, and that no further building permit work is authorized beyond the point at which any inspection is otherwise required.
  - b. The County may re-inspect all building permit work in place prior to the disaster to verify that the work was not damaged during the disaster. If the County determines the building permit work was damaged during the disaster or suspects damage occurred, the developer will be responsible for rework, removal, retesting, and uncovering work to facilitate inspection to ensure compliance with the building permit documents and the building code.
  - c. Scheduled inspections and requests for building permit inspections suspended under this section will be adjusted to reflect the thirty (30) day moratorium.

7. Outstanding Development Order Moratorium.

- a. All applications for development orders, inspections of development order work, and all development orders issued prior to a major or catastrophic disaster will be suspended for a minimum period of thirty (30) days following the expiration of the initial building moratorium. Suspension of outstanding development order process means that no development order work is authorized beyond the point at which a development order inspection is required and that no development order inspections will be performed by the Lee County Division of Zoning and Development Services during this moratorium except as may be authorized by the Department of Community Development Director on an area wide or case-by-case basis.
- b. The County may re-inspect all development order work in place prior to the disaster to verify that the work was not damaged during the disaster. If the County determines that such work was damaged during the disaster or suspects that damage occurred, the developer will be responsible for rework, removal, retesting, and uncovering work to facilitate inspection to ensure compliance with the development order documents and Chapter 10 of the Land Development Code.
- c. All applications for development orders, inspections required for approval of development orders, and development orders that would otherwise expire, are suspended under this section and their corresponding dates will be adjusted to account for the effect of this moratorium period.

8. Moratorium on Review of Site Plans, Zoning Requests and Subdivision Plats.

- a. Site plans, zoning requests and subdivision plats submitted to the County prior to the disaster will not be reviewed by the County staff or considered by the Board of County Commissioners for a period of thirty (30) days following the expiration of the initial building moratorium.
- b. No new site plans, zoning requests or subdivision plats will be accepted by the County for a period of thirty (30) days following the expiration on the initial building moratorium.
- c. All submittal dates and review periods will be adjusted to reflect the thirty (30) day moratorium.

- d. Notwithstanding these restrictions, the Director of Community Development may authorize review otherwise precluded by this moratorium, on a case-by-case basis.
9. Duration of Moratoria. All moratoria other than the initial building moratorium will be in effect for the duration described above and may be repealed or extended upon resolution by the Board of County Commissioners.

E. Emergency Repairs.

1. No construction or reconstruction activity may be undertaken without a building permit while a building moratorium is in effect. Emergency repairs necessary to prevent injury, loss of life, imminent collapse or additional damage to the structure or its contents will be submitted to temporary moratoria: Examples of activities considered acceptable emergency repairs include:
  - a. Temporary roof repairs with plywood or plastic sheeting to make structures habitable or to prevent continuing damage due to rain and wind to building interiors and exteriors.
  - b. Covering exterior wall openings with plywood or plastic sheeting.
  - c. Repairs to interior ceilings to make buildings habitable or to drain accumulated water.
  - d. Repairs to steps.
  - e. Temporary shoring measures to avoid imminent building or structure collapse.
2. Emergency repairs to buildings or infrastructure that house the following organizations or activities will not be subject to temporary moratoria because of their necessity to protect the public health and safety: electrical power, potable water, wastewater, power and communications facilities; emergency stabilization of roadways; police, fire and medical facilities; essential governmental facilities; response/recovery centers and distribution centers; debris removal; and stabilization or removal of structures about to collapse.
3. Nothing in this ordinance will be construed to exempt development from compliance with state and federal permit regulations.

F. Emergency Permitting System.

An Emergency Permitting System has been established by Administrative Code to assure the quality of rebuilt or reconstructed buildings or structures, to implement the provisions of the County's build-back policy and to expedite the permit process for the placement of travel trailers. The provisions contained in the Administrative Code will take effect when a disaster designated as major or catastrophic has affected Lee County, or when the Board of County Commissioners requests the Governor to declare Lee County a Disaster Area.

**SECTION NINE: ECONOMIC REDEVELOPMENT POLICIES**

A. The following general policies will guide the use of resources employed toward rebuilding the community's economic base:

1. Reestablish the tourist industry.
2. Reestablish banking and financial institutions.
3. Reopen the business community.
4. Restore agriculture and industry.

B. Damaged businesses and other economic enterprises necessary for the public health and safety and for restoring the community's economic base may use temporary structures (such as modular buildings, mobile homes or similar type structures) to carry out their activities until their damaged structure is rebuilt or replaced according to applicable development and redevelopment regulations.

**SECTION TEN: GUIDELINES FOR ACQUIRING DAMAGED PROPERTY**

A. When in the public interest, the Board of County Commissioners may enter into negotiations with a property owner or owners whose improved real property has been damaged by the disaster for the purpose of acquiring such buildings and associated land or lot for transfer by sale, lease or donation to Lee County when the following acquisition conditions are met:

1. The property is located in an area damaged by the disaster; and
2. The property is free of encumbrances (i.e., taxes, liens and judgments) unless the extent of the encumbrances is determined to be acceptable given the property's location and value; and

3. The property meets at least one of the following conditions:
  - a. There are buildings or structures damaged substantially beyond repair or damaged to the extent that the cost of reconstruction or repair exceeds fifty percent (50%) of the replacement value of the building or structure at the time of the disaster.
  - b. There are buildings or structures determined to be repetitive loss properties under Lee Plan Policy 100.1.7.
  - c. There are buildings or structures damaged by a single event that are not repairable because of build-back policy provisions or significantly increased building costs.
  - d. The property is abandoned by the owner and may create a blighted area as defined by Section 163.340(8), Florida Statutes.
  
- B. Property acquired pursuant to Sub-section A must be dedicated for such purposes as the Board of County Commissioners may agree are consistent with:
  1. open space uses, or
  2. managing the land for its dedicated purposes.

Future uses which would likely result in a threat to human life or property damage of the same type that occurred during previous disasters is prohibited.
  
- C. Allowable open space uses will include parks for outdoor recreational activities, nature preserves or trails, beach access, unimproved parking lots, and structures functionally related to these uses such as open-sided picnic facilities, refreshment stands, or other non-habitable structures primarily supporting the recreational activities.

**SECTION ELEVEN:      AUTHORITY**

Nothing in this ordinance limits the authority of the Board of County Commissioners to declare, repeal or extend a state of local emergency.

**SECTION TWELVE:      PENALTIES**

- A. Any person, firm, company or corporation who fails to comply with this ordinance or the emergency measures made effective pursuant to this ordinance, is guilty of a misdemeanor of the second degree, and upon conviction for such offense, may

be punished by a fine not to exceed five hundred dollars (\$500.00) or by imprisonment not to exceed sixty (60) days in the Lee County Jail, or both, in the discretion of the Court hearing the case. Each day of continued non-compliance or violation will constitute a separate offense.

- B. In addition, any construction licensee of Lee County or the State of Florida who violates any provision of this ordinance or the emergency measures which are effective as a result of this ordinance may be charged with a violation and the matter will be heard before the appropriate Lee County Board, in a state administrative proceeding or a court of law.
- C. Nothing contained in this Section prevents the County from taking such other lawful action in any court or competent jurisdiction as is necessary to prevent or remedy any failure to comply with, or violation of, this ordinance or the emergency measures which may be made effective according to this ordinance. Other lawful action will include, but is not limited to, an equitable action for injunctive relief or an action at law for damages.

**SECTION THIRTEEN: CONFLICT AND SEVERABILITY**

- A. In the event of conflict between provisions of this ordinance, the more restrictive provisions will control. In the event of conflict with other regulations, the provisions of this ordinance will supersede any other land development regulations, regardless of when they were adopted, to the extent of such conflict.
- B. If any phrase or portion of this ordinance is held invalid or unconstitutional by any court of competent jurisdiction, such portion will be deemed a separate, distinct and independent provision and such holding will not affect the validity of the remaining portion.

**SECTION FOURTEEN: EFFECTIVE DATE**

This ordinance will take effect immediately upon receipt of official acknowledgment from the Office of Secretary of the State of Florida that this ordinance has been duly filed with said office.

Commissioner Mann made a motion to adopt the foregoing ordinance, seconded by Commissioner Bigelow. The vote was as follows:

ROBERT P. JANES	<u>Absent</u>
BRIAN BIGELOW	<u>Aye</u>
RAY JUDAH	<u>Aye</u>
TAMMARA HALL	<u>Absent</u>
FRANK MANN	<u>Aye</u>

DULY PASSED AND ADOPTED THIS 12th day of June, 2007.

ATTEST: CHARLIE GREEN  
CLERK OF COURTS

BOARD OF COUNTY COMMISSIONERS  
OF LEE COUNTY, FLORIDA

BY: Marcia Wilson  
Deputy Clerk

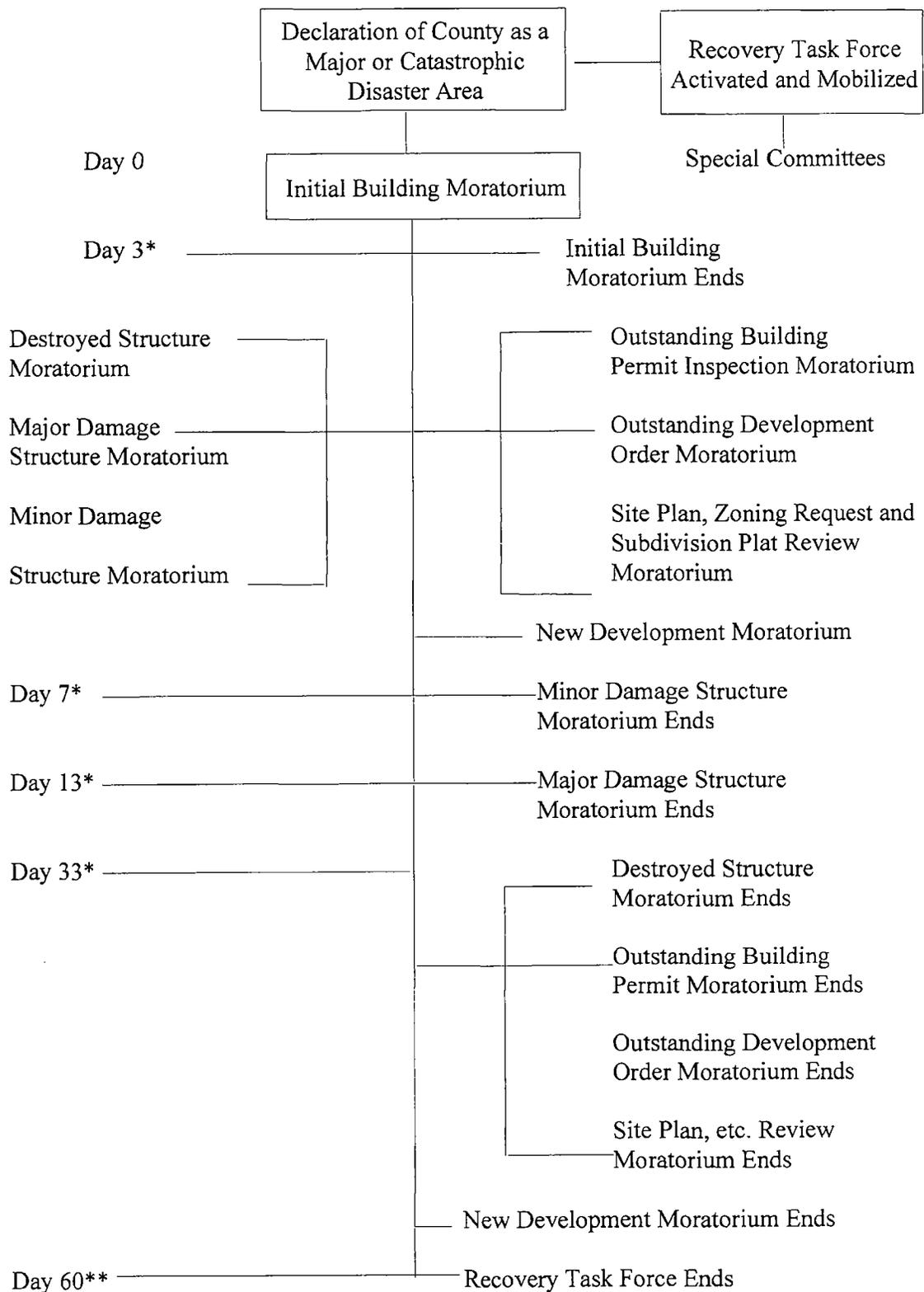
BY: Ray Judah  
Chair



APPROVED AS TO FORM:

BY: [Signature]  
Office of the County Attorney

MAJOR DISASTER OR CATASTROPHIC DISASTER



\*Duration of Moratoria. May be repealed or extended upon resolution by the Board of County Commissioners.  
 \*\*Duration of Recovery Task Force. May be repealed or extended upon resolution by the Board of County Commissioners.

STATE OF FLORIDA

COUNTY OF LEE

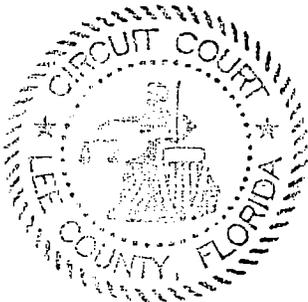
I Charlie Green, Clerk of Circuit Court, Lee County, Florida, and ex-Officio Clerk of the Board of County Commissioners, Lee County, Florida, do hereby certify that the above and foregoing, is a true and correct copy of Ordinance No. 07-20, adopted by the Board of Lee County Commissioners, at their meeting held on the 12th day of June, 2007 and same filed in the Clerk's Office.

Given under my hand and seal, at Fort Myers, Florida, this 14th day of June 2007.

CHARLIE GREEN,  
Clerk of Circuit Court  
Lee County, Florida

By:

Marcia Wilson  
Deputy Clerk



# LeeClerk.ORG

CHARLIE GREEN: CLERK OF COURT

June 14, 2007

Liz Cloud  
Department of State  
Bureau of Administrative Code  
The RA Gray Building  
500 South Bronough St.  
Tallahassee, FL 32399-0250

RE: Ordinance No. 07-20  
Lee County, Florida

Dear Ms. Cloud:

Enclosed is a certified copy of Ordinance No. 07-20, adopted by the Board of Lee County Commissioners on June 12, 2007.

Please use the enclosed envelope when sending your acknowledgment to our office. Thank you for your cooperation.

Sincerely,

Charlie Green, Clerk



Marcia Wilson  
Deputy Clerk

Enclosure



## FLORIDA DEPARTMENT of STATE

**CHARLIE CRIST**  
Governor

STATE LIBRARY AND ARCHIVES OF FLORIDA

**KURT S. BROWNING**  
Secretary of State

June 18, 2007

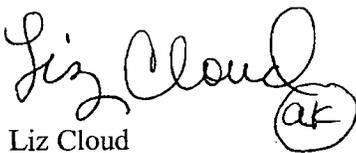
Honorable Charlie Green  
Clerk of Court  
Lee County  
Post Office Box 2469  
Fort Myers, Florida 33902-2469

Attn: Marcia Wilson, Deputy Clerk

Dear Mr. Green:

Pursuant to the provisions of Section 125.66, Florida Statutes, this will acknowledge receipt of your letter dated June 14, 2007 and certified copy of Lee County Ordinance No. 07-20, which was filed in this office on June 18, 2007.

Sincerely,



Liz Cloud  
Program Administrator

LC/lbh

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DIRECTOR'S OFFICE

R.A. Gray Building • 500 South Bronough Street • Tallahassee, Florida 32399-0250  
850.245.6600 • FAX: 850.245.6735 • TDD: 850.922.4085 • <http://dlis.dos.state.fl.us>

COMMUNITY DEVELOPMENT  
850.245.6600 • FAX: 850.245.6643

STATE LIBRARY OF FLORIDA  
850.245.6600 • FAX: 850.245.6744

STATE ARCHIVES OF FLORIDA  
850.245.6700 • FAX: 850.488.4894

LEGISLATIVE LIBRARY SERVICE  
850.488.2812 • FAX: 850.488.9879

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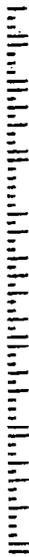
ADMINISTRATIVE CODE AND WEEKLY  
850.245.6270 • FAX: 850.245.6282

**Charlie Green**  
Clerk of Circuit Court  
Minutes Department  
P.O. Box 2469  
Fort Myers, Florida 33902-2469

O R D E R  
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Clerk of Court  
Attn: Minutes Office  
P.O. Box 2469  
Fort Myers, FL 33902-2469

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Longboat Key, Florida, Code of Ordinances >> Title 15 - LAND DEVELOPMENT CODE >> Chapter 159 - POST-DISASTER REDEVELOPMENT PLAN >>

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## Chapter 159 - POST-DISASTER REDEVELOPMENT PLAN

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### Sections:

- 159.01 - Intent and purpose.
- 159.02 - Definitions.
- 159.03 - Recovery coordination.
- 159.04 - Post-disaster redevelopment priorities.
- 159.05 - Essential service and facility restoration priorities.
- 159.06 - Authority delegated to town manager in the event of a disaster.
- 159.07 - Post-disaster debris clearance and disposal strategies.
- 159.08 - Determination of damage.
- 159.09 - Moratoria.
- 159.10 - Emergency repairs and emergency permitting.
- 159.11 - Economic redevelopment policies.
- 159.12 - Guidelines for acquiring damaged property.
- 159.13 - Authority.
- 159.14 - Penalties.

### 159.01 - Intent and purpose.

- (A) It is the intent of the town to make every effort to develop its capacity to identify and coordinate various post-disaster recovery and reconstruction resources while at the same time ensuring maximum local control over the recovery and reconstruction process.
- (B) Following a major or catastrophic disaster, sufficient time must be provided to conduct damage assessments, classify and categorize individual structure damage, and evaluate the effectiveness and enforcement of its regulations including, but not limited to the Florida Building Code for existing structures. It is further the intent of the town to allow rebuilding and reconstruction in an orderly manner by controlling the issuance of building permits, development orders and site plans in order to manage the location, timing and sequence of reconstruction and repair.
- (C) The purpose of this chapter, however, is not to provide a specific guideline or set forth the specific requirements as to whether, to what extent, where, or how a private structure may be rebuilt. Those determinations will be made in conformance with the applicable portions of the town's comprehensive plan, zoning code, flood code, building code as well as other provisions of state and local law. Rather, the purpose of this chapter is to provide: an effective and coordinated method for the determination of the extent of damage which occurred within the town as a result of the disaster; a framework for addressing the restoration of essential services within the town; and protection of the health, safety and welfare of the citizens and property owners of the town while these purposes are being accomplished.

*(Ord. 06-30, passed 1-8-07)*

## 159.02 - Definitions.

The following terms and definitions apply for the purposes of this chapter:

*Building official:* Means the head of building services who is hereby designated by the town manager to implement, administer and enforce the building permit moratorium provision of this chapter.

*Building value:* Is 120 percent of the latest assessment of all improvements on a parcel of land as recorded in the county property appraiser's records immediately before the structure was damaged.

*Catastrophic disaster:* Is defined as an event that overwhelms local response capabilities and will require mutual aid, state response, federal disaster relief programs, and activation of the state and federal response plans.

*Current regulatory standards for new construction:* Includes consideration of the following: Density, floodplain management, building code, land use, land development code and comprehensive plan requirements and site location.

*Damage assessment:* Means a systematic procedure for evaluating damage to public and private property, based on current replacement cost. The assessment may be used to determine if the damaged area can qualify for federal or state disaster assistance.

*Damage assessment team:* Means a local group of qualified individuals charged with providing an initial assessment of damage to private and public properties in the aftermath of a significant natural or manmade event.

*Debris:* Misplaced, broken, or discarded building/construction materials, garbage, vegetative matter, spoiled or ruined household goods or materials, dead fish or marine flotsam and jetsam.

*Destroyed structure:* Means a structure that is a total loss or damaged to such an extent that repairs are not technically or economically feasible. An indicator for this category is if the cost to repair equals or exceeds 50 percent of the building value at the time of damage or destruction.

*Development order:* Means any order, permit, determination, or action granting with conditions an application for any final development order, building permit, temporary use permit, temporary construction and development permit, electrical permit, plumbing permit, daylight plane waiver, boat-dock permit, septic tank permit, right-of-way permit, construction approval for infrastructure (including water, sewer, grading, paving), zoning ordinance amendment, comprehensive plan amendment, flood variance, coastal construction control line variance, tree removal permits, site development plan approval, subdivision approval (including plats, plans, variances and amendments), rezoning, outline development plan amendment, zoning certification, special exception, variance, or any other official action of the town having the effect of permitting development as defined in the land development code.

*Major damaged structure:* Means a structure that can be made habitable with extensive repairs. Damage may include foundation, roof structure, and major structural components. The indicator for this category is if the cost to repair is greater than 20 percent and up to 50 percent of the building value at the time of damage.

*Major disaster:* Is defined as an event that may require mutual aid, state response assistance and federal disaster relief programs.

*Minor damaged structure:* Means a structure that can be made habitable in a short period of time with minimal repairs. Damages may include doors, windows, floors, roofs, central air conditioners, and other minor structural damage. The indicator for this category is if the cost to repair is 20 percent or less than the building value at the time of damage.

*Minor disaster:* Means a structure that is likely to be within the response capabilities of local government and to result in only a minimal need for state or federal assistance.

*Private property:* All property that is not owned or controlled by a governmental entity.

*Private streets, roads and road-way:* Includes the rights-of-way as well as the improved surface that provides access to residential and commercial areas as identified in the map referred to as exhibit "A" in subsection 159.07(B) and on file in the town clerk's office, and reflected as green referred to as "private roadways".

*Replacement cost:* Means the estimated cost to repair, reconstruct, rebuild or replace a damaged structure. It will not include the following parts of a structure or items not considered a permanent part of the structure: Building plans, surveys, permits, sidewalks, pools, screens, sheds, gazebos, fences, furniture and carpeting.

*Structure:* Means anything constructed or erected requires a fixed location on the ground, or attached to something having a fixed location on or in the ground.

*(Ord. 06-30, passed 1-8-07)*

### **159.03 - Recovery coordination.**

Recovery coordination shall follow policies and procedures contained in the applicable counties' comprehensive disaster management plan (CEMP), and shall be coordinated with Manatee and Sarasota Emergency Management, based on existing mutual aid and other interlocal agreements. The town's hurricane plan (THP) shall also be followed where appropriate. The THP shall guide the town in resolving conflicts caused by differing requirements of the two counties. The clerk shall keep at least one additional copy of all existing mutual aid and other interlocal agreements, as well as all contracts and agreements regarding disaster management and post-disaster recovery in a separate binder for the town manager's, staff's and public's ease of use.

*(Ord. 06-30, passed 1-8-07)*

### **159.04 - Post-disaster redevelopment priorities.**

- (A) The following priority sequence will govern the town's rebuilding and redevelopment efforts:
- (1) Re-establishing services that meet the physical health and safety needs of the community to include: Water, wastewater, food, ice; medical care; emergency access; continuity of governmental operations; communications; security of residents and possessions from harm, health and temporary housing.
  - (2) Re-establishing infrastructure necessary for reconstruction of the town such as: Electrical distribution systems; communication systems; potable water and sanitary sewer service; restoring medical and health care; rebuilding damaged stormwater and transportation facilities; and housing facilities.

- (3) Restoring the town's economic base per accepted econometric principles and practices.
- (4) Improving the town's ability to withstand the effects of future major or catastrophic disasters.

*(Ord. 06-30, passed 1-8-07)*

#### **159.05 - Essential service and facility restoration priorities.**

Priorities for power, water and sewerage treatment, and communication restoration will be in accordance with existing protocols to be established by the public works department and any terms and conditions contained in executed franchise agreements with the town. All protocols are intended to emphasize health, safety, welfare and essential community services as priorities as well as protection of the structural and fundamental integrity of the utilities systems.

*(Ord. 06-30, passed 1-8-07)*

#### **159.06 - Authority delegated to town manager in the event of a disaster.**

- (A) If after a disaster there is a need to expend funds not otherwise authorized by the budget, or to take other actions for which the town manager is not explicitly authorized, the town manager or his designee shall make every reasonable effort to have an emergency meeting of the town commission at a suitable time and location owing to the nature and circumstances of the disaster.
- (B) Commissioners who are absent from the jurisdiction may participate in such meetings by audio and/or audiovisual means if such facilities are available and functioning.
- (C) The town recognizes that under current opinions of the Attorney General for the State of Florida, a quorum of town commissioners should be physically present; however, if after a disaster it is not practical for a quorum to be physically present, yet commissioners who can attend by audio and/or audiovisual means constitute a quorum, such meetings shall be called and conducted as if a quorum were physically present.
- (D) In the event it is not reasonably possible or practical to have a meeting of the town commission following a declaration of a state of emergency by the Governor and a determination by the state or county government that Longboat Key has suffered a catastrophic event as defined by F.S. § 252.34, then the town commission hereby expressly exercises its authority and waives the procedures and formalities otherwise required of political subdivisions by law and designates the town manager to act in matters pertaining to:
  - (1) Performance of public work and taking whatever action is necessary to ensure the health, safety and welfare of the community;
  - (2) Entering into contracts;
  - (3) Incurring obligations;
  - (4) Employment of permanent and temporary workers;
  - (5) Utilization of volunteer workers;
  - (6) Rental of equipment;
  - (7) Acquisition and distribution, with or without compensation, of supplies, materials and facilities;
  - (8) Appropriation and expenditure of public funds.
- (E) If implemented, such powers of the town manager shall terminate upon the next meeting of the town commission at which there is a quorum physically present.

(Ord. 06-30, passed 1-8-07)

### **159.07 - Post-disaster debris clearance and disposal strategies.**

- (A) *Intent and purpose.* After a disaster, the primary mission of the town will be to clear public streets, restore governmental services, and protect lives and property. Owing to the magnitude of the disaster and after accomplishment of the primary mission, resources may be available to the town that may not be available to the private property owner. The intent and purpose of this chapter is to establish a process by which the town may evaluate and, if necessary, remove or relocate debris from along the curb of privately owned streets, roads, roadways and other private property in the event of an immediate threat to life, public health, safety and welfare after a significant disaster. While the town recognizes that, as a general proposition, the removal of debris from private property is the responsibility of the private property owner, there are occasions when, because of the magnitude of the disaster and the threat posed to life, health, safety and welfare, there may be a compelling need to remove debris from private streets, roads, and roadways as well as other private property as described in this chapter.
- (B) *Access to property.* Access to the properties indicated with a red star on the maps entitled "Town of Longboat Key Debris Management" and on file in the town clerk's office, referred to herein as "exhibit A", shall be provided if:
- (1) The town is undertaking to clear and push debris in accordance with subsection 159.07(F); and
  - (2) It is reasonably possible with respect to the equipment being used to provide access under the circumstances.
- (C) *Private roadways.* The town shall remove debris from private roadways when such debris is determined to be a public nuisance that poses an immediate threat and imperils the health, safety and welfare of the community. The town manager shall determine whether there is a sufficient immediate threat to the public health, safety and welfare in accordance with any one of the following standards:
- (1) Whether there is a significant likelihood that police, fire, emergency, or rescue vehicles will be significantly hindered from rendering emergency services to residential and commercial property should the debris be allowed to remain in place absent town removal.
  - (2) The type of debris is such that it may reasonably cause illness, sickness or disease, which could injure or adversely affect the health, safety, or general welfare of those residing and working in the area if it is allowed to remain.
  - (3) The clearing is necessary to effectuate orderly and expeditious restoration of island-wide power, water, sewer, telephone and other utilities.
  - (4) The debris is determined by the town fire marshal to be dangerous or hazardous.
  - (5) The debris prevents garbage collection thereby creating a public health hazard.
  - (6) The debris contains contaminants that have a reasonable likelihood of leeching into the soil and/or aquifer of the town.
  - (7) The debris has a substantially negative impact in preventing or adversely affecting emergency repairs to buildings and/or property.
  - (8) The debris presents a reasonable danger of being transported by wind and/or water into the surrounding waters of the town and thereby increasing the cost of recovery and removal.
  - (9)

The debris poses a significant likelihood that, if left over time, would produce mold that would be injurious to public health.

- (10) The presence of the debris significantly adversely impacts the town's recovery efforts.
  - (11) The debris significantly interferes with drainage or water runoff, so as to be a significant hazard in the event of significant rainfall.
  - (12) The sheer volume of the debris is such that it is impractical and unreasonable to remove in an orderly and efficient manner absent action by the town.
  - (13) The type, extent and nature of the debris is such that it would cause much greater damage if the debris was not removed prior to another significant storm event.
  - (14) Commercial or other specific areas will be cleared if, in the opinion of the town manager, the clearance will significantly and substantially aid the town's recovery operations or significantly and substantially aid the health, safety or welfare of the residents of the town.
- (D) *Waiver.* The above criteria for town action may be waived owing to the severity of the situation by the Florida Long-Term Recovery Office Director of the Federal Emergency Management Agency (FEMA).
- (E) *Indemnify and hold harmless.* When the town performs the removal of debris as contemplated herein on private roads and private property, or clears private property as provided herein, the private property owner shall indemnify and hold harmless to the maximum extent provided by law, the federal, state and local government and all contractors, employees, officers and agents of the town, connected with the rendering of such service.
- (F) *Emergency roadway clearance.* Nothing herein shall preclude a first response by the town to clear and push debris from all roadways (both public and private) including access properties necessary for the movement of emergency vehicles including police, fire and ambulance within the first 70 hours after gaining access to the town after a disaster declaration, or such other extended period authorized by appropriate state, federal or local authorities.
- (G) *Private property.* Nothing herein shall require the town to remove debris from private property other than the private roadways identified above, except where the severity of the situation is of such magnitude or the debris is so widespread that it is determined by the town commission, after consulting with FEMA, to be a significant immediate serious threat to the public health, safety and welfare of the town and in the overriding public interest of the town to remove debris from such areas.

(Ord. 06-30, passed 1-8-07)

### **159.08 - Determination of damage.**

- (A) The primary task of the local damage assessment team is to identify structures that have been damaged as a result of the disaster. The town damage assessment team will catalogue and report to the building official those structures that have:
- (1) Been destroyed;
  - (2) Received major damage; and
  - (3) Received minor damage.
- (B) The building official will then, as may be necessary, inspect the damaged structures and place each structure in one of the damage categories provided for by this article. The assessment will also serve as a basis for determining if federal and state disaster declarations are warranted.

(Ord. 06-30, passed 1-8-07)

**159.09 - Moratoria.**

- (A) *Conditions for declaration.* The town commission may, pursuant to F.S. ch. 252, declare a moratorium under the following conditions in order to prioritize the repair and reconstruction of damaged critical public facilities immediately needed for public health, safety and welfare purposes:
- (1) *Initial building moratorium.* An initial building moratorium may be declared when one or more of the following actions or findings occur:
    - (a) The town is declared a disaster area by either the Governor of the State of Florida or the President of the United States.
    - (b) A finding has been made by the town commission that a state of local emergency exists in accordance with F.S. ch. 252;
    - (c) Fifty or more structures have received major damage or have been destroyed as determined by the building official; or
    - (d) The town is unable to maintain minimum acceptable levels of service expected during non-emergency situations as provided for by the capital improvement element of the town's comprehensive plan.
  - (2) *Destroyed structure moratorium.* No building permit will be issued for at least 30 days, or such other time which may be established by the town commission, following the expiration of the initial building moratorium for the replacement of any structure that has been destroyed. When a building permit is issued, structures damaged can be rebuilt in accordance with section 158.139 and chapter 154
  - (3) *Major damaged structure moratorium.* No building permit for repairs of a major damaged structure will be issued for at least ten days, or such other time which may be established by the town commission, following the expiration of the initial building moratorium.
  - (4) *Minor damaged structure moratorium.* No building permits for the repair of minor damaged structures will be issued for at least five days, or such other time which may be established by the town commission, following the expiration of the initial building moratorium.
  - (5) *New development moratorium.* No building permit for new construction or reconstruction unrelated to rebuilding or repairing structures damaged by the disaster will be accepted nor building permits will be issued for at least 30 days, or such other time which may be established by the town commission, following the expiration of the initial building moratorium so that damage may be assessed and repairs be made. The town manager will determine and advise the town commission whether a new development moratorium is required based upon the results of damage assessment and recommendations from the building official.
  - (6) *Outstanding building permit inspection moratorium.*
    - (a) All building permits that were issued prior to the disaster will be suspended for a minimum period of 30 days, or such other time which may be established by the town commission, following the expiration of the initial building moratorium, unless the building official determines on an individual case-by-case basis that sufficient inspection staff is available to adequately inspect the structures should construction begin or resume. Suspension of the building permit means that no further construction authorized by the building permit is permitted and that no inspections by the town planning, zoning and building department will be performed during the applicable moratorium period. Applications for

inspections relating to building permits suspended under this section shall be adjusted accordingly to reflect the time period covered by this moratorium.

- (b) The town reserves the right to reinspect any and all construction in progress pursuant to validly issued predisaster building permits to verify that the work in place suffered no damage as a result of the disaster. In the event that the town determines that such construction sustained damage during the disaster or suspects that damage occurred, the property owner and/or general contractor is responsible for rework, removal, retesting, repair, and uncovering work to facilitate inspection so that compliance with the building permit and the building code can be ensured.
- (7) *Outstanding development order moratorium.*
- (a) All development orders as defined herein issued prior to the disaster will be suspended for a minimum period of 30 days, or such other time which may be established by the town commission, following the expiration of the initial building moratorium. Suspension of the development order means that no development order work is authorized and that no development order inspections by the planning, zoning and building department will be performed during the moratorium. Applications for development orders suspended under this section will be adjusted accordingly to reflect the time period covered by this moratorium.
  - (b) The town reserves the right to reinspect any and all development order work in place prior to the disaster to verify that the work in place was not damaged during the disaster. In the event that the town determines that development order work in place was damaged during the disaster or suspects that damage occurred, the developer will be responsible for rework, removal, retesting, repair, and uncovering work to facilitate inspection so that compliance with the development order documents and the land development code can be ensured.
- (8) *Site development plan, subdivision plat review, and zoning request moratorium.*
- (a) Site plan, zoning and subdivision plat requests that were submitted to the town prior to the disaster will not be reviewed by the town staff for a period of 30 days following the expiration of the initial building moratorium. All submittal dates and review periods will be adjusted accordingly to reflect the time period covered by this moratorium.
  - (b) No new site plan, zoning or subdivision plat requests will be accepted by the town for a period of 30 days following the expiration of the initial building moratorium. All submittal dates and review periods will be adjusted accordingly to reflect the time period covered by this moratorium.
- (9) *Duration.* All moratoria other than the initial building moratorium as enacted will be in effect for the length of time described above and may be terminated or extended by the town commission.

(Ord. 06-30, passed 1-8-07)

### **159.10 - Emergency repairs and emergency permitting.**

- (A) *Emergency repairs.*
  - (1) No construction or reconstruction activity may be undertaken without a building permit while a building moratorium is in effect; however, emergency repairs necessary to

prevent injury, loss of life, imminent collapse of a structure or other additional damage to the structure or its contents will not be subject to the temporary moratoria provided for by this article and shall not require individual building permits. Such emergency repairs shall include but not be limited to:

- (a) Temporary roof repairs with plywood or plastic sheeting to make structures habitable or to prevent continuing damage due to rain and wind to building interiors and exteriors;
  - (b) Covering exterior wall openings with plywood or plastic sheeting;
  - (c) Temporary repairs to interior ceilings and/or walls to make buildings habitable or to drain accumulated floodwaters;
  - (d) Temporary repairs to steps; and
  - (e) Temporary stabilization measures to avoid imminent building or structure collapse.
- (2) Emergency repairs to buildings or infrastructure that house the following organizations or activities shall not be subject to any temporary moratorium because of their necessity to protect the public health and safety by providing electrical power, potable water, wastewater, and communications facilities; emergency stabilization of roadways; police, fire and medical facilities; essential governmental facilities; response/recovery centers and distribution centers; debris removal activities; and, stabilization or removal of structures about to collapse.
- (3) Nothing in this article shall be construed to suspend state and federal permit regulations.
- (B) *Emergency permitting.* An emergency permitting system will be established utilizing the most recent building and construction administrative codes, regulations and ordinances.
- (C) Emergency permits to permit emergency repairs shall not be deemed a waiver of the town of a determination of whether the structure has been substantially damaged in excess of 50 percent or more as provided in chapter 154. Such determination shall be made pursuant to chapter 154 (flood control) and, where applicable, section 158.139, "rebuilding nonconforming structures in the event of involuntary destruction", as well as any other applicable state or local laws. Further, such emergency repairs may be considered in the calculation for determining whether the market value of the improvement meets or exceeds 50 percent of the value of the structure as defined and calculated under chapter 154, (flood control).
- (D) Removal of buildings in imminent danger of collapse shall be in accordance with chapter 150 of this Code and state law.

(Ord. 06-30, passed 1-8-07)

### **159.11 - Economic redevelopment policies.**

- (A) The following general policies will guide the use of resources employed towards rebuilding of the town's economic base:
  - (1) Reopen the business community.
  - (2) Re-establish the tourist industry.
- (B) Damaged businesses and other economic enterprises necessary for the public health and safety and for restoring the community's economic base will be allowed to use temporary structures such as modular buildings, mobile homes, or similar type structures to carry out their activities, until their damaged structure is rebuilt or replaced according to applicable development and redevelopment regulations.

*(Ord. 06-30, passed 1-8-07)*

### **159.12 - Guidelines for acquiring damaged property.**

- (A) When determined to be in the public interest, the town commission may enter into negotiation with a property owner or owners whose improved real estate property has been damaged by the disaster for the purpose of acquiring such buildings and associated land or lot for transfer by sale, lease or donation to the town when the following conditions are met:
- (1) The property must be located in an area damaged by the disaster;
  - (2) The property should be free of any encumbrances; and
  - (3) The building structure must:
    - (a) Have been damaged substantially beyond repair or must have been damaged to the extent that the cost of reconstruction or repairs exceeds 50 percent of the building value of the buildings or structures at the time of the disaster; or
    - (b) Not be capable of repair or significantly increased repair costs; or have been abandoned by its owner.
- (B) Property acquired under these conditions must be dedicated for such purposes as the town commission may agree are consistent with:
- (1) Open space uses; or
  - (2) Uses consistent with disaster cleanup.
- (C) Allowable open space uses include parks for outdoor recreational activities, nature preserves or trails, beach access, unimproved parking lots, and structures functionally related to these uses such as open-sided picnic facilities, refreshment stands, or other nonhabitable structures primarily supporting the recreational activities.

*(Ord. 06-30, passed 1-8-07)*

### **159.13 - Authority.**

Nothing in this article limits the authority of the town commission to declare, repeal or extend a state of local emergency.

*(Ord. 06-30, passed 1-8-07)*

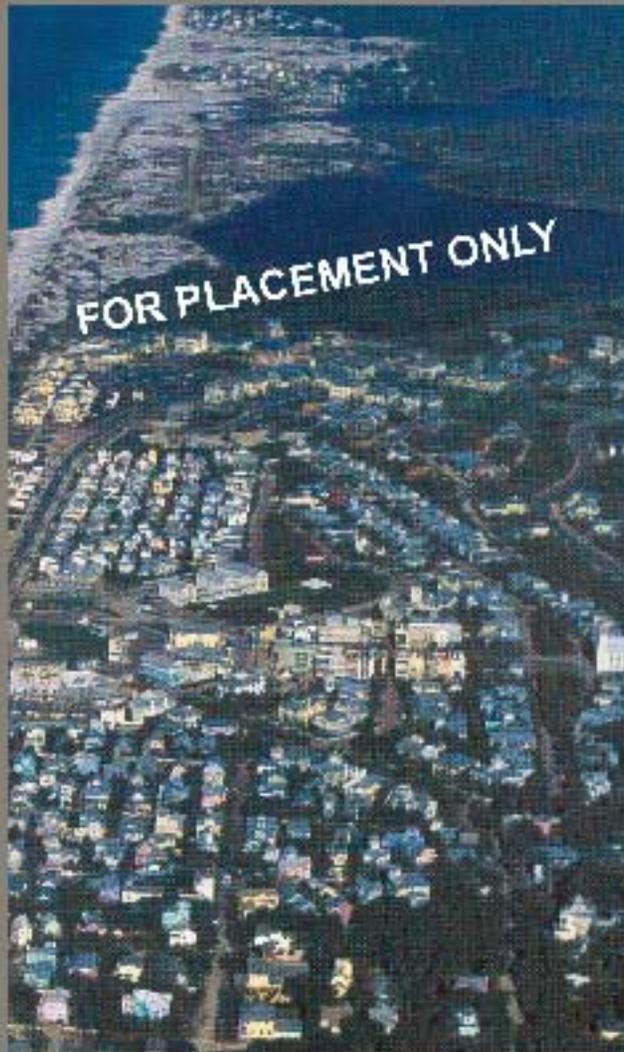
### **159.14 - Penalties.**

- (A) Any person, firm, company or corporation who fails to comply with or violates any section of this chapter, or the emergency measures which may be effective pursuant to this chapter, is guilty of a misdemeanor of the second degree, and upon conviction for such offense, may be punished by a fine not to exceed \$500.00 or by imprisonment not to exceed 60 days in jail, or both, at the discretion of the court hearing the case. Each day of continued noncompliance or violation will constitute a separate offense. In addition to this penalty, any construction licensee of the state who violates any provision of this chapter or the emergency measures which are effective as a result of this chapter, will be charged with said violation and have the matter heard before the appropriate state administrative body or court of law.
- (B) Nothing contained herein shall prevent the town from taking such other lawful action in any court of competent jurisdiction as is necessary to prevent or remedy any failure to comply with, or violation of, this chapter or the emergency measures which may be made effective according to this chapter. Such other lawful action includes, but it is not limited to, an equitable action for injunctive relief or an action at law for damages.

*(Ord. 06-30, passed 1-8-07)*

# PROTECTING FLORIDA'S COMMUNITIES

Land Use Planning Strategies and Best Development Practices  
for Minimizing Vulnerability to Flooding and Coastal Storms



FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS  
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# 1 Introduction

Florida is subject to severe weather. At the same time, the state is growing fast, with many people moving to the most hazard-prone areas along the coasts of the Atlantic Ocean and Gulf of Mexico. In some areas, the population is growing faster than the ability to evacuate and shelter people during emergencies. Growth in these areas also exposes billions of dollars of private property and public facilities and infrastructure to damage from coastal storms and flooding. The combination of these ingredients – more people, property, and public facilities in the path of natural hazards – is a recipe for disaster.



Source:

*Clockwise from top:*

*Hurricane damage in Charlotte County.*

*Unidentifiable business on Highway 41 North toward Port Charlotte.*

*Hurricane damage in Orange County.*

*Holiday Inn in Punta Gorda.*



Source:



Source:



Source:

On the bright side, much valuable and useful planning has been done, at both the state and local levels, to protect people, property, and public facilities. Local governments throughout Florida have developed *Local Mitigation Strategies (LMSs)* and *Comprehensive Emergency Management Plans (CEMPs)*. Some coastal communities have prepared *Post-Disaster Redevelopment Plans (PDRPs)* and incorporated mitigation policies in the coastal management elements of their local *Comprehensive Plans*. In addition, great gains have been made in understanding the natural hazards to which Florida communities are exposed and in developing techniques for reducing community vulnerability to them.

Florida communities are far ahead of many local governments in the U.S. in developing

plans, policies, and strategies for reducing their vulnerability to natural hazards. However, opportunities remain to make communities more resistant and resilient in the face of natural hazards by more effectively integrating hazard mitigation into day-to-day public land use decisions. The key to doing so is to better integrate natural hazards information, policies, and strategies from the array of plans Florida communities have developed into the decisions they make about land use and local government expenditures for public facilities and infrastructure. Communities can accomplish this by better integrating the content of their various plans into local comprehensive plans and by better integrating the processes they follow for developing, amending, and implementing these plans.

This guidebook, *Protecting Our Communities: Land Use Planning Strategies and Best Development Practices for Minimizing Vulnerability to Flooding and Coastal Storms*, is one in a series of “best practices” publications prepared by the Florida Department of Community Affairs (FDCA) (see Sidebar 1.2). It describes how to create a powerful synergy from what currently are related but often discrete or loosely coupled plans. The guidebook provides information on planning policies and strategies that can be implemented before and after disasters strike to further reduce community vulnerability to coastal storms and related flooding.

By publishing this “best practices” guidebook and identifying ways communities can better integrate hazard mitigation into day-to-day land use decision making through the community’s comprehensive planning process, FDCA intends to support local planning efforts to improve public safety and sustainability, without increasing the overall commitment of resources by local governments.

Applying the principles and practices in this guidebook will enable communities to identify and implement appropriate policies before and after a disaster strikes. In so doing, communities can reduce the exposure of people and property to natural hazards such as hurricanes and inland flooding, and speed the process of recovery should a disaster hit. More importantly, this guidebook seeks to integrate this activity with other broad planning and implementation efforts.

### Sidebar 1.1

## Disasters can result in loss of life and property.

Dozens of Florida residents are killed or injured each year as a result of coastal storms and related flooding (Florida Coastal Management Program, 2000). Property damages from flooding and hurricanes alone total billions of dollars, as indicated in Table 1.1.

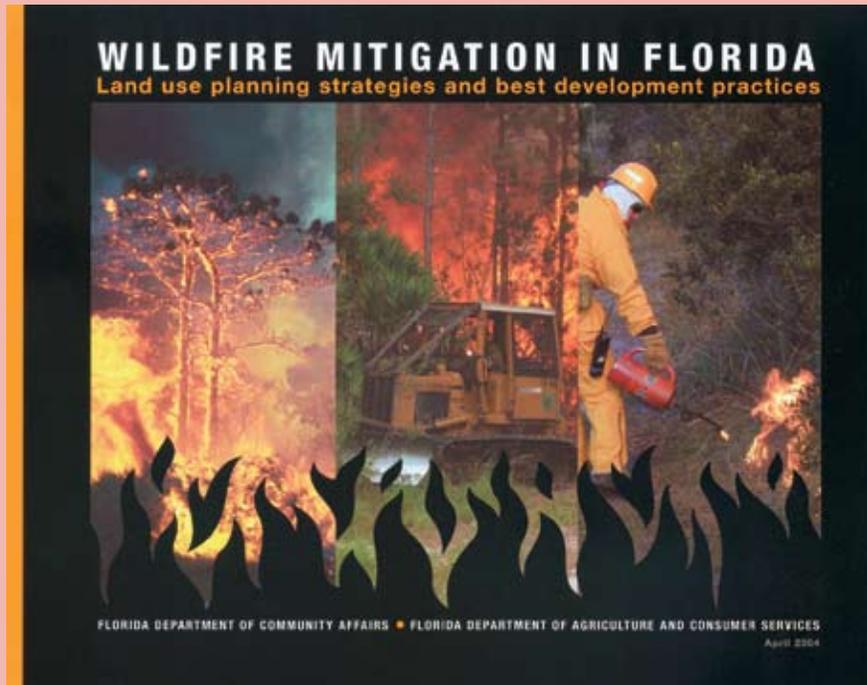
**Table 1.1: Damages from flooding and hurricanes in Florida.**

Date	Event	Property Damage (in millions)
August (24) 1992	Hurricane Andrew	\$26,500
October (3-4) 1995	Hurricane Opal	\$2,100 (estimated)
March 1998	Flooding	\$367
September (15-29) 1998	Hurricane Georges	\$255
October 1999	Hurricane Irene	\$327
October 2000	Flooding	\$450
August 2004	Hurricane Charley	\$7,400

Source: Florida Department of Community Affairs, 2003. Hurricane Charley estimates are preliminary as of September 2004.

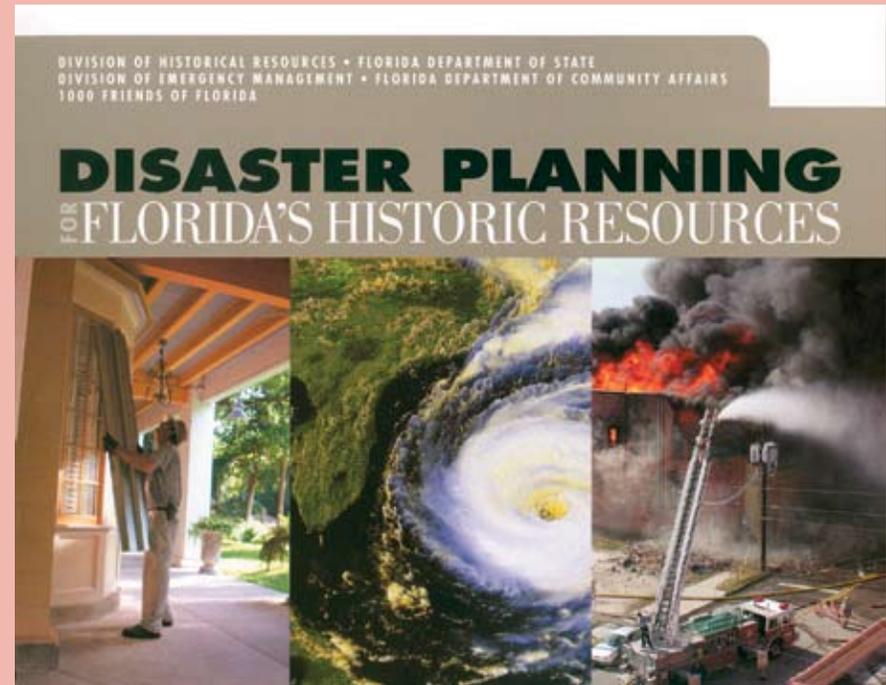
## Sidebar 1.2

## Best Practices Hazard Mitigation Guidebook Series



**Wildfire Mitigation in Florida**, prepared by FDCA with assistance from the Florida Division of Forestry.

This guidebook examines the role of planning in community wildfire mitigation efforts. It describes planning strategies such as cooperative strategies, comprehensive plan elements, local mitigation strategies, and other planning approaches. The guide includes guidelines for creating and adopting local wildfire mitigation ordinances to reflect comprehensive plan policies, and explores the relationships and potential conflicts between local ordinances. The guide also discusses neighborhood and landscape design as well as building construction practices and materials for reducing wildfire vulnerability.



**Disaster Planning for Florida's Historic Resources**, prepared by FDCA with assistance from the Florida Division of Historic Resources and 1000 Friends of Florida.

The guidebook describes steps for preparing emergency response plans for individual historic resources, expediting review of repair and reconstruction permits in the event of damage, and improving coordination between emergency management and historic preservation efforts within a community in order to reduce disaster-related damage and rebuild local economies.

Both guidebooks are available at [www.dca.state.fl.us/fdcp/DCP/publications/index.htm](http://www.dca.state.fl.us/fdcp/DCP/publications/index.htm).

# 2 Hazards Happen, People Plan

## Section 2.1: The Who, What, When, and Where of Hazards

Before discussing how to reduce community vulnerability to natural hazards and recover from them more quickly, it is important to know what the hazards are, where they occur, how much property they affect, and how many people they threaten.

*The State of Florida Mitigation Plan* is the document that guides state and local efforts to reduce risk from hazards and lists the natural hazards that threaten life and property in the state, including the following:

- floods,
- hurricanes and coastal storms,
- severe storms and tornadoes,
- wildfire,
- drought / extreme heat,
- winter storms and freezes,
- erosion,
- dam / levee failures,
- sinkholes and seismic events, and
- tsunamis.

The majority of problems year after year come from coastal storms and associated flooding (see Figure 2.1). Many states and territories with coastlines on the Pacific Ocean, the Atlantic Ocean, and the Gulf of Mexico are affected by storms such as hurricanes and tropi-

cal storms, both of which are technically classified as “tropical cyclones.” Florida, however, is the most vulnerable (see Sidebar 2.3 and Figure 2.2).

In general, exposure to hurricanes and related severe weather faced by Florida residents varies by location (see Figure 2.4).

- Barrier islands and the areas immediately adjacent to the Atlantic and Gulf coasts are subject to a staggering combination of effects from tropical cyclones: flooding from storm surge, flooding from rivers and streams inundated with rain water and backwater from storm surge, and damage from high winds and wind-borne debris.
- Areas away from the coast, even 10 miles or more, are vulnerable to high winds and wind-borne debris, as well as flooding from rivers, canals, and streams. Property near inland waterways and water bodies is susceptible to flooding from major rainfall events associated with hurricanes and tropical storms. These areas suffer from high winds as well, but not as much as communities on the coastal fringe.



Source: Federal Emergency Management Agency, 1999.

Figure 2.1: Ocean overwash flushes between coastal homes.

### Sidebar 2.1

## What is a tropical cyclone?

“Tropical cyclone” is a generic term for a cyclonic, low-pressure system over tropical or sub-tropical waters. Tropical cyclones with maximum sustained winds of less than 39 miles per hour (mph) are called **tropical depressions**. A **tropical storm** is a cyclone with maximum sustained winds greater than 39 mph and less than 74 mph. A **hurricane** is a tropical cyclone with sustained winds of 74 mph or higher.

## Sidebar 2.2

## What is a hurricane?

**Hurricanes** develop over warm water and are caused by the atmospheric instability created by the collision of warm air with cooler air. Hurricane winds blow in a large spiral around a calm center called the eye, which can be 20 to 30 miles wide. When a hurricane nears land, it may bring torrential rains, high winds, storm surges, coastal flooding, inland flooding, and, sometimes, tornadoes.

A single hurricane can last for more than two weeks over water and can extend outward 400 miles. The duration of impact depends on the forward motion of the storm and the availability of a warm water source for energy. The hurricane season for the Atlantic Coast and Gulf of Mexico is June 1 to November 30.

Some hurricanes are characterized primarily by water—a rainy or wet hurricane—while others are primarily characterized by wind—a windy or dry hurricane. Wet hurricanes can flood both coastal and inland areas, even as the storm dissipates in wind strength, while windy hurricanes primarily affect coastal areas with their high winds and storm surge. While storm surge can greatly damage the coastline, it can also cause backwater flooding in rivers, canals, and streams.

*Source: Federal Emergency Management Agency, 2001.*

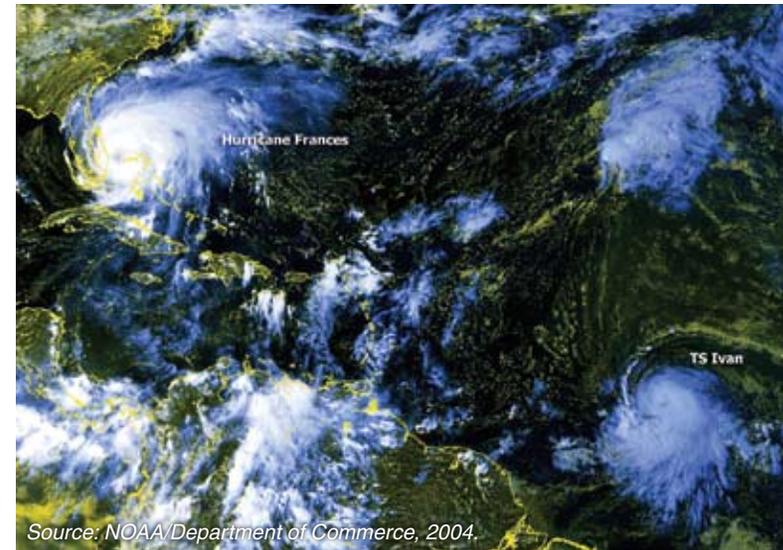
In many cases, it is possible to determine which properties and community assets are the most vulnerable to hazards. This information enables communities to pursue policies and activities that prevent as much damage and destruction as possible and provide the best ways to recover and rebuild after a hazard event. The following section describes the magnitude of the damage that coastal storms and associated flooding can cause in Florida.

## Sidebar 2.3

## Florida is more prone to major hurricanes than any other state.

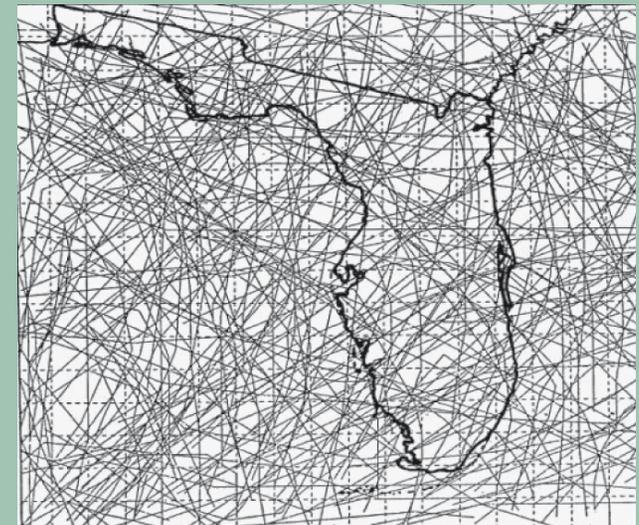
Florida has the greatest probability of any state for a major hurricane (Category 3 or higher) to make landfall in the state, according to data provided by the National Climate Data Center, operated by the National Oceanographic and Atmospheric Administration (NOAA). A total of 151 hurricanes and 248 tropical storms have struck or threatened Florida since 1886 (see Figure 2.3). Between 1900 and 1996, 24 of 57 hurricanes that hit Florida were major hurricanes (Category 3 or greater). Such hurricanes are characterized as causing extensive damage due to wind speeds in excess of 110 mph and storm surges greater than eight feet.

**Figure 2.2:** Enhanced satellite imagery showing the approach of Hurricanes Frances and Ivan.



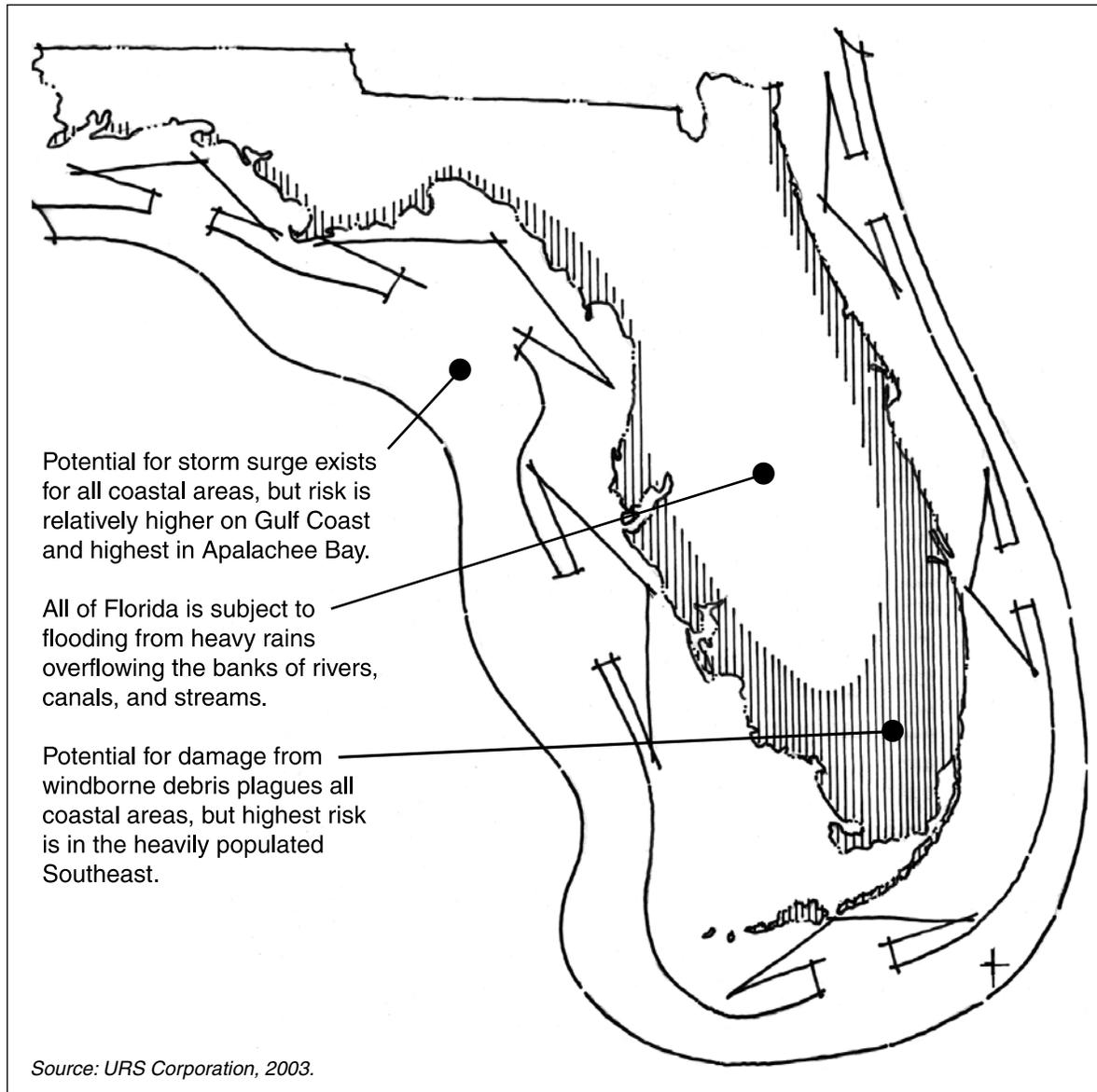
*Source: NOAA/Department of Commerce, 2004.*

**Figure 2.3:** Tracks of hurricanes that have threatened or struck the state of Florida since 1886.



*Source: Florida State University Beaches and Shores Resource Center.*

Figure 2.4: General risk factors in the state of Florida.



## Section 2.2: Potential Losses From Coastal Hazards in Florida

Hurricanes, coastal storms, and inland flooding are considered hazards only when they affect people and property. In Florida, they can affect large numbers of people and a significant amount of public and private property. It is important to know who and what is at risk in Florida in order to devise strategies for reducing those risks. The answers to a few simple questions will begin to tell the story.

### How many people live in Florida?

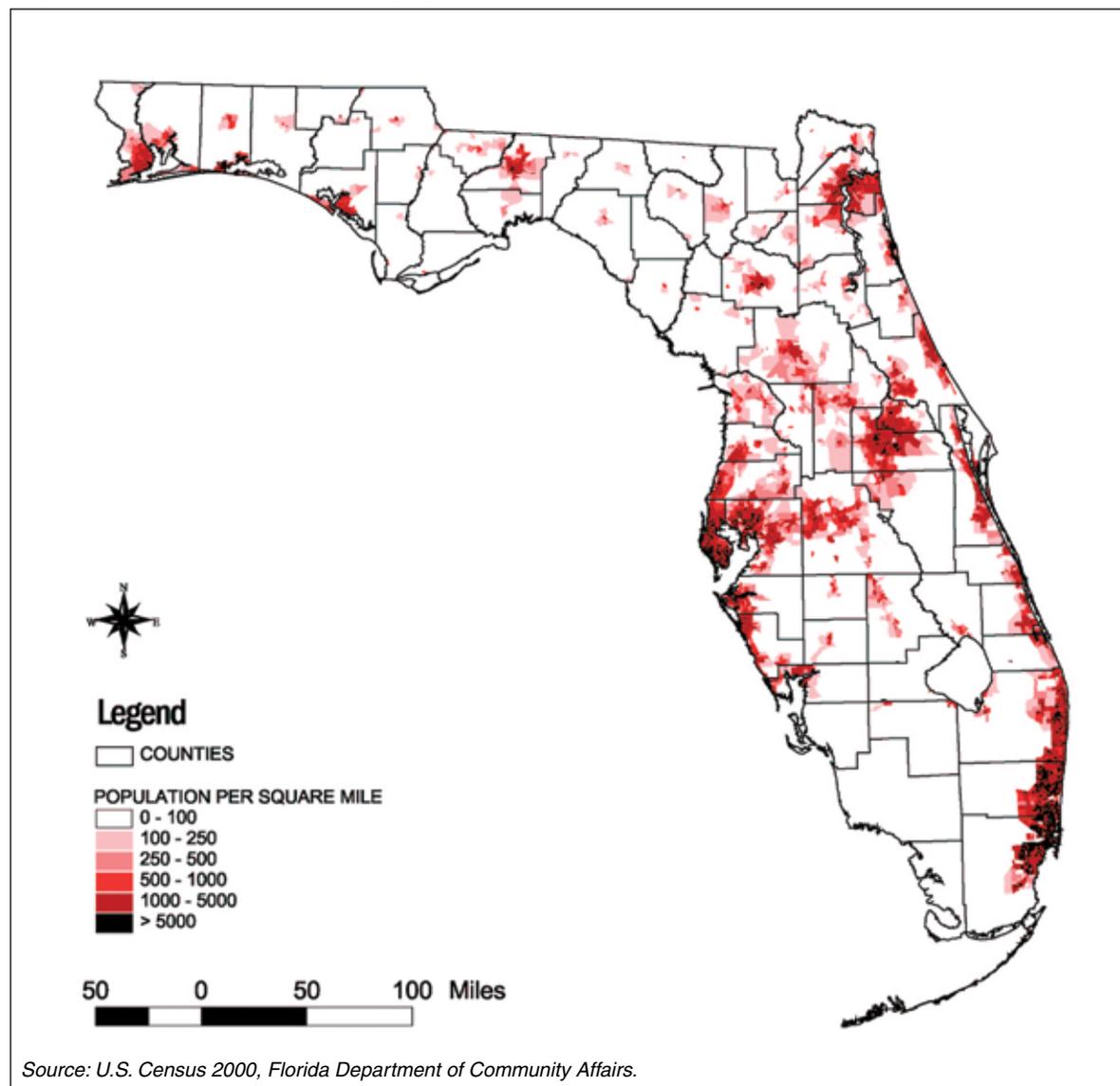
In 2003 the resident population of Florida was estimated to be 16,967,310, according to the Bureau of Economic and Business Research (2003). In addition, the state's high number of visitors at any given time, can significantly increase the actual number of people in a community, sometimes by more than 40 percent for some south Florida coastal communities.

### Where do most Floridians live?

Based on the 2003 estimate of population, 77 percent of the state's residents live in the 35 counties that are located along the Atlantic Ocean or the Gulf of Mexico shorelines. As shown in Figure 2.5, even within those counties, much of the state's population is clustered along the coast.

Table 2.1 shows in more detail the percentage of the population of coastal counties that

Figure 2.5: State of Florida 2000 population distribution.



is most at risk and requires evacuation in the event of a Category 1 hurricane. This includes people who live within the area likely to be inundated by storm surge that accompanies a Category 1 hurricane, as well as all residents of mobile homes throughout the county. This population, which is most at risk, is approximately 3 million. The Category 1 evacuation zone, which is defined as the “Coastal High Hazard Area” in local government *Comprehensive Plans* (see Sidebar 2.10), is based upon, but usually somewhat different from, the Category 1 surge zone.

### What is the value of the property that may be at risk?

The growth rates for the coastal counties, shown in Table 2.1, indicate that development has increased dramatically in many of these higher risk areas of the state. The 2000 *Florida Assessment of Coastal Trends* estimated that the value of residential and commercial property along the Florida coastline would reach \$870 billion by 2002.

### What is the potential for loss?

Quantifying the *potential loss of life* is challenging. Too many variables are involved to create reliable predictions. It is a fact, however, that dozens of people have been killed or injured as a result of presidentially-declared natural disasters in Florida. Since such a high percentage of residents live in the most hazardous areas, it is a certainty that more lives will be

**Table 2.1: Populations at risk in a Category 1 hurricane.**

Coastal County	% Rate of Change 1990-1999	County Population 1999	Population at Risk (Cat. 1)	% Population at Risk (Cat. 1)
Bay	18.2	150,119	83,779	55.8%
Brevard	19.0	474,803	191,696	40.4%
Broward	18.7	1,490,289	116,154	7.8%
Charlotte	23.2	136,773	47,742	34.9%
Citrus	22.9	114,898	58,800	51.2%
Collier	44.4	219,685	7,582	3.5%
Dade	9.8	2,126,702	272,000	12.8%
Dixie	27.3	13,478	11,500	85.3%
Duval	13.4	762,846	96,770	12.7%
Escambia	14.8	301,613	64,704	21.5%
Flagler	59.6	45,818	23,820	52.0%
Franklin	21.2	10,872	7,821	71.9%
Gulf	25.2	14,403	7,412	51.5%
Hernando	26.0	127,392	47,500	37.3%
Hillsborough	16.0	967,511	278,398	28.8%
Indian River	21.5	109,579	47,382	43.2%
Jefferson	27.7	14,424	4,200	29.1%
Lee	24.5	417,114	176,457	42.3%
Levy	28.9	33,408	18,900	56.6%
Manatee	19.6	253,207	96,206	38.0%
Martin	20.4	121,514	69,307	57.0%
Monroe	11.5	87,030	59,865	68.8%
Nassau	30.6	57,381	24,411	42.5%
Okaloosa	24.9	179,589	67,472	37.6%
Palm Beach	20.7	1,042,196	205,893	19.8%
Pasco	16.1	326,494	134,048	41.1%
Pinellas	5.5	898,784	392,004	43.6%
Santa Rosa	38.0	112,631	48,082	42.7%
Sarasota	15.6	321,044	88,506	27.6%
St. Johns	35.9	113,941	28,950	25.4%
St. Lucie	24.5	186,905	97,157	52.0%
Taylor	15.9	19,836	8,800	44.4%
Volusia	15.1	425,815	113,507	26.6%
Wakulla	45.4	20,648	6,306	30.5%
Walton	45.8	40,466	30,090	74.4%

Source: Florida Department of Community Affairs, Division of Emergency Management.

lost in the future, and many of those fatalities will be due to inland flooding (see Sidebar 2.4).

Reliable techniques do exist to estimate *potential losses to private and public property*. Building performance under conditions of flooding and wind loads has been studied enough to develop predictive models. Table 2.2 presents results of analyses the FDCA Division of Emergency Management (DEM) has undertaken using these techniques as part of a recent update of the state’s hazard mitigation plan.

**Sidebar 2.4**

## Inland Flooding Leading Cause of Storm Deaths

Studies indicate that between 1970 and 1990, 59% of cyclone-related deaths in the US were due to severe inland flooding following storms. Only 1% of deaths were due to storm surge, which has the greatest potential for loss of life. Wind accounted for 12% of deaths, followed by surf and offshore drownings (11% each), tornadoes (4%), and other (2%).

Source: Florida Department of Community Affairs, 2003.

**Table 2.2: Florida disaster risks.**

Hazards	Annual Estimated Losses (in millions)
Hurricane winds	\$14,700
Riverine flooding	\$255
Tornadoes	\$22
Coastal flooding	\$11
<b>Totals</b>	<b>\$14,988</b>

Source: Florida Department of Community Affairs, 2003.

These data suggest that Florida can expect average damages of nearly \$15 billion per year. It is worth noting, however, that the actual losses will be significantly higher in some years (e.g., \$26.5 billion for Hurricane Andrew in 1992) and lower in others.

### What are the other public costs of vulnerability to hazards?

The potential losses to public property from coastal storms and associated flooding are due in large degree to decisions to provide facilities and services to people who have chosen to develop property in hazardous areas. In addition to direct damage to this public property, local and state governments face other expenses associated with private development in hazardous areas:

- the costs of evacuation, public shelters, and other protective measures when coastal communities are threatened by a tropical storm or hurricane;
- emergency response after a storm strikes; and
- post-disaster recovery costs including debris removal and disposal, regulation of private repairs and reconstruction, and ad-

ministration of disaster recovery programs and services.

Analysis of local government costs from six hurricanes that affected Florida between 1979 and 1995 (Frederic, Elena, Kate, Andrew, Erin, and Opal), by the Florida Planning and Development Lab (FPDL) at Florida State University, revealed that damage to public property accounted for only about 25% of all local government costs eligible for federal public assistance disaster relief (Florida Planning and Development Lab, 2003). The remaining 75% was associated with the other disaster response and recovery responsibilities.

FPDL estimated that the total event cost to local governments in Lee County, Florida, for a Category 1 hurricane, based on 1995 data, would be between \$5 and 11 million. Costs for a Category 3 hurricane would run between \$28 and 53 million, while a low-level Category 5 hurricane could incur costs ranging from \$198 to 207 million.

### What are the trends for growth and development?

Table 2.3 contains population projections for the state developed by the University of

Florida's Bureau of Economic and Business Research. The projections estimate that Florida will reach a population of 24.4 million in the year 2025, an increase of 8.4 million from the 2000 census count of approximately 16.0 million, or approximately 925 people per day! If current trends continue, the majority of this population growth will occur in coastal communities.

### What are the implications of these development trends?

With population and development increasing along the coast, evacuation clearance times are likely to increase in many communities, unless significant public expenditures are made to expand evacuation routes and shelter capacities. More people bring more cars that have to be moved on a finite network of roads. The situation will be even more critical for residents of barrier islands, which often have just one route out. Table 2.4 shows current evacuation times for coastal counties for Category 1–5 hurricanes.

Additionally, even when people have sufficient notice to evacuate, they may not have a safe place to go. As of 2004, the state lacked

**Table 2.3: Florida 2000 population and projections.**

2000 Census	Projected Population				
	2005	2010	2015	2020	2025
15,982,378	17,760,021	18,978,396	21,000,845	21,807,678	24,428,300

Source: Bureau of Economic and Business Research, 2003.

**Table 2.4: Coastal county clearance times per hurricane category (hours).**

Region	County	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5
Southwest	Charlotte	3.5	11.5	12.5	12.5	12.5
	Collier	6.6	16.4	27.1	40.2	50.9
	Lee	9.5	16.5	24.5	27	27
	Sarasota	10.5	10.5	10.5	10.5	10.5
Withlacoochee	Citrus	9.25	12.5	13.25	13.25	13.25
	Hernando	11.75	11.75	11.75	17.25	17.25
	Levy	6.25	6.25	6.25	6.25	6.25
North Central	Dixie	6	6	6	6	6
	Taylor	6.25	6.25	6.25	6.25	6.25
East Central	Brevard	12	12	18	18	18
	Volusia	8	8	10	11	11
Northeast	Nassau	10.25	12.25	12.75	13.25	13.25
	Duval	8.5	12	16.75	19.5	19.5
	St. Johns	10.5	14	16	16.75	16.75
	Flagler	7.75	7.75	12	12	12
Treasure Coast	St. Lucie	8	8	8.5	8.5	8.5
	Indian River	7	7	10.5	10.5	10.5
	Martin	8.75	8.75	14.25	18	18
	Palm Beach	6.5	13.75	13.75	16	16
South	Monroe	12	12	24*	24*	24*
	Miami-Dade	10	10	12	15	15
	Broward	12	12	15	19	19
Tampa Bay	Hillsborough	10	13	13	14	17
	Pinellas	10	13	13	14	17
	Pasco	9	9	11	12	12
	Manatee	9	10	11	11	11
	Franklin	6.75	7	7	7	7
Apalachee	Gulf	6.25	7	7	8	8
	Jefferson	6.25	6.25	6.25	6.25	6.25
	Wakulla	9.5	10	10	10	10
	Escambia (AL also)	16.75	20	20	23.75	23.75
	Santa Rosa	8.5	9.25	9.25	10.5	10.5
West Florida	Okaloosa	13.5	19.25	19.25	21.75	21.75
	Walton	11.75	21	21	21.5	21.5
	Bay	13	14.75	17.75	21	21

more than 590,000 shelter spaces for a Category 5 hurricane. As shown in Table 2.5, a few coastal counties have surpluses, but most do not. Shortages range from 107 in Wakulla County to 93,527 in Pinellas County. Providing additional shelter capacity constitutes another source of local government expense that results from continued growth in hazardous coastal areas.

As this section makes clear, the types of hazards that Florida faces will likely remain the same, but the potential damages and costs of those hazards will continue to grow worse because of increases in population and development in hazardous areas. Florida communities have employed an array of strategies for minimizing and reducing vulnerability, and these strategies are addressed to varying degrees in several of the plans that local communities have developed for coping with natural hazards. These strategies are summarized in the next section. Detailed examples of best practices are presented later in this guidebook.

## Section 2.3: What Strategies Are Available?

The vulnerability of communities to natural disasters in general, and of coastal storms and flooding in particular, is primarily a function of what is built and where. Four principal strategies are available to local governments for reducing community vulnerability:

\* The most recent Area of Critical State Concern report indicates a 24-hour clearance time for Monroe County.

Source: Florida Department of Community Affairs, Division of Emergency Management.

**Table 2.5: 2004 coastal county shelter deficits for Category 5 hurricane.**

Region	County	2004 Shelter Surplus/Deficit In People
Southwest	Charlotte	-28,149
	Collier	-27,263
	Lee	-87,366
	Sarasota	-18,754
Cedar Key	Citrus	-11,494
	Hernando	-12,970
	Levy	-2,731
North Central	Dixie	-1,087
	Taylor	-1,681
East Central	Brevard	11,528
	Volusia	-21,368
Northeast	Nassau	-1,258
	Duval	-20,258
	St. Johns	-2,509
	Flagler	-2,401
Treasure Coast	St. Lucie	-2,365
	Indian River	721
	Martin	3,005
	Palm Beach	-3,949
South	Monroe	-4,194
	Miami-Dade	30,958
	Broward	1,126
Tampa Bay	Hillsborough	-55,152
	Pinellas	-93,527
	Pasco	-40,454
	Manatee	-19,401
Apalachee	Franklin	-185
	Gulf	-836
	Jefferson	-253
	Wakulla	-107
West Florida	Escambia	1,513
	Santa Rosa	-1806
	Okaloosa	-12,146
	Walton	-416
	Bay	-7,445

Source: Florida Department of Community Affairs, 2004.

- get out of the way (evacuation and sheltering);
- protect and enhance natural protective features;
- make structures more resistant to natural hazard forces; and
- manage the development and redevelopment of land exposed to natural hazards.

This section briefly describes each strategy and the information base needed to assess when, where, and how it will be most effective to employ each strategy. The next section describes the different types of plans that local governments in Florida have developed for coping with natural hazards and examines how each plan type can facilitate use of these four strategies.

### **Get out of the way: Provide evacuation and sheltering services**

All Florida counties provide evacuation and sheltering services to their residents. Evacuation and sheltering temporarily remove people from harm's way but offer no protection to private or public property. Thus, communities cannot rely solely on these measures to minimize their vulnerability to coastal storms and associated flooding.

As noted above, current evacuation clearance times and shelter capacities are inadequate in many parts of Florida. These will continue to worsen with increasing population growth in the absence of other public-sector initiatives to either limit growth in areas with capacity constraints or to increase evacuation and sheltering capacities through capital expenditure programs. Decisions that local governments make about land use affect the numbers of people for whom such services must be provided. Local capital expenditure decisions affect the capacities of evacuation routes and the supply of suitable emergency shelters.

### **Protect and enhance natural protective features**

Natural features make Florida's environment less hazardous than it otherwise would be by providing protection and buffering from the impacts of coastal storms and associated flooding in the form of natural drainage ways, floodplains, wetlands, beaches, and dunes. In the past, development has altered or destroyed many of these natural protective features and significantly reduced the ability of the land to absorb rainfall and storm water runoff.

A number of communities have adopted policies and land development regulations designed to protect these natural protective features. In many areas, state and local government resources have been expended to restore, enhance, or supplement these natural protective

features. The largest expenditures have been made for storm water detention, retention, and conveyance, beach and dune renourishment, and “hard” flood and erosion protection structures such as dams, levees, seawalls, and revetments.

There are limits, however, to the protection afforded by both natural features and storm water management and flood protection structures. Much property remains at risk of damage from coastal storms and floods that exceed the physical limits of such protective features and structures.

### **Make structures more resistant to natural hazard forces**

Structures can be designed or retrofitted to make them more resistant to damage from the forces of wind, waves, and storm surge and from the flooding that is associated with coastal storms. The principal vehicle by which Florida communities employ the strategy of making structures more resistant to natural hazard forces is via the adoption and enforcement of building codes that govern the construction of new buildings and major renovations of existing buildings. Local governments are required to adopt and enforce the Florida Building Code (§553.80, *Florida Statutes*), which includes standards governing design and construction of private and public structures for resisting damage from wind-borne debris and standards for elevating and/or flood-proofing habitable buildings within flood hazard areas

defined pursuant to the National Flood Insurance Act. Local governments also are authorized to adopt more stringent standards than those contained in the Florida Building Code (§553.73, *F.S.*).

One constraint to reliance on building codes for reducing community vulnerability is the fact that existing structures are typically not required to be brought into compliance with new codes unless they undergo substantial repairs or renovations, which are typically defined as those that exceed 50 percent of the market value of the structure. The state and some local governments, in order to motivate and facilitate voluntary structural mitigation initiatives by private property owners, use public education, technical assistance, and financial assistance programs. State and local governments also may make capital expenditures to relocate, elevate, or strengthen existing public facilities and infrastructure to make them more resistant to damage from natural hazards.

Such measures can be very effective at protecting the built environment from storms of low and moderate intensities, but at some point, mitigation costs become prohibitive. Thus, there are limits to the amount of protection afforded by making structures more resistant to the forces of coastal storms and associated flooding.

### **Manage the development and redevelopment of land in hazardous areas**

The other principal strategy for reducing community vulnerability is to manage the development and redevelopment of land exposed to natural hazards. Where vacant land is exposed to hazard forces, local government decisions about allowable land uses, and the provision of public facilities and infrastructure to support those uses, can have major impacts on the extent to which the community makes itself vulnerable to natural hazards. Where communities are already established and land is predominately “built out,” local governments can take initiatives to reduce existing levels of vulnerability by altering current land uses both in the aftermath of disasters, when opportunities for redevelopment may arise, and under “blue sky” conditions as part of planned redevelopment initiatives.

### **Section 2.4: What Basis Is There for Assessing Alternatives?**

Determining which strategies to employ is complicated and difficult, in part because there typically are significant costs associated with inaction as well as with each alternative action. Evaluating the tradeoffs requires information about the costs and benefits of each choice. An essential foundation for making such evalu-

ations is hazard assessment – an accurate assessment of the nature of the hazards to which a community is exposed, the vulnerability of its people and property to damage from those hazards, and the likelihood that injuries and damage may occur (see Sidebar 2.5).

- **Hazard identification** typically is based on maps that can be used to determine where people, property, and critical facilities are exposed to different natural hazards.
- **Vulnerability assessment** is usually done for an array of specific scenarios, for example, a 100-year flood (1 percent chance every year) or a Category 3 hurricane. This assessment requires information about the characteristics of people (for example, age and physical disabilities) and property (for example, structure type and design, construction materials, first-floor elevations) that would be in harm's way for a specific scenario.
 

Vulnerability assessment also requires an understanding of the impacts that would occur in response to hazard forces (for example, the percent damage to a structure and its contents from flood waters of a given depth relative to the first floor of the structure).
- **Risk analysis** often takes the form of annualized estimates of the probable impacts from all possible hazard scenarios. Performing risk analysis requires knowledge of the probabilities of hazard events

#### Sidebar 2.5

### Hazard Assessment Terminology

**Hazard Identification.** Identifying and profiling the full range of natural hazards that can affect the community including the types, frequencies, and magnitudes of hazard events.

**Vulnerability Assessment.** Determining who and what is in harm's way and the extent of injuries and damage that may result from hazard events of different magnitudes.

**Risk Analysis.** Quantifying the aggregate probable injuries or damages a community may sustain from a given type of natural hazard for all possible magnitudes.

occurring within a given community across the full spectrum of possible magnitudes.

Both vulnerability assessment and risk analysis can be used to describe the current state of a community (see Sidebar 2.6). However, they also can be used to assess the potential impacts of alternative future land use scenarios, an application with powerful potential for incorporating hazard mitigation into routine community planning and decision making processes (see further discussion in Section 3.0).

#### Sidebar 2.6

### Hurricane Hazards in Lee County

The Florida Planning and Development Lab (FPDL) at Florida State University developed a hurricane hazard assessment for Lee County, Florida, as the basis for assessing the feasibility of a risk-based tax for financing local emergency management services (Florida Planning and Development Lab, 2003). FPDL estimated the magnitude of hurricane force winds and the depth of storm surge flooding at various locations in the county for different hurricane scenarios (hazard identification). They estimated that the costs to local governments in Lee County of a single Category 3 landfalling hurricane would be between \$28 and 53 million, based on 1995 land use patterns (vulnerability assessment). They also estimated that the annual local government cost of hurricanes in 1995 was between \$1.2 and 1.7 million in Lee County based on the annualized sum of the potential costs of all possible hurricanes striking the county (risk analysis).

### Section 2.5: What Have Florida Communities Accomplished Already?

Florida has been a national leader in mitigating natural hazard vulnerability through both state and local plans and programs. Communities assess their vulnerability and define

the policies, procedures, and programs for using strategies for mitigating hazard vulnerability in as many as four different types of plans:

***Comprehensive Emergency Management Plans (CEMPs)***, ***Local Mitigation Strategies (LMSs)***, local government ***Comprehensive Plans***, and ***Post-Disaster Redevelopment Plans (PDRPs)***.

- ***CEMPs*** are principally operations plans that define the organizational structures, chains of command, and operational procedures for preparing for, responding to, recovering from, and mitigating the emergencies that can occur within a jurisdiction.
- ***LMSs*** identify hazard mitigation needs in a community and alternative structural and nonstructural initiatives that can be employed to reduce community vulnerability to natural hazards.
- ***Comprehensive Plans*** are primarily policy plans designed to guide the day-to-day land use decisions that determine a community's growth and development. They also include 5-year capital improvements plans that identify the major capital projects required to accomplish the community's short-term growth and development, objectives.
- ***PDRPs*** are often mixed plans that include both an operations component, that details the who, what, when, and where of post-disaster recovery and reconstruction procedures, as well as policies for

governing the recovery and reconstruction process.

Detailed summaries of each of these four plan types are presented in the following sections. An overview of the content of each plan is presented followed by a summary of how each plan addresses the four strategies for reducing community vulnerability to coastal storms and associated flooding. Brief synopses of the planning process used to develop the plans and the review and update process for each plan are also presented.

## COMPREHENSIVE EMERGENCY MANAGEMENT PLANS

The ***Comprehensive Emergency Management Plan (CEMP)*** is primarily an operations plan that describes the various types of emergencies that can occur within a jurisdiction and the organizational structure of the emergency management program. It establishes direction and control of the program and coordination between municipal, county, state, and federal agencies, and outlines actions necessary under the four phases of emergency management – preparedness, response, recovery, and mitigation.

All counties, except those that are part of an interjurisdictional emergency management agreement, are required under state law (§252.38(1), ***Florida Statutes***) to prepare a ***CEMP***. Because ***CEMPs*** cover all communities within a given county, municipalities do

not have to prepare their own, although some choose to do so.

## Content

Plan compliance criteria promulgated by the State Division of Emergency Management (DEM) require that the ***CEMP*** include a ***Basic Plan*** plus two annexes that address recovery and mitigation functions (***Local Comprehensive Emergency Management Plan Compliance Criteria, Form CEMP-001***).

The ***Basic Plan*** includes the following components:

- a hazards analysis that describes the hazards to which the county is exposed, the probability and severity of occurrence, vulnerable populations, and estimates of probable damage;
- descriptions of the geography, demographics, and economic conditions of the county;
- lists of emergency management support facilities;
- descriptions of the emergency management organization systems for response, recovery, and mitigation;
- lists of agencies responsible for each function;
- descriptions of preparedness activities, mutual aid arrangements, financial management systems and procedures; and
- a list of ordinances which authorize local disaster agency functions and responsibilities.

The *Recovery Annex* outlines the operations, roles, and responsibilities for assessing the need for and administration of state and federal disaster assistance. Specific functions covered by this annex include the following:

- damage assessment;
- operation of a disaster recovery center;
- coordination securing aid under the federal Public Assistance program;
- debris management;
- community relations;
- coordination of aid to disaster victims with unmet needs; and
- coordination of emergency housing.

The *Mitigation Annex* covers the operations, roles, and responsibilities used to administer mitigation activities in both pre- and post-disaster circumstances. Specific functions described in this annex include the following:

- coordination of mitigation activities with the county's municipalities and the state,
- post-disaster mitigation assessment,
- management of post-disaster mitigation funds, and
- pre-disaster mitigation activities, including structural and non-structural mitigation initiatives.

### Applications to reducing community vulnerability

The *CEMP* is predominantly an operations plan rather than a policy plan, with some inventory and analysis of hazard conditions. A

few components do address aspects of specific strategies for reducing community vulnerability:

- The *Concept of Operations* section of the *Basic Plan* addresses *evacuation and emergency sheltering* procedures, but not policies governing the demand for or supply of these services.
- The *Mitigation Annex* includes structural and non-structural hazard mitigation initiatives. Some of these initiatives may address *protection and enhancement of natural protective features, making private structures more resistant to natural hazard forces, or managing the development and redevelopment of land exposed to natural hazards*. For the most part, counties have met this requirement by cross-referencing their *Local Mitigation Strategies (LMS)* in the *Mitigation Annex* (see next section). The *LMS* often includes a more expansive list of mitigation initiatives.

### Planning process

There are no specific planning process requirements, but counties are supposed to document the approach used to establish the local planning process and to promote local participation in the development, review, and updating of their *CEMPs* (§I.C., *CEMP-001*). Some counties involve only a core group of county public agency staff that form the nucleus of the Emergency Operations Center staff in the event of a disaster, for example:

- public safety department director;
- emergency management manager;
- information officer/citizens response center coordinator;
- emergency operations staff officers;
- emergency communications specialist;
- mass casualty planning medical director;
- multi-trade worker; and
- emergency operations center administration.

Other counties involve a much broader array of public agencies, including those that are involved in the decisions that guide the growth and development of their communities; for example:

- county board of commissioners;
- county clerk of the court;
- county emergency medical service;
- county planning and building department;
- county public health department;
- county property appraiser;
- county roads department;
- county school board;
- county solid waste department;
- county sheriff's department;
- county emergency management;
- local electric utility;
- individual cities and their associated departments;
- county volunteer fire department;
- area chapter of the American Red Cross; and
- regional planning council.

## Review and update process

Counties are required to revise their *CEMPs* every four years, with the state divided into four groups of counties whose plans are scheduled for revision and state review and approval on a rotating basis (§9G-6.006. *F.A.C.*).

## LOCAL MITIGATION STRATEGIES

*Local Mitigation Strategies (LMSs)* are free-standing hazard mitigation plans that provide an important tool for making communities more resistant and resilient to natural disasters. The *LMS* provides the means for a comprehensive assessment of the hazard risks a community faces, an integrated view of all the local government policies and programs that can be marshaled to reduce those risks, and a planning process through which all involved agencies and stakeholders can identify and prioritize the most important initiatives that the community can take to reduce the risks they face.

*LMSs* are generally prepared at the county level and include their respective municipalities. Florida was among the first states to provide technical and fiscal assistance to its local governments for preparing hazard mitigation plans, with an effort that began in 1996 after Hurricane Opal. By 1999 all of Florida's counties had prepared a *LMS*. Florida's initiative served as the model for the local mitigation planning requirements that were incorporated in the federal Disaster Mitigation Act of 2000 (DMA 2000) (see Sidebar 2.7). Local govern-

ments in the state are now revising their *LMSs* to bring them into full accord with the DMA 2000 requirements.

Although *LMS* preparation is technically voluntary, as of November 2004, an *LMS* that meets state guidelines is required for eligibility for state-administered federal Hazard Mitigation Grant Program (HMGP) funds (§9G-22, *F.A.C.*). Under the provisions of DMA 2000, local governments were required to have an approved hazard mitigation plan consistent

with the DMA 2000 requirements in place by November 1, 2003, to retain eligibility for Pre-Disaster Mitigation (PDM) project funds, and by November 1, 2004, to remain eligible for post-disaster Hazard Mitigation Grant Program (HMGP) funds (§44 *CFR* 201.6).

## Content

*LMSs* prepared pursuant to the state's guidelines (Florida Department of Community Affairs, 1998) have three substantive components.

### Sidebar 2.7

## The Federal Disaster Mitigation Act of 2000

The federal Disaster Mitigation Act of 2000 (DMA 2000) was passed by Congress and signed into law by the President on October 30, 2000. The statute continues the federal Hazard Mitigation Grant Program under which states and local governments in presidentially declared disaster areas can secure federal funds for projects designed to reduce future vulnerability to natural hazards.

In addition, DMA 2000 authorized creation of a new Pre-Disaster Mitigation (PDM) Fund to be used to provide financial assistance to states and local governments for hazard mitigation projects initiated prior to a disaster event rather than in post-disaster situations. The Federal Emergency Management Agency issued an Interim Final

Rule (IFR) in the *Code of Federal Regulations* (§44 *CFR* 201) on February 26, 2002, which governs the implementation of DMA 2000 and sets requirements for communities and states to develop hazard mitigation plans to retain eligibility for PDM and HMGP funds.

Overall, DMA 2000 is very consistent with Florida's *LMS* requirements. It encourages greater collaboration and coordination between the state and local communities as well as among agencies. DMA 2000 also emphasizes public involvement, a key element for community buy-in and support for implementing identified activities. In addition, it requires local governments to define a process through which they will incorporate the requirements of their mitigation plans into other planning mechanisms such as their *Comprehensive Plans* and capital improvement plans.

- **Hazard Identification and Vulnerability Assessment. (HIVA)** This is designed to define a community’s vulnerability to natural hazards. Under Florida rules, the *HIVA* is required to include, at a minimum, “an evaluation of the vulnerability of structures, infrastructure, special risk populations, environmental resources, and the economy to storm surge, high winds, flooding, wildfires, and any other hazard to which the community is susceptible” (§9G-22.005(5), *F.A.C.*).

According to FEMA’s Interim Final Rule (§44 *CFR* 201.6), *LMSs* revised pursuant to the DMA 2000 criteria must include maps and descriptions of the areas that would be affected by each hazard to which the jurisdiction is exposed, plus information on previous events and estimates of future probabilities. Vulnerability is to be assessed in terms of the types and numbers of exposed buildings, infrastructure, and critical facilities with estimates of potential dollar losses. In the first updates of hazard mitigation plans under DMA 2000, local governments are also required to assess the vulnerability that will result from anticipated future growth and development.

- **Guiding Principles.** This section lists and assesses the community’s existing hazard mitigation policies and programs and their impacts on community vulnerability.

In most Florida *LMSs*, this section contains a list of existing policies from the community’s *Comprehensive Plan* and local ordinances that govern or are related to hazard mitigation. Coastal counties frequently include policies from their *PDRPs* as well. Thus, there can be substantial overlap between the policies included in the *LMS* and those in other community plans and regulations.

- **Mitigation Initiatives.** This component identifies and prioritizes a set of structural and non-structural initiatives that the community can undertake to reduce its vulnerability.

Some counties include proposals for amendments to their *Comprehensive Plans*, land development regulations, and building codes in their Mitigation Initiatives. Structural projects typically address public facilities and infrastructure and buy-outs of repetitively damaged private structures in flood hazard areas. Many of these qualify as “capital projects” based on the magnitude of their costs and may also be included in the capital improvements elements of the counties’ and cities’ *Comprehensive Plans*.

### Applications to reducing community vulnerability

The policies included in the *Guiding Principles* section as well as the non-structural initiatives that are listed in the *Mitigation*

*Initiatives* section may address any of the four strategies for reducing community vulnerability (see discussions below of the *Comprehensive Plan* and *PDRP*).

- Many counties include proposals for installing shutters on schools and other public buildings to make them safer as *emergency shelters*.
- Some include projects for expanding evacuation routes and remedying bottlenecks such as bridges and causeways so as to reduce *evacuation clearance* times.
- Initiatives to elevate or floodproof public facilities or to make them *more resistant to damage* from wind-borne debris also are common.
- Some communities include initiatives to elevate or relocate repetitively damaged private structures located in flood hazard zones. Relocation projects typically involve acquisition of the land, often for use as public recreation lands or open space.
- Capital projects to remedy localized flooding and drainage problems are common.
- Also common are initiatives to *restore and enhance natural protective features* of the community’s environment.

### Planning process

Local governments were encouraged to establish *LMS* working groups to facilitate coordination among different government agencies with important roles in hazard mitigation

and public participation programs that would involve interested stakeholders in developing the *LMS*.

Florida's regulations governing eligibility for state-administered HMGP funds direct counties to establish *LMS* Working Groups (§9G-22.004 *F.A.C.*) and to annually solicit participation from various agencies of county government, as well as all municipalities within the county, and various interest groups. FEMA's Interim Final Rule under DMA 2000 (§44 *CFR* 201.6) requires that opportunities be provided for various interests to be involved in the hazard mitigation planning process.

### Review and update process

The state's regulations governing administration of federal HMGP funds require that a county's *LMS* be updated annually to incorporate changes in any of the following: (1) hazard assessment, (2) project priority list, (3) critical facilities list, (4) repetitive loss properties list, or (5) maps (§9G-22.004(4)(e) *F.A.C.*).

Where counties elect to meet the pre-disaster hazard mitigation requirements for their *CEMPs* by incorporating relevant portions of the *LMS*, the *LMS* must be updated coincident with the applicable four-year review period for the county's *CEMP* (§III, *CEMP*-001).

FEMA's regulations (§44 *CFR* 201.6) stipulate that local mitigation plans must be updated and re-approved every 5 years as do

the contracts issued by the state DEM for revisions of *LMSs* to meet the DMA 2000 criteria.

### COMPREHENSIVE PLANS

In Florida, the local government *Comprehensive Plan* sets forth the goals and objectives that define a community's desired path of growth and development and the policies that guide day-to-day decision making regarding land use and development. The *Comprehensive Plan* serves as the basis for land development regulations, zoning, major capital expenditures, and other initiatives to achieve the community's goals and objectives. Florida's 1985 growth management legislation (Chapter 163.3161 et seq., *Florida Statutes*) requires all counties and municipalities to adopt *Comprehensive Plans* and to submit those plans to the state Department of Community Affairs (DCA) for approval.

All land development regulations and land development decisions must be consistent with the adopted *Comprehensive Plan* (§163.3194, *F.S.*). Because of this formal legal standing and the central role of the *Comprehensive Plan* in day-to-day decision making, successful reduction in a community's vulnerability to natural hazards can most effectively be achieved where hazard mitigation goals, objectives, and policies are fully integrated into those sections of the *Comprehensive Plan* that guide land development and capital facilities planning.

### Content

As detailed in Chapter 9J-5 of the *Florida Administrative Code*, *Comprehensive Plans* are required to contain chapters or "elements" that address future land use, housing, transportation, public facilities and services, conservation, recreation and open space, intergovernmental coordination, and capital improvements. These elements contain inventory and analysis information and policies to guide the day-to-day decisions that influence a community's vulnerability to natural hazards.

- **Future land use element** (§9J-5.006 *F.A.C.*) designates future land use patterns on a *Future Land Use Map* including densities and intensities of use, based on the goals, objectives, and policies of the other elements of the *Comprehensive Plan*. It includes a land use suitability analysis of vacant and undeveloped land as well as an analysis of the need for redevelopment.
- **Conservation element** (§9J-5.013 *F.A.C.*) inventories the community's natural resources, including wetlands and floodplains, and defines goals, objectives, and policies governing their conservation, use, and protection.
- **Public facilities and services element** (§9J-5.011 *F.A.C.*) includes data and analysis and goals, objectives, and policies for assessing the existing capacities, desired levels of service, and needs and priorities for replacement and expansion of sanitary sewer, solid waste, storm water manage-

ment, and potable water supply facilities and services. It also addresses the needs and means for protecting natural drainage features and ground water aquifer recharge areas.

- **Transportation element** (§9J-5.019 *F.A.C.*) inventories existing facilities and levels of service for transportation facilities, including an analysis of the ability of the transportation system to evacuate coastal population.
- **Capital improvements element** (§9J-5.016 *F.A.C.*) assesses the costs, general fiscal implications, and priorities for remedying existing deficiencies and meeting future needs for public facilities identified in other elements of the plan. The element assesses the local government’s ability to finance needed capital improvements and the potential to use the timing and location of capital improvements to achieve the development goals, objectives, and policies of the *future land use element*. The element also includes a five-year schedule of capital improvements for reducing deficiencies and meeting future needs which serves as the foundation for each community’s annual capital budget.

Coastal communities (35 counties and 160 municipalities) are required to prepare a separate *coastal management element* (§9J-5.012 *F.A.C.*). The required components of this element provide the most explicit focus on natural

hazards of any required *Comprehensive Plan* element, including the following:

- inventory existing land uses within the coastal planning area,
- analyze the effects of future land uses on natural and historic resources within the coastal planning area (see Sidebar 2.8),
- define goals, objectives, and policies for protecting, conserving, or enhancing these resources,
- assess the effects of future land uses within the “hurricane vulnerability zone” (see Sidebar 2.9) on hurricane evacuation clearance times and shelter demands,
- analyze alternatives for maintaining or reducing evacuation times,
- designate “coastal high-hazard areas” (CHHAs) (see Sidebar 2.10), and
- develop goals, objectives, and policies that address mitigating the hazards posed by development within these areas.

### Applications to reducing community vulnerability

Although comprehensive plans address *evacuation and sheltering strategies* in the context of hurricane hazards, these requirements apply only to coastal communities, despite the fact that evacuation and shelter services may be needed in inland communities as well.

- Coastal communities are required to include one or more goal statements in their *coastal management elements* that reflect

the state legislature’s intent to “protect human life” (§9J-5.012(3) *F.A.C.*). They also must include an objective to “maintain or reduce hurricane evacuation times.”

- They are directed to inventory and analyze the effects of future land uses on hurricane evacuation, including the effects of anticipated population densities (§9J-5.012(2), *F.A.C.*).
- The *coastal management element* also must include an analysis of measures the local government could adopt to maintain or reduce hurricane evacuation times.
- In addition, the *coastal management element* must include policies and regulatory or management techniques that address hurricane evacuation, including methods to relieve deficiencies, and that ensure that required infrastructure is available to serve development or redevelopment within the coastal planning area consistent with safe evacuation.
- The *future land use element* of a coastal community’s *Comprehensive Plan* must include an objective that coordinates coastal planning area densities with the applicable hurricane evacuation plan (§9J-5.006(3)(b)(5), *F.A.C.*).

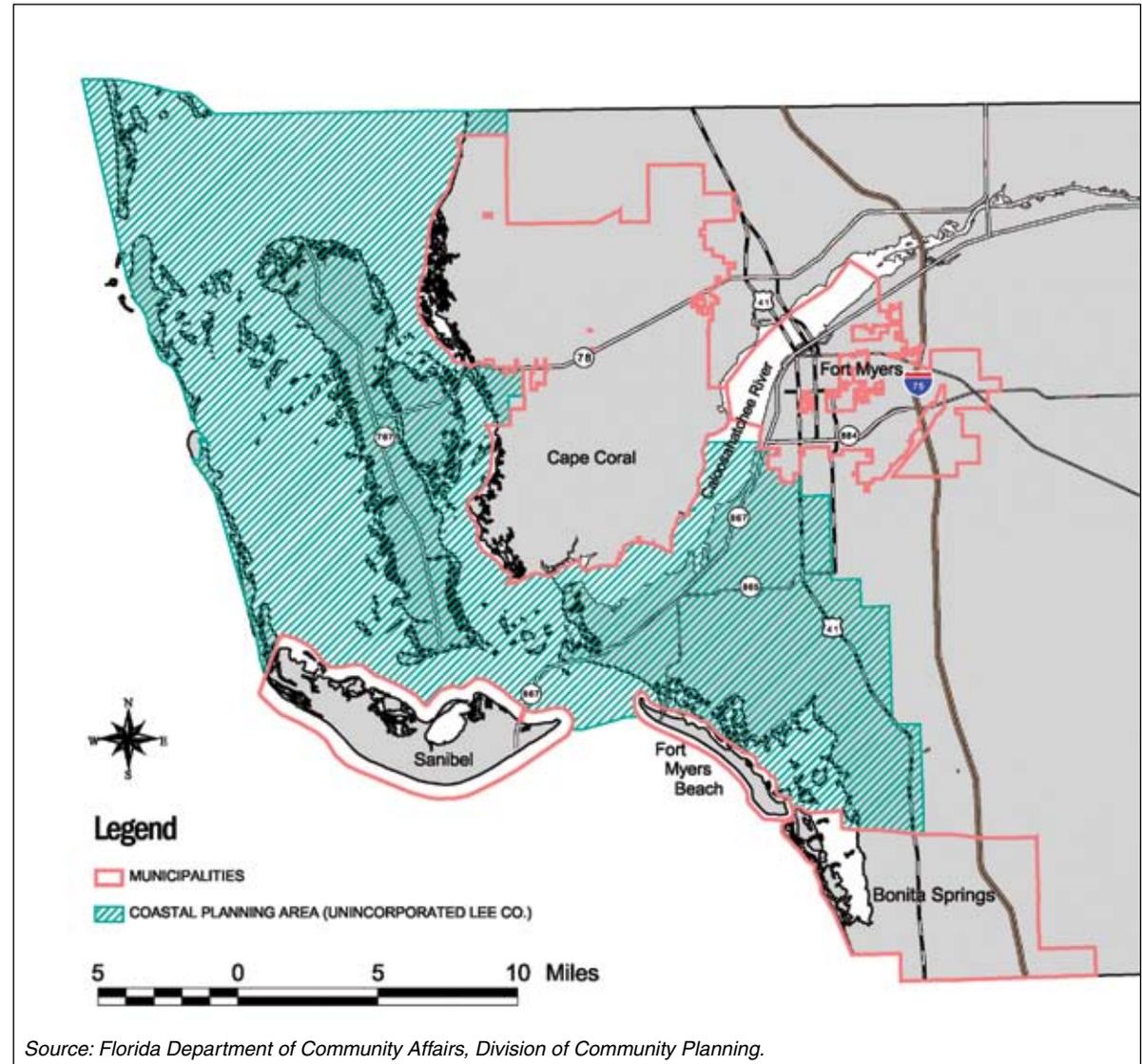
*Protection and enhancement of natural protective features* are addressed in the *conservation element*, the *public facilities and services element*, and the *coastal management element* of local government *Comprehensive Plans*.

### Sidebar 2.8

## What is the “Coastal Planning Area”?

Local governments must define the “coastal planning area”, within which the general provisions of the **coastal management elements** must apply. At a minimum, however, this area encompass all of the following: “water and submerged lands of oceanic water bodies or estuarine water bodies; shorelines adjacent to oceanic waters or estuaries; coastal barriers; living marine resources; marine wetlands; water-dependent facilities or water-related facilities on oceanic or estuarine waters; or public access facilities to oceanic beaches or estuarine shorelines; and all lands adjacent to such occurrences where development activities would impact the integrity or quality of the above.” (§9J-5.003(18), **F.A.C.**) For planning purposes, many coastal counties and municipalities define the coastal planning area as their entire jurisdiction. Figure 2.6 depicts the Coastal Planning Area for unincorporated Lee County.

Figure 2.6: Coastal Planning Area for unincorporated Lee County.



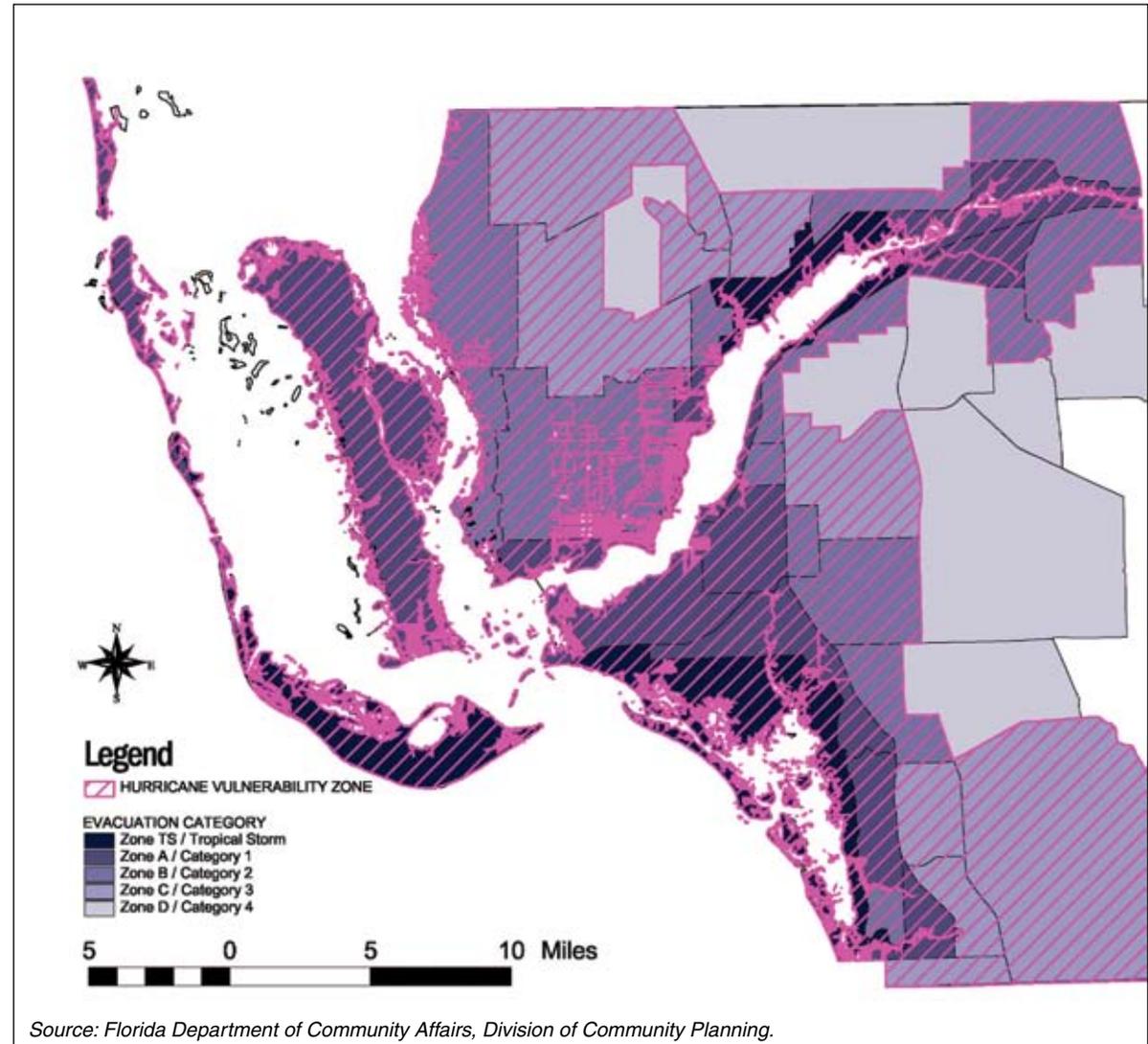
Source: Florida Department of Community Affairs, Division of Community Planning.

## Sidebar 2.9

## What is the “Hurricane Vulnerability Zone”?

The hurricane evacuation and hazard mitigation requirements of a community’s **coastal management element** apply at a minimum to the “hurricane vulnerability zone” (HVZ), which is defined as “areas requiring evacuation in the event of a 100-year storm or a Category 3 storm event” (§9J-5.003(57), **F.A.C.**). Figure 2.7 depicts the HVZ for Lee County based on the Category 3 evacuation zone.

Figure 2.7: Hurricane vulnerability zone of Lee County based on Category 3 evacuation zone.



Source: Florida Department of Community Affairs, Division of Community Planning.

## Sidebar 2.10

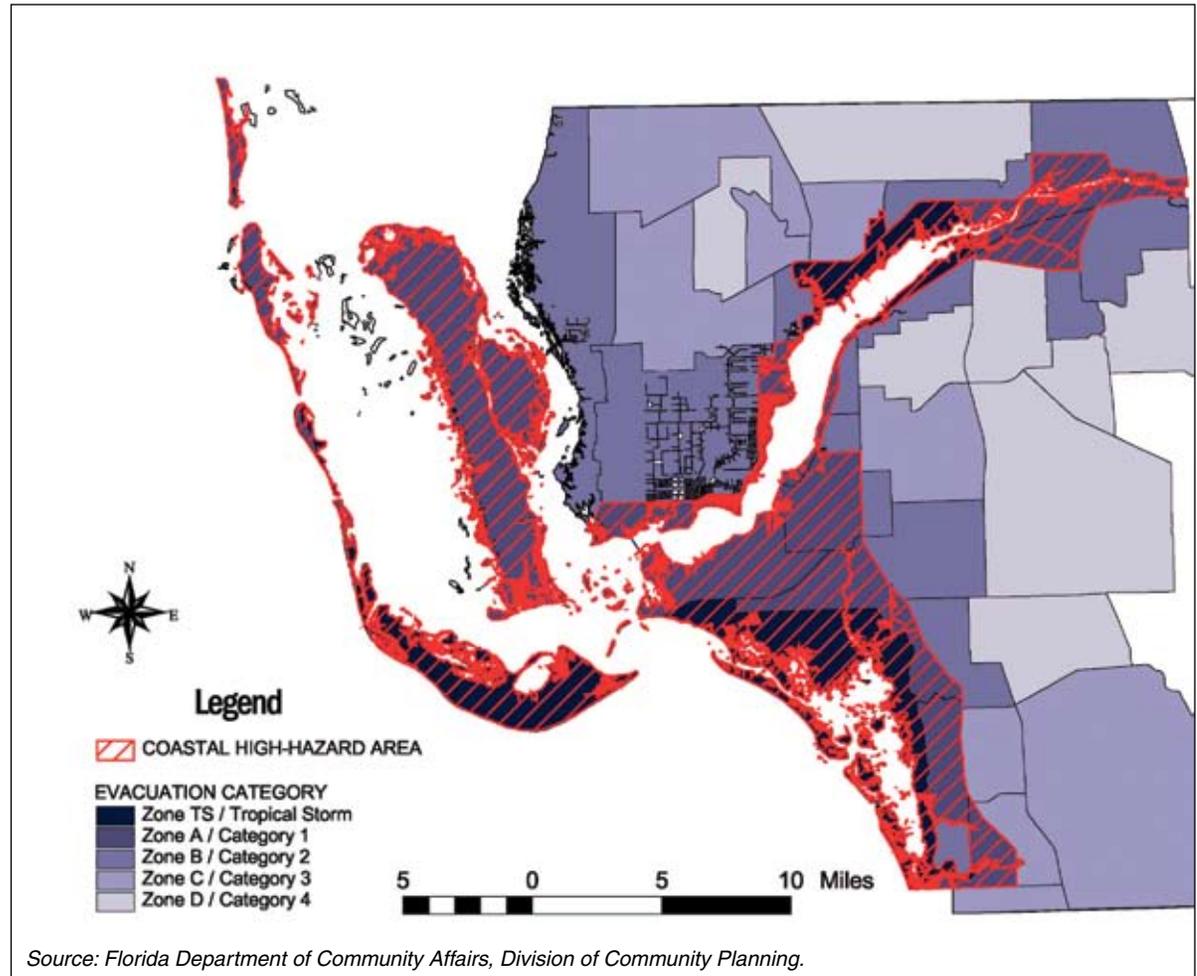
### What is the “Coastal High-Hazard Area”?

Local governments that prepare **coastal management elements** are required under the state’s **Comprehensive Plan** regulations (§9J-5.003(2)(e)(3) and (3)(c)(7), **F.A.C.**) to define a “coastal high-hazard area” (CHHA) within which certain objectives and policies apply. These objectives and policies concern directing population concentrations away from the CHHA, reducing hazard exposure for infrastructure, and limiting public expenditures that subsidize development.

Pursuant to 1995 amendments to Chapter 163.3178(2)(h) of the **Florida Statutes**, the CHHA is defined in state **Comprehensive Plan** regulations as “the evacuation zone for a Category 1 hurricane as established in the regional hurricane evacuation study applicable to the local government” (§9J-5.003(18), **F.A.C.**). The Department of Community Affairs permits communities to use more expansive definitions of the CHHA if they wish to do so.

This definition of the CHHA was adopted by the Legislature and added to the statute in 1995. Some comprehensive plans may not yet have been revised to include this new definition; however, the statutory definition supercedes any outdated comp plan definition. Figure 2.8 depicts the CHHA for Lee County based on the Category 1 evacuation zone.

Figure 2.8: Coastal high-hazard area of Lee County based on Category 1 evacuation zone.



- State regulations require that wetlands, estuarine marshes, and floodplains be identified in the *conservation element* of local *Comprehensive Plans* and that the potential for their conservation, use, or protection be analyzed (§9J-5.013(1), *F.A.C.*).
- Specific policies are required governing the protection and conservation of wetlands and their natural functions, and future land uses incompatible with their protection and conservation are to be directed elsewhere (§9J-5.013(3), *F.A.C.*).
- Policies are required in the *public facilities and services element* that regulate land use and development so as to protect the functions of natural drainage features (§9J-5.011(2)(c)(4), *F.A.C.*).
- Coastal communities are directed to include an inventory and analysis of coastal wetlands, beach and dune systems, and shore protection structures and beach renourishment projects in their *coastal management elements* (§9J-5.012(2), *F.A.C.*).
- The *coastal management element* must include an objective to protect, conserve, or enhance existing coastal wetlands, and a separate objective to protect beaches and dunes and restore altered beaches and dunes (§9J-5.012(3), *F.A.C.*).
- Specific policies are to be included that limit the direct and cumulative impacts of development and redevelopment on coastal wetlands, beaches, and dunes and

that identify techniques for doing so as well as restoring or enhancing degraded wetlands, drainage systems, beaches, and dunes (§9J-5.012(3), *F.A.C.*).

State law does not require all local governments to explicitly address building codes and other measures to *make private structures more resistant to natural hazard forces* within their *Comprehensive Plans*. However, state regulations that govern preparation of the *coastal management element* do contain some requirements relevant to making private and public structures more disaster-resistant.

- Coastal communities are required to inventory structures repetitively-damaged by coastal storms and identify measures which can be used to reduce exposure to coastal flooding hazards including structural modification (§9J-5.012(2)(e)(2), *F.A.C.*).
- Coastal communities also are directed to adopt one or more policies and regulatory or management techniques for achieving hazard mitigation, which may include regulation of building practices (§9J-5.012(3)(c)(3), *F.A.C.*).
- *Coastal management element* regulations also require local governments to inventory infrastructure within their CHHAs and to analyze the potential for relocating, mitigating or replacing threatened infrastructure therein (§9J-5.012(2)(e)(3) and (3)(c)(8), *F.A.C.*).

The principal means through which communities employ their *Comprehensive Plans* to *manage the development and redevelopment of land exposed to natural hazards* is through adoption of policies governing regulation of land development and redevelopment, the provision of public facilities and infrastructure to serve new development, and the acquisition of private property in hazardous areas to protect natural resources or to use as public open space or recreation. All local governments are required to

- Include an analysis of proposed development and redevelopment of flood prone areas within their *future land use elements* (§9J-5.006(2), *F.A.C.*);
- Include policies in that element that regulate areas subject to seasonal or periodic flooding (§9J-5.006(3)(c)(1), *F.A.C.*); and
- Consider recommendations in hazard mitigation reports when analyzing proposed development and redevelopment (§9J-5.006(2)(g), *F.A.C.*).

A number of additional mandates apply just to coastal communities. They must:

- Map areas subject to coastal flooding (§9J-5.012(2)(b), *F.A.C.*);
- Inventory existing and proposed land uses in CHHAs and structures repetitively-damaged by coastal storms, and identify measures which can be used to reduce exposure to coastal flooding hazards in-

cluding relocation and public acquisition (§9J-5.012(2)(e)2, *F.A.C.*);

- Include an objective in their *coastal management element* that directs population concentrations away from CHHAs and adopt policies that limit development within CHHAs and that achieve general hazard mitigation including regulation of land use so as to reduce the exposure of people and property to natural hazards (§9J-5.012(3)6, *F.A.C.*);
- Include objectives in their *coastal management element* and in their *capital improvements element* that limit public expenditures for infrastructure and public facilities that subsidize development in CHHAs (§9J-5.012(3)(b) and §9J-5.016(3)(b)2, *F.A.C.*); and
- Include a policy in their *capital improvements element* that includes the elimination of public hazards as a criterion for evaluating local capital improvement projects (§9J-5.016(3)(c)1, *F.A.C.*).

## Planning process

Local governments are required to designate some entity as the formal “local planning agency” that is responsible for preparing, reviewing, and updating the community’s *Comprehensive Plan* (§163.3174, *F.S.*). In most communities, this is the planning board that is appointed by the city council/commission or the county commission. Local governments also must adopt formal procedures governing public par-

ticipation in the planning process (§163.3181, *F.S.*). Guidelines issued by FDCA entitled “Preparing a Comprehensive Plan: Practical Considerations in Meeting Florida’s Local Planning Requirements” (Florida Department of Community Affairs, 1987) recommend that the following categories of groups and individuals be involved: developers; land owners; realtors; builders; users of public facilities and services; neighborhood associations; environmental advocates; utility companies and special districts; port authorities; regional, state, and federal regulatory agencies; and school districts.

## Review and update process

Communities may adopt major amendments to their plans, which are subject to state review and comment, twice a year. Every seven years, local governments must prepare and adopt an evaluation and appraisal report (*EAR*) that assesses progress in implementing the local government’s *Comprehensive Plan*. The *EAR* is subject to review and approval by FDCA. The five-year schedule of capital improvements in the *capital improvements element* of the *Comprehensive Plan*, by contrast, must be updated annually.

## POST-DISASTER REDEVELOPMENT PLANS

In Florida, the *Post-Disaster Redevelopment Plan (PDRP)*, pursuant to requirements governing the *coastal management element* of the community’s *Comprehensive Plan*, guides post-

disaster reconstruction and redevelopment. Some *PDRPs* focus entirely on policies governing post-disaster recovery and reconstruction decision making, many of which overlap with the policies called for in the *coastal management element*. Other *PDRPs* are predominantly post-disaster operations plans that overlap substantially with the *Recovery Annex* of the *CEMP*. Some are mixed plans devoted both to recovery operations and policies for guiding recovery decisions. The *PDRPs* have the greatest utility in implementing hazard mitigation initiatives during redevelopment and reconstruction. They provide a single, free-standing reference to guide action and decision making during the often high-pressure and tumultuous disaster recovery period when sifting through the relevant sections of several different plans is impractical.

Coastal communities are required to include an objective in their *coastal management element* in which they state their intent to prepare a *PDRP* “which will reduce or eliminate exposure of human life and public and private property to natural hazards” (§9J-5.012(3)(b)(8), *F.A.C.*). Non-coastal communities are encouraged in state statute to prepare *PDRPs* as well, but are not mandated to do so (§163.3177(7)(l), *F.S.*):

*Local governments that are not required to prepare coastal management elements under s.163.3178 are encouraged to adopt hazard mitigation/post-disaster redevelopment plans. These plans should, at a minimum,*

*establish long-term policies regarding redevelopment, infrastructure, densities, nonconforming uses, and future land use patterns.*

## Content

In many communities, the *PDRP* is a free-standing plan, despite considerable overlap in content and application with both the *Comprehensive Plan* and the *CEMP*. Some of the inventory and analysis and policy requirements for the *coastal management element* of the *Comprehensive Plans* of coastal communities concern post-disaster redevelopment. Arguably, these requirements should be replicated in a *PDRP*.

- Existing land uses in the coastal planning area shall be inventoried... Any areas in need of redevelopment shall be identified (§9J-5.012(2)(a), *F.A.C.*).
- Policies are to be included in the *coastal management element* concerning post-disaster redevelopment that (§9J-5.012(3)(c)(5), *F.A.C.*):
  - **distinguish between immediate repair and cleanup actions needed to protect public health and safety and long-term repair and redevelopment activities;**
  - **address the removal, relocation, or structural modification of damaged infrastructure as determined appropriate by the local government but consistent with federal funding provisions and unsafe structures; and**

- **limit redevelopment in areas of repeated damage.**

- Policies also are to be included that identify “areas needing redevelopment, including eliminating unsafe conditions and inappropriate uses as opportunities arise” (§9J-5.012(3)(c)(6), *F.A.C.*).

## Applications to reducing community vulnerability

*PDRPs* are not directly concerned with *evacuation clearance or sheltering*, which are disaster response rather than recovery activities. However, *PDRP* policies that result in reductions in development within hurricane evacuation zones may serve to reduce evacuation clearance times. *PDRP* policies also typically do not concern initiatives intended to *make the environment less hazardous* by restoring or enhancing natural protective features.

*PDRP* policies may address *making structures more resistant to natural hazard forces* by establishing policies for determining damage thresholds beyond which private structures must be rebuilt to current or newly-adopted building codes. They also may address removal, relocation, or structural modification of public facilities and infrastructure to make them more resistant.

*PDRP* policies also concern *managing the redevelopment* of property damaged by natural hazard disasters including policies governing redevelopment of repetitively damaged properties.

## Planning process

There are no explicit state rules or guidelines governing the process by which communities should develop their *PDRPs*. Ideally the plan should be developed by local officials from both the emergency management and planning realms so that the full spectrum of applicable operational procedures and policies as well as redevelopment policies governing land use and capital facilities are adequately captured in the plan. Guidance provided for the preparation of *LMSs* would be appropriate for the process of developing *PDRPs* as well.

## Review and update process

No direction is provided under state laws or regulations concerning the timing or procedures that should be followed for reviewing and updating the *PDRP*. Arguably, the *PDRP* should be revised in concert with major revisions to its two principal source documents: the *CEMP* and the *Comprehensive Plan*. (See further discussion in Section 4.0.)

## Section 2.6: There is More that Can be Done

Floridians and their state and local governments have not remained passive in the face of potential disaster. Communities have as many as four plans that address one or more of the strategies available to local governments for reducing community vulnerability to coastal storms and associated flooding. Table 2.6

summarizes the typical scope of each of these plans as most Florida communities currently write them. Separate columns are included for the **Comprehensive Plans** of coastal and non-coastal communities because of the significant differences in their hazard mitigation content. These differences, as well as the absence of a **PDRP** in most non-coastal communities, represent the greatest opportunities for reducing community vulnerability through better planning in the state.

There are three additional initiatives that all Florida communities can take to further reduce injuries and damage to private and public property from natural hazards in general, and from coastal storms and associated flooding in particular:

- ✓ *use the best hazards assessment information available,*
- ✓ *better integrate hazard mitigation policies into the comprehensive plan and its implementation, and*
- ✓ *use land use planning strategies and best development practices for reducing community vulnerability.*

The next three sections of this guidebook are devoted to discussing each of these initiatives and to presenting examples of best practices for each.

The last two sections provide some synthesis. Section 6.0, “Fill in the Gaps in Hazard Mitigation and Post-Disaster Redevelopment Planning,” provides guidance on developing

**Table 2.6: Content requirements of local plans that address hazard mitigation.**

Purpose and Use	CEMP	LMS	Coastal Comp. Plan	Non-Coastal Comp. Plan	PDRP
Provide hazard assessment information	✓	✓	✓	✓	
Define procedures for providing evacuation and sheltering services	✓				
Define policies for maintaining and enhancing evacuation clearance times		✓	✓		✓
Define capital expenditure priorities for enhancing evacuation and sheltering capacities		✓	✓		
Define policies and capital expenditure priorities for making the environment less hazardous		✓	✓	✓	
Define policies for making structures more resistant to natural hazard forces		✓	✓		✓
Define capital expenditure priorities for making public facilities more resistant to natural hazard forces		✓	✓		
Define policies for managing the pre-disaster development and redevelopment of land exposed to natural hazards		✓	✓	✓	
Define operational procedures for post-disaster recovery and redevelopment	✓				✓
Define policies for governing post-disaster recovery and redevelopment actions		✓	✓		✓

effective *Post-Disaster Redevelopment Plans* that encompass both recovery operations and policies for guiding the recovery and redevelopment process. Section 6.0 also presents a series of model inventory and analysis components plus goals, objectives, and policies for effectively incorporating hazard mitigation and post-disaster redevelopment into a community's *Comprehensive Plan*. This section will be especially useful to communities that do not have a *PDRP* and to non-coastal communities that have addressed hazard mitigation to a very limited extent in their *Comprehensive Plans*.

The final section, Section 7.0, "Putting it all Together: Calamity Shores," presents a hypothetical example of how a community might employ some of these strategies and tools to reduce their vulnerability to coastal storms and flooding.

# 3 Use the Best Hazards Assessment Information

Sound policies and decisions are fueled by good information and analysis. As noted in Section 2.0, developing effective hazard mitigation policies and land development regulations and the initiatives to implement them requires a thorough assessment and analysis of natural hazards.

The Florida Department of Community Affairs, Division of Emergency Management (DEM) has provided counties with state-of-the-art hazards assessment information that describes their current exposure, vulnerability, and risk. In addition, there are other tools available that can enable local governments to assess the effectiveness of alternative future land use scenarios, land use planning policies, development regulations, and other mitigation initiatives. Local governments should to consider how best to use this information and to incorporate it into their comprehensive planning processes and day-to-day land use and capital expenditure decision making. Some local governments have used it to inform the post-disaster redevelopment policies and strategies in their *PDRPs*.

Hazard assessment information is typically included in three local plans: *CEMPs*, *LMSs*, and *Comprehensive Plans*.

- **CEMP.** The typical *hazards analysis* section of a *CEMP* focuses on areas and facilities that are exposed to hazards. Most counties base their *hazards analysis* on data and experience from previous disasters, including information available from the DEM's "SERT Tracker" system. This information is available to emergency management officials online at <http://www.eoconline.org>. This is usually employed only to prepare emergency response and recovery plans. Where the *CEMP hazards analysis* identifies areas, people, and property exposed to hazards (hazard identification) and provides estimates of potential damage and injuries from specific disaster scenarios (vulnerability assessment), it may be useful in the comprehensive planning process as well as in developing an *LMS* and a *PDRP*.
- **LMS.** The *hazard identification and vulnerability assessment* of an *LMS* may contain substantial hazard assessment information of value for land use and growth management planning and for developing *PDRPs*. In 1999 as well as during the current round of initiatives to revise *LMSs* to meet the new federal DMA 2000 requirements, DEM has provided counties with hazards assessment data and analyses completed using the TAOS model (see Sidebar 3.1). This information also is

available online through DEM's MEMPHIS system (see Sidebar 3.2).

- **Comprehensive plan.** The state's regulations governing local *Comprehensive Plans* (§9J-5.006(4)(b), *F.A.C.*) require the depiction of floodplains on every community's *future land use map (FLUM)* and coastal high-hazard areas (CHHAs) on the *FLUMs* of coastal communities. Coastal communities also map areas subject to coastal flooding (typically portrayed as storm surge zones for each of the five hurricane intensities) in their *coastal management elements* (§9J-5.012(2)(b), *F.A.C.*).

All communities are directed to conduct an analysis of proposed development and redevelopment of flood prone areas (§9J-5.006(2)(e), *F.A.C.*) within their *future land use elements (FLUES)*. Coastal communities are directed to include in their *coastal elements* analyses of the effects of future land uses on areas subject to coastal flooding and on evacuation clearance times and shelter demand (§9J-5.012(2)(b) and (e), *F.A.C.*).

## Sidebar 3.1

## TAOS Hazard Assessment Information

Kinetic Analysis Corporation and the University of Central Florida developed hazard assessment data for each county in Florida in 1999 and in 2004 under contract with the Florida Department of Community Affairs, Division of Emergency Management (DEM). Hurricane hazard assessments include the following:

- maps of historic hurricane tracks, wind zones, and storm surge flood zones for each of the five hurricane categories (hazard identification);
- estimates of the numbers of structures likely to suffer damage at each of 5 levels (destroyed, severe damage, etc.) for each hurricane category (vulnerability assessment);
- estimates of aggregate dollar damages for different private and public structure types from each hurricane category (vulnerability assessment); and

- estimates of the numbers of people, in different age and income groups, who are likely to live in structures that sustain different levels of damage for each hurricane category (vulnerability assessment).

Additional hazard identification and vulnerability assessment information is provided for tornadoes, thunderstorms, sinkholes, wildland fires, earthquakes, tsunamis, and flooding within flood-hazard areas defined under the National Flood Insurance Program. Average annual dollar losses also are calculated from combined wind and water forces both with and without mitigation (risk analysis). For more information about the TAOS product developed for DEM see [http://www.floridadisaster.org/brm/taos\\_faqs.htm](http://www.floridadisaster.org/brm/taos_faqs.htm).

## Sidebar 3.2

## MEMPHIS System Hazards Assessments

MEMPHIS (Mapping for Emergency Management, Parallel Hazard Information System) is an experimental web based system to allow emergency managers, planners, and other local officials in Florida to easily access a variety of hazard related data.

Statewide and county maps and data can be viewed or downloaded in pdf format for the following natural hazards: hurricanes, tornadoes, thunderstorm and hail damage, earthquakes, and potential for wildland fires, tsunamis, and sinkholes. Grid-format (raster) files also can be downloaded for each of these hazards by county.

To access MEMPHIS see <http://lmsmaps.methaz.org/lmsmaps/index.html>.

This section of the guidebook describes several best practices for using available hazards assessment information and analytic tools in both comprehensive planning and the development of **PDRPs**:

- ✓ integrate hazard assessment into comprehensive planning;
- ✓ establish a central data repository;
- ✓ use hazard assessment in developing the PDRP; and
- ✓ take advantage of available hazard assessment resources.

### Section 3.1: Integrate Hazard Assessment Into Comprehensive Planning

The *Comprehensive Plan* sets forth the policies that guide a community's day-to-day decisions about land use and capital facilities expenditures. These policies have a profound impact on who and what are exposed to the dangers posed by natural hazards and the extent to which people and property are vulnerable to injury and damage. It is essential, therefore, that these policies be based on the best available data about the nature of the hazards to which the community is exposed, the vulnerability of its people and property, and the risks of injury and damage from natural hazards.

In undeveloped areas or "greenfields," hazard assessment information can be extremely useful for identifying areas where development will be at risk and should be regulated, discouraged, or prohibited. In areas that are already developed, hazard assessment can show where government initiatives may be necessary to further protect existing structures against hazards or where it may be best to relocate vulnerable private structures or public facilities.

To effectively make use of hazard assessment information, it is essential that hazards data be analyzed as an integral part of the development of the *future land use map (FLUM)* and the policies of the *future land use element (FLUE)* that serve as the primary basis for

managing land use and development practices in hazardous areas of a community. Four initiatives are recommended:

- link hazards data and analyses in the county *CEMP* and/or *LMS* to the *FLUE* of the *Comprehensive Plan*;
- include maps of natural hazards exposure in the *FLUE*;
- formally assess natural hazard exposure and vulnerability in the suitability analysis of vacant and undeveloped land in the *FLUE*; and
- analyze the effects of alternative future land use scenarios on evacuation clearance times and shelter demands.

#### Link hazards data and analyses to the future land use element

As noted above, the hazards data and analyses that communities have included in the *hazard identification and vulnerability assessment (HIVA)* sections of their *LMSs* are typically the most comprehensive. The scope is generally narrower in the hazards analysis of most county *CEMPs*, although some incorporate the *HIVA* from the *LMS* by reference.

While it may not be efficient to incorporate the full detail of the *HIVA* from the *LMS* into the *Comprehensive Plan*, a formal incorporation by reference within the *FLUE* is an important action that can serve to emphasize the prominent role such information should take in developing the policies governing development

and capital facilities in the community. Doing so also provides a pointer to the sources that should be consulted.

#### Include maps of natural hazards in the future land use element

While it is important to incorporate hazards information and analyses from the *CEMP* and/or *LMS* into the *Comprehensive Plan* by reference, it is crucial that visual depictions of hazardous areas be explicitly considered in developing the *FLUM* and future land use and redevelopment policies of the community and when considering proposed amendments to these policies and the *FLUM*.

As noted above, floodplains and coastal high-hazard areas should be depicted on a community's *FLUM*. Coastal communities also are required to include maps in their *coastal management elements* of areas subject to coastal flooding. This information may be more effectively utilized if it is also included in the *FLUM*.

Full consideration of the hazards associated with coastal storms also requires information on wind hazard zones associated with different storm intensities. To comprehensively assess all of the natural hazards that vary spatially within a community, maps also should be included of sinkhole- and erosion-prone areas and areas vulnerable to wildland fires. Information on sources of these data is presented below in Section 3.4.