Policy 1.2.6: Purchase conservation easements for and major natural drainage features on developed property, where these features provide significant storm water management functions for 25-year or greater storm events, and where they are not protected by existing land development regulations, easements, or covenants.

Policy 1.2.7: Purchase in fee-simple major natural drainage features on vacant land where these features provide significant storm water management functions for 25-year or greater storm events, and where they cannot be feasibly protected through land development regulations, easements, or covenants.

Relevant 9J-5 sections: Inventory and analysis requirements: §§9J-5.011(1)(g) and (h).

Requirements for goals, objectives and policies: §§9J-5.011(2) (b)(5) and (c)(4).

Transportation element

Inventory and analysis: Depict designated local and regional transportation facilities, critical to the evacuation of the coastal population prior to an impending natural disaster, on the existing and future transportation system maps.

Inventory public transportation facilities and infrastructure located within 100-year flood plains and ***coastal high-hazard areas*** and analyze the potential for relocating, mitigating, or replacing vulnerable transportation infrastructure and facilities in those areas.

Goal 1: Minimize costs of wind and flood damage to public transportation facilities and infrastructure [see ***Capital improvements element*** Goal 1].

Objective 1.1: Minimize damage to public transportation facilities and infrastructure from wind-borne debris and flooding [see ***Capital improvements element*** Objective 1.1].

Relevant 9J-5 sections: Inventory and analysis requirements: §§9J-5.019(2)(a) and (5)(b); ***§9J-5.012(1)(e)(3)***.

Requirements for goals, objectives and policies: ***§9J-5.012(3)(c)(8)***.

Capital improvements element

Inventory and analysis: Inventory public facilities and infrastructure located within 100-year special flood hazard zones, as defined on Flood Insurance Rate Maps produced by the National Flood Insurance Program and ***within the coastal high-hazard area***, including but not limited to sanitary sewers and sewage treatment facilities, solid waste management facilities, and potable water supply treatment and distribution systems.

Analyze the potential for relocating, mitigating, or replacing vulnerable public facilities and infrastructure in those areas.

Capital improvements schedule: Incorporate the list of capital projects from the ***Local Mitigation Strategy*** in the five-year schedule of capital improvement projects.

Goal 1: Minimize costs of wind and flood damage to public facilities and infrastructure.

Objective 1.1: Minimize damage to public facilities and infrastructure from wind-borne debris and flooding.

Policy 1.1.1: Avoid to the fullest extent possible the siting of new public facilities and infrastructure within 100-year special flood hazard areas or ***coastal high-hazard areas***.

Policy 1.1.2: Construct new public facilities and infrastructure in conformance with the wind-borne debris and flood protection standards of the Florida Building Code.

Policy 1.1.3: Where possible, relocate or replace existing public facilities and infrastructure located within 100-year special flood hazard areas or ***coastal high-hazard areas***.

Policy 1.1.4: Where public facilities and infrastructure located within 100-year special flood hazard areas or ***coastal high-hazard areas*** cannot be cost-effectively relocated or replaced, elevate or flood-proof them to the fullest extent that is cost-effective.

Policy 1.1.5: Adopt landscape standards for storm-resistant vegetation and apply those to all contracts for new public facilities and infrastructure and re-landscaping of existing public facilities and infrastructure.

Goal 2: Minimize the exposure of people and property to damage and injury from wind and flooding.

Objective 2.1: Avoid/eliminate development within 100-year special flood hazard zones and ***coastal high-hazard areas*** [see also ***Future land use element*** Objective 1.6].

Policy 2.1.1: Limit public expenditures that subsidize development within 100-year special flood-hazard zones and ***coastal high-hazard areas*** except for restoration or enhancement of public access to natural resources and ***provision of essential services to water-dependent uses*** [see also ***Future land use element*** Policy 1.6.10]

Relevant 9J-5 sections: Inventory and analysis requirements: ***§9J-5.012(1)(e)(3)***.

Requirements for goals, objectives and policies: ***§9J-5.012(3)(c)(8)***.

7 Putting It All Together: Welcome to Calamity Shores

All the "best practices" contained in this guide will not apply to every location and community in Florida, or be implemented to the same degree, because the state's communities differ in so many ways:

- exposure to natural hazards;
- development pressures;
- redevelopment potential;
- location and access;
- population and demographics;
- public involvement;
- political will; and
- the community's ability to implement planning goals, objectives, and policies.

Furthermore, no single practice or set of best practices can provide the optimum result for all communities. However, a hypothetical community called Calamity Shores can show how to address planning issues, find opportunities for mitigation, and reach an ideal outcome.

Fast-forward to the Calamity Shores of 2034 as it celebrates its 100th anniversary. The Mayor, City Council, staff, and citizens are interviewed by a reporter. They talk about the steps the community took early in the 21st Century to improve its future. The city had been through several disastrous hurricanes and floods at the end of the 20th Century before it undertook a revision of its ***Comprehensive Plan, Post Disaster Redevelopment Plan (PDRP), Comprehensive Emergency Management Plan (CEMP),*** and ***Local Mitigation Strategy (LMS)*** to incorporate hazard mitigation.

Calamity Shores Celebrates its Centennial!

Choices Made Decades Ago Ensured the City's Survival.

"The next hundred years look bright," Mayor declares

Years ago, at the turn of the 21st century, the City of Calamity Shores was a typical Florida community. Along the coast, the city featured a historic commercial district that combined stores, houses, offices, and hotels. Generally speaking, the eastern half of the community was densely populated, while in the western half a sparse arrangement of houses gave way to saw palmetto and pine flatwoods. The land to the west is bisected by a small river, which feeds a bay. After tropical storms, the river and its tributaries flooded; the flood hazard areas along the river and bay, along with high hazard zones along the ocean, were mapped by the National Flood Insurance Program. Back then, there was only one way into and out of Calamity Shores: a highway heading west that linked up with the interstate further inland. Other communities abutted the city to the south and north, with unincorporated land lying directly to the west.

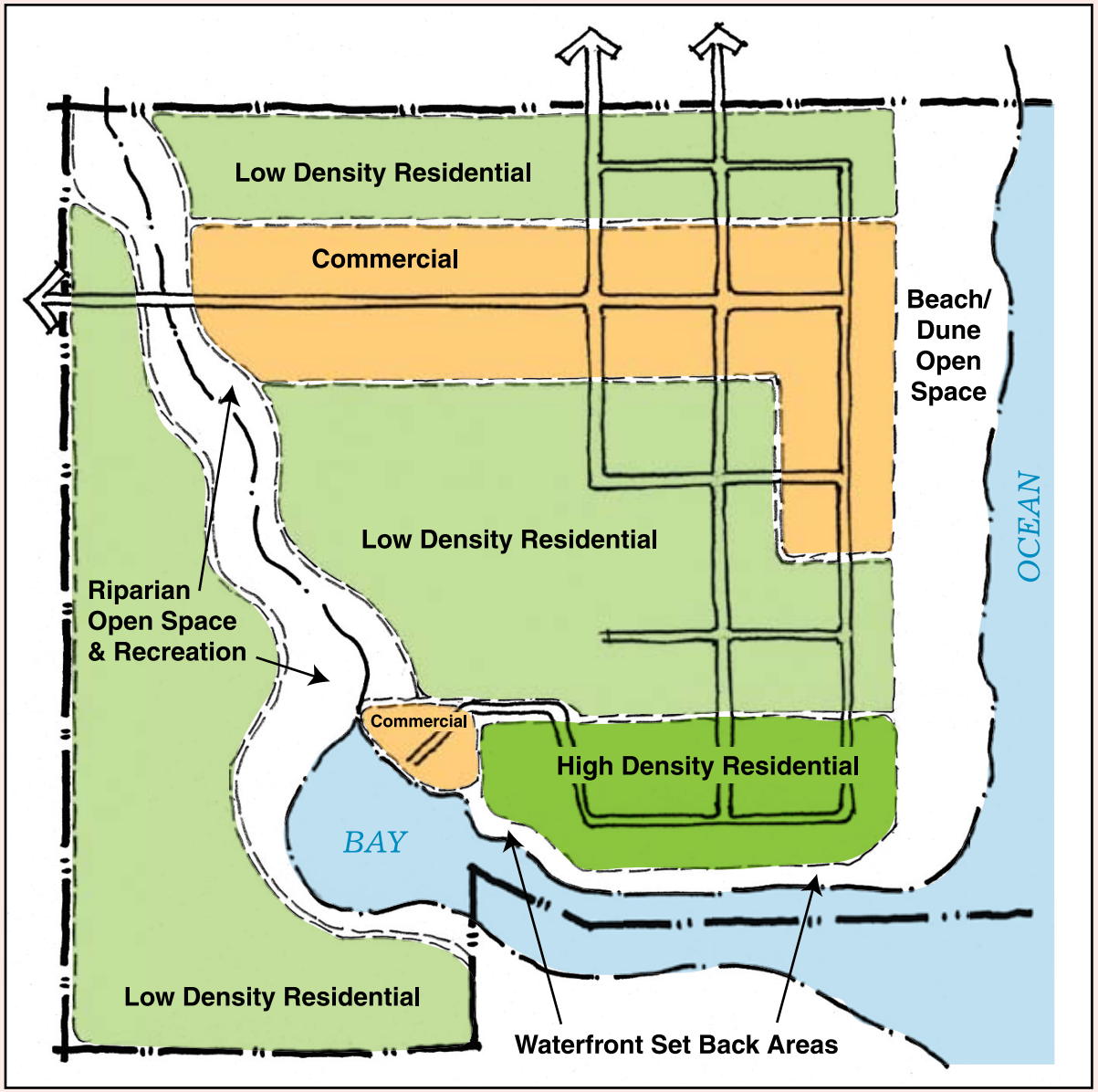
People liked living and working in Calamity Shores, and it was a good place to raise children. City officials saw opportunities for continued growth and prosperity. However, the specter of tropical storms and hurricanes always loomed. Evacuations were necessary

every few years, and on several occasions, coastal storms severely damaged the community, along both the coast and inland floodplain areas. Throughout the 20th century the city seemed to be regularly rebuilding houses and stores, parks, schools, and firehouses, only to suffer the same kind of damage during the next large storm.

A Vision for the Community

Early in the new millennium, as part of a periodic comprehensive planning effort, elected officials, business leaders, and concerned citizens of Calamity Shores decided to figure out what was most important in planning for the future. The City Planning Board began by looking at the results of past planning efforts. The main source of information was the city's 1999 Comprehensive Plan (see Figure 7.1), which was soon to undergo the Evaluation and Appraisal Report (EAR) process. Luckily for the city, the Florida Department of Community Affairs had just published "Protecting Florida Communities—Best Land Use Planning and Development Management Practices for Minimizing Vulnerability to Coastal Storms and Flooding" (hereafter called "the Guide"), which helped Calamity Shores integrate hazard mitigation and post-disaster redevelopment policies into its Comprehensive Plan update.

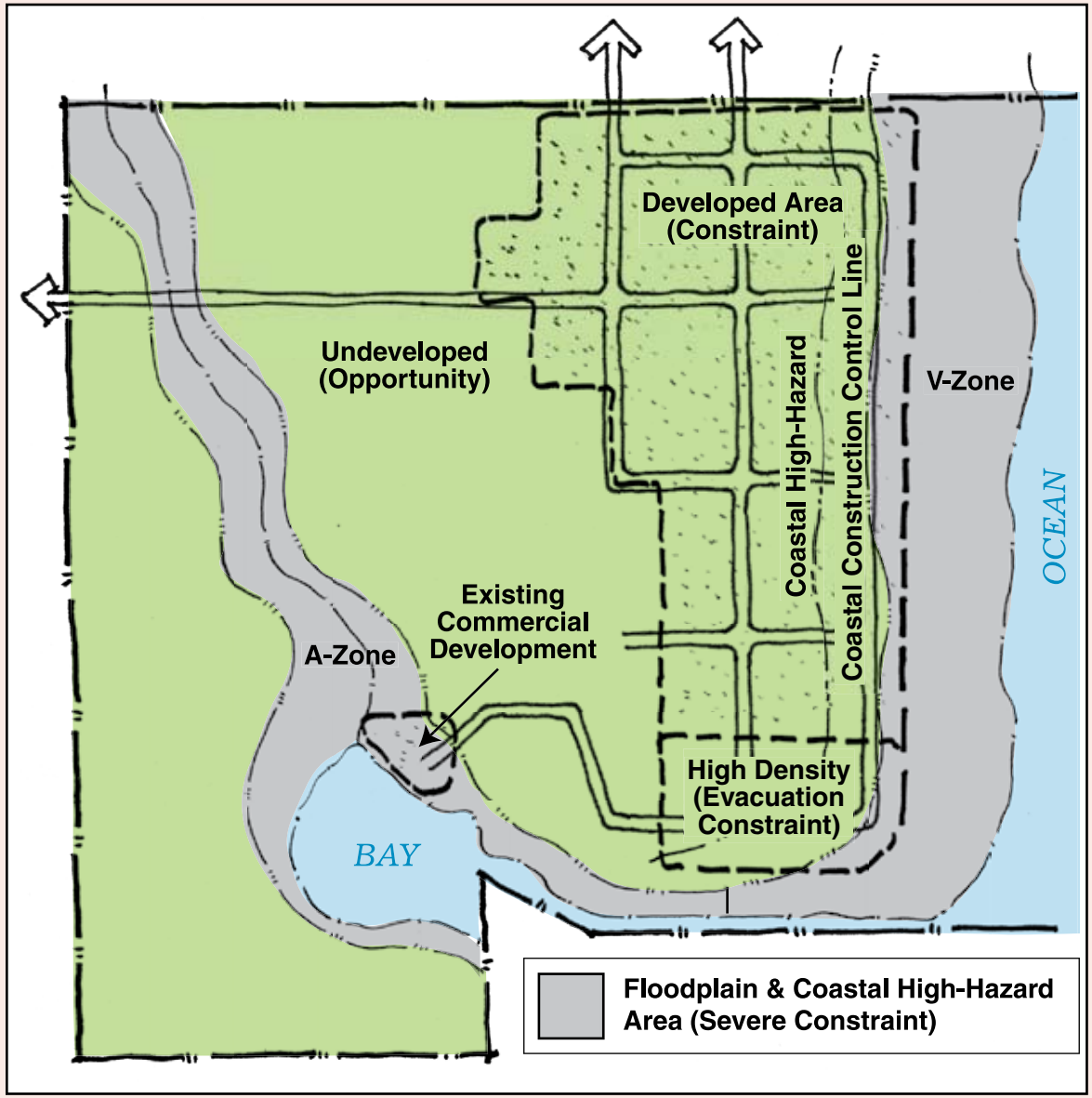
Figure 7.1: 1999 Future Land Use Map



Although the Planning Board was responsible for preparing the EAR, an advisory committee was formed to guarantee the input of interested citizens and groups. Elected officials made sure that the committee included people who were responsible for the three other plans that guide pre- and post-disaster planning in Calamity Shores: the local PDRP, the county CEMP, and the county LMS. The committee systematically pursued a number of activities (see Figure 7.2):

- looking at the physical characteristics of the community and the way land was being used at the time;
- updating the Hazard Identification and Vulnerability Assessment of the county LMS by researching all the disasters that had previously struck the city and the potential impact of natural hazards on both developed and undeveloped areas of the city;
- updating the natural features inventory in the conservation element of the Comprehensive Plan, which identified and mapped existing natural resources, including natural protective features such as natural drainage ways, floodplains, wetlands, and beaches and dunes;
- conducting a development suitability analysis for the future land use element of the Comprehensive Plan that included natural hazards as development constraints; and

Figure 7.2: 1999 Opportunities and Constraints



- assessing the implications of alternative future land use scenarios on community vulnerability, evacuation clearance times, and shelter demand during hurricanes and tropical storms.

The committee identified two major concerns relevant to comprehensive planning and hazard mitigation:

- **key parts of the community** including existing residential neighborhoods and commercial districts as well as substantial areas of undeveloped lands **are highly vulnerable** to the impacts of tropical cyclones; and
- **evacuation routes are inadequate,** particularly in existing coastal residential neighborhoods.

As part of the planning process, the community had to answer a number of difficult questions, including these:

- Do the current plans and policies of the community serve the best interests of the community (social, economic, environmental, etc.) or work against them? If the latter, what are the appropriate changes and how do we implement them?
- Do the regulations guiding the development of undeveloped land discourage or prohibit construction in areas that are highly susceptible to coastal storms and flooding hazards?
- Are there specific areas at risk that need to be protected, and private or public structures that need to be made more wind resistant or elevated? What level of risk is acceptable to the community and its residents?
- Are there areas and structures so at risk that their redevelopment "as is" is not warranted? If so, what should be the goals, objectives, and policies to guide post-disaster redevelopment?

The committee's role in the comprehensive planning process culminated in a new vision for how land should be utilized within the community. The committee developed a series of revised goals, objectives, and policies to provide direction for future land use, capital improvements, and other important aspects of the community in the revised Comprehensive Plan. Some of the actions to implement the plan could commence only after a disaster, but others were designed for pre-disaster implementation.

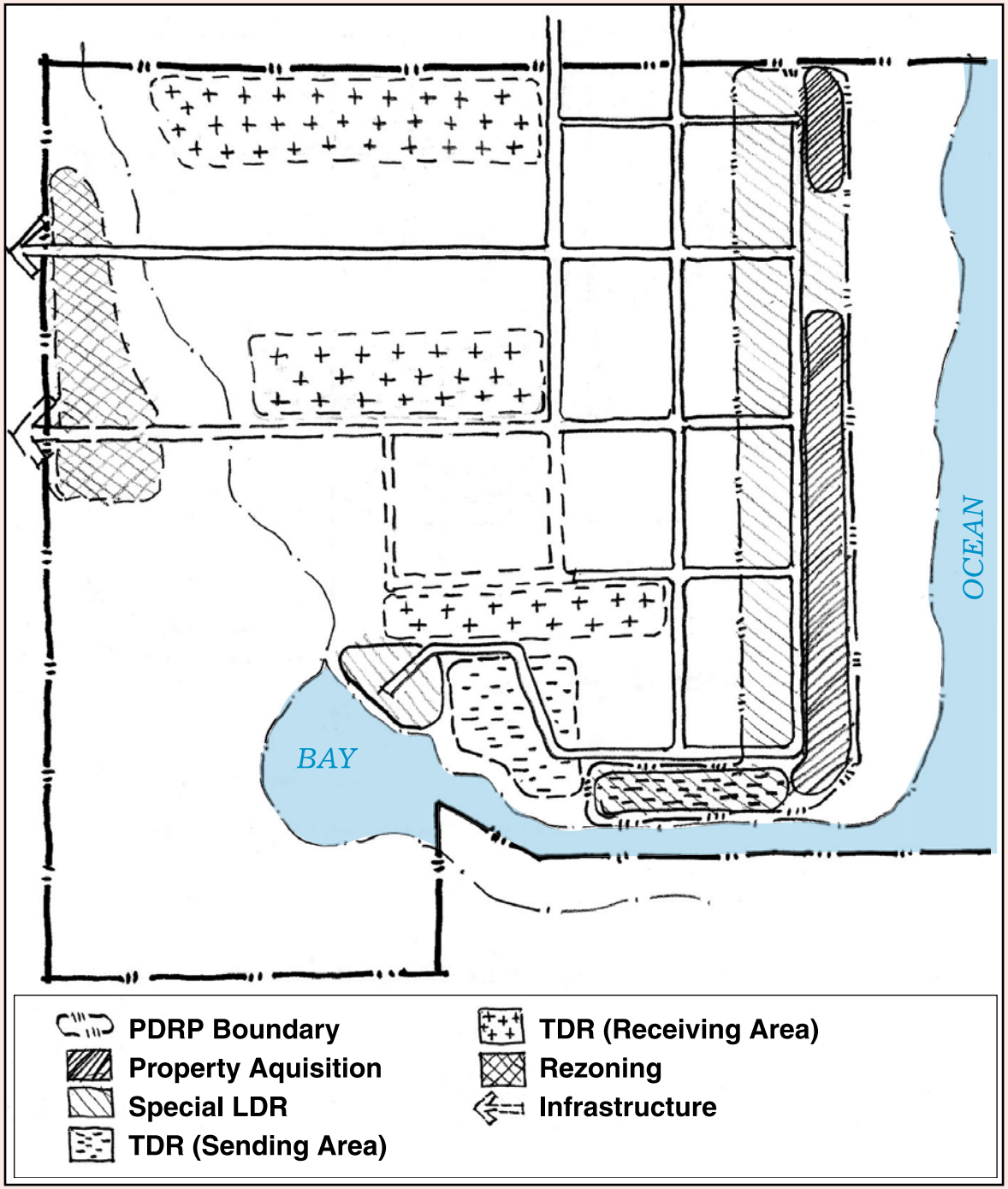
The committee recommended the creation of a transfer of development rights (TDR) program. Through the TDR program, landowners in areas that shouldn't be developed were able to sell their development rights to developers who used them to increase density in receiving areas designated on the revised Future Land Use Map that were not so susceptible to hazards and had road, sewer, and school capacity either planned or in place (see Figure 7.3).

This program required the creation of two overlay districts: the TDR "sending area" and the TDR "receiving area." The market was strong enough, most of the time, to support direct landowner-to-landowner transfers of development rights. When necessary, however, the city itself purchased development rights from property owners in the sending area who were unable to sell when they wanted to, and the city then banked them for later resale. If a certain parcel in the Coastal High-Hazard Area (CHHA) (see Figure 7.2) was planned for public use, the city bought the land outright, then sold the development rights to defray the cost of the purchase.

The goals, objectives, and policies of that milestone Comprehensive Plan EAR revision grew out of several different scenarios for future development on the largely undeveloped areas of Calamity Shores. (The importance of creating these scenarios was highlighted in the Guide.) Each development scenario had its own costs, benefits, and vulnerability to potential hazards, which the committee evaluated.

In some scenarios, the build-out option brought so many benefits that a limited level

Figure 7.4: Interventions



lives, and from which the city took a long time to recover. Residents came to understand and anticipate the disaster cycles, but they got tired of the impacts and the costs of restoring places that were damaged over and over again.

The city sought to reduce the community's vulnerability to repeated damage by including post-disaster redevelopment policies for neighborhoods in the CHHA (see Figure 7.2) in a revised PDRP for guiding decision making during recovery and reconstruction. To facilitate efficient implementation of this redevelopment plan, the committee added a number of parallel pre- and post-disaster policies to the revised Comprehensive Plan to guide development in the undeveloped areas of the community:

- the rezoning of a low density, non-hazard area (see "Rezoning" on Figure 7.4) to allow the relocation of businesses—pre-and post-disaster—from the CHHA;
- the creation of a Transfer of Development Rights (TDRs) program to eliminate development rights in undeveloped portions of the CHHA by allowing developers to buy them and add the extra density to projects in non-hazard areas; and
- the creation of a purchase of development rights program through which the city could buy development rights to preserve properties, then sell the rights on the TDR

market to defray the cost of the purchase and provide more funds for purchasing more development rights.

The PDRP was prepared between major storms, but the committee did not forget the city's long history of problems. The PDRP started with the recognition that development in the CHHA would be damaged by future storms and that some reconstruction would be unwise. The highest hazard areas, ultimately, should not have any buildings or other improvements. They should be converted to public open space and be used to provide beach access with restored dunes to help protect upland areas against smaller storms. These areas were slated for direct purchase by the city.

The committee considered high-density development inappropriate in other parts of Calamity Shores because it overloaded the evacuation capacity of city streets, and the buildings were not worth the cost of repeated damage and repair. Those areas were planned for rebuilding at a lower density, using higher construction standards and design techniques that would withstand the predicted intensity of storms. The post-disaster redevelopment policies n the PDRP and the Comprehensive Plan did, however, allow for certain public improvements in specific portions of the CHHA. Public restrooms, picnic pavilions, and boardwalks were planned for construction with the full knowledge and expectation that they would be severely damaged, even in moderate storms; their value as amenities was so high that the community was willing to pay for their reconstruction.

At the 100th anniversary of Calamity Shores, the retrospective analysis showed that it had been a good idea to prepare a redevelopment plan for the waterfront neighborhoods in advance of a major storm. It allowed the community to sort out the issues related to the inevitable changes that were coming, develop mechanisms to allow change to occur, and prioritize its interests without the chaos and trauma that attend post-disaster recovery.

The Situation Today

As fate would have it, a major hurricane hit Calamity Shores a few years after the plan's adoption, triggering implementation of the post-disaster redevelopment policies in the PDRP and the Comprehensive Plan. As a result, the character of the waterfront today is dramatically different from what it was before that storm. What's most important, subsequent storms caused minimal damage and redevelopment costs were a fraction of what they had been. Public beachfront facilities are designed with a limited lifespan and the cost of periodic replacement and reconstruction is budgeted in the annual capital plan. The population within the CHHA has been reduced so that the roads can more easily handle evacuation traffic; no storm-related deaths have occurred since the adoption of the revised Comprehensive Plan and PDRP.

Today, the city is thriving due to the sustained, coordinated effort to fashion and implement a far-reaching Comprehensive Plan that integrates hazard mitigation and redevelopment policies throughout its elements, thus guiding the evolution of a safe, sustainable community. If visitors from the early 21st Century could see Calamity Shores today, they would find it familiar, with several important changes. A large share of the residential and commercial activity that took place in old parts of the CHHA along the coast is now located elsewhere, thanks to a series of mutually beneficial arrangements with property and business owners. Additionally, new development in the CHHA has been limited through the use of innovative regulations and made more disaster-resistant through the careful enforcement of progressive building codes.

Today, Calamity Shores is more capable than ever of enduring tropical storms and hurricanes, and getting back to normal afterward.

Protecting Florida Communities—Best Land Use Planning and Development Management Practices for Minimizing Vulnerability to Coastal Storms and Floodingcan do for Florida communities what it did for Calamity Shores. The most basic recommendation in this guide is to integrate land use, pre-disaster mitigation, and post-disaster redevelopment considerations into all land use planning and capital facilities decisions.

In the aftermath of a disaster, so many issues demand the attention of local officials, emergency responders, and affected residents that time becomes a compelling factor in determining recovery and redevelopment outcomes. Pressure to restore normality and rebuild "the way it was" can be so strong that safety, hazard mitigation, and community improvement goals can be compromised or abandoned. This is the strongest argument that can be made for doing two things BEFORE a disaster occurs:

- find all the ways possible to reduce and eliminate risk through land use planning and development management, and
- develop and adopt post-disaster redevelopment policies and plans.

Glossary of Terms

"A" Zones. Special flood hazard areas inundated by the 100 year floods on the Flood Insurance Rate Maps.

Abbreviated Transportation Model (ATM). A model that has been developed for each of the counties in the state, except for those covered by the southwest Florida Regional Hurricane Evacuation Study, with the primary intent to provide personnel with the capability to assess the impacts of development on clearance times and shelter demand in areas exposed to hurricanes.

Acquisition. Use of conservation easements, purchase of development rights, or outright purchase of property to gain control of land in high hazard areas.

Barrier Island. A depositional geological feature which consists of unconsolidated sedimentary materials and are subject to wave, tidal and wind energies.

Berm. The flat or gently sloping area between the high-tide limit and the frontal dune.

Bert Harris Act. An act adopted in 1995 by the Florida Legislature that requires compensation to land owners for regulations that "inordinately burden" their property. This act specifically seeks to create a separate and distinct cause of actions from takings law.

Bluff. A high steep bank, formed by beach or stream bank erosion.

Breakwater. A structure protecting the shore area, harbor, anchorage, or basin from waves.

Cluster Development. A flexible alternative that concentrates development within a certain portion of a subdivision of Planned Unit Development, leaving other portions of the land undeveloped.

Coastal Construction Control Line (CCCL). The line established pursuant to the provisions of Section 161.053, F.S., and recorded in the official records of the county, which defines that portion of the beach-dune system subject to severe fluctuations based on a 100-year storm surge, storm waves, or other predictable weather conditions. The Florida Department of Environmental Protection must permit any construction seaward of the CCCL.

Coastal Barrier. A term used to describe bay barriers, tombolos, barrier spits, and barrier islands, which are depositional geologic features which consist of unconsolidated sedimentary materials and are subject to wave, tidal and wind energies. The typical barrier will include most of the following characteristics: beach, berm, dunes, barrier flats, overwash fans, saltmarsh or mangroves, tidal flats, inlets, and lagoons.

Coastal Dune Lakes. Lakes that occur in coastal communities that are separated from the ocean by a barrier beach and dune system which may be intermittent with or without a meandering tidal outlet.

Coastal High-Hazard Area (CHHA). Section 163.3178(2)(h), Florida Statutes, defines the CHHA as the evacuation zone for a Category 1 hurricane. Hurricane evacuation zones are established in the regional hurricane evacuation study applicable to the local government.

Coastal Planning Area (CPA). Area for which a Coastal Management Element needs to be prepared under Chapter 9J-5.003(18) of the Florida Administrative Code. Discretion is given to local governments when defining the CPA, but at a minimum it must include 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 land adjacent to such

occurrences where development activities would impact the integrity or quality of the above.

Community Rating System (CRS). CRS is a program that provides incentives for National Flood Insurance Program communities to complete activities that reduce flood hazard risk. When the community completes specified activities, the insurance premiums of the policyholders in those communities are reduced.

Community Vulnerability Assessment Tool (CVAT). A CD-ROM product available from the National Oceanic and Atmospheric Administration (NOAA) that details a process for analyzing physical, social, economic, and environmental vulnerability to hazards at the local level.

Comprehensive Emergency Management Plan (CEMP). Operations plan required under Chapter 252.38(1), Florida Statutes, that defines the organizational structure, chain of command, and operational procedure for the preparation, response and recovery and mitigation efforts associated with an emergency. The CEMP includes a basic plan as well as a recovery annex and a mitigation annex.

Comprehensive Plan. A legislative act of local governments, required for all municipalities and counties in Florida set forth in Chapter 163, Part II, Florida Statutes, that provides the foundation for developing programs and actions related to the use and development of land, and the provision of public facilities. The Comprehensive Plan includes goals, objectives and policies and a 5-year capital improvements plan, as well as a Future Land Use Map.

Concurrency Requirement. The requirement that the necessary public facilities and services to maintain the adopted level of service standards be in place before or at the same time development occurs, set forth in Section 163.3180, Florida Statutes.

Critical Facilities. Locally-designated facilities that are critical to important community functions, such as emergency response and safety operations centers and shelters. A list of these facilities must be included in the Local Mitigation Strategy. Other critical facilities include, but are not limited to, the following: Group quarters such as schools, churches, nursing/convalescent homes, correctional facilities, mobile home parks; Hazardous facilities such as fuel and hazard material storage and landfills; Health-related facilities such as hospitals, Red Cross and large animal-related facilities; Infrastructure such as Fire, Highway Patrol, Police and Sheriff's Departments, Communications centers and important utilities (electrical, sewage, water treatment, etc.); Military facilities; and Transportation facilities such as airports, marinas, sea ports, bridges and evacuation routes.

Dedication. The transfer of land or an interest in land by its owner to public ownership, to be used for a public purpose.

Density Transfer. An on-site density transfer is similar to cluster development in that it relocates development away from a sensitive portion of the site, to a location more capable of accommodating development impacts. An off-site density transfer, however, is similar to TDR, where the rights to develop sensitive property can be bought by a developer wishing to increase his/her zoning in a more accommodating area.

Development of Regional Impact (DRI). As defined in Section 380.06, Florida Statutes, a DRI is any development, which, because of its character, magnitude, or location, would have a substantial effect upon the health, safety, or welfare of citizens of more than one county. Impacts to regionally significant facilities and resources need to be mitigated as a part of the DRI process

Disaster Mitigation Act of 2000 (DMA 2000). DMA 2000 (Public Law 106-390) is the latest federal legislation designed to improve the hazard mitigation planning process. It was signed into law on October 10,

2000. This new legislation reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur.

Documentary Stamp Tax Revenue. A tax levied on documents as provided under Chapter 201, Florida Statutes. Documents subject to the tax include, but are not limited to the following: deeds, stocks and bonds, motes and written obligations to pay money, mortgages, liens and other evidences of indebtedness.

Dune Walkover. A wooden walkway built over dunes to protect vegetation from trampling by foot traffic.

Easement. In the context of hazard mitigation and planning, a legally-binding agreement between a landowner and a qualifying government agency or nonprofit organization, in which the land owner voluntarily agrees to specific terms that limit the use of development of a given property for the purpose of protecting certain features inherent to that property or designation of publicly used space. The easement runs with the land title and is binding on all future landowners for a set time period.

Elevation of structures. Raising structures above the base flood elevation to protect structures located in areas prone to flooding.

El Niño. The cyclical warming (El Niño) and cooling (La Niña) of the equatorial Pacific off South America that results in significant changes in weather patterns in North America. In Florida, El Niño results in cooler and wetter weather.

Emergency Operations Center (EOC). Centers operated by the state each county, and some municipalities to handle immediate response and recovery activities related to an emergency.

Erosion Control Structures. A structure constructed with purpose of protecting the beach from erosion such as a seawall, breakwater or groin.

Estuarine Marsh. A large grassland tidally flooded by brackish water.

Evaluation and Appraisal Report (EAR). A document required by Section 163.3191, Florida Statutes, which evaluates how successfully a community has been in addressing major community land use planning issues through implementation of its comprehensive plan. The EAR must be prepared and adopted by a local government every 7 years.

Exactions. A fee or contribution of cash or property required of a developer as a condition of receiving development approval.

Exotic Plant Species. Plants occurring outside their native ranges in a given place as a result of actions by humans.

Federal Pre-Disaster Mitigation Grant Program. A program authorized by Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended by Section 102 of the Disaster Mitigation Act of 2000, to assist communities with the implementation of hazard mitigation programs designed to reduce overall risk to the population and structures before the next disaster occurs.

Fee-Simple Property Acquisition. Also known as "fee simple purchase," this is the outright purchase of land and it gives the owner (a local government, for example) full control over the property rights.

Flash Flood. A flood event occurring with little or no warning where water levels rise at an extremely fast rate.

Flood Insurance Rate Map (FIRM). Map of a community, prepared by the Federal Emergency Management Agency, which shows both the special flood hazard area and the risk premium zones applicable to the community.

Flood Insurance Study (FIS). A study conducted under the auspices of the National Flood Insurance program that provides an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations in a community or communities.

Floodplain. Land areas adjacent to rivers and streams that are subject to recurring flooding.

Floodproofing. Actions that prevent or minimize future flood damage. Making the areas below the anticipated flood level watertight or intentionally allowing floodwaters to enter the interior to equalize flood pressures are examples floodproofing.

Florida Building Code (FBC). A set of uniform building construction regulations that was prepared and adopted by the Florida Building Commission. The FBC is in effect within all local government jurisdictions in Florida. The code applies to the construction, erection, alteration, modification, repair, equipment, use/occupancy, location, maintenance, removal and demolition of every public and private building, structure, facility, or floating residential structure, or appurtenances connected or attached to same.

Florida Communities Trust (FCT). Florida Communities Trust is a state land acquisition grant program housed at the Florida Department of Community Affairs. FCT provides funding to local governments and eligible non profit environmental organizations for acquisition of community based parks, open space and greenways that further outdoor recreation and natural resource protection needs identified in local government comprehensive plans.

Florida Shelter Retrofit Program. A program started in the state, funded by the state and federal government, to remedy the State of Florida's emergency shelter deficit.

Future Land Use Map (FLUM). A map that displays the different land use zones that regulate future development in the jurisdiction. The Future Land Use Map is a component of the local government Comprehensive Plan.

General Obligation Bond. Bond issued by a local government that is typically secured by ad valorem property taxes.

General Tax Revenue. Primarily property tax and sales tax revenues.

Groin. A rigid structure built at an angle (usually perpendicular) from the shore to protect it from erosion or to trap sand.

Hazard. A source of potential danger or adverse condition.

Hazard identification. Defines the magnitudes (intensities) and associated probabilities (likelihoods) of a natural hazard that may pose threats to human interests in a specific geographic area.

Hazard Mitigation Grant Program (HMGP). Authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, HMGP is administered by Florida Emergency Management Agency and provides grants to states, tribes, and local governments to implement hazard mitigation actions after a major disaster declaration. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable mitigation activities to be implemented as a community recovers from a disaster.

HAZUS-MH. A public domain software product developed by the National Institute of Building Sciences (NIBS) for FEMA which provides vulnerability assessment information for Florida communities using default data provided in the software. For more accurate analysis, local data are required.

Hurricane. A tropical cyclone with sustained winds of 74 mph or higher.

Hurricane Clips. Metal strips that fasten the roof rafters and beams to the tops of walls.

Hurricane Evacuation Study (HES). A regional study that includes an analysis of where the predicted storm surge from various categories of hurricanes, traveling at various speeds and directions, would strike. The study also determines the number of residents living in surge areas that are vulnerable to storm surge. This study is used to determine the number of people that will need to evacuate, and where they will go as well as the evacuation routes leading out of these vulnerable areas and their carrying capacities. Most of the HESs in Florida were prepared by the U.S. Army Corps of Engineers.

Hurricane Vulnerability Zone (HVZ). As defined in Chapter 9J-5.003(57) of the Florida Administrative Code, an area requiring evacuation in the event of a 100-year storm or a Category 3 storm event.

Hydrodynamic Load. The horizontal and vertical forces resulting from a mass of water in motion, such as the forces associated with the flow accompanying a storm surge. Hydrodynamic loads include the effects of turbulence resulting from the interaction of the flowing water mass with a rigid structure.

Hydrostatic Load. The horizontal and vertical forces resulting from a standing mass of water.

Impact Fee. A type of exaction used to expand or improve public facilities outside a subdivision or PUD.

Incentive Zoning. An option that encourages developers to go beyond the minimum standards of the land development code by offering certain rewards, such as higher densities, for taking this action.

Infrastructure. Refers to the public facilities of a community. Infrastructure includes communication technology, such as phone lines or Internet access; vital services, such as public water supplies and sewer treatment facilities; and an area's transportation system: airports, heliports, highways, bridges, tunnels, roadbeds, overpasses, railways, bridges, rail yards, deports; and waterways, canals, locks, seaports, ferries, harbors, dry docks, piers, and regional dams.

Leaseback (Purchase-And-Sellback). Land is purchased by a local government and rezoned for the desired land use and under the sellback option, it is then sold for development. Under the leaseback option, however, the area may also be subdivided by the local government and then individual lots can be leased for development.

Levee. A natural or manmade feature of the landscape that restricts movement of water into or through an area.

Local Mitigation Strategy (LMS). The term used in Florida for the local government "hazard mitigation plans" required by the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Pursuant to the federal Disaster Mitigation Act of 2000 (Public Law 106-390), state and local government must development hazard mitigation plans as a condition of federal grant assistance. The LMS is a community plan to promote hazard mitigation that includes a guiding principles section, a vulnerability assessment, and mitigation initiatives, as well as capital projects.

Local Ordinances. Local regulations that establish the means to implement locally adopted emergency management plans. Additionally, many local governments adopt ordinances to establish a review process, design standards, and permitting requirements for alternation to historic resources.

Manufactured Building. A building that is constructed in a factory to meet the Florida Building Code and transported, usually in sections, to

the building site. Unlike Manufactured Homes, these buildings do not have an integral chassis and can be have occupancies other than residential.

Manufactured Home. A home that is built entirely in a factory and meets the Housing and Urban Development Code, that has an integral chassis and must be transported on their own axles and wheels from the factory.

Mapping for Emergency Management, Parallel Hazard Information System (MEMPHIS). An experimental website based system to allow emergency managers, planners, and other local officials in Florida to easily access a variety of hazard related data. MEMPHIS website: http://lmsmaps.methaz.org/lmsmaps/index.html

Mitigation 20/20. A tool used by state and local governments in the development of comprehensive mitigation plans. It also aids state and local governments in achieving federal requirements, including those under the Federal Disaster Mitigation Act of 2000.

Mobile Home. The term used for manufactured homes produced prior to Jun 15, 1976, when the first Housing and Urban Development Code went into effect. The term "mobile home" is often used interchangeably with "manufactured housing."

Modular Building. A term that is used interchangeably with Manufactured Buildings.

National Flood Insurance Program (NFIP). Federal program created by Congress in 1968 that makes flood insurance available in communities that enact minimum floodplain management regulations as indicated in 44 CFR 60.3.

Native Dune Vegetation. The species of plants that naturally occur on dune systems and are native to the area.

Non-Conforming Use. A land use that currently does not conform to the requirements of the zoning district in which it is located, but that met municipal requirements prior to adoption or amendment of the zoning district regulations.

Overlay Zone. A mapped area that allows differential treatment in response to the special needs specific to that area, supplemental to the underlying zoning district on the Future Land Use Map Category.

Performance Standards. General criteria that are set out to ensure that a particular structure, type of land sue or development will be able to meet certain minimum standards or that its effects on the community will not exceed set limits.

Planned Unit Development (PUD). A type of development characterized by comprehensive planning for the project as a whole, where the clustering of structures is employed to preserve usable open space and other natural features. A mixture of housing types and sometimes a variety of nonresidential uses can be constructed in these developments as well.

Post-Disaster Mitigation. Mitigation actions taken after a disaster has occurred, usually during recovery and reconstruction.

Post Disaster Redevelopment Plan (PDRP). A plan that is required to be prepared pursuant to the coastal management element of comprehensive plans. The PDRP is required for coastal communities by Section 9J-5.012(3)(b)(8) of the Florida Administrative Code, and encouraged for inland counties by Section 163.3177(7)(I), Florida Statutes. The PDRP is often a mixed plan that includes both an operations component, that details the who, what, when and where of post-disaster recovery and re-

construction procedures, as well as the policies for governing the recovery and reconstruction process.

Pre-Disaster Mitigation. Projects that are initiated under "blue-sky" conditions rather than in post-disaster situations.

Purchase of Development Rights (PDR). The purchase of development rights by a government entity or nonprofit organization to protect certain features inherent to that property. This can be accomplished through a conservation easement or the land title, but unlike TDR, the development rights are then "retired," and not used elsewhere.

Repetitive Loss Property. A property that is currently insured for which two or more National Flood Insurance Program losses (occurring more than ten days apart) of at least $1000 each have been paid within any 10-year period since 1978.

Revenue Bond. Bond issued by a local government that is secured by a dedication of revenue source other than the community's ad valorem tax base, such as user fees.

Risk. The calculated potential of suffering harm from a hazard. The risk associated with a given natural hazard is the product of the probabilities and the magnitudes for all possible intensities of the hazard phenomenon.

Risk Analysis. Incorporates estimates of the probability of various levels of injury and damage to provide a more complete description of the risk from the full range of possible hazard events in an area.

Safe Room. A room designed for protection from the high winds and flying debris expected during tornadoes and hurricanes.

Seawall. A protective structure of stone or concrete that extends along the shore into the water to prevent beach erosion.

Seismic. Pertains to earthquake or earthquake vibrations

Special Needs Facility. A facility such as a hospital or an assisted living facility that caters to the needs of citizens who are disabled or currently needing medical attention.

State Emergency Response Team (SERT) Tracker. The Emergency Operations Center database that compiles all incoming and outgoing messages and requests for assistance during activation. The SERT Tracker can be accessed at http://www.floridadisaster.org/DEMcom.htm.

SLOSH (Sea, Lake and Overland Surges from Hurricanes). A computerized model developed by the National Hurricane Center that computes the maximum possible still-water storm surge flood depth resulting from the composite of an array of possible storms of a given intensity.

Special Assessment. An assessment typically levied on real property in districts that are created within a local jurisdiction, to finance specific public capital improvements or the annual operating costs of services that confer a special benefit to the properties within the district.

Stafford Disaster Relief and Emergency Assistance Act. The Robert T. Stafford Disaster Relief and Emergency Assistance Act, PL 100-107 is a federal law signed on November 23, 1988, and amended by the Disaster Mitigation Act of 2000, Public Law 106-390. The Stafford Act is the statutory authority for most federal disaster response activities, especially as they pertain to Federal Emergency Management Agency and its programs.

STORM (Simulation and Training on Recovery and Mitigation) Gaming Simulation. A gaming simulation developed by the Florida Planning and Development Lab at Florida State University that presents players, who constitute the recovery task force team for a hypothetical

coastal county, with the major operational and policy decisions likely to be faced during recovery from a major (Category 3) hurricane.

Storm Surge. A rise in the surface of the sea caused by the low atmospheric pressure under the eye of a hurricane. The height of the storm surge is directly related to the atmospheric pressure of the storm as well as the depth of the bottom of the ocean under the eye.

Stormwater. Rainwater that flows overland after falling. In developed areas, storm water typically becomes polluted by materials it picks up from roofs, streets, parking lots, and other impermeable surfaces, and may deliver pollutants to surface and ground water.

Structural Retrofitting. Modifying buildings and infrastructure to protect them from hazards.

TAOS (The Arbiter Of Storms). A computerized model used to model meteorological hazards, and is used in real time hurricane forecasting, as well as calculating potential vulnerability and damage costs due to wind and water from hurricanes.

Transfer of Development Rights (TDR). A land use management technique that transfers development potential from sensitive areas to less sensitive areas that have been identified as suitable and designated for growth. In a TDR program, two or more zones are established in a given geographic area: 1) a "sending" (preservation) zone and 2) a "receiving" zone. The most common TDR program allows the landowner to sell the development rights to a developer who then uses those development rights to increase the density of development on another piece of property at another location. A second method allows local governments to establish a TDR bank to transfer development rights.

Tropical Depression. A tropical cyclone with maximum sustained winds of less than 39 miles per hour.

Tropical Storm. A tropical cyclone with maximum sustained winds greater than 39 mph and less than 74 mph.

"V" Zone. Special flood hazard area delineated on Flood Insurance Rate Maps, inundated by the 100 year flood and supports a 3 foot wave or coastal flood with velocity hazard.

Vulnerability. The susceptibility of property or populations to damage or injury from a natural hazard event of a given intensity.

Vulnerability Assessment. Characterizes the exposed populations and property and the extent of injury and damage that may result from a natural hazard event of a given intensity in a given area.

Wetland. Lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface.

Wind-Borne Debris. Objects that become airborne and dangerous when subject to high winds.

B Exemplary Hazard Mitigation Policy Crosswalk

This appendix presents an exemplary hazard mitigation policy crosswalk from the ***Guiding Principles*** section of Manatee County's ***Local Mitigation Strategy.*** The crosswalk table is divided into a series of hazard mitigation goals, for example, "Public, Health, Safety, Welfare", under which are listed individual policies, regulations, and objectives from the county ***Comprehensive Emergency Management Plan*** and the ***Comprehensive Plans,*** land development codes and other ordinances, and building codes of Manatee County and its municipalities. Separate columns specify the source reference, describe the relevant mitigation function, and provide an evaluation of the effectiveness of the policy, regulation, or objective. Three pages excerpted from the table are presented in the following pages.

Local Mitigation Strategy, Guiding Principles

Manatee County, Florida

LMS Community Guiding Principles Table			
Comp Plan Policy, Regulation, Objective	Source Reference	Mitigation Function	Evaluation
1. Public Health, Safety, Welfare			
Occupancy Quattlebaum Guest House (EMS Stations #5)	R89-143 (MC EMS)	Resolutjon to enable MCEMS to continue using Quattlebaum guesthouse as an EMS substation.	Enables MCEMS to properly house an Ambulance and its crew for emergency response coverage of Eastern Manatee County.
Football Game Stand-bys	R93-142 (MC EMS)	Allows customary Ambulance Stand-by for School board sanctioned football events	Provides an on the spot response where a greater potential for injury exist due to the nature of the activity and large crowd gatherings, participants involved.
Certificate of Public Convenience and Necessity West Coast Medical Transfer	91-73/R-93-253(MC EMS)	West Coast. Medical Service Provides Non-first response Basic life Support and Advance life Support inter-hospital transports.	The service provided by West Coast Medical Service reduces the demand placed on MCEMS providing better responses for emergency calls. West Coast also is a good back up resource available to a MCEMS should demand exceed supply.
Participation of Helping Hugs Program	R-94-112 (MC EMS)	Agreement between Target stores and the County to donate Stuffed Animals for pediatric patients. On a quarterly basis.	Ultimately should help to alleviate the inerrant difficulties associated with the emergency care of sick/injured pediatric patients.
Certificate of Public Convenience and Necessity	R-94-239 (MC EMS)	Enables Advance Life Support Units operated under the direction of the Town of Longboat Key to operate within the portions of Longboat Key within Manatee County Jurisdiction.	Decreases the demand placed on MCEMS and provides additional resources through mutual aid request.

Community Guiding Principles Table			
Policy, Regulation, Objective	Source Reference	Mitigation Function	Evaluation
Bayflight Bayfront Medical Mutual Agreement	(MC EMS)	Agreement with Bayfront to provide Helicopter transport for patients termed "Trauma Alert" to area Trauma Centers	Works very well in getting severely injured persons to a trauma center where emergency surgery is available.
Tampa General Hospital and AEROMED	(MC EMS)	Agreement with Tampa General to provide secondary Trauma Transport to Tampa General	Works well for at times1he primary responder Bayflight may be unable to respond.
Coastal Management	LDC (MC Planning)	All new development in the Category 1, 2, or 3 hurricane evacuation areas shall have a Public Safety approved evacuation plan.	How is this monitored/verified? At what stage does Public Safety receive the Plan? No standards/guidelines have been established. Need better coordination with the planning and public safety departments.
Floodplain Management Plan	Provision 8.4.1 (MC Building)	The County maintains an evacuation assistance list of elderly and others who need County help when an evacuation is necessary.	Effective
Future Land Use	Incompatible Land Uses (9J-5.006(3)(b)3.] Pol. 1.3.4 (City of Palmetto)	Heavy commercial/industrial land uses shall be subject to performance standards to control noise, vibration, glare, odors, fumes, and smoke.	Effective
Future Land Use	Coastal Population Densities [9J-5.006(3)(b)5.] Pol. 1.5.1 (City of Palmetto)	To limit coastal area population densities, consistent with the need for an effective hurricane evacuation plan.	Effective
Future Land Use	Coastal Population Densities [9J-5.006(3)(b)5.] Pol. 1.5.2{City of Palmetto)	Coastal Densities shall be consistent with local or regional coastal evacuation Plans.	Effective
Hurricane Vulnerability	TFC 1.4.4 (City of Bradenton Beach)	City to clearly post and maintain emergency evacuation routes.	Reduces potential loss of life through fostering of public awareness of evacuation routes.
Hurricane Vulnerability	Comp. Plan Policy (City of Anna Maria)	The City shall clearly post and maintain emergency evacuation routes.	Effective
Hurricane Vulnerability	FLU Obj. 4, Policies 1-4 (City of Bradenton)	Pol.1: Prohibit density increases in first priority hurricane evacuation zones.	Effective as a policy guide to limit population in areas subject to the effects of storms.

Community Guiding Principles Table			
Policy, Regulation, Objective	Source Reference	Mitigation Function	Evaluation
Hurricane Evacuation	Obj. 8.5, Pol. 8.5.1- 8.5.2 (City of Palmetto)	The City shall continue to work with the County Public Safety Dept, And the TBRPC to improve the hurricane evacuation clearance time of 12 hours for all zones within Palmetto and to ensure that adequate shelter capacity is available for city residents and visitors.	Will reevaluate with new surge zone map due in 1999 from TBRPC.
Hurricane Evacuation	Obj. 8.6 Pol. 8.6.1 (City of Palmetto)	High density developments in areas projected to receive major hurricane damage from coastline storm surges shall be avoided.	Effective
Flooding	FLU 1.1.6 (City of Bradenton Beach)	Residential areas to be located and designed to protect life and property from flooding.	Effective as a policy.
Flood	LDC 718.6.1 (MC Building)	No storage areas for hazardous or acutely hazardous waste in the watershed protection overlay, coastal high hazard area overly district or floodway.	Effective
Flood Damage Protection	Ord. No. 89-10 Floodplain Mgmt. Obj. 101.2 Land Dev Code 718.1 (MC LDC 718.6.1.10 (MC Building)	Protect human life. Help maintain a stable tax base through sound developments.	Effective building construction code sections designed to limit flood and storm damage to structures.
Flood Damage Protection	Ord. No. 89-10 Floodplain Management Objective 101.2 Land Development Code 718.1 (MC Building)	Protect human life.	Effective building construction code sections designed to limit flood and storm damage to structures.
Coastal High Hazard Protection	LDC 604.3.3 Coastal High Hazard Area Prohibitions (3)	Uses that generate, store or dispose of 45.5 lbs of hazardous materials or .45 lbs of acutely hazardous materials per month	EMS lead agency to evaluate.

C Example and Model Plans and Ordinances

Appendix C includes four different sections:

C-1: *Model Zoning Regulations for a TDR Program*

C-2: *APA Model Recovery and Reconstruction Ordinance*

C-3: *Hillsborough County Post-Disaster Redevelopment Ordinance*

C-4: *Okaloosa County Post-Disaster Redevelopment Plan*

C–1 Model Zoning Regulations for a TDR Program

These regulations, with some modification, were adapted from ***Flexible and Innovative Zoning Series: Transferable Development Rights*** (Maryland Department of Planning, 1995). Numerical standards used in the model are for illustration purposes only and some of those not directly related to the TDR concept are omitted.

Section 100

Definitions

Bonus Density: The right to develop property at a higher density/ intensity than normally permitted, through compliance with optional procedures established in these regulations.

Receiving Area: Any zoning district where optional procedures have been established for additional bonus density through transfer of development rights.

Sending Area: Any zoning district where, according to the procedures of Section 130, owners of property are eligible to obtain certification of ownership of transferable development rights and to transfer such ownership.

Transferable Development Right: The right to create a residential building lot or construct a dwelling unit, which right may be severed from a property in the sending area and transferred to a property in the receiving area in the form of bonus density according to procedures established in these regulations.

Section 110

Coastal High-Hazard Sending Area (CHHSA) District[1]

A. Purpose

The purpose of the CHHSA is to minimize residential development density within the Coastal High-Hazard Area and to help implement the Comprehensive Plan goal of directing growth away from the Coastal High-Hazard Area.

B. Uses permitted as a matter of right

1. One single-family detached dwelling unit per lot.
2. Recreational and open space activities.

C. Accessory uses [see any zoning ordinance with "coastal" district regulations]

D. Development standards

1. The following maximum limitations shall apply:
   a. height [omitted]
   b. lot coverage [omitted)
   c. density – overall for residential subdivisions ....1 unit per 50 acres

2. The following minimum requirements shall be observed:

   a. lot size ..... 50 acres

   b. lot width at building restriction line [omitted]

   c. building setbacks [omitted]

3. Cluster option

   For subdivisions for which a cluster sketch plan has been submitted to the Planning Commission for approval, the following less restrictive minimum standards shall apply in lieu of Section 110.D.2. a. and b.:

   a. lot size ..... 1 acre

   b. lot width at building restriction line [omitted]

   In a cluster subdivision, land not used for residential lots, rights-of-way, or storm water management facilities and not required to be dedicated to the County or State under the provisions of the Subdivision Regulations, shall be placed under a permanent easement restricting its use to agriculture or open space use.

E. Transfer of development rights

1. If development rights are transferred from the CHHSA District pursuant to Section 130 of these regulations, or if development rights are sold from the CHHSA District pursuant to applicable County or State programs for the acquisition of development rights, then the number of development rights eligible for such transfer or sale shall be calculated at the rate of one development right per five gross acres [or a figure corresponding to the density under the prior zoning], minus one development right for each existing dwelling unit and minus the number of development rights previously transferred or sold.

2. Land that is encumbered with easements that entirely restrict the development of the property for residential use and land in public ownership shall not be eligible for transfer of development rights.

Section 120

Residential Receiving Area (RRA) District

A. Purpose

The purpose of the residential receiving area district is to help implement the goals of the Comprehensive Plan by providing suitable areas where development may be concentrated. To minimize residential development density within the Coastal High-Hazard Area, this district is intended to provide a preferred location for growth that might otherwise take place in coastal areas, via a transfer of development rights from the CHHSA District.

B. Uses permitted as a matter of right

1. One single-family detached dwelling unit per lot.
2. Single-family attached dwelling units.
3. Duplexes.
4. Apartments.
5. Government buildings, facilities, and uses including public schools and colleges.

C. Accessory uses [see regulations for residential districts in any zoning ordinance]

D. Development standards

1. The following maximum limitations shall apply:

a. height [omitted)

b. lot coverage [omitted]

c. density (except as provided in Section 120 E. of these regulations for bonus density) .....2 units per acre

d. units per structure [omitted]

2. The following minimum requirements shall be observed:

a. lot size [omitted]

b. lot width at building restriction line [omitted]

c. building setbacks [omitted]

d. distances between buildings other than single-family detached units [omitted]

e. open space including landscaped areas [omitted]

E. Bonus Density

1. Eligibility – properties within the RRA District are eligible to receive bonus density under these regulations provided that public facilities are adequate to serve the development and that all other requirements of this subsection are met.

2. Maximum density permitted – Density may be increased under this subsection up to limits determined for each parcel according to the land use designation of the parcel on the future land use map of the Comprehensive Plan as follows:

Comprehensive Plan designation	**Maximum Density Permitted**
low density	4 units per acre
medium density	8 units per acre
high density	16 units per acre

3. Density may be increased up to the maximums established in Section 120 E. 2. provided that for every additional dwelling unit (bonus unit) awarded under this provision a development right is transferred to the project, pursuant to procedures of Section 130 of these regulations.

4. No subdivision plans or site plans for any project involving bonus density will be approved until a sketch plan of the project has been approved by the Planning Commission. The Planning Commission, before acting on the sketch plan, shall give consideration to the following:

a. the Comprehensive Plan for _____;

b. the proposed density of the development;

c. the adequacy of public facilities in the area including, but not limited to, water and sewerage facilities, roads and schools;

d. the highway plans of the municipality, county, and state; and

e. compatibility of the development with surrounding land uses.

After carefully considering the above, the Planning Commission shall approve, approve with modifications and conditions attached, or disapprove the sketch plan stating the reasons for its action.

Section 130

Transfer of Development Rights

A. Eligibility

1. Development rights may be severed from land within a sending area and transferred to land within a receiving area for transferable development rights according to procedures established in these regulations. As it applies here, a sending area is:

a. any property within the CHHSA District with development rights available for transfer, or

b. land surrounding a structure listed on the inventory of historic sites of _____ in any zoning district except the CHHSA District provided that:

(1) such land is under the same ownership as the historic structure;

(2) no more than fifteen acres adjoining any historic structure shall qualify as a sending area; and

(3) development rights shall be assigned as follows:

acreage	**development rights**
5 or more acres	3
>10 but <15 acres	2
less than 10 acres	1

2. Receiving areas for transferable development rights are those areas within the RRA District that are eligible for bonus density.

B. Certification of Transferable Development Rights

1. The legal title holder of property in a sending area may apply to the Department of Planning and Zoning for certification of ownership of transferable development rights. The application shall contain:

a. the exact name and address of the legal title holder and a reference to the liber and folio of the Land Records of _____ at which the deed conveying the property to the applicant is recorded.

b. a metes and bounds description of the property, a copy of the deed or survey showing the acreage of the property upon which the number of transferable development rights will be calculated.

c. the number of development rights proposed to be certified.

d. an easement, in a recordable form approved by the Department of Planning and Zoning and conveyed to the Commissioners [or Mayor and Council] of _____, restricting and reducing future subdivision for residential purposes and construction of dwellings on the property by an amount equal to the number of transferable development rights to be certified.

2. After review of the application for conformity to these regulations, the Department of Planning and Zoning will record the easement in the Land Records of _____ and issue to the applicant a certificate of ownership of transferable development rights. The certificate may be sold and a new certificate issued in the name of the new owner.

C. Transfer of Rights to Receiving Area

1. The legal title holder, tenant under a lease having a term of not less than 75 years, or contract purchaser of property in a receiving area, at the time of application for subdivision or site development plan approval, may apply to the Department of Planning and Zoning for approval to use the bonus density provisions of these regulations. The application shall contain:

a. the exact name and address of the legal title holder of the property and, if the applicant is not the legal title holder, the written assent to the application signed by the legal title holder.

b. the number of development rights proposed to be transferred to the receiving property.

c. a sketch plan of the property approved by the Planning Commission for use of bonus density.

d. a certificate of ownership of transferable development rights issued to the applicant documenting ownership of at least as many development rights as proposed to be transferred to the receiving property.

2. The Department of Planning and Zoning shall review the application for conformity to these regulations and shall provide written approval to the applicant to increase the number of dwelling units in the development by the number of development rights proposed for transfer to the property.

3. The Final Record Plat for a subdivision or approved site development plan shall contain a statement setting forth the number of transferable development rights used to qualify for bonus density and the recordation reference of the conveyance required by Section 130 B.2.

C-2 APA Model Recovery and Reconstruction Ordinance

This ordinance is adapted from the "Model Recovery and Reconstruction Ordinance" by Kenneth C. Topping, published in the American Planning Association's Planning Advisory Service Report *Planning for Post-Disaster Recovery and Reconstruction* (1998).

7.9 Nonconforming Buildings and Uses

Section 8. Demolition of Damaged Historic Buildings
- 8.1 Condemnation and Demolition
- 8.2 Notice of Condemnation
- 8.3 Request to FEMA to Demolish
- 8.4 Historic Building Demolitions Review

Section 9. Temporary and Permanent Housing

Section 10. Hazard Mitigation Program **[excluded]**

Section 11. Recovery and Reconstruction Strategy
- 11.1 Functions
- 11.2 Review

Section 12. Severability

WHEREAS, [jurisdiction name] is vulnerable to various natural hazards such as earthquakes, flooding, wildfires, and wind, resulting in major disasters causing substantial loss of life and property;

WHEREAS, [jurisdiction name] is authorized under state law to declare a state of local emergency and take actions necessary to ensure the public safety and well-being of its residents, visitors, business community, and property during and after such major disasters;

WHEREAS, it is essential to the well being of [jurisdiction name] to expedite recovery and reconstruction, mitigate hazardous conditions, and improve the community after such major disasters;

WHEREAS, disaster recovery and reconstruction can be facilitated by establishment of a [recovery task force] within [jurisdiction name] to plan, coordinate, and expedite recovery activities;

WHEREAS, preparation of a pre-event plan for disaster recovery and reconstruction can help [jurisdiction name] organize to expedite recovery in advance of a major disaster and to identify and mitigate hazardous conditions, both before and after such a disaster;

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 recovery and reconstruction measures identified in a pre-event plan;

WHEREAS, it is mutually beneficial to cooperatively plan relationships needed between [jurisdiction name] and other state and federal governmental authorities;

WHEREAS, it is informative and productive to consult with representatives of business, industry, and citizens' organizations regarding the most suitable and helpful approaches to disaster recovery and reconstruction;

The [name of legislative body] does hereby ordain:

Section 1. Authority. This ordinance is adopted by the [name of local legislative body] acting under authority of the [authorizing legislation], [state emergency management act, or equivalent], and all applicable federal laws and regulations.

Section 2. Purposes. It is the intent of the [local legislative body] under this chapter to: authorize creation of an organization to plan and prepare in advance of a major disaster for orderly and expeditious post-disaster recovery and to direct and coordinate activities; direct the preparation of a pre-event plan for recovery and reconstruction to be updated on a continuing basis; authorize in advance of a major disaster the exercise of certain planning and regulatory powers related to recovery and reconstruction to be implemented upon declaration of a local emergency; identify means by which the [jurisdiction name] will take cooperative action with other governmental entities in expediting recovery; and implement means by which the [jurisdiction name] will consult with and assist citizens, businesses, and community organizations during the planning and implementation of recovery and reconstruction procedures.

Section 3. Definitions. As used in this ordinance, the following definitions shall apply:

3.1 **Damage Assessment Survey**. A field survey to determine levels of damage for structures and to identify the condition of structures.

3.2 **Development Moratorium**. 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 and property.

3.3 **Director.** The Director of the [recovery task force] or an authorized representative.

3.4 **Disaster Field Office (DFO)**. A center established by the Federal Emergency Management Agency (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.

3.5 **Disaster Recovery Center (DRC)**. A multi-agency center organized by FEMA for coordinating assistance to disaster victims.

3.6 **Disaster Survey Report (DSR).** A claim by a local jurisdiction for financial reimbursement for repair or replacement of a public facility damaged in a major disaster, as authorized under the Stafford Act and related federal regulations, plans, and policies.

3.7 **Emergency.** A local emergency, as defined by the [pertinent local law, which has been declared by the [local legislative body] for a specific disaster and has not been terminated.

3.8 **Event.** Any natural occurrence which results in the declaration of a state of emergency and shall include earthquakes, fires, floods, wind storms, hurricanes, etc.

3.9 **Federal Response Plan (FRP)**. A plan to coordinate efforts of the government in providing response to natural disasters, technological emergencies, and other incidents requiring federal assistance under the Stafford Act in an expeditious manner.

3.10 **Flood Insurance Rate Map (FIRM)**. An official map of the community, on which the Federal Insurance Administration has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

3.11 **Hazard Mitigation Grant Program**. A federal program that assists state and local communities in implementing long-term hazard mitigation measures following a major disaster declaration.

3.12 **Historic Building or Structure.** Any building or structure listed or eligible for listing on the National Register of Historic Places, as specified by federal regulation, the state register of historic places or points of interest, or a local register of historic places, and any buildings and structures having historic significance within a recognized historic district.

3.13 **In-Kind.** The same as the prior building or structure in size, height and shape, type of construction, number of units, general location, and appearance.

3.14 **Interagency Hazard Mitigation Team.** A team of representatives from FEMA, other federal agencies, state emergency management agencies, and related state and federal agencies, formed to identify, evaluate, and report

on post-disaster mitigation needs. [Note: Not all states employ the use of this team.]

3.15 Major Disaster. Any natural catastrophe (including any [hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought]), or, regardless of cause, any fire, flood, or explosion, which in the determination of the President of the United States causes damage of sufficient severity and magnitude to warrant major disaster assistance under the Stafford Act to supplement the efforts and available resources of states, jurisdictions, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.

3.16 Reconstruction. The rebuilding of permanent replacement housing, construction of large-scale public or private facilities badly damaged or destroyed in a major disaster, addition of major community improvements, and full restoration of a healthy economy.

3.17 Recovery. The process by which most private and public buildings and structures not severely damaged or destroyed in a major disaster are repaired and most public and commercial services are restored to normal.

3.18 [Recovery Task Force]. Generic term for an interdepartmental organization that coordinates [jurisdiction name] staff actions in planning and implementing disaster recovery and reconstruction functions. [Other locally chosen names (e.g., the municipal disaster recovery commission) can, of course, be substituted.]

3.19 Recovery Plan. A pre-event plan for 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.

3.20 Recovery and Reconstruction Strategy. A post-disaster strategic program identifying and prioritizing major 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.

3.21 Stafford Act. The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288, as amended).

Section 4. [Recovery Task Force]. There is hereby created the [recovery task force], for the purpose of coordinating [jurisdiction name] actions in planning and implementing disaster recovery and reconstruction activities.

4.1 Powers and Duties. The [recovery task force] shall have such powers as enable it to carry out the purposes, provisions, and procedures of this chapter, as identified in this chapter.

4.2 [Recovery Task Force]. The [recovery task force] shall include a [recovery task force *or* locally chosen term] comprised of the following officers and members:

a. The [title of the chief executive officer (e.g., the mayor)] who shall be Chair;

b. The [title of the deputy chief executive officer (e.g., city manager or county or town equivalent)] who shall be Director and Vice Chair;

c. The [title of the next-ranking executive officer (e.g., assistant city manager)] who shall be Deputy

Director, and who shall act as Vice-Chair in the absence of the Vice Chair;

d. The [title of the jurisdiction's legal advisor] who shall be Legal Adviser;

e. Other members, including the [list the titles of other interested jurisdiction officials, which might include the chief building official, chief engineer, the director of community development or planning, the fire chief, the emergency management coordinator, the general services director, the historic preservation coordinator, the police chief, the director of public works, and the director of utilities], together with representatives from such other departments and offices as may be deemed necessary by the Chair or Director for effective operation.

Commentary. *The formal structure of a recovery organization will vary from community to community. The important thing is to include representatives from agencies and organizations so that the broadest array of functions that may have a direct or indirect role in recovery and reconstruction can be addressed. Also, formal leadership may vary by size and structure of local governmental organization. In a big-city environment, presence and availability of the mayor or a deputy mayor may be important from a leadership standpoint, even though recovery in many instances is largely a staff-driven process. On the other hand, in a typical council-manager form of government, inclusion of the mayor may not be very useful. The intent here is to provide a communications connection with the governing body as well as a ceremonial function.*

4.3 Operations and Meetings. The Director shall have responsibility for [recovery task force] operations. When an emergency declaration is not in force, the [recovery task force] shall meet monthly or more frequently, upon call of the Chair or Director. After a declaration of an emergency and for the duration of that declared emergency period, the [recovery task force] shall meet daily or as frequently as determined by the Director.

Commentary. *The overall concept here is for the city manager or county administrator to run the recovery task force operations on behalf of the city council or board of county commissioners, reserving the involvement of the mayor for those times when policy matters are being discussed or at critical junctures following a major disaster. In actuality, the city manager or county administrator inevitably becomes the pivotal party for informing and advising the city council or county commission on recovery matters, interpreting council/commission policy and coordinating staff functions.*

4.4 Succession. In the absence of the Director, the Deputy Director shall serve as Acting Director and shall be empowered to carry out the duties and responsibilities of the Director. The Director shall name a succession of department managers to carry on the duties of the Director and Deputy Director, and to serve as Acting Director in the event of the unavailability of the Director and Deputy Director.

4.5 Organization. The [recovery task force] may create such standing or ad hoc committees as determined necessary by the Director.

4.6 Relation to Local Emergency Management Organization. The [recovery task force] shall work in concert with the [local emergency management organization] that has interrelated functions and similar membership.

Commentary. *As noted in the introductory paragraphs, there are certain fundamental differences in function that make it preferable to establish a recovery organization that can operate parallel to the emergency management organization. However, because of the inherent linkage of emergency preparedness and response with recovery, reconstruction, and hazard mitigation functions, a close relationship must be continuously maintained. For many purposes these overlapping organizations can meet and work jointly. The value of having a separate recovery organization is best recognized when hard-core building, planning, redevelopment, and economic recovery issues require extended attention during the pre-event planning phase or during the long months and years it is likely to take to fully rebuild.*

Section 5. Recovery Plan. Before a major disaster, the [recovery task force] shall prepare a pre-event plan for post-disaster recovery and reconstruction, referred to as the recovery plan, which shall be comprised of pre-event and post-disaster policies, plans, implementation actions, and designated responsibilities related to expeditious and orderly post-disaster recovery and rebuilding, and will incorporate hazard mitigation in all elements of the plan.

5.1 Recovery Plan Content. The recovery plan shall address policies, implementation actions, and designated responsibilities for such subjects as business resumption, damage assessment, demolitions, debris removal and storage, expedited repair permitting, fiscal reserves, hazards evaluation, hazard mitigation, historical buildings, illegal buildings and uses, moratorium procedures, nonconforming buildings and uses, rebuilding plans, redevelopment procedures, relation to emergency response plan and comprehensive plan, restoration of infrastructure, restoration of standard operating procedures, temporary and replacement housing, and such other subjects as may be appropriate to expeditious and wise recovery.

5.2 Coordination of Recovery Plan with County and Regional Plans, FEMA, and Other Agencies. The recovery plan shall identify relationships of planned recovery actions with those of adjacent communities and state, federal, or mutual aid agencies involved in disaster recovery and reconstruction, including but not limited to FEMA, the American Red Cross, the federal Department of Housing and Urban Development (HUD), the federal Small Business Administration (SBA), the federal Environmental Protection Administration (EPA), the federal Department of Transportation (DOT), FDEM, and other entities that may provide assistance in the event of a major disaster. The Director shall distribute a draft copy of the plan to FDEM for review in sufficient time for comment prior to action on the recovery plan by the [local legislative body].

Commentary. *In contrast to most local emergency management organizations, FEMA and the state emergency management agency have substantial recovery and reconstruction responsibilities. FEMA is a significant source of funds made available by Congress under the Stafford Act for rebuilding public facilities. Because the state emergency management agency is an important point of coordination between localities and FEMA, it is important to solicit from that agency as much advance information as can be obtained regarding post-disaster procedures essential to recovery and reconstruction. For example, cities and counties should become fully informed through communication with their state emergency management agency about Damage Survey Report (DSR) and Hazard Mitigation Grant Program*

(HMGP) procedures before disaster strikes. Because recovery issues often affect jurisdictions outside the immediate disaster area, the recovery plan should be coordinated with recovery planning activities of adjacent communities and regional entities.

5.3 Recovery Plan Adoption. Following formulation, the recovery plan shall be transmitted to the [local legislative body] for review and approval. The [local legislative body] shall hold one or more public hearings to receive comments from the public on the recovery plan. Following one or more public hearings, the [local legislative body] may adopt the recovery plan by resolution, including any modifications deemed appropriate, or transmit the plan back to the [recovery task force] for further modification prior to final action.

Commentary. *Governing board adoption of this ordinance together with the pre-event plan is extremely important to its successful post-disaster implementation. The city council/county commission needs to become comfortable with the concept of pre-event plan and ordinance adoption in order to be supportive of greater than normal delegation of decisions to staff, which may be necessary during post-disaster recovery operations. If governing board adoption is not possible immediately because of the press of other business, look for opportunities to bring the plan and ordinance forward such as when a catastrophic disaster has struck in another jurisdiction.*

5.4 Recovery Plan Implementation. The Director and [recovery task force] shall be responsible for implementation of the plan both before and after a major disaster, as applicable. Before a declaration of emergency, the Director shall prepare and submit reports annually, or more frequently as necessary, to fully advise the [local legislative body] on the progress of preparation or implementation of the recovery plan. After a declaration of emergency in a major disaster, the Director shall report to the [local legislative body] 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.

5.5 Recovery Plan Training and Exercises. The [recovery task force] shall 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 the emergency operations plan.

Commentary. *Clearly, training and exercises are functions that should happen on a joint, ongoing basis with the community's emergency management organization. For greatest value, training and exercises should include careful attention to critical relationships between early post-disaster emergency response and recovery actions that affect long-term reconstruction, such as street closings and reopenings, demolitions, debris removal, damage assessment, and hazards evaluation.*

5.6 Recovery Plan Consultation with Citizens. The [recovery task force] shall schedule and conduct community meetings, periodically convene advisory committees comprised of representatives of homeowner, 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.

5.7 Recovery Plan Amendments. During implementation of the recovery plan, the Director and the [recovery task force] shall address key issues, strategies, and information bearing on the orderly maintenance and periodic revision of the plan. In preparing modifications to the plan, the [recovery task force] shall consult with city or county departments, business, and community organizations, and other government entities to obtain information pertinent to possible recovery plan amendments.

5.8 Recovery Plan Coordination with Related Plans. The recovery plan shall be prepared in coordination with related elements of the Comprehensive Plan, the Comprehensive Emergency Management Plan, and the Local Mitigation Strategy. Such related plan elements shall be periodically amended by the [local legislative body] to be consistent with key provisions of the recovery plan, and vice versa.

Section 6. General Provisions. The following general provisions shall be applicable to implementation of this chapter following a major disaster:

6.1 Powers and Procedures. Following a declaration of local emergency in a major disaster and while such declaration is in force, the Director and the [recovery task force] shall have authority to exercise powers and procedures authorized by this chapter, subject to extension, modification, or replacement of all or portions of these provisions by separate ordinances adopted by the [local legislative body].

6.2 Post-Disaster Operations. The Director shall direct and control post-disaster recovery and reconstruction operations, including but not limited to the following:

a. Activate and deploy damage assessment teams to identify damaged structures and to determine further actions that should be taken regarding such structures;

b. Activate and deploy hazards-evaluation teams to locate and determine the severity of natural or technological hazards that may influence the location, timing, and procedures for repair and rebuilding processes;

c. Maintain liaison with the [jurisdiction name]'s [emergency management organization] and other public and private entities, such as FEMA, the American Red Cross, and FDEM, 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;

d. Establish "one-stop" field offices located in or near impacted areas, staffed by trained personnel from appropriate departments, 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, industrial recovery, and temporary and permanent housing;

e. Activate streamlined procedures to expedite repair and rebuilding of properties damaged or destroyed in the disaster;

f. Establish a moratorium subject to [local legislative body] ratification, as provided under Section 7.3;

g. Recommend to the [local legislative body] and other appropriate entities necessary actions for reconstruction of damaged infrastructure;

h. Prepare plans and proposals for action by the [local legislative body] for redevelopment projects, redesign of previously established projects, or other appropriate special measures addressing reconstruction of heavily damaged areas;

Commentary. *Some redevelopment projects covered by this provision may be mitigation projects contained in a community's Local Mitigation Strategy.*

i. Formulate proposals for action by the [local legislative body] to amend the Comprehensive plan, Comprehensive Emergency Management Plan, Local Mitigation Strategy, and other relevant programs and regulations in response to new needs generated by the disaster;

j. Such other recovery and reconstruction activities identified in the recovery plan or by this chapter, or as deemed by the Director as necessary to public health, safety, and well-being.

Commentary. *Some of these operations may be covered in the recovery annex of the County's Comprehensive Emergency Management Plan (CEMP). The provisions of this ordinance should be in conformance with the CEMP.*

6.3 Coordination with FEMA and Other Agencies. The Director and the [recovery task force] shall coordinate recovery and reconstruction actions through the county [emergency management organization] with state, federal, and mutual aid agencies, including but not limited to FEMA, the American Red Cross, HUD, SBA, and FDEM, and other entities which provide assistance in the event of a major disaster. Intergovernmental coordination tasks that would be coordinated through the county [emergency management organization] may include, but are not limited to the following:

a. Assign trained personnel to provide information and logistical support to the FEMA Disaster Field Office;

b. Supply personnel to provide information support for FEMA Disaster Recovery Centers;

c. Participate in damage assessment surveys conducted in cooperation with FEMA and other entities;

d. Participate in the development of hazard mitigation strategies with the Interagency Hazard Mitigation Team (when activated) with FEMA and other entities;

e. Cooperate in the joint establishment with other agencies of one-stop service centers for issuance of repair and reconstruction permits, business resumption support, counseling regarding temporary and permanent housing, and other information regarding support services available from various governmental and private entities;

f. Coordinate within county and city government in the preparation and submission of supporting documentation for Damage Survey Reports to FEMA;

g. Determine whether damaged structures and units are within floodplains identified on Flood Insurance Rate Maps and whether substantial damage has occurred;

h. Implement such other coordination tasks as may be required under the specific circumstances of the disaster.

Commentary. *To provide direction for handling of emergency response and recovery in relation to major disasters, Congress has enacted the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288, as amended). A substantial portion of the Stafford Act is devoted to the means by which federal funds are distributed to persons, businesses, local governments, and state governments for disaster response and recovery. For most communities this is an important means by which disaster losses can be compensated, at least in part. Some of the federal assistance is in the form of grants and loans, involving not only FEMA but also other agencies such as HUD and SBA.*

6.4 Consultation with Citizens. The Director and the [recovery task force] shall schedule and conduct community meetings, convene ad hoc advisory committees comprised of representatives of business and community organizations, or implement such other means as to provide information and receive input from members of the public regarding measures undertaken under the authority of this chapter.

Commentary. *Direct outreach to the community should be established in advance of a major disaster through neighborhood safety or similar programs conducted by fire and law enforcement officials, ideally in conjunction with preparation of a pre-event plan. Following a major disaster, proactive outreach is critical to establishing a two-way flow of information, without which controversy inherent in post-disaster settings can become severe.*

Section 7. Temporary Regulations. The Director shall have the authority to administer the provisions of this section, temporarily modifying provisions of the [pertinent local law] dealing with building and occupancy permits, demolition permits, and restrictions on the use, development, or occupancy of private property, provided that such action, in the opinion of the Director, is reasonably justifiable for protection of life and property, mitigation of hazardous conditions, avoidance of undue displacement of households or businesses, or prompt restoration of public infrastructure.

Commentary. *The following temporary regulations are at the heart of the recovery process. Although existing state law or local ordinances may already authorize some of these functions, it is preferable to have a single source for locally adopted ordinances that, among other things, identifies regulatory functions related to post-disaster recovery, clearly places responsibility for implementation, and provides a coordinated rationale for city or county intervention in case of challenge. Among the components of these temporary regulations are provisions dealing with duration, damage assessment, development moratoria, debris clearance, permit expediting, temporary uses and repairs, deferral of fees, nonconforming buildings and uses, condemnation and demolition, and temporary and permanent housing. Each of these components needs careful examination and, as appropriate, adjustment made based on local policies and conditions. Pre-event adoption of this ordinance (adjusted to take into account local circumstances) provides a solid basis for initial post-disaster action and legitimizes the policies established as part of the planning process. It is not possible to anticipate the exact character, magnitude, and distribution of damage from a major disaster. Pre-adopted regulations, however, provide a basis for more efficient action that is substantially less subject to policy reversals and other uncertainties typically found in communities that have not prepared in this manner.*

7.1 Duration. The provisions of this section shall be in effect for a period of six months from the date of a local emergency declaration following a major 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 [local legislative body] through separate ordinances.

Commentary. *This provision allows for flexibility in the duration of application of the temporary regulations, so that any portion can be terminated, modified, or extended depending upon local circumstances. It also reflects a recognition that "temporary" regulations may be in effect for an extended period of time beyond either termination of the local emergency or passage of the six-month period. Depending on the nature and scale of the disaster, such temporary provisions may be in effect for several years after the disaster.*

7.2 Damage Assessment. The Director or an authorized representative, shall direct damage assessment teams having authority to conduct field surveys of damaged structures and post placards designating the condition of such structures as follows:

a. 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.

   Commentary. *This is commonly known as the "green tag" placard.*

b. 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 shall note in general terms the type of damage encountered and shall clearly and concisely note the restrictions on continued occupancy.

   Commentary. *This is commonly known as the "yellow tag" placard.*

c. A placard indicating "Unsafe - Do Not Enter or Occupy" is to be posted on any building that has been damaged to the extent that continued occupancy poses a threat to life safety. Buildings posted with this placard shall 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 shall note in general terms the type of damage encountered. This placard is not to be considered a demolition order.

   Commentary. *This is commonly known as the "red tag" placard.*

d. This chapter and section number, the name of the department, its address, and phone number shall be permanently affixed to each placard.

e. Once a placard has been attached to a building, it shall not be removed, altered, or covered until done so by an authorized representative of [jurisdiction name] or upon written notification from [jurisdiction name]. Failure to comply with this prohibition will be considered a misdemeanor punishable by a $300 fine.

   Commentary. *Damage assessment and the placement of placards identifying whether or not buildings are safe or unsafe to occupy are two functions having perhaps the*

most profound effects on life, property, and community recovery than any other within the post-disaster decision and action sequence towards which the provisions of these temporary regulations are directed. Damage assessment is undertaken by various entities following a major disaster, usually the city or county, state, and FEMA.

There is at least a twofold purpose for these inspections. One is to determine the degree of structural damage of each building and notify the public about the relative safety of entry and occupancy. This has been a long-standing duty under local government public health and safety responsibilities with which building departments are usually very familiar. The other is to quickly estimate the approximate replacement costs of damaged buildings and other property in order to inform the state and federal governments of whether a federal declaration is warranted. Another concurrent purpose of placarding is to identify potential substantially damaged buildings. This is essential to ensure that the structure is rebuilt to current local building code standards including those adopted pursuant to the National Flood Insurance Program.

The most important element of all these concerns is the establishment of standard identification of structural damage both in gross general terms reflected in the red, yellow, and green tag placard systems, as well as in the details recorded on the placards for each building. This ordinance reflects only the standard placard system, leaving to the building professions the means by which such determinations are made and recorded in detail. FDEM is the lead agency in coordinating mutual-aid assistance. In this circumstance, FDEM may request the Florida Building Officials Association of Florida to assist in standardizing procedures used to make these basic safety distinctions.

7.3 Development Moratorium. The Director shall have the authority to establish a moratorium on the issuance of building permits, approval of land use applications or other permits and entitlements related to the use, development, and occupancy of private property authorized under other chapters and sections of the [pertinent local law] and related ordinances, provided that, in the opinion of the Director, such action is reasonably justifiable for protection of life and property and subject to the following:

Posting. Notice of the moratorium shall be posted in a public place and shall clearly identify the boundaries of the area in which a moratorium is in effect as well as the exact nature of the development permits or entitlements which are temporarily held in abeyance;

Duration. The moratorium shall be in effect subject to review by the [local legislative body] at the earliest possible time, but no later than 90 days, at which time the [local legislative body] shall take action to extend, modify, or terminate such moratorium by separate ordinance.

Commentary. *After disasters around the world, the prevailing sentiment often is to act quickly to replicate pre-disaster building patterns. In many instances, this sentiment prevails as policy despite the presence of a severe natural hazard condition, thus reinforcing the chances of repeating the disaster.*

To prevent or lessen the chances of repetition of the disaster, it may be necessary for a city or county to interrupt and forestall repair and rebuilding long enough to assess rebuild-

ing options and/or to determine effective means of mitigation. The city or county may wish to establish an emergency moratorium on issuance of repair and rebuilding permits or on land use approvals in areas where severely hazardous conditions are identified. The hazard may be newly detected, as in a post-earthquake circumstance where the pattern of damage or ground deformation may indicate the need for geologic studies to clearly identify such hazards as landslides, liquefaction, or fault rupture. On the other hand, the hazardous condition may be a well known cause of prior damaging disasters, as in the Oakland Hills firestorm area which had a long history of previous fires, or communities affected by the 1993 Midwestern floods where prior flood control and floodproofing efforts were proven ineffective.

A moratorium on development may be important for a city or county to undertake from the standpoint of enlightened public policy. However, since such action may be extremely controversial and unpopular, it is important to lay the groundwork with the community in advance, if possible. This subsection provides prior authorization through adoption of this ordinance before a major disaster, whereby city or county staff can act expeditiously in a post-disaster setting to forestall premature issuance of permits in areas shown to be hazardous. Such action is necessarily subject to local legislative review, ratification, modification, or termination.

7.4 **Debris Clearance**. The Director shall have the authority to direct removal of debris and rubble, trees, damaged or destroyed cars, trailers, equipment, and other private property from public rights-of-way without notice to owners, provided that in the opinion of the Director such action is reasonably justifiable 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 Director also shall 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.

Commentary. *Although clearance of privately owned debris is routinely considered a function of local government, it can become very controversial where owners take the position that such property is salvageable and has value (e.g., used brick after an earthquake). Pre-event adoption of such a provision reinforces the expectation that debris clearance functions will be carried out decisively, thus minimizing a problem otherwise compounded by local government hesitation or ambiguity of intention. The U.S. Army Corps of Engineers has the lead under the Federal Response Plan for ensuring resources for local emergency and long-term debris clearance. FEMA and the state emergency management agency determine priorities for the entire disaster area.*

7.5 **One-Stop Center for Permit Expediting**. The Director shall establish a one-stop center, staffed by representatives of pertinent departments, for the purpose of establishing and implementing streamlined permit processing to expedite repair and reconstruction of buildings, and to provide information support for provision of temporary housing and encouragement of business resumption and industrial recovery. The Director shall establish such center and procedures in coordination with other governmental entities that may provide services and support, such as FEMA, SBA, HUD, FDEM, or the Florida Department of Environmental Protection.

Commentary. *One-stop permit centers have become more common with recent major disasters, often combining the presence of multiple agencies to provide better coordination of information that disaster victims may need in order to rebuild. Benefits to be gained form setting up a special one-stop center include not only accelerated review but also integration of information and permitting functions. Setting up a team of specialists working exclusively on repair and rebuilding permit issues has the added advantage of insulating normal development review from disruption by the recovery process and vice versa.*

7.6 **Temporary Use Permits**. The Director shall have the authority to issue permits in any zone for the temporary use of property that will aid in the immediate restoration of an area adversely impacted by a major disaster, subject to the following provisions:

a. **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;

b. **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:

1) will not be detrimental to the immediate neighborhood;

2) will not adversely affect the Comprehensive Plan or any applicable specific plan; and

3) 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 the first or the second year, substantial evidence contradicting one or more of the required findings comes to the attention of the Director, then the temporary use permit shall be revoked.

Commentary. *Most zoning ordinances have no provisions for temporary use of property following a disaster. A few allow temporary placement of mobile homes or manufactured housing on residentially zoned sites pending reconstruction of a residence. Time limits vary, but are usually for a two-year period. After a major disaster, special latitude may be needed, however, to support various recovery needs. Care must be taken not to set precedents which will erode or destroy a pre-existing pattern of zoning which the city or county may wish to protect.*

Smaller communities may wish to restrict temporary uses to those already allowed by the zone in which they are located, limiting the provision to temporary structures such as tents, domes, or mobile units.

7.7 **Temporary Repair Permits**. Following a disaster, temporary emergency repairs to secure structures and property damaged in the disaster against further damage or to protect adjoining structures or property may be made without fee or permit where such repairs are not already exempt under other chapters of the [pertinent local law]. The building official must be notified of such repairs within 10 working days, and regular permits with fees may then be required.

Commentary. *This provision is specifically written for repairs which may not be exempt under standard building code permit exemptions but which are justifiable from a public health and safety standpoint to avoid further damage to property after a disaster.*

7.8 Deferral of Fees for Reconstruction Permits. Except for temporary repairs issued under provisions of this chapter, all other repairs, restoration, and reconstruction of buildings damaged or destroyed in the disaster shall be approved through permit under the provisions of other chapters of this code. Fees for such repair and reconstruction permits may be deferred until issuance of certificates of occupancy.

Commentary. *Pressure to waive or defer processing fees frequently arises after a disaster when victims are unsure of their sources of financing for rebuilding. It is inadvisable to succumb to pressures to waive fees entirely due to the need for cost recovery for disaster related services at a time when there may be substantial uncertainties in city or county revenue flows. Also, it is helpful to buy time to determine the degree to which sources other than the victims may help offset fee costs. For example, sometimes insurance will cover the cost of processing fees. Also, such costs have been covered by FEMA. Deferral of fees until occupancy permit issuance provides time in which such alternate sources can be worked out, without sacrificing the basic revenue flow to the local government treasury.*

7.9 Nonconforming Buildings and Uses. Buildings damaged or destroyed in the disaster which are legally nonconforming as to use, yards, height, number of stories, lot area, floor area, residential density, parking, or other provisions of the [pertinent local law] may be repaired and reconstructed in-kind, provided that:

a. the building is damaged in such a manner that the structural strength or stability of the building is appreciably lessened by the disaster and is less than the minimum requirements of the [pertinent local law] for a new building;

b. the cost of repair would exceed 50 percent of the replacement cost of the building;

c. all structural, plumbing, electrical, and related requirements of the [pertinent local law] are met at current standards;

d. all natural hazard mitigation requirements of the [pertinent local law] are met;

e. reestablishment of the use or building is in conformance with the requirements and procedures of the National Flood Insurance Program (NFIP) and, where applicable, the Florida Coastal Construction Control Line (FCCCL) permitting program;

f. the building is reconstructed to the same configuration, floor area, height, and occupancy as the original building or structure, except where this conflicts with provisions of the NFIP or the FCCCL permitting program;

g. no portion of the building or structure encroaches into an area planned for widening or extension of existing or future streets as determined by the Comprehensive Plan or applicable specific plan;

h. repair or reconstruction shall commence within two years of the date of the declaration of local emergency in a major disaster and shall be completed within two years of the date on which permits are issued.

Nothing herein shall be interpreted as authorizing the continuation of a nonconforming use beyond the time limits set forth under other sections of the [pertinent local law] that were applicable to the site prior to the disaster.

Commentary. *Some of these provisions may already be included in local building code requirements or the community's zoning ordinance. Any policies in this ordinance should be in conformance with those regulations.*

No issue can be more vexing to planners than whether or not to encourage reestablishment of nonconforming uses and buildings after a major disaster. Planners have sought for decades to write strict provisions in zoning ordinances designed to gradually eliminate nonconforming uses or buildings as they were abandoned, changed owners, or were damaged by fire, wind, or water. The latter provisions normally prohibit reestablishment of nonconforming uses and buildings where damage exceeds a certain percentage of replacement cost, most often 50 percent. This approach is logical, orderly, and normally equitable when weighing community interests balanced with those of the property owner. However, the thinking behind such provisions has been geared to incremental adjustments or termination of such uses over time, not to sudden catastrophic circumstances forcing attention to disposition of such uses as a class at a single point in time.

In theory, disasters represent an opportunity to upgrade conditions such as parking deficiencies attributable to the nonconforming status of a building or use. More fundamentally, disasters are seen as an opportunity to eliminate uses which conflict with the prevailing pattern in a neighborhood but which remain because of legal nonconforming status--for example, scattered industrial uses in a residentially zoned neighborhood. In reality, however, after major disaster local governments are normally beset by severe pressures from property owners and other community interests to reestablish the previous development pattern exactly as it previously existed, including nonconforming buildings and uses. Moreover, such pressures extend beyond the demand to reestablish nonconforming buildings or uses to include waiver of current building, plumbing, and electrical code provisions to the standards in place at the time of construction. From a risk management, liability exposure, or public safety standpoint, acquiescence to the reduction of standards in the face of a known hazard can be seen as clearly unacceptable by local legislative bodies. However, zoning provisions hindering reestablishment of nonconforming buildings and uses tend to be more arguable and are more likely to be modified by local legislative bodies under extreme pressures of the moment to restore the prior status quo.

In recognition of such pressures, this model ordinance language offers a straightforward tradeoff that allows reestablishment of a nonconforming use or building in turn for strict adherence to structural, plumbing, and electrical codes and related hazard mitigation requirements. The language assumes the existence of a commonly found provision in the pertinent local law authorizing repair or reestablishment of a nonconforming use or building where damage is less than 50 percent of the replacement cost. It also assumes that the building was substantially weakened by the disaster and is below present code requirements.

This compromise approach recognizes that its application may require the unwelcome decision to accept continuation of disorderly land use patterns, unless a solution can

be found through redevelopment or rezoning. Instead, it places a high value on life safety.

It is important to note that the language of these provisions includes important limitations that tend to limit the economic incentive to reestablish the nonconforming use or building.

1) *It does not extend any previously stipulated life of the nonconforming use - an important disincentive if the costs of replacement cannot be offset by insurance, FEMA assistance, SBA loans, or other sources of financial support.*

2) *It does not allow the extent of nonconformance to be increased over what existed prior to the disaster, thwarting another common pressure.*

3) *It requires strict adherence to existing structural, plumbing, electrical, and other requirements of the pertinent local law as well as any street setbacks stipulated within the Comprehensive Plan and related ordinances. This may be especially costly from a structural standpoint.*

4) *It recognizes that compliance with existing local hazard mitigation requirements may be needed, especially in cases involving increased on-site hazards because of coastal erosion or severe flooding where upgrading to current structural, plumbing, and electrical code requirements isn't enough. Compliance with the latter provision may also be sufficiently costly to discourage reestablishment of the use or other nonconforming feature.*

The relative importance of post-disaster reestablishment of nonconforming uses and buildings may vary greatly from jurisdiction to jurisdiction. Therefore, the most useful time to assess this aspect of post-disaster recovery is before a major disaster, in the course of pre-event planning. Education of the local legislative body in advance can help lessen post-disaster tendencies to compromise critical hazard mitigation and public safety requirements, notwithstanding the outcome on nonconforming use and building requirements.

Section 8. Demolition of Damaged Historic Buildings. The Director shall coordinate with the local building official and the local historic preservation coordinator to order the condemnation and demolition of buildings and structures damaged in the disaster under the standard provisions of the [pertinent local law], except as otherwise indicated below:

8.1 Condemnation and Demolition. Within __ days after the disaster, the building official shall notify the State Historic Preservation Officer and/or the local historic preservation coordinator that one of the following actions will be taken with respect to any building or structure determined by the building official to represent an imminent hazard to public health and safety, or to pose an imminent threat to the public right-of-way:

a. Where possible, within reasonable limits as determined by the building official, the building or structure shall be braced or shored in such a manner as to mitigate the hazard to public health and safety or the hazard to the public right-of-way;

b. Whenever bracing or shoring is determined not to be reasonable, the building official shall cause the building or structure to be condemned and immediately demolished. Such condemnation and demolition shall be performed in the interest of public health and safety without a condemnation hearing as otherwise required by the [pertinent local law]. Prior

to commencing demolition, the building official shall photographically record the entire building or structure.

8.2 **Notice of Condemnation**. If, after the specified time frame noted in Subsection 8.1 of this chapter and less than 30 days after the disaster, a historic building or structure is determined by the building official to represent a hazard to the health and safety of the public or to pose a threat to the public right-of-way, the building official shall duly notify the building owner of the intent to proceed with a condemnation hearing within _____ business days of the notice in accordance with [pertinent local law]; the building official shall also notify FEMA, in accordance with the National Historic Preservation Act of 1966, as amended, of the intent to hold a condemnation hearing.

8.3 **Request to FEMA to Demolish**. Within 30 days after the disaster, for any historic building or structure which the building official and the owner have agreed to demolish, the building official shall submit to FEMA, in accordance with the National Historic Preservation Act of 1966, as amended, a request for approval to demolish. Such request shall include all substantiating data.

8.4 **Historic Building Demolition Review**. If after 30 days from the event, the building official and the owner of a historic building or structure agree that the building or structure should be demolished; such action will be subject to the review process established by the National Historic Preservation Act of 1966, as amended.

Commentary. *One of the more difficult aspects of post-disaster response and recovery in older communities is the existence of damaged historically significant structures. Since these can be very old, measures needed to make them structurally sound may be more difficult and costly and complicated than normal. Because of the emotion frequently attached to this issue and the often widely conflicting views, community controversy can erupt when a badly damaged historical structure is subject to demolition. Therefore, it is wise to have language already in place to guide the planning and building officials involved.*

Because of problems with seemingly premature or unjustifiable demolition of historic structures in previous disasters, the National Historic Preservation Act of 1966, as amended, identifies steps that must be taken by a jurisdiction or owner to mitigate public health and safety hazards resulting from disaster-caused damage when using federal funding. The intent is to establish predictable rules by which proposed demolitions, except in extreme cases of danger to the public, can be reviewed by state and federal officials in order to provide time to identify options for preservation of a damaged historic building or structure. The review process is also intended to discourage hasty demolition action by local officials when such action may not be justified.

The important element of local judgment here is the establishment of a specific time frame for declaring a structure an imminent hazard to public health and safety justifying immediate demolition without a condemnation hearing. Such time frames are generally from three to five days, although sometimes stretched to ten. After the established time frame, the threat may no longer be justified as imminent and, therefore, the remaining procedures kick in.

Designation of a local historic preservation coordinator, as recommended in the Florida Department of Community Affairs guidebook, "Disaster Planning for Florida's Historic Resources," can significantly improve the coordination

needed to deal appropriately and efficiently with damaged historic structures.

Section 9. Temporary and Permanent Housing. The Director shall assign staff to work with FEMA, SBA, HUD, FDEM, the Florida Department of Community Affairs, Division of Housing and Community Development, 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, mobile homes, and mobile home parks under the temporary use permit procedures provided in Section 7 of this chapter, 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 major disaster.

Commentary. *This section is essentially a placeholder for language which preferably should be made more specific on the basis of a pre-event plan for post-disaster recovery and reconstruction that takes into account the level of local housing vulnerability and the adequacy of existing local, state, and federal resources for providing temporary housing after emergency shelters are closed.*

Section 10. Hazard Mitigation Program. [excluded]

Commentary. *Florida's Local Mitigation Strategies (LMSs) cover this component. What is desirable is a cross-reference to the LMS and explicit procedures for the recovery task force to use the LMS to identify mitigation projects that are appropriate for post-disaster implementation. See, for example, Objective 2.2 in the Okaloosa County Post-Disaster Redevelopment Plan (Appendix B-4).*

Section 11. Recovery and Reconstruction Strategy. At the earliest practicable time following the declaration of local emergency in a major disaster, the Director and the [recovery task force] shall prepare a strategic program for recovery and reconstruction based on the pre-disaster plan and its policies.

11.1 Functions. To be known as the recovery and reconstruction strategy, the proposed strategic program shall identify and prioritize major actions contemplated or under way regarding such essential functions as business resumption, economic reinvestment, industrial recovery, housing replacement, infrastructure restoration, and potential sources of financing to support these functions.

11.2 Review. The recovery and reconstruction strategy shall be forwarded to the [local legislative body] for review and approval following consultation with the local planning board, other appropriate local, state, and federal agencies, and business and citizen representatives. The recovery strategy shall provide detailed information regarding proposed and ongoing implementation of initiatives necessary to the expeditious fulfillment of critical priorities and will identify needed amendment of any other plans, codes, or ordinances that might otherwise contradict or otherwise block strategic action. The Director shall periodically report to the [local legislative body] regarding progress toward implementation of the recovery and reconstruction strategy, together with any adjustments that may be called for by changing circumstances and conditions.

Commentary. *The concept of this provision is to structure the flow of local post-disaster recovery and redevelopment actions around a short-term strategy, that extends the pre-event plan into greater detail at the earliest possible time after a major disaster. This may prove absolutely essential to the extent that damage conditions differ substantially from those anticipated as part of the pre-event plan. In any case,*

development of such a strategy in the early days of recovery has the special benefit of adding a proactive emphasis to the recovery process to counter the overwhelmingly reactive context. It can be updated as often as necessary as experience is gained and new issues emerge. It also has the added benefit of providing a source from which the pre-event recovery plan and related plans can later be readily updated.

Section 12. Severability. If any provision of this chapter is found to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such invalidity shall 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.

C-3 Hillsborough County Post-Disaster Redevelopment Ordinance

ORDINANCE NUMBER 93 - 20

AN ORDINANCE TO GUIDE REDEVELOPMENT AND MITIGATION FOLLOWING A STORM EVENT OR OTHER NATURAL DISASTER WITHIN THE UNINCORPORATED AREAS OF HILLSBOROUGH COUNTY, FLORIDA; PROVIDING THE PURPOSE AND INTENT OF THE ORDINANCE; PROVIDING FOR JURISDICTION; PROVIDING DEFINITIONS; PROVIDING FOR THE ENACTMENT, RESPONSIBILITIES, COMPOSITION, CHAIRPERSON, DURATION, AND REPEALING OR EXTENDING OF A REDEVELOPMENT TASK FORCE; PROVIDING FOR DETERMINATION OF DAMAGE; PROVIDING A REDEVELOPMENT POLICY; PROVIDING FOR A DECLARATION OF AN INITIAL BUILDING MORATORIUM; PROVIDING FOR PROVISIONS FOR MORATORIUMS; PROVIDING FOR AUTHORITY; PROVIDING PENALTIES; PROVIDING FOR CONFLICT AND SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Hillsborough County area is vulnerable to a variety of natural or man-made hazards which may result in emergencies causing substantial injury or harm to the population or substantial damage to or loss of property; and

WHEREAS, Chapter 252, Florida Statutes, provides the Board of County Commissioners the authority to declare a state of local emergency and take actions necessary to ensure the safety and well being of its residents, visitors and property during emergencies caused by these hazards; and

WHEREAS, Chapter 125, Florida Statutes, provides the authority for the Board of County Commissioners of Hillsborough County, Florida to adopt ordinances; and

WHEREAS, pursuant to Chapter 163, Florida Statutes, the Board of County Commissioners of Hillsborough County adopted the Comprehensive Plan promulgated by Hillsborough County Ordinance Number 89-28 on July 26, 1989 and became effective on July 26, 1989; and

WHEREAS, the Hillsborough County Comprehensive Plan Coastal Management and Port Element Goal 1 requires Hillsborough County to protect, restore and appropriately manage the natural resources of the coastal area to maintain or enhance environmental quality for present and future generations by restricting development and redevelopment that would damage or destroy the natural resources of the coastal area; and

WHEREAS, the Hillsborough County Comprehensive Plan Coastal Management and Port Element Goal 2 requires Hillsborough County to strive to protect human life and property in the Coastal High Hazard Area, and limit public expenditures for infrastructure in areas susceptible to destruction by natural disasters; and

WHEREAS, the future of Hillsborough County Comprehensive Plan's Coastal Management and Port Element Objective 12 requires that Hillsborough County develop a post-disaster redevelopment plan for the coastal high hazard area and to adopt regulations necessary for its implementation; and

WHEREAS, the future of Hillsborough County Comprehensive Plan Coastal Management and Port Element Objective 10 requires the limitation of public expenditures for infrastructure and facilities in the coastal high hazard area; and

WHEREAS, the future of Hillsborough County Comprehensive Plan Coastal Management Element Policy 12.2 requires the County, by 1992, to prepare a post-disaster redevelopment plan which includes measures to restrict and eliminate inappropriate and unsafe development in the coastal high hazard area; and

WHEREAS, the future of Hillsborough County Comprehensive Plan Coastal Management and Port Element Policy 12.5 requires the county, by 1992, to adopt a redevelopment decision-making matrix for deciding whether public infrastructure should be rebuilt, relocated or structurally modified; and

WHEREAS, it is the intent of Hillsborough County to take reasonable action to guide redevelopment during the recovery period following an emergency, or storm event.

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

SECTION ONE. PURPOSE AND INTENT OF ORDINANCE.

It is the intent of the County to establish, prior to a storm event or emergency, a redevelopment task force which will oversee the reconstruction process and serve as an advisory committee to the Board of County Commissioners on recovery and redevelopment issues. This body will also identify opportunities to mitigate future damages through the management of recovery and redevelopment. To further this intent, the County will make every effort to develop its capacity to identify and coordinate various post-disaster recovery and redevelopment resources while at the same time ensuring maximum local control over the recovery and redevelopment process.

Following a damaging storm event or emergency, sufficient time must be provided to conduct a damage assessment, classify and categorize individual structure damages and to conduct an evaluation into the effectiveness and enforcement of the existing building code. It is the intent of the County to allow rebuilding and redevelopment in an orderly manner in accordance with this ordinance and the future of the Hillsborough County Comprehensive Plan by controlling the issuance of building permits in order to manage the location, timing, and sequence of reconstruction and repair, as well as ensuring that mitigation occurs.

Nothing in this ordinance construed to prohibit the County from taking any other legal action.

SECTION TWO. JURISDICTION.

This Ordinance shall apply to all areas within Hillsborough: County, Florida under the jurisdiction of the Hillsborough County Board of County Commissioners.

SECTION THREE. DEFINITIONS.

The following-terms and definitions shall 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 Hillsborough County Property Appraiser's file before the structure was damaged. Building value for structures not yet on the rolls of the Property Appraiser or under construction shall be valued by an alternative method.

B. "Building official" means the Director of the Building Department or his/her designee, who is hereby designated by the Board of County Commissioners of Hillsborough County, Florida to implement, administer and enforce the building permit moratoria provisions of this ordinance.

C. "Damage Assessment" means a systematic procedure for evaluating damage to public and private property, based on current replacement cost. The assessment is used to determine if the area can qualify for federal or state disaster assistance.

D. "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 of repairing the structure exceeds fifty (50%) percent of the replacement cost of the structure at the time of damage or destruction.

E. "Emergency" means any occurrence, or threat thereof, whether accidental, natural, or caused by man, in war or in peace, which results or may result in substantial injury or harm to the population or substantial damage to or loss of property (Chapter 252, Florida Statutes - 1989).

F. "Local Damage Assessment Team" means a group of individuals designated by the local jurisdiction to perform a damage assessment according to State and Federal requirements.

G. "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 twenty percent (20%) and up to and including fifty percent (50%) of the replacement cost at the time of damage.

H. "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, Mechanical Systems, and for other minor structural damage. The threshold in this category is if the cost to repair is less than or equal to twenty percent (20%) of the replacement cost of the structure at the time of damage.

I. "Redevelopment Task Force" means a group of officials designated by and for purposes of this ordinance, as outlined in Section Four of this ordinance.

J. "Replacement Cost" means the actual cost to repair, reconstruct, rebuild or replace a damaged structure. For purposes of this ordinance, the replacement cost shall be compared to the structure's building value contained in the Hillsborough County Property Appraiser's file to determine the percent of the structure damaged category.

K. "Storm Event" means any severe, natural weather event causing damage and destruction of property. A storm event shall include, but not be limited to, hurricanes, tropical storms, severe thunderstorms, tornadoes, and waterspouts.

L. "Structure" as defined in the Land Development Code, means anything constructed or erected which requires location on the ground or attachment to something having a fixed location on the ground, including but not limited to principal or accessory buildings, signs, fences, walls, ridges, monuments, flagpoles, antennas, transmission poles, towers and cables.

SECTION FOUR. REDEVELOPMENT TASK FORCE.

A. Planning Role of the Redevelopment Task Force. The Redevelopment Task Force shall 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 the recovery from a major storm event or emergency. This would include, but not be limited to, setting its own procedures and rules, preparing a redevelopment plan for the County, developing procedures to carry out the County's redevelopment policy, developing policies for redeveloping land areas that have stained repeated damages from storm events, developing. priorities for relocating and acquiring damaged property, establishing special committees and subcommittees within the task force to deal with specific issues during the disaster recovery process, establishing criteria to determine reconstruction and redevelopment priorities, developing procedures that promote the mitigation of future disaster damage through activities carried out during recovery and redevelopment, and recommending changes to the Hillsborough County Post-Disaster Redevelopment ordinance and the Hillsborough County Comprehensive Plan.

B. Activation of the Redevelopment Task Force. For post-disaster responsibilities, the redevelopment task force shall be activated and mobilized upon the request by the Board of County Commissioners or when directed by the County Administrator.

C. Responsibilities of the Redevelopment Task Force. The redevelopment task force shall be responsible for advising the Board of County Commissioners on a wide range of post-disaster recovery, reconstruction, and mitigation issues. The task force shall have the following responsibilities:

1. To receive and review damage reports and other analyses of post-disaster conditions. To compare these conditions with mitigation opportunities identified prior to the disaster to discern appropriate areas for post-disaster change and innovation. Where needed, the task force can review alternative mechanisms for bringing these changes about and recommend the coordination of internal and external resources for achieving these ends.

2. In addition to the responsibilities above, the Redevelopment Task Force shall:

    a. Initiate recommendations for the enactment, repealing or extension of emergency ordinances and resolutions for consideration.

b. Review the nature of damages, identify and evaluate alternate program objectives for repairs and reconstruction, and formulate recommendations to guide recovery.

c. Formulate special committees and sub-committees as situations warrant.

d. Recommend and implement an economic recovery program focusing on rapid recovery of the tourism industry, utilizing funding sources set aside for this purpose.

e. Recommend rezoning changes in areas of damage, when deemed appropriate.

f. Set a calendar of milestones for redevelopment tasks.

g. Recommend the repealing or extension of moratoria.

h. Recommend land areas and land use types that will receive priority in recovery.

i. Recommend blanket reductions in non-vital zoning regulations and development standards (e.g., buffering, open space, side yard setbacks, etc.) to minimize the need for individual variances or compliance determinations prior to reconstruction.

j. Recommend 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 the amendment of policies as appropriate.

l. If necessary, recommend land areas for the redevelopment of land uses that sustained or has sustained repeated damages from storm events.

m. Initiate recommendations for relocation and acquisition of property.

n. Initiate a property owner notification program, to inform non-resident property owners of damages incurred to their property; and post-disaster conditions and requirements imposed by the county.

o. Participate in federal and state hazard mitigation planning.

p. Initiate hazard mitigation projects or recommend programs for which would be considered for state or federal funding.

q. Evaluate damaged public facilities and formulate mitigation options (i.e., repair, replace, modify or relocate).

r. Participate in the preparation of a redevelopment plan in coordination with other federal, state and local emergency officials.

s. Review emergency actions and recommend amendments to Hillsborough County's: Post-Disaster Redevelopment Ordinance, Peacetime Emergency Plan, Emergency Operations Center's Standard Operating Procedures, and the Administrative Code.

3. The Redevelopment Task Force shall recommend appointment of the following positions:

   a. <u>Disaster Recovery Redevelopment Coordinator</u>

      (1) Purpose. To facilitate the coordination of disaster assistance from the federal government and state agencies available to Hillsborough County following a storm event or emergency.

      (2) Duties. Shall consist of, but not be limited to, the following:

         (a) Determine the types of assistance available to the County and the types of assistance most needed.

         (b) Assist in the local coordination of federal and state disaster recovery efforts.

(c) Provide local assistance to facilitate federal and state disaster assistance.

(d) Act as facilitator in securing federal or state disaster assistance.

(e) Inform the community of types of disaster assistance available.

(f) Other duties as directed by the redevelopment task force or the Board of County Commissioners.

b. Economic Recovery Coordinator

(1) Purpose. To facilitate the coordination of economic recovery with the business community following a storm event or emergency.

(2) Duties. Shall consist of, but not limited to, the following:

(a) Determine the potential or actual impacts to the local economy and determine short and long term strategies for consideration.

(b) Assist in the local coordination of federal and state economic recovery efforts.

(c) Act as a facilitator in disseminating accurate information to and from the business community.

(d) Inform the business community of the types of disaster assistance available.

(e) Other duties as directed by the redevelopment task force or the Board of County Commissioners.

c. Hazard Mitigation Coordinator

(1) Purpose. To facilitate the coordination of hazard mitigation assistance from the federal government and state agencies available to Hillsborough County following a storm event or emergency.

(2) Duties. Shall consist of, but not limited to the following:

(a) Determine the types of hazard mitigation assistance or funding available to the County and the types of assistance most needed.

(b) Assist in the local coordination of federal and state hazard mitigation efforts.

(c) Provide local assistance to facilitate federal and state hazard mitigation, assistance programs.

(d) Act as a facilitator in securing federal or state hazard mitigation funding for local hazard mitigation projects.

(e) Other duties as directed by the redevelopment task force or the Board of County Commissioners.

4. The Redevelopment Task Force may recommend any changes in the Comprehensive Plan, Land Development Code, building codes or any other ordinances which it deems necessary or advisable to prevent a recurrence of damages.

5. The Redevelopment Task Force may also undertake a similar process for non-mitigative local objectives and opportunities. The task force may recommend for Board of County Commissioners consideration the following specific opportunities:

a. Enhancement of local recreational and open space opportunity.

b. Enhancement of public access to estuary and riverine systems.

c. Enhancement and restoration of local natural ecosystems.

d. Reduction of traffic congestion, noise, and other transportation-related projects.

e. Enhancement of the long-term economic vitality of the local commercial and industrial base.

D. Composition of the Redevelopment Task Force. The Redevelopment Task Force will be composed of the individuals (or their designees) that reflect a broad-based representation of community interests and shall be appointed annually by the Board of County Commissioners. The redevelopment task force shall consist of, but not be limited to, the following individuals:

1. County Administrator
2. County Citizens Assistance and Information Director
3. County Attorney
4. County Public Safety Director
5. County Community Action and Planning Director
6. County Planning and Development Management Director
7. County Building Department Director
8. County Public Utilities Director
9. County Budget Director
10. County Roads and Streets Department Director
11. County Port Authority Director
12. County Sheriff's Office Liaison
13. County Housing and Community Development Director
14. County Commerce Department Director
15. County Facilities Management Director
16. County Emergency Planning Operations Director
17. County Engineering and Construction Services Director
18. County Environmental Protection Commission Director
19. Planning Commission Executive Director
20. City of Temple Terrace Liaison
21. City of Tampa Liaison
22. City of Plant City Liaison
23. Chamber of Commerce Representative
24. Board of Realtors Representative
25. Tampa Electric Company Representative
26. General Telephone Company Representative
27. Builder's Association of Greater Tampa Representative
28. American Institute of Architects' Representative
29. Associated General Contractor's Representative
30. American Society of Civil Engineer's Representative

E. Chairperson of the Redevelopment Task Force. The County Administrator (or his/her designee) will serve as the Chairperson of the Redevelopment Task Force.

F. Duration of the Redevelopment Task Force. In the event of a disaster, the redevelopment task force shall be activated and mobilized for a minimum period of sixty (60) days following the request of the Board of County Commissioners or the County Administrator's direction.

G. Repealing or Extending of the Redevelopment Task Force. The activation of the redevelopment task force may be repealed or extended upon resolution by the Board of County Commissioners.

SECTION FIVE. DETERMINATION OF DAMAGE BUILD-BACK POLICY MORATORIA AND EMERGENCY REPAIRS

A. Emergency Repairs.

1. No construction or reconstruction activity may be undertaken without a building permit while a building moratorium is in effect, except for emergency repairs necessary to prevent injury, loss of life, imminent collapse or other additional damage to the structure or its contents. For illustrative purposes only, items that constitute emer-

gency repairs may include temporary roof repairs to avoid further water damage, minor repairs to 'steps and the temporary shoring up of a structure to avoid imminent collapse.

2. Activities required to protect the public health, safety and welfare shall be exempted from these provisions of this ordinance and shall include repairs to potable water, waste water, power and communications facilities; emergency stabilization of roadways; police, fire and medical facilities; essential governmental facilities; debris removal; and stabilization or removal of structures about to collapse.

3. Nothing in this ordinance shall be construed to exempt State and Federal permit regulations.

B. Determination of Damage. The primary task of the Local Damage Assessment Team is to identify structures which have been damaged as a result of the storm event or emergency. The County damage assessment team will recommend to the County Building Department Director those structures which have: (1) been destroyed; (2) received major damage; and (3) received minor damage. The Building Department Director 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 an initial building moratoria will be declared.

C. County Build-back Policy. Structures which have been damaged by a storm event or emergency to the extent that the cost of their reconstruction or repair exceeds fifty percent (50%) of the replacement cost of the structure may be reconstructed at (but not to exceed) the legally documented actual use, density and intensity existing at the time of destruction, thereby allowing such structures to be rebuilt or replaced to the size, style, and type of their original construction, including their original square footage; provide, however, that applicable federal and state regulations, local building and life safety codes, and other local regulations do not preclude reconstruction otherwise intended by this policy.

In accordance with this policy, the ordinance shall provide that:

1. Structures damaged less than fifty percent (50%) of their replacement cost at the time of damage can be rebuilt to their original conditions, subject only to current building and life safety codes.

2. Structures damaged more than fifty percent (50%) of their replacement cost at the time of damage can be rebuilt to their original square footage and use density or intensity, provided that they comply with:

   a) federal requirements for elevation above the 100 year flood level;

   b) building code requirements for flood-proofing;

   c) current building. and life safety codes;

   d) state Coastal Construction Control Lines; and

   e) any required land development regulations (other than density or intensity), unless compliance with such regulations would preclude reconstruction otherwise intended by the build-back policy.

3. No provision is made to redevelop property containing damaged structures for a more intense use or at a density higher than the original lawful density. Redevelopment at a higher density or more intense use shall be permitted in accordance with the current land development regulations and no redevelopment at a higher density or more intense use shall commence until appropriate Zoning, Development Review, Building Permit and other applicable approvals are granted.

D. Declaration of an Initial Building Moratorium. An initial building moratorium shall be declared in effect for all or part of the County when one or more of the following actions or findings are determined:

1. The County is declared a disaster area either by the Governor of the State of Florida or the President of the United States.

2. Upon the 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.

3. The inability of the County to maintain acceptable levels of public service as determined by the County Administrator or the Board of County Commissioners.

E. Moratoria. The following moratoria will apply accordingly to all or part of the County, for the purpose of prioritizing reconstruction immediately needed for the public, health, safety and welfare.

1. Initial building moratorium. The initial building moratorium may be in effect for up to 72 hours. No building permits shall be issued during this time period. After expiration of this initial building moratorium, the following moratoria shall then apply.

2. Destroyed structure moratorium. No building permit may be issued within thirty (30) days following the declaration of the initial building moratorium for the replacement of any structure which has been destroyed. When a building permit is issued, structures damaged more than fifty percent (500) of their replacement cost at the time of damage can be rebuilt to their original intensity and density, provided that they comply with:

a) federal requirements for elevation above the 100 year flood level;

b) building code requirements for flood-proofing;

c) current building and life safety codes;

d) state Coastal Construction Control Lines; and

e) any required land development regulations (other than density or intensity), unless compliance with such regulations would preclude compliance with otherwise intended by the build-back policy.

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 declaration of the initial building moratorium. When a building permit is issued, structures damaged greater than twenty percent (20%) and up to and including fifty percent (50%) of the replacement cost at the time of damage can be repaired to their original condition, subject to current building and life safety codes.

4. Minor damaged structure moratorium. No building permits for the repair of minor damaged structures may be issued for at least four (4) days following the declaration of the initial building moratorium. When a building permit is issued, structures damaged twenty percent (20%) or less than the replacement cost at the time of damage can be repaired to their original condition, subject to current building and life safety codes.

5. New development moratorium. Issuance of building permits for new construction not related to the rebuilding or repairing of storm damage of a structure may not be issued for at least thirty (30) days following the declaration of the initial building moratorium. The redevelopment task force shall determine and advise the Board of County Commissioners whether a new development moratorium is required based upon the results of damage assessment and. Recommendations from the Building Department Director.

6. Outstanding building permit moratorium.

a. All building permits which were issued prior to the storm event or emergency may be suspended for a minimum period of thirty (30) days following the expiration of the initial building moratorium, unless the Building Department Director determines on a case-by-case basis that sufficient inspection staff is available to adequately inspect the structures should construction begin or resume.

b. The County reserves the right to reinspect any and all building permit work in place prior to the storm event or emergency to verify that the work in place was not damaged during the storm event or emergency. In the event that the County determines that the building permit work in place was damaged during the storm event or emergency or suspects that damage incurred, the owner shall be responsible for rework, removal, retesting, and uncovering work to facilitate inspection, so that compliance with the building permit documents and the building code can be ensured.

7. Outstanding development order moratorium.

   a. All development orders issued prior to a "storm event" or emergency may be suspended for a minimum period of thirty (30) days following the expiration of the initial building moratorium. Suspension of the development order shall mean that no development order work is authorized and that no development order inspections by the Hillsborough County Planning and Development Management Department will be performed during the moratorium. Applications for development orders suspended under this section shall be adjusted accordingly to reflect the time period covered by this thirty (30) day moratorium.

   b. The County reserves the right to reinspect any and all development order work in place prior to the storm event or emergency to verify that the work in place was not damaged during the storm event or emergency. In the event that the County determines that development order work in place was damaged during the storm event or emergency or suspects that damage occurred, the developer shall be responsible for rework, removal, retesting, and uncovering work to facilitate inspection, so that compliance with the development order documents and the development standards ordinance can be ensured.

8. Site plan review moratorium.

   a. Review of site plans which have been submitted to the County prior to the storm event or emergency may be suspended by the County staff oz Board of County Commissioners for a period of thirty (30) days following the declaration of the initial building moratorium. All submittal dates and review periods shall be adjusted accordingly to reflect the time period covered by this thirty (30) day moratorium.

   b. New site plans, zoning requests or subdivision plats may not be accepted by the County for a period of thirty (30) days following the declaration of the initial building moratorium.

9. Duration of Moratorium. All moratoria, other than the initial building moratorium as enacted, shall be in effect for the length of time 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, except emergency repairs necessary to prevent injury, loss of life, imminent collapse or other additional damage to the structure or its contents. For illustrative purposes only, items that constitute emergency repairs may include temporary roof repairs to avoid further water damage, minor repairs to steps and the temporary shoring up of a structure to avoid imminent collapse.

2. Activities required to protect the public health, safety and welfare shall be exempted from these provisions of this ordinance and shall include repairs to potable water, wastewater, power and communications facilities; emergency stabilization of roadways; police, fire and medical facilities; essential governmental facilities; debris removal; and stabilization or removal of structures about to collapse.

3. Nothing in this ordinance shall be construed to exempt State and Federal permit regulations.

SECTION SIX. AUTHORITY.

Nothing in the ordinance shall be construed to limit the authority of the Board of County Commissioners to declare, repeal or extend a state of local emergency or take any action prescribed herein when sitting in regular or special session.

SECTION SEVEN. PENALTIES.

A. Any person, firm, company or corporation who refuses to comply with or violates any section of this ordinance, or the emergency measures which may be made effective pursuant to this Ordinance, shall be guilty of a misdemeanor of the second degree, and upon conviction for such offense, shall be punished by a fine not to exceed five hundred dollars ($500.00 or by imprisonment not to exceed sixty (60) days in the Hillsborough County Jail, or both, in the discretion of the Court hearing the case. Each day of continued noncompliance or violation shall constitute a separate offense. In addition to this penalty, any construction licensee of Hillsborough 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, shall be charged with said violation and have the matter heard before the appropriate Hillsborough County Board, state administrative proceeding, or court of law.

B. Nothing contained herein shall prevent the County from taking such other lawful action in any court of competent jurisdiction as is necessary to prevent or remedy any refusal to comply with, or violation of this ordinance or the emergency measures which may be made effective according to this Ordinance. Such other lawful action shall include but shall not be limited to, an equitable action for injunctive relief or an action at law for damages.

SECTION EIGHT. CONFLICT AND SEVERABILITY.

This Ordinance shall supersede any other land development regulations regardless of when they were adopted. If any phrase or portion of this Ordinance is held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision and such holding shall not affect the validity of the remaining portion.

SECTION NINE. EFFECTIVE DATE.

This Ordinance shall become effective upon receipt of official acknowledgement from the Secretary of State that said Ordinance has been filed.

STATE OF FLORIDA)

COUNTY OF HILLSBOROUGH)

I, RICHARD AKE, Clerk of the Circuit Court and Ex-Officio Clerk of the Board of County Commissioners of Hillsborough County, Florida, do hereby certify that the above and foregoing is a true and correct copy of an ordinance adopted by the Board at its regular meeting of July 29. 1993 , as the same appears of record in Minute book 206 of the Public Records of Hillsborough County, Florida.

Witness my hand and official seal this the 4th day of August, 1993.

RICHARD AKE, CLERK

BY: _____

APPROVED BY COUNTY ATTORNEY

BY _____

Approved As To Form and
Legal Sufficiency

C-4 Okaloosa County Post-Disaster Redevelopment Plan

POST-DISASTER REDEVELOPMENT PLAN

OKALOOSA COUNTY, FLORIDA

INTENT: To provide for the health, safety, and welfare of the public through sound pre-disaster and post-disaster redevelopment policies intended to reduce the potential for loss of life and property.

AUTHORITY The Post-Disaster Redevelopment Plan for Okaloosa County, Florida, is adopted by the Board of County Commissioners as Ordinance No. _____ in accordance with the Comprehensive Plan.

Goal 1 Reestablish the economic vitality and social order of Okaloosa County in a timely and orderly manner consistent with the other goals of this plan.

Objective 1.1 Create and appoint a Disaster Recovery Advisory Committee, hereinafter referred to as the Committee, to guide implementation of this Plan after a disaster.

Policy 1.1.1 The Committee shall meet once a quarter or more often if deemed necessary by the County Manager, regardless of a disaster occurrence, to discuss development rules that may be adopted or changed to mitigate the loss of life and property from potential disasters. The committee shall make a report annually to the Board of County Commissioners on its findings and recommendations. After a disaster, the Committee shall meet within 72 hours of the onset of damages, and as often as needed thereafter, to discuss and formulate recommendations for the execution of this Plan.

Policy 1.1.2 The Committee shall include those personnel as the County Manager deems necessary, but as a minimum shall include representatives from the following departments and agencies:

Emergency Management Division

Growth Management

Clerk of Courts, Finance

Public Works

Water and Sewer

Public Health

Property Appraisers Office

Policy 1.1.3 The Committee shall, as necessary, seek input from, and coordinate with, municipalities, chambers of commerce, constitutional officers, and subject matter experts to develop policy recommendations for implementing disaster recovery plans and objectives. The County Manager shall be the chair or spokesperson for the Committee, and shall task the members to perform such work as may be necessary to accomplish the Committee's purposes as outlined in this plan.

Policy 1.1.4 The Committee shall prepare and maintain a list of critical facilities, both public and private, threatened by hurricane or other disasters, and shall make recommendations to reduce the vulnerability of those facilities. The Committee shall evaluate the undeveloped areas of the County that are in the Hurricane Vulnerability Zone and the V, VE, A, and AE zones on the Federal Emergency Management Agency's Flood Insurance Rate Maps, and make recommendations on mitigation and development strategies to reduce the potential for loss of life and property from natural hazards.

Policy 1.1.5 The Committee shall make recommendations on other pre-disaster zoning, building and related construction codes, or land use changes that are prudent and feasible, and which will reduce the loss of life or property resulting from hurricanes, floods, or other disasters. All recommendations for changes to existing zoning, building, and related construction codes shall be presented in writing for consideration by the Board of County Commissioners.

Objective 1.2 Conduct a post-disaster assessment of the impact on essential services, followed by a detailed assessment of damage to infrastructure, housing, and economic interests according to the State and County Comprehensive Emergency Management Plans in effect.

Policy 1.2.1 The Director of Public Safety, Chief of Emergency Management or designee shall ensure that a generalized impact assessment is conducted as soon as conditions allow following the disaster event. Each municipality shall also conduct an assessment of the disaster's impact to its residents and report the information to the County Emergency Operations Center (EOC) via whatever communications, including courier that is available. The County EOC shall correlate the data from municipalities and unincorporated areas and relay the information to the State EOC via whatever communications available. The impact assessments will concentrate on immediate human needs, such as food, water supply, electrical power needs, temporary housing needs, emergency medical needs and security. The report will be in the format specified by the Florida Division of Emergency Management, and shall be provided within 12 hours of cessation of 40 mph winds (in the case of hurricanes), or daily in the case of floods or other disasters. The Department of Public Safety shall attempt to obtain such aid as is reasonably necessary to reduce suffering, restore public safety and order, restore communications, and clear transportation routes. All county departments and officers will render such aid as is available to meet these needs.

Policy 1.2.2 The Director of Public Safety, Chief of Emergency Management, or designee shall ensure that a more detailed Preliminary Damage Assessment is conducted in the unincorporated area of the County. The reports will be in a format specified by the Florida Division of Emergency Management, and will be provided within 36 hours if conditions allow.

Policy 1.2.3 Municipalities shall perform Preliminary Damage Assessments within their jurisdictions and report findings to the County EOC within 12 hours of cessation of 40 mph winds (for hurricanes), or 24 hrs for other types of disaster if conditions allow. The County EOC shall collect and collate damage information provided by the municipalities and report this information to the State EOC in the manner specified by the Florida Division of Emergency Management. The Okaloosa County Property Appraiser shall implement the procedures necessary to provide valuation information in support of this policy.

Policy 1.2.4 Preliminary Damage Assessments will provide, insofar as possible, information on the numbers of homes, businesses, public facilities, public beaches, parks, and roads that are destroyed, suffered major damage, and sustained minor damage. Reports will include the estimated value of the destroyed structure or costs of repair for damages, the estimated number of employees or residents displaced and other information as may

be required by state or federal agencies. The following definitions will be used for reporting purposes.

a. Substantial Damage is when the cost of repair, replacement, or relocation of a structure exceeds 50-percent of its pre-disaster replacement value. A mobile home will be considered destroyed if flood waters reach floor level and the floor is soaked.

b. Major damage is when the cost of repair, replacement, or relocation of a structure is between 25 to 50 percent of its pre-disaster replacement value, e.g., a building or house shall be considered to have major damage if flood waters reach the level of electrical outlets.

c. Minor damage is when the cost of repair, replacement, or relocation of a structure is less than 25-percent of its pre-disaster replacement value.

Policy 1.2.5 The Department of Public Safety shall coordinate with municipal, county, state, and federal agencies to accomplish additional damage assessments and verifications as may be necessary.

Policy 1.2.6 Each county department head shall ensure that estimates for damage, repair or debris removal within their area of responsibility is conducted as soon as practical after the disaster event. They will prepare and maintain a detailed list of labor, materials, and contract expenditures for work performed to make final preparations for the recovery from the disaster. Each department head shall designate a knowledgeable person from middle or upper management who will work with state and federal representatives to prepare damage survey reports for assistance or reimbursement claims within the department's area of responsibility.

Policy 1.2.7 The County Manager shall coordinate with the Clerk of Courts to evaluate immediate revenue sources needed for emergency repairs or relief of suffering. They will consider various options for funding the county's share of costs if state and federal aid will be available, or the entire amount if such aid is not made available.

Policy 1.2.8 The County Manager or designee shall apply for state and federal disaster relief grant and loan programs when necessary to relieve suffering or repair infrastructure.

Policy 1.2.9 The Department of Public Safety shall cooperate with state and federal agencies to make available to them such facilities as may be needed to establish disaster Application Centers, staging areas, or other support facilities within Okaloosa County. All county employees and officers shall render to the Department of Public Safety such aid and support as may be necessary to accomplish this task.

Policy 1.2.10 The Clerk of Courts shall appoint personnel within his/her department who will be responsible for the necessary accounting and fiscal reporting procedures mandated by state and federal grant and loan agreements. The Clerk of Courts, or his/her designee, will coordinate payment schedules and procedures with the Disaster Field Office established by state and federal authorities.

Policy 1.2.11 The Committee shall advise the Board of County Commissioners on the need or advisability of revising policies on building permits, zoning, construction and related codes, and business licensure to promote mitigation and economic redevelopment. The County Manager or his designee will be the liaison to the State and Federal Mitigation Officers, and shall participate in the implementation of the Local Mitigation Strat-

egy Plan following a disaster. The Committee and the County Manager will make such recommendations as necessary to the Board of County Commissioners.

Policy 1.2.12 The Building Official shall, within the limits of access, time and staffing, condemn and visibly placard structures that were destroyed (per Policy 1.2.4) or which are unsafe for occupancy or use.

Objective 1.3 Establish the necessary staff structure and planning procedures to accommodate the emergency nature of redevelopment.

Policy 1.3.1 The Committee shall evaluate the projected workload for managing the recovery and reconstruction process and recommend the hiring of temporary workers or contracting portions of the workload to specialists. The Board of County Commissioners shall approve or disapprove such recommendations.

Policy 1.3.2 The County shall evaluate the long-term needs for capital facilities planning and LMS project list immediately after meeting the human needs following a hurricane or other disaster.

Policy 1.3.3 If necessary, the County shall prepare and forward to the Florida Department of Community Affairs an amendment to the Capital Improvements Element of the Comprehensive Plan and revisions to the LMS project list to obtain a Statement of Consistency. This will be accomplished as soon as practical.

Policy 1.3.4 County department heads and staff shall initiate coordination and cooperation with State and Federal agencies to obtain assistance in mitigation planning, relocation, or repair-in-place of public facilities.

Policy 1.3.5 The Committee may identify and designate areas that can be used for relocation of residential housing and public facilities outside of the Hurricane Vulnerability Zone.

Objective 1.4 Effective immediately upon the Declaration of a State of Local Emergency within Okaloosa County by the Board of County Commissioners or Governor of Florida, a moratorium shall be instituted on all previously approved development orders, building permits, and review procedures in progress for the affected areas of the county. This initial moratorium will be in effect during the State of Emergency (including any extension) and for 48 hours after the storm or disaster event. Moratoriums will be lifted or extended according to the schedule below. Nothing in this policy should be construed to delay or prevent short-term, temporary measures of an emergency nature intended to improve safety or limit further damage or deterioration. For example, temporary repairs to cover roof openings, repair steps, or shore up structures may be conducted without permits.

Policy 1.4.1 The moratorium will be lifted immediately upon expiration of the initial moratorium, if the Governor of Florida did not declare the county a disaster area or did not request a Presidential Disaster Declaration which included Okaloosa County.

Policy 1.4.2 If Okaloosa County is included in a disaster declaration, the moratorium will be lifted in phases, as specified below.

a. Five days, or as soon as practical, after the initial moratorium, private or public facilities and infrastructure that suffered major damage and which create or aggravate a threat to the public's health,

safety, or welfare shall be able to apply for building permits and associated construction and development orders for repair or demolition. Destroyed public or private structures that pose an immediate threat to the public or occupants by risk of collapse, should be assessed for insurance purposes and demolished as soon as practical. The review of such permits is subject to the policies listed under Goals 2 and 3, below.

b. Private or public facilities that suffered major damage but do not constitute a threat as specified above, may apply for necessary permits and orders fourteen (14) days after the initial moratorium.

c. Thirty (30) days after the initial moratorium, private or public facilities, which were destroyed, may apply for building permits and associated construction and development orders. The review process is subject to the policies listed under Goals 2 and 3, below.

d. All building permits and development orders issued for the impacted area prior to the disaster will be revoked and shall not be reissued for a minimum of 45 days after the initial moratorium. Forty-five (45) days after the initial moratorium, previously approved building permits, development orders, and review procedures will revert to the pre-disaster status. It will not be necessary to repeat previous applications, but the applicants must notify Growth Management in writing that they intend to continue with or cancel the development plans.

Policy 1.4.3 The Committee may, by consensus of the members, recommend extending or reducing the duration of the time frames listed in Policy 1.4.2 if necessary to meet local conditions. The Board of County Commissioners will approve or disapprove such recommended changes.

Goal 2 Reduce the loss of life and property in any future hurricane, flood, or other disaster.

Objective 2.1 Permitting and certification of structures will continue to be required to ensure compliance with applicable building, FEMA, CRS and related codes, zoning, and redevelopment policies to limit the potential for future loss of life and property.

Policy 2.1.1 Except for facilities requiring access to the waterfront, water wells and towers, recreation facilities, or those which provide essential services, safety and evacuation functions, all public structures in the Coastal High Hazard Area that were destroyed will be relocated out of such zone.

Policy 2.1.2 When feasible, destroyed bulkheads and seawalls will be replaced with nonstructural forms of shoreline stabilization in accordance with all Federal, State, Regional and Local jurisdictional rules and regulation including emergency orders, except where such replacement would endanger essential transportation routes, critical facilities, or the public safety.

Policy 2.1.3 The County and private developers will be required to coordinate with the necessary Federal, State, Regional and Local jurisdictional agencies as required by law or regulation for the permitting of reconstruction or redevelopment in order to ensure safety and protect the environment.

Policy 2.1.4 Coordinate with public and private utilities to flood proof facilities and utility services through incentives or regulations consistent with the local mitigation strategy.

Objective 2.2 Establish a procedure to review proposals for redevelopment of public and private structures and develop policies to guide redevelopment decisions, consistent with the local mitigation strategy.

Policy 2.2.1 The timing of redevelopment reviews is set forth in Goal 1. The review of redevelopment permits for destroyed structures shall be guided by the following priorities:

a. Reduce the pre-disaster density of residential development in the Coastal High Hazard Area (CHHA) or flood inundation areas through relocation assistance, zoning incentives, or acquisition of property for open space.

b. Encourage the relocation of all non-residential structures destroyed in the CHHA or flood inundation areas to areas outside such zones by using relocation assistance or zoning incentives, or acquisition of property for open space.

c. Structures in the CHHA or V, VE, A, or AE flood zones that were destroyed, and where the owner decides to rebuild in the same zone, will be designed and constructed consistent with the adopted Comprehensive Plan, Future Land Use Maps, Land Development Code including zoning maps, Local Mitigation Strategy, FEMA flood insurance rate maps, Community Rating System and Florida building codes. They will be prohibited from purchasing flood insurance underwritten by the Federal and State Government unless they meet all additional requirements as may be imposed by the Federal, State, and Local Government for elevation, flood proofing, etc.

d. Prior to issuance of a building permit, the applicant must submit a post-disaster survey, (pre disaster if available) and/or site plan, as applicable, of the lot and structure and cost estimate for reconstruction. The construction plan must provide for direct, unimpeded, approved vehicle ingress and egress to the parcel.

e. Destroyed structures outside the Coastal High Hazard Area (CHHA), but within the Hurricane Vulnerability Zone (HVZ) and rebuilt in the HVZ shall be designed and constructed consistent with the adopted Comprehensive Plan, Future Land Use Map, Land Development Code, FEMA Flood Insurance Rate Maps, and Florida building and related codes, i.e., Coastal codes, FEMA and CRS.

f. All destroyed structures, if rebuilt within the HVZ, will be required to be inspected prior to issuance of a Certificate of Occupancy to ensure conformance with building and related codes or regulations.

g. Coordinate the redevelopment of shoreline areas with the Florida Department of Environmental Protection, U.S. Army Corps of Engineers, and/or other Local, State and Federal agencies which may have regulatory jurisdiction over these areas.

h. Certificates of Occupancy for private structures which were destroyed shall be contingent upon the immediate provision of services necessary for health and safety to the structure, e.g., sewer or septic service, electrical power, disaster debris removal and potable water.

i. The Committee may make recommendations for increasing building standards or rezoning that

would reduce the potential for damage or loss of life from future disasters. The Board of County Commissioners may adopt such recommendations as deemed prudent and necessary, and all redevelopment efforts after enactment will be required to comply with such stricter standards.

Policy 2.2.2 The review of redevelopment permits for structures experiencing major damage, or which propose addition or changes exceeding 50-percent of the pre-disaster value of the structure, shall be guided by the following redevelopment policies.

a. Where feasible, reduce the pre-disaster density of residential development which experienced major damage.

b. Encourage the relocation of structures experiencing major damage in the CHHA to outside the CHHA.

c. Structures experiencing major damage in the CHHA and redeveloped in the CHHA shall be designed and reconstructed consistent with the adopted Comprehensive Plan, Future Land Use Map, Land Development Code, FEMA FIRM, CRS and Florida Building and related codes.

d. Prior to issuance of a development or building permit on the same parcel, the applicant must submit a post-disaster survey (pre-disaster survey if available) and estimate of construction, and site plan as applicable, of the parcel and structure if there is a proposed increase in the building footprint or if any portion of the parcel or parcels was eroded away by wave action, storm surge, or flood water. The construction plan must provide for direct, unimpeded, approved vehicle ingress and egress to the parcel.

e. Structures experiencing major damage and redeveloped outside the CHHA, but within the HVZ, shall be designed and constructed consistent with the adopted Comprehensive Plan, Future Land Use Map, Land Development Code, FEMA FIRM, CRS and Florida Building and related codes.

f. All structures experiencing major damage and redeveloped will be required to be inspected prior to issuance of a Certificate of Occupancy to ensure conformance with building codes and related regulations.

g. Nonconforming uses (as defined in the adopted Comprehensive Plan, and Land Development Code) damaged outside the CHHA but within the HVZ, shall be designed and rebuilt consistent with the adopted Comprehensive Plan, Future Land Use Map, Land Development Code, FEMA FIRM, CRS, Florida Building and related codes.

h. Certificates of Occupancy and permitting for redevelopment of private structures which suffered major damage shall be contingent upon the immediate provision of services necessary for health and safety to that structure, e.g., sewer or septic service, electrical power, and potable water, and comply with the FEMA 50% rule.

i. The Committee may make recommendations for increasing building standards consistent with the Florida Building Codes or rezoning that would reduce the potential for damage or loss of life from future disasters. The Board of County

Commissioners may adopt such recommendations as deemed prudent and necessary, and all redevelopment efforts after enactment would be required to comply with such stricter standards.

Policy 2.2.3 The review of building permits for structures experiencing minor damage shall be guided by the following redevelopment priorities.

a. Structures experiencing minor damage in the HVZ, including the CHHA, shall be allowed to rebuild to pre-disaster square footage consistent with the adopted Comprehensive Plan, Future Land Use Map, Land Development Code, FEMA FIRM, CRS, Florida Building and related codes.

b. Prior to issuance of a building permit on the same parcel, the applicant must submit a post-disaster survey (pre-disaster if available) and/or site plan as applicable, of the lot and structure if there is a proposed increase in building footprint or if any portion of the lot or lots was eroded away by wave action, storm surge, or flood waters. The site plan must provide for direct, unimpeded, approved vehicle egress and ingress to each lot.

c. Certificates of Occupancy and permitting for redevelopment to pre-disaster square footage of private structures which suffered minor damage shall be contingent upon the immediate provisions of services necessary for health and safety to that structure, e.g., sewer or septic service, electrical power, waste disposal and potable water.

d. Eligibility for flood insurance underwritten by the Federal Government will be contingent on program rules regarding the specific case.

Policy 2.2.4 All private development which was destroyed or suffered major damage shall be guided by the following redevelopment priorities:

a. Develop new street patterns in hardest hit areas to accommodate clustering of structures away from the CHHA and attempt to remove structural and physical patterns which increase the susceptibility of development to the hazards of hurricane, flood, or other natural disasters.

b. Residential redevelopment densities shall not exceed pre-disaster development without providing enhanced evacuation methods and routes in order to reduce evacuation times.

c. In order to reduce potential future property damage, redevelopment floor area ratios for commercial and office development in the HVZ shall not exceed those established in the adopted Comprehensive Plan and Future Land Use Map.

d. Discourage the rebuilding and relocation of mobile homes and manufactured housing in the CHHA and HVZ unless they are proven to be able to withstand wind load requirements and structural safety rules established for other structures in the CHHA and HVZ by local, state, and federal building and related codes. This provision shall not be construed to limit the establishment of short-term housing areas to provide immediate and emergency relief to victims of the disaster.

e. The Building Official shall, after consultation with the Growth Management Director, Planning Manager, Public Works Director/County Engineer and Chief of Emergency Management or in his/her

absence Emergency Management Coordinator, condemn land parcels or lots that are destroyed and replaced by tidal waters.

f. The replacement or repair of private beach or beach stabilization structures shall be the sole responsibility of the property owner, and shall conform to the rules and regulations of Local, State, Regional and Federal jurisdictional agencies.

g. If a structure listed on the National Register of Historic Places, the State Inventory of Historic Places, or the State of Florida Master File suffers major or minor damage, it will not be required to redevelop in such a way as to cause it to lose its historic designation if the Building Official approves such exemption.

Policy 2.2.5 Provision of water and sewer service at private expense to existing parcels of record in the CHHA will be permitted, provided that such service does not conflict with existing policies for determining when structures can be rebuilt, land development regulations, building and related codes, and state and federal policies regarding development and construction in the CHHA and environmental regulations. New sanitary sewer and potable water facilities in the CHHA will be flood proofed.

Policy 2.2.6 It shall be the policy of Okaloosa County not to expend public funds for the repair of damaged private roads or easements, except in conjunction with the repair and maintenance of the county's water and sewer system or public easements. In cases where a declared disaster has resulted in a private road being rendered impassable to emergency vehicles, and therefore renders it impossible to conduct fire/rescue or law enforcement activities for a populated area, the county may make temporary, emergency repairs sufficient to allow passage of emergency vehicles. These repairs will be temporary in nature, such as filling holes or gaps in the roadway with dirt or sand, and will be done only once. Thereafter, it will be the responsibility of the owners to make any repairs and perform necessary maintenance. Real estate developers or sellers shall inform all future potential buyers in writing if the property is located on a private road that is not maintained by the county.

Policy 2.2.7 The Committee will review mitigation alternatives and make recommendations for consideration by the Board of County Commissioners. The Committee will review the nature and extent of damages, the causal relationships between the damage and land use policies, and ways to reduce damage in future disasters. Among those policies and programs that will be considered are:

a. Changes from residential to commercial zoning to reduce evacuation times.

b. Reduction in residential density by increasing the minimum lot size or reducing the number of dwelling units allowed per acre.

c. Awarding bonus or incentive points that would allow increased density if developers incorporate hazard-reduction features.

d. Clustering development on the most protected portions of parcels.

e. Requests for Special Exemptions will be reviewed and considered based on the impact on population density (which effects evacuation clearance times and search/rescue needs) and potential for suffering or aggravating damage to other structures in the area.

f. Reconstruction must comply with, FEMA FIRM, CRS, Florida Building and related codes.

Policy 2.2.8 The County will seek opportunities through grants or other means to acquire land in the CHHA. The land acquisition will be designed to reduce development in the CHHA, increase open space ratings, and thereby mitigate potential loss of life or property in future disasters.

Goal 3 Provide public facilities and services which guarantee to the extent possible the health, safety, and welfare of the citizens of Okaloosa County and which reduce future expenditure for public infrastructure in the CHHA.

Objective 3.1 Based upon the extent of damage, the review of permits for relocation or repair shall be guided by the following policies:

Policy 3.1.1 Those facilities that are essential to the immediate health, safety, and welfare of citizens will be assigned high priority. If this is not feasible, every effort will be made to provide the service through alternative means.

Policy 3.1.2 Public buildings in the CHHA that were destroyed or suffered major damage shall be relocated out of the CHHA consistent with the adopted Comprehensive Plan, Future Land Use Map, Land Development Code, FEMA FIRM, and CRS and will be rebuilt to current local, state, and federal standards. Facilities for access to the waterfront, recreational facilities, water and sewer, and facilities that are needed for evacuation may be allowed in the CHHA.

Policy 3.1.3 Public buildings that must function during a hurricane or other disaster, such as hospitals, blood banks, police and fire stations, emergency operations centers, communication centers and facilities, electrical power-generating substations and plants, and water treatment plants shall be relocated to the extent feasible from the CHHA if they were destroyed or suffered major damage. If an entire fire district is in the CHHA, then that fire district's fire station may be rebuilt in the CHHA.

Policy 3.1.4 Public facilities which experienced minor damage in the CHHA shall be rebuilt in place to current local, state, and federal standards.

Policy 3.1.5 Public facilities outside the CHHA, but within the HVZ, and are destroyed or suffer major damage will be rebuilt in place or relocated consistent with the adopted Comprehensive Plan, Future Land Use Map, and Land Development Code. Their construction will be consistent with Local, State, FEMA, and CRS standards.

Policy 3.1.6 Public facilities currently located in the CHHA that must function during a hurricane or other disaster, such as police and fire stations, emergency operations center, and communication centers shall be considered for relocation outside the CHHA in order to mitigate possible disruption of service due to their location in a surge zone or possible high velocity wave action from storms.

Policy 3.1.7 Prior to repair or reconstruction of county roads and bridges, except when deemed a crucial transportation route or corridor or crucial to the public health, safety and welfare, which were destroyed or damaged by a disaster, the County shall consider alternative solutions, including, but not limited to, abandonment procedures, special assessment and condemnation, and construction practices to mitigate damage from future disasters. This

shall not prevent the temporary repair of roads and bridges during or after the disaster event.

Glossary of Terms

CHHA	Coastal High Hazard Area. The area of the hurricane vulnerability zone defined as the landfalling Category 1 evacuation zone as delineated by the Florida Regional Planning Council.
CRS	Community Rating System. A program encouraging floodplain management.
HVZ	Hurricane Vulnerability Zone. The area delineated by a regional hurricane evacuation study requiring evacuation in the event of a landfalling category three hurricane event conducted by the Army Corps of Engineers.
LMS	Local Mitigation Strategy.
Zone A	No base flood elevation determined.
Zone AE	Base flood elevation determined.
Zone V	Costal flood with velocity hazard wave action; no base flood elevation determined.
Zone VE	Coastal flood with velocity hazard (wave action); base flood elevations determined.
Zone X	Areas of 500 year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

D Resources

1. Hazard Mitigation

Brower, David J., David R. Godschalk, and Timothy Beatley. 1986. Implementing Coastal Storm Hazard Policy. Report no. 86-16. Center for Urban and Regional Studies, University of North Carolina.
Through an examination of federal, state, and local policies, the report assesses the primary approaches to coastal hazard mitigation and introduces model land management strategies for addressing these hazards. Furthermore, the report reviews recovery and reconstruction practices following major hurricane events and lessons learned from them.

Emergency Management Institute. 2002. Building Disaster Resilient Communities. Emmitsburg, MD.
This course manual consists of lectures, classroom discussion guides, handouts, and overheads for one-semester undergraduate or graduate course that addresses the concepts, strategies, and techniques for making communities resistant and resilient to natural disasters through land use planning and development management.

Erikson, Hank and Alan Krebs. November 1997. "The Municipal Recovery Process." *Quality Cities*. Florida League of Cities. 1997.
The article defines the emergency management cycle and outlines the post-disaster recovery process, including preliminary damage assessments.

Federal Emergency Management Agency. 2000. Coastal Construction Manual: *Principles And Practices Of Planning, Siting, Designing, Constructing, And Maintaining Residential Buildings In Coastal Areas*. FEMA 55. Washington, DC.
This manual provides broad coverage of practices and techniques from planning to site layout to construction detailing in coastal areas. The materials and information in the manual have applicability throughout the planning, permitting, and construction processes and to the types of specific hazard situations found in Florida.

Federal Emergency Management Agency. 2001. *State and Local Mitigation Planning: How-To Guides*. 386-X. Washington, DC.
The how-to guides are a series of planning booklets published by FEMA that details the phases and steps of the hazard mitigation planning process. The first four booklets in the series provide instruction on organizing to prepare the plan, assessing potential losses from disaster damage, developing a mitigation strategy, and implementing the plan. Subsequent booklets in the series supplement the core phases and include topics such as mitigation planning for terrorism, using benefit-cost analysis, multi-jurisdictional mitigation planning, and historic preservation and environmental concerns in the mitigation planning context.

Florida Department of Community Affairs. 1997. *Workbook in Local Mitigation Strategy Development: Recommendations for Local Government on the Hazard Mitigation Planning Process*. Tallahassee, FL.
This workbook, a companion to Florida's Local Mitigation Strategy: A Guidebook for Florida Cities and Counties, discusses the process that local governments can use to implement the strategies set out in the guidebook. The workbook describes ways to jump start the hazard mitigation planning process, steps in the planning process, and methods of implementing the resultant strategy.

Florida Department of Community Affairs. 1998. *The Local Mitigation Strategy: Cities and Counties Working Together to Build Disaster Resistant Communities*. Tallahassee, FL.
The booklet presents Florida's Local Mitigation Strategy, the state's initiative to help communities develop hazard mitigation plans. The booklet outlines the benefits of planning for hazard mitigation, the major steps in the hazard mitigation planning process, frequently

asked questions, and ways communities can obtain technical assistance from the Department of Community Affairs.

Florida Department of Community Affairs. 2001. *Handbook for Floodplain Acquisition and Elevation Projects*. Tallahassee, FL.
This handbook addresses the acquisition, demolition, relocation, and elevation of private residential structures that have suffered repetitive flood damage. It includes information on funding available under the federal Hazard Mitigation Grant Program and the federal Flood Mitigation Assistance Program. The handbook is organized to follow the entire process, from planning a project, deciding policies, preparing the application, and implementing the project, to closing out the books.

Florida Department of Community Affairs. 2001. *Handbook for Hazard Mitigation Projects*. Tallahassee, FL.
This FDCA handbook details the planning process for securing federal funds under the Hazard Mitigation Grant Program and the Flood Mitigation Assistance Program for mitigation projects that protect existing public buildings and critical facilities, including floodproofing, elevation, relocation and wind retrofitting of existing public buildings, floodproofing of sewer lift stations, and drainage improvements.

Florida Department of Community Affairs. 2002. "Community Rating System: A Comprehensive Approach to Flood Mitigation." Tallahassee, FL.
This brochure provides an overview of the National Flood Insurance Program Community Rating System and includes a list of state and federal contacts.

Florida Department of Community Affairs. 2002. *Retrofitting and Flood Mitigation in Florida*. Tallahassee, FL.
This guide discusses flood mitigation and describes several retrofitting measures that can be applied to existing structures to make them less vulnerable to flooding. As such, this guide should be especially helpful with those structures that have sustained or are vulnerable to repetitive flood damage.

Florida Department of Community Affairs. Accessed 3/4/2003. "Storm Hazard Modeling Using TAOS & SLOSH The Arbiter of Storms (TAOS), Sea, Lake, and Overland Surges from Hurricanes (SLOSH)." *www.dca.state.fl.us/brm/taos_faqs.htm*.
Using the frequently-asked-questions format, the web article explains DCA's TAOS modeling efforts and how they fit into the risk assessment aspect of the Local Mitigation Strategy.

Florida Department of Community Affairs. 2004. *The Local Mitigation Strategy: A Guidebook for Florida Cities and Counties*. www.dca.state.fl.us/brm.
The Guidebook provides help to Florida communities in developing hazard mitigation strategies. Divided into two parts, process and product, the guidebook describes the activities involved in generating a local mitigation strategy including coordinating government actors and other stakeholders, evaluation and review of the plan, identification of community mitigation guiding principles, risk assessment, and mitigation initiatives.

Florida Department of Community Affairs. 2004. *The Local Mitigation Strategy: A Guidebook for Florida Cities and Counties, Vulnerability Assessment Supplement, Parts I and II. www.dca.state.fl.us/brm*.
The Vulnerability Assessment Supplement to the Local Mitigation Strategy guidebook outlines the methods local mitigation planners in Florida should use in developing the vulnerability assessment. Part One of the Supplement details the steps necessary to complete the vulnerability assessment, including assigning responsibilities for conducting the assessment, identifying hazards that can affect the jurisdiction, defining hazard areas using mapping techniques, identifying vulnerable people and property, and conducting a risk analysis using existing resources such as TAOS. Part II of the

Supplement aids communities in identifying and prioritization of mitigation initiatives to address the identified vulnerabilities.

Florida Department of Community Affairs, Division of Emergency Management. 2002. ***State of Florida Comprehensive Emergency Management Plan. www.dca.state.fl.us/bpr/Projects/CEMP%20Online/situation.htm,*** **accessed 3/4/2003.**
With three sections-- the basic plan, emergency support function appendices, and hazard specific annexes, the plan establishes the framework for preparing for, responding to, recovering from, and mitigating hazards.

Florida Department of Environmental Protection. 1988. ***The Florida Development Manual: A Guide to Sound Land and Water Management.*** **Tallahassee, FL.**
Volume 2 (Chapter 6), which is available online (http://www.dep.state.fl.us/water/ nonpoint/pubs.htm), contains detailed descriptions, theory, and standards and specifications for structural and nonstructural BMPs to control erosion and sediment during construction and storm water management after construction.

Hillsborough County Board of County Commissioners. 1993. ***Hillsborough County, Florida, Ordinance 93-20: An Ordinance to Guide Redevelopment and Mitigation following a Storm Event or Other Natural Disaster within the Unincorporated Areas of Hillsborough County, Florida.*** **Hillsborough County, FL.**
The ordinance provides for the creation of a task force, procedures for assessing damage, a build-back policy, a building moratorium, and explains the types of emergency repairs allowed. See Appendix B-3 for the complete ordinance.

"Land Use Planning and Natural Hazard Mitigation." 1998. ***Natural Hazards Insights.*** **No. 8. Institute for Business and Home Safety.**
The October 1998 newsletter advocates using land use planning practices to help mitigate the effect of hazards. The article briefs communities on the benefits of mitigation and the components of hazard mitigation plans. Finally, the article presents a list of land use management tools that also have application as hazard mitigation tools, including zoning and subdivision ordinances, capital improvement programs, and impact taxes.

Mileti, Dennis S. 1999. "Chapter 6: Tools for Sustainable Hazards Mitigation." ***Disasters by Design: A Reassessment of Natural Hazards in the United States.*** **Washington, D.C.: Joseph Henry Press.**
Chapter Six of Disasters by Design explores the various tools that can be used to promote sustainable hazard mitigation, including land-use planning, building codes, insurance, engineering, and warning systems.

Mileti, Dennis S. 1999. ***Disasters by Design: A Reassessment of Natural Hazards in the United States.*** **Washington, D.C.: Joseph Henry Press.**
Disasters by Design promotes the idea of "sustainable hazard mitigation" by presenting a framework for the concept, assessing the human and economic losses from disasters, and suggesting land management, research, educational, government, and industry tools and policies for sustainable hazard mitigation.

North Carolina Division of Emergency Management. 2000. ***Keeping Natural Hazards from Becoming Disasters: A Basic Workbook for Local Governments.***
This workbook, developed by the North Carolina Division of Emergency Management, presents a condensed hazard mitigation planning process with job aids at every step. The workbook includes steps on hazard analysis, vulnerability assessment, capability assessment, goals development, and strategy development. The workbook also includes information on sources of planning help, funding, and hazard research.

Okaloosa County. n.d. Okaloosa County Post-Disaster Redevelopment Plan. Ft. Walton Beach, FL.
The plan addresses both recovery operations as well as policies for guiding the reconstruction and redevelopment process. It sets forth

explicit policies governing the repair and reconstruction of structures that sustain different levels of damage within the Coastal High-Hazard Area (CHHA) and Hazard Vulnerability Zone (HVZ). It also spells out specific initiatives to be pursued to reduce post-storm densities and vulnerability within the CHHA. See Appendix B-4 for the complete plan.

Topping, Kenneth. 1998. "A Model Recovery and Redevelopment Ordinance," In Schwab, Jim, et al. *Planning for Post-Disaster Recovery and Reconstruction,* Planning Advisory Service Report 483/484. Chicago: American Planning Association.
This ordinance contains the basic elements required for establishing a recovery organization, and authorizing a variety of pre- and post-event planning and regulatory powers and procedures related to disaster recovery and redevelopment. Designed to be adopted in advance of a major disaster, the ordinance greatly facilitates long-term recovery and the implementation of redevelopment opportunities identified in the post-disaster recovery plan.

Tucker, John, Todd Trexler, and Jeff Wade. 1996. *Hurricane Mitigation and Post Disaster Redevelopment: Program Analysis of Flagler County, Florida.* Gainesville, FL: Center for Governmental Responsibility, University of Florida College of Law.
The report summarizes general principles and comprehensive planning requirements for coastal management and contains an in-depth assessment of Flagler County, Florida's approach to coastal hazard mitigation and post-disaster redevelopment. The report evaluates the County's coastal growth policies, natural systems protection programs, and its post-disaster redevelopment plan.

Wade, Jeff and Todd Trexler. 1996. *Hurricane Mitigation and Post-Disaster Redevelopment: Principles and Practices. Volume 1.* Gainesville, FL: Center for Governmental Responsibility, University of Florida College of Law.
Volume 1 presents general principles and strategies of effective hurricane mitigation programs. The report analyzes several Florida coastal management statutes, the Tampa Bay region's model plan and ordinances, and several plans and ordinances of the Town of Nags Head and Brevard, Indian River, Lee, Sarasota, St. John's, and St. Lucie Counties.

2. Comprehensive Planning

"Addressing Natural Resources in a Comprehensive Plan." 2001. *Natural Resource Guidance Checklist.* Minnesota Department of Natural Resources. St. Paul, MN.
The Natural Resource Guidance Checklist provides a list of natural resource issues for Minnesota communities to consider when developing comprehensive plans. The checklist advises communities to include an introduction and vision statement, community background with natural resource inventory, a list of issues, a policy plan, and an implementation plan. The checklist does not directly address natural hazards; however, it provides a list of questions regarding natural resource policy planning that can be useful during the hazard mitigation planning process.

California Governor's Office of Planning and Research. 1998. *State of California General Plan Guidelines.* Sacramento, CA. *http://ceres.ca.gov/planning/genplan/gpg.pdf.*
The California Office of Planning and Research developed Guidelines in order to aid California communities in developing their general plans. These guidelines interpret California's requirement for local general plans, providing advice on addressing the statutory requirements and optional elements of the plan.

California Governor's Office of Planning Research. 2002. *Hazard Mitigation: Fire Hazard Planning and the General Plan.* Sacramento, CA.
Hazard Mitigation: Fire Hazard Planning and the General Plan provides localities in California guidance to integrate fire hazard

mitigation planning and general plan considerations. The document outlines methods necessary to analyze urban, urban-interface, and wildland fire danger, and it suggests policies to address these hazards.

City of Las Cruces and Doña Ana County, New Mexico. 2000. "Section 3: Goals and Objectives." ***City of Las Cruces and Doña Ana County, New Mexico Extraterritorial Zone's Comprehensive Plan, 2000-2020.*** **Las Cruces, NM.** ***http://www.co.dona-ana.nm.us/plan/etz-comp-plan/etzcompplan.html.***
The ETZ Comprehensive Plan includes goals geared to sustainable development and protection from flooding hazards. With Objective 11.4, the City and County establish their intent to develop a Floodplain Management Overlay Zone Ordinance that discourages development in floodplains and requires the development of certain floodplain management policies and plans.

Department of Planning and Development, City of Fargo, North Dakota. 1995. "Utilities." ***City of Fargo Comprehensive Policy Plan.*** **Fargo, North Dakota.** ***http://www.ci.fargo.nd.us/Planning/LandUse/comppol.htm.***
The "Utilities" portion of the Comprehensive Policy Plan conveys the City of Fargo's intention to review sources of riverine and urban flooding, floodplain-related land management, and riverfront development issues within the City.

Feagin, Laura, et al. 2003. "2002 Growth Management Reforms Impact Local Governments." ***Legal News and Articles: Local and State Government Issues.*** **Lewis, Longman & Walker, P.A. Attorneys at Law.** ***www.llw-law.com/article17.cfm, accessed 3/4/2003.***
The article reviews recently passed land use management and other legislation that affects local governments, including water supply planning, comprehensive plan process streamlining, and development-of-regional impact procedures.

Godschalk, David R., et al. 1998. "Integrating Hazard Mitigation and Local Land Use Planning." ***In Cooperating with Nature: Confronting Natural Hazards with Land-Use Planning for Sustainable Communities,*** **Raymond J. Burby, Editor. Washington, D.C.: Joseph Henry Press.**
"Integrating Hazard Mitigation and Local Land Use Planning" examines the role of land use planning in mitigating the threats posed by natural hazards. The article explores local planning powers and authority and ways to combine the processes of hazard mitigation and land use planning. Also, the article advises local governments on effective stakeholder participation and the development of high-quality mitigation plans.

Maryland Office of Planning. 1995. ***Managing Maryland's Growth, Models and Guidelines -- Flexible and Innovative Zoning Series: Transferable Development Rights.*** **Baltimore, MD.**
Transferable Development Rights (TDRs) are one type of land use management technique that some have used to further hazard mitigation. The booklet provides an overview of the use of TDRs in other states and how they can be used in Maryland. The booklet also shows local communities how to prepare a local TDR ordinance, provides a model zoning regulation for TDRs, and new approaches for using TDRs in agricultural preservation.

"Natural Hazards Goals, Policies, and Maps Element." 1995. ***Boulder County Comprehensive Plan. www.co.boulder.co.us/lu/bccp/nat_hat.htm, accessed 3/27/2003.*** **Boulder County, CO.**
The natural hazards element of the Boulder, Colorado comprehensive plan emphasizes minimizing risks as an essential function of public safety planning. The element discusses the various hazards that may affect Boulder County, indicating the relative severity of risk. The element also presents goals for addressing hazards (including geologic, erosion, flooding, wildfire, radiation, seismic, and extreme weather hazards) and policies outlining the priorities for the County.

Department of Urban and Regional Planning, University of Wisconsin-Madison Extension and Wisconsin Department of Natural Resources. 2002. *Planning for Natural Resources: A Guide to Including Natural Resources in Local Comprehensive Planning.* Madison, WI.
Planning for Natural Resources provides Wisconsin local governments with advice for addressing the required natural resources element of the comprehensive plan. While the guidebook does not address planning for hazards directly, it promotes sustainability concepts; covers floodplains, stormwater runoff, erosion, solid and hazardous waste; and provides an overview of some general implementation tools.

Warren County Planning Commission. 1999. "Chapter 4: Growth Management and Land Use." *Warren County Virginia Comprehensive Plan.*, Warren County, VA. *www.warrencountyva.net/CP_land_use.html*, accessed 3/27/2003.
In this chapter of Warren County's comprehensive plan, the County promotes a growth management strategy that discourages growth in environmentally sensitive and geologically hazardous areas such as wetlands, steep slopes, karst terrain, and floodplains.

Wisconsin Groundwater Coordinating Council. 2002. "Comprehensive Planning and Groundwater Fact Sheet 1: Groundwater and Its Role in Comprehensive Planning." *www.dnr.state.wi.us/org/water/dwg/gcc.*
By outlining the hydrologic cycle and the connection between groundwater and land use, the article explains how groundwater is related to several comprehensive planning elements, including housing, transportation, utilities and communities facilities, and intergovernmental cooperation.

3. Laws and Regulations

Florida Department of Environmental Protection. 2002. *Homeowner's Guide to Wetlands.* Tallahassee, FL.
This FDEP handbook explains what wetlands are, why it is important to protect them, and how wetlands are regulated under federal, state, and local laws in Florida. In addition, it describes best management practices for residential construction, septic tank installation and maintenance, mangrove trimming, boat ramps, docks and piers, shoreline stabilization, and coastal construction. Copies are available online at ***http://www.floridadep.org/water/wetlands/docs/erp/wetland_guide.pdf.***

Tampa Bay Regional Planning Council, Hillsborough County Planning and Development Management Department for the Florida Department of Community Affairs. 1995. *Model Local Government Disaster Mitigation and Redevelopment Plan and Model Local Redevelopment Regulations.*
The model plan and model regulation booklet not only provides communities with a template for developing these documents, but it also serves as a guide for local governments for all phases of plan creation, including risk assessment, strategy development, and implementation.

4. Building Codes

Elliot, Mittler. 1998. "Natural Hazards Research Working Paper #97: A Case Study of the Enactment of a State Building Code in South Carolina." National Hazards Research and Applications Information Center Institute of Behavioral Science, University of Colorado.
The case study details the approaches one South Carolina senator undertook to enact a state-wide building code. The article describes the political system and culture in South Carolina and includes details on the difficulties of passing bills. Next, the article documents the challenges the senator encountered in garnering support for the bill, and finally, it explains why the senator was ultimately successful in passing the legislation.

5. Sustainability

Burby, Raymond J. 1998. "Policies for Sustainable Land Use." ***In Cooperating with Nature: Confronting Natural Hazards with Land-Use Planning for Sustainable Communities,*** **Raymond J. Burby, Editor. Washington, D.C.: Joseph Henry Press.**
Raymond Burby, professor of urban and public affairs at the University of New Orleans, and other contributing authors set forth five public policy principles to promote sustainability and break the cycle of disaster. The authors maintain that current federal and state land use and hazards policies address the most frequently occurring hazards, but do little to prevent catastrophic property losses, to improve knowledge about how hazards occur, or to garner consensus of all stakeholders, in effect subsidizing risks in low-frequency/high-consequence areas and ignoring the sometimes damaging effects incomplete risk reduction measures can have to other priorities (e.g., the environment). The authors go on to explain how the patchwork of governmental programs and the incomplete scope of policies have constrained the choices local governments can make when addressing hazards. Finally, the authors suggest for federal, state, and local government a policy agenda that addresses risk subsidizing, hazard research, improved integration of hazard policies, and land management at federal, state, and local levels.

Burby, Raymond J. (ed). 1998. ***Cooperating with Nature: Confronting Natural Hazards with Land-Use Planning for Sustainable Communities.*** **Washington, D.C.: Joseph Henry Press.**
Cooperating with Nature critiques land use management practices in relation to natural hazards and hazard mitigation. In nine essays from leading scholars in the fields of land use, hazard mitigation, and sustainability, Cooperating with Nature analyzes the nation's pattern of land development, the ineffectiveness of past land use policies, and federal, state, and local government reactions to continued damages from disasters. Next, the discussion proposes several strategies for integrating hazard mitigation considerations into land management practices, land use planning, and the capabilities of governments. Finally, the authors discuss ways to promote concepts of sustainability and mitigation through federal and state policies.

6. Other References

Florida Department of Community Affairs. Accessed 4/28/2003. "Coastal Redevelopment and Hazard Mitigation" and "Evaluation and Appraisal Reports." Tallahassee, FL. ***www.dca.state.fl.us/fdcp/DCP/coastredevhazmat/index.htm and www.dca.state.fl.us/fdcp/DCP/ear/indexear.htm.***
The Florida DCA website provides communities information on FEMA's Disaster Mitigation Act (DMA) and DCA's requirement of using the Evaluation and Appraisal Report process to update local comprehensive plans.

Florida Department of Community Affairs, Division of Emergency Management. 2003. ***Shelter Retrofit Report.*** **Tallahassee, FL.**
The State of Florida's 2003 Shelter Retrofit Report presents findings from the state's on-going survey of existing emergency shelters and reports on progress made in constructing new Enhanced Hurricane Protection Area (EHPA) shelters. It also details the state's strategy for remedying the current shelter deficit. The report can be accessed online at ***http://floridadisaster.org/bpr/Response/ engineers/documents/03ShelterRetrofit.pdf.***

Florida Department of Community Affairs, Division of Emergency Management. 2004. ***State of Florida 2004 Statewide Emergency Shelter Plan.*** **Tallahassee, FL.**
The State of Florida 2004 Statewide Emergency Shelter Plan provides information on existing and long-term hurricane evacuation shelter space requirements and determines which regions and counties are required to construct new educational facilities to comply with the state's public shelter design criteria. The plan

is available at ***http://floridadisaster.org/bpr/Response/ engineers/ documents/2004SESP/2004%20SESP%20COMPLETE.pdf.***

Florida Department of Environmental Protection. 2004. "Building Back the Sand Dunes." ***http://www.dep.state.fl.us/ beaches/ publications/pdf/bldgbkvw.pdf.***
FDEP produced this brochure to assist private property owners who want to restore sand dunes on their property. The brochure describes alternative approaches for rebuilding sand dunes as well as initiatives property owners can take to protect them.

Natural Hazards Center, University of Colorado, Boulder. 1999. "Disasters by Design: Reassessment of Natural Hazards in the United States-- A Bibliography." Boulder, CO. ***www.colorado.edu/hazards/assessbib.html, accessed 3/26/2003.***
This list of literature comprises all the citations used by the researchers and authors of the essays included in the book, Disasters by Design. Additional references from research conducted by reviewers of the book are also included.

Petterson, Jeanine. 1999. "A Review of the Literature and Programs on Local Recovery from Disaster" (Working Paper #102). Public Entity Risk Institute. ***www.riskinstitute.org.***
This working paper reviews academic and informal literature to identify lessons on recovery from disasters and to summarize the programs that provide post-disaster technical assistance.

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POST-DISASTER REDEVELOPMENT PLANNING

A Guide for Florida Communities

FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS | FLORIDA DIVISION OF EMERGENCY MANAGEMENT

The Florida Post-Disaster Redevelopment Planning Initiative

The Florida Post-Disaster Redevelopment Planning Initiative is sponsored by the Florida Division of Community Planning, the Florida Division of Emergency Management, and the Florida Department of Environmental Protection with funding through grants from the National Oceanic and Atmospheric Administration and the Federal Emergency Management Agency. The purpose of the Initiative is to develop a planning process that will encourage vulnerable communities to undertake the preparation needed to ensure long-term sustainability and guide them through pre-disaster planning and post-disaster implementation. The Initiative has included researching redevelopment lessons learned during previous disasters, applying this research during the drafting of a long-term post-disaster redevelopment planning process, and testing the planning process through a series of pilot projects. This Guidebook, created to assist communities in developing a Post-Disaster Redevelopment Plan, is the culmination of all efforts associated with this Initiative.

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The manual can be found on the Florida Department of Community Affairs' website: http://www.dca.state.fl.us/fdcp/dcp/PDRP and the Florida Division of Emergency Management website: www.FloridaDisaster.org/IndividualAssistance/pdredevelopmentplan

For additional copies of the manual, contact:
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October 2010

How To Use This Guide

Rebuilding a community after a major or catastrophic disaster is a huge undertaking. The most effective way to accomplish holistic post-disaster redevelopment is to be prepared before a disaster strikes. Developing a Post-Disaster Redevelopment Plan (PDRP or the Plan) requires envisioning the potential obstacles to reconstructing a community in a compressed timeline – and hopefully not just reconstructing what was there, but redeveloping a more sustainable and disaster-resilient community with participation from various community stakeholders.

This Guide provides an accessible and practical method for developing a Plan during "blue skies," otherwise referred to as the pre-disaster period. Florida's communities are diverse and one plan template cannot meet the needs of each. To give this Guide the flexibility to work for a variety of local governments, five counties and one municipality volunteered to be pilots representing different qualities and aspects of Florida jurisdictions that would be undertaking this type of planning. Throughout the Guide, you will find brief case studies of issues the pilot communities faced during their planning process. You will also find that most suggestions in this Guide are categorized as one of three levels of achievement. This will be useful to the local government that wants to incrementally develop a Plan as well as the local government that already has excellent planning documents in place addressing hazard mitigation and disaster recovery but is looking to enhance them during future updates.

This Guide addresses the basics of what a Post-Disaster Redevelopment Plan is, what current requirements there are, and different forms it can take (**Chapter 1**); proven methods for the initial planning process (**Chapter 2**); suggestions for topics and issues to include in your Plan (**Chapter 3**); and considerations for implementation and future updates of your Plan (**Chapter 4**). Because there is a wealth of information in each of the pilot Post-Disaster Redevelopment Plans, this Guide provides insights into which aspects of each of the pilot Plans might be the optimal choice for your community. The pilot Plans, a full case study of the pilot projects, and links to learn more about the local governments that participated in the pilot Plans can be accessed through the Florida Department of Community Affairs project webpage (www.dca.state.fl.us/fdcp/dcp/PDRP). The website is also a good place to check for information on future related projects and materials to complement this printed Guidebook.

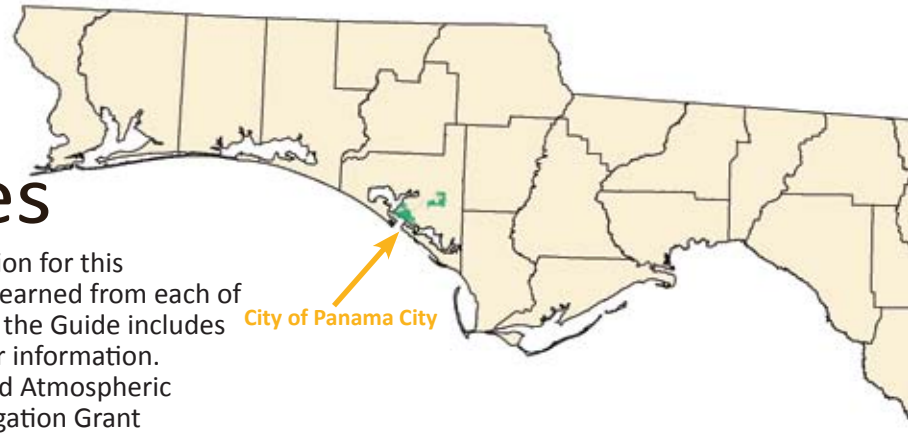
Achievement Levels Used in this Guide

Minimum. Any items marked as a minimum achievement level are suggested to be undertaken first.

Recommended. If resources are available, these items should be addressed either simultaneously with minimum items or during the next planning cycle.

Advanced. Items for communities to commence after a solid foundation for hazard mitigation and disaster recovery is already established. Items marked Advanced are considered best practices.

Pilot Post-Disaster Redevelopment Communities



Six communities were chosen by the State of Florida to be case studies and build the foundation for this Guidebook. Suggestions from those involved in the process, example scenarios, and lessons learned from each of the six communities are included throughout the Guide. The **Resources** section at the end of the Guide includes details on how to access the pilot communities' Post-Disaster Redevelopment Plans and other information.
All of the pilots' Plans, apart from Sarasota County, were financed by the National Oceanic and Atmospheric Administration (NOAA) and the Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program funds through the State of Florida.

CITY OF PANAMA CITY

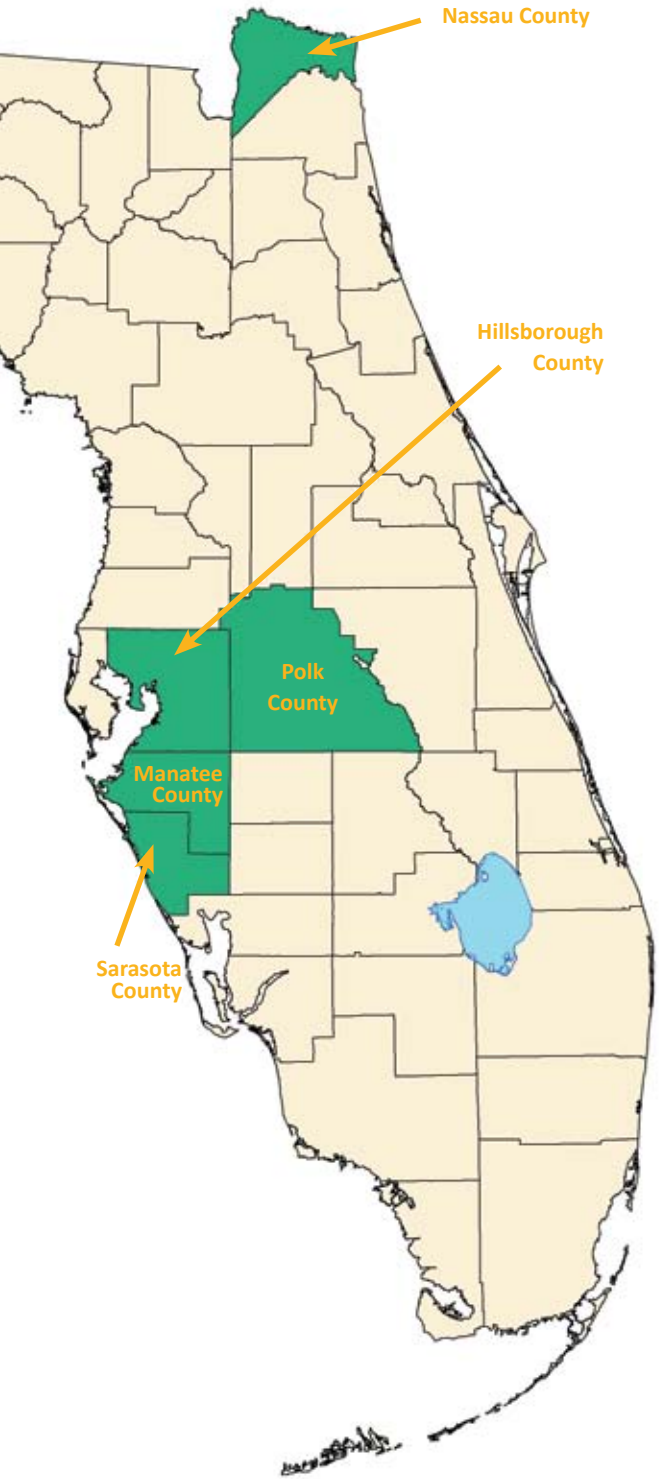
Selected as the first pilot community in the Post-Disaster Redevelopment Plan initiative by the Statewide Focus Group, the City of Panama City contains many of the components of a typical municipality in the State that might be a priority for post-disaster redevelopment planning. Panama City is a coastal community, medium in size with an economic focus on both tourism and industry, and has recognized historical significance. The City of Panama City is situated along the northern coast of the Gulf of Mexico in Bay County, Florida and is the largest in residential population of the eight cities in its county and serves as the county seat. Like all communities in Florida, Panama City is no stranger to storms, and the City's experience with and vulnerability to these storms is evident in their determination to undertake the post-disaster redevelopment planning process. Many parts of the City are vulnerable to storm surge and/or flooding. In fact, of the land within Panama City, 44% is within a storm surge and/or flood zone. This includes important areas such as the downtown area of Panama City, Gulf Coast Community College (main campus), and one of two hospitals located within the county. In addition to flooding and coastal storms, there is a high level of risk from wind events, such as tornadoes and tropical storms, due to the age of residential structures within the community.

HILLSBOROUGH COUNTY

Hillsborough County is the economic hub of the Tampa Bay metropolitan region. Its industries are diverse and include downtown Tampa businesses, the largest seaport in the state, tourism, higher education, medical services, and a thriving agricultural sector. However, approximately 22% of its diverse population is living in areas at risk from flooding. The problem that the County faces is that it has been thriving in an extremely vulnerable location on Tampa Bay and has been fortunate so far not to be directly hit by a hurricane for over 50 years. This means that for a majority of the greatest growth period in its history, the threat of destruction from storm surge flooding has not been forefront in citizen's minds. Despite the calm, the County has been progressively planning for post-disaster redevelopment and hazard mitigation, and their Plan includes many best practices.

MANATEE COUNTY

Manatee County is located on Florida's west coast along the Gulf of Mexico and boasts a population that has grown approximately 20% since the 2000 census. The eastern portion of the County is unincorporated and largely undeveloped, but has experienced increased growth in recent years. Since 1965, Manatee County has been impacted by 15 hazard events severe enough to receive Presidential Declarations. Another unique consideration in Manatee County is the deepwater seaport, Port Manatee. Manatee County has been actively working to promote the development of the Port Manatee area which could be an even greater economic generator in the future. The Post-Disaster Redevelopment planning process brought to light the potential state and regional impacts that might result from a disaster damaging the port and the importance of getting port channels open quickly after an event.



NASSAU COUNTY

Nassau County is vulnerable to various hazards, as it is a coastal community located on the Atlantic Ocean with many rivers, streams, creeks, and marshes spanning from the coast to the inland areas. The highest risk hazards for Nassau County that would likely result in a redevelopment effort include storm surge and high wind, flooding, and wildfire. Since 1898, nearly 40 hurricane and natural hazard incidents have impacted Nassau County. As much of the County has yet to be developed, opportunities exist to develop with greater resilience to coastal hazards. Tourism plays a major role in Nassau County's economy, spawning employment growth, personal income, tax revenue and gross regional product. The tourism industry is Nassau County's largest employer, and would very likely be adversely affected by a major or catastrophic disaster. Although the entire county can be affected by high winds, there are certain areas where winds would be higher due to their geography and/or higher elevations, such as the shoreline, areas adjacent to the Intercoastal Waterway, and developed areas such as Amelia Island.

POLK COUNTY

Polk County has several features that distinguish it from other pilot communities that were selected, particularly that it was the only inland county chosen to participate in the pilot program. Not only is Polk an inland county, but it contains headwaters to six of Florida's rivers and approximately 40% of its area is designated a 100-year flood hazard. Although it's not a coastal community, the County has been impacted by several major hurricanes, though other hazards also pose a risk – the County has received nine Presidential Disaster declarations since 1998. Located between the two major urban areas of Orlando and Tampa, even if Polk County is not directly impacted by a disaster, an incident in either one of these two large metropolitan areas is likely to have a significant impact on regional housing, economy, government services, environment, health and human services, and infrastructure. Polk County has the geographic space, infrastructure, and transportation linkages necessary to provide host services to displaced survivors from both of these areas if devastated by a disaster.

SARASOTA COUNTY

Sarasota County's 35 miles of Gulf beach shoreline (31 of which stretch across barrier islands) are major contributing factors to its appeal as an international tourist destination; but at the same time, its location makes the county highly vulnerable to disasters like hurricanes, flooding, beach erosion, and sea-level rise. The County has been very fortunate in the last 66 years to not have suffered a direct hit from a major hurricane. The most recent storm to cause significant damage in Sarasota County was Hurricane Donna in 1960. The County has had a significant increase in population and development since 1960, especially on the barrier islands in the Gulf of Mexico. If a similar hurricane were to hit Sarasota today, a great deal more damage would be done. While Sarasota County has had a respite from widespread hurricane damage in the last decade, recent major disasters in Florida and throughout the Gulf Coast are reminders that Sarasota is still vulnerable. The Sarasota County Board of County Commissioners recognized the severity of the County's risk to natural disasters and allocated funding to develop a Plan and participate in the State of Florida's pilot program.


FREEMAN
AVE

1. Getting Started

The 2004 and 2005 hurricane season saw twelve named storms make landfall in Florida, seven of which received Major Presidential Declarations. Faced with billions of dollars in damages, Florida's communities began the long process of rebuilding. This experience brought to the forefront, the value of pre-planning for the long-term redevelopment phase of disasters. Without being prepared for the complexity of redevelopment in a compressed timeframe following a major disaster, local officials may struggle with recovery decisions and miss opportunities for public participation in reshaping the community's future. To become more disaster-resilient, local governments should plan for what must happen after rescue and recovery operations are completed in order to return the community to normal or perhaps rebuild an even better community. Through a Post-Disaster Redevelopment Plan (PDRP or the Plan), local governments can collaboratively create a long-term recovery and redevelopment strategy in pursuit of a sustainable community.

Photo (opposite page): Early in the 2004 hurricane season, Hurricane Charley left a 200-mile path of destruction caused by winds measured at 145 mph. The City of Punta Gorda was severely impacted. Mitchell Austin, a planner with the City and a participant on the State's Post-Disaster Redevelopment Planning Focus Group, is very proud of the redevelopment accomplishments that the City has made but is a firm believer that a PDRP prepared prior to the disaster would have resulted in a faster and less difficult long-term recovery process. Photo courtesy of FEMA/Andrea Booher (August 16, 2004, Punta Gorda, Florida).

Window of Opportunity

Windows are moments of opportunity when a problem has become urgent enough to push for change of entrenched practices. But windows typically do not stay open for long after a disaster. The urgency of residents to get back to their homes coupled with pressure by business owners to return to normalcy builds quickly after a disaster and is amplified by a substantial inflow of capital for reconstruction. A community should be ready with solutions when a window opens, while the importance and priority that local officials assign to hazard threats are temporarily elevated. To take advantage of an open window, a community should have a recovery plan in place long before a disaster strikes.

Berke and Campanella, 2006, pg. 193

WHAT IS A POST-DISASTER REDEVELOPMENT PLAN?

A Post-Disaster Redevelopment Plan is a requirement for all Florida coastal counties and municipalities and is encouraged for inland communities. The Plan identifies policies, operational strategies, and roles and responsibilities for implementation that will guide decisions that affect long-term recovery and redevelopment of the community after a disaster. It emphasizes seizing opportunities for hazard mitigation and community improvement consistent with the goals of the local comprehensive plan and with full participation of the citizens. Recovery topics addressed include sustainable land use, housing repair and reconstruction, business resumption and economic redevelopment, infrastructure restoration and mitigation, long-term health and social services support, environmental restoration, financial considerations, and short-term recovery actions that affect long-term redevelopment as well as other long-term recovery issues identified by the community.

WHY SHOULD MY COMMUNITY DEVELOP A PDRP?

There are several reasons why each community in Florida should develop a Plan to address long-term post-disaster recovery and redevelopment: 1) reduce community vulnerability to disasters; 2) it is required for coastal communities and encouraged for all other communities; and 3) the Plan will allow for a more successful community recovery from disaster impacts.

Convincing your community leaders of the reasons why a Plan is needed and the benefits of planning for post-disaster redevelopment during “blue skies” is not very difficult, and the remainder of this section provides material you can pull from. What may be difficult is convincing community leaders to make the Plan a priority and initiating its development as soon as possible. A rainy day plan is easy to push aside when there are more immediate community problems: however, there is no way to know that this won’t be the hurricane or wildfire season when your community’s luck runs out. Even if your community is unable to finish the planning process or begin pre-disaster implementation prior to a disaster occurring, the institutional knowledge that can be created in just beginning the planning process will greatly increase the resiliency of the community and contribute to a more successful rapid long-term recovery. Developing a Post-Disaster Redevelopment Plan provides a valuable communication and educational process for local elected officials, staff, and community stakeholders to understand the complexity of decisions that will need to be made in order for the community to redevelop after a major disaster and agree to start making such decisions before something catastrophic happens.

Photo (top left): FEMA/Mark Wolfe (May 15, 2007, Lake City, Florida).

State Requirements

Florida's Growth Management Act, Chapter 163, Part II, Florida Statutes (F.S.), requires all of Florida's 67 counties and 410 municipalities to adopt Local Government Comprehensive Plans that guide future growth and development. Rule 9J-5, Florida Administrative Code (F.A.C.), provides the minimum criteria for plan review and compliance determination. Also included within these State regulations is the foundation for post-disaster redevelopment planning.

See **Resources** for full citations of the Florida Statutes and Florida Administrative Code that reference post-disaster redevelopment planning (www.dca.state.fl.us/fdcp/dcp/pdrp/).

Sections 163.3177(7)(l) and 163.3178(2), F.S., and Rule 9J-5.012(3)(b)(8), F.AC., require that coastal communities prepare PDRPs and policies that will reduce the vulnerability of private and public property and individuals to natural disasters. The plans and policies will be based on "studies, surveys, and data" and will be consistent with coastal resource plans. In addition, the statute recommends that non-coastal communities also develop a Plan.

The Coastal Management Element

Chapter 163, Part II, F.S., requires that each general purpose local government with jurisdiction over coastal lands include a coastal management element in its comprehensive plan based on studies, surveys, and data (Section 163.3177(6)(g), F.S.). It further requires that the coastal element contain a redevelopment component outlining the principles to be used to eliminate inappropriate and unsafe development in the coastal areas when opportunities arise (Section 163.3178(2)(f), F.S.). Data and analysis for the coastal management element must include natural disaster concerns with several specific post-disaster redevelopment analyses (Rule 9J-5.012(2)(e), F.A.C.). Rule 9J-5.012 (3)(c)(5), F.A.C., also requires that the coastal management element include policies on post-disaster redevelopment that accomplish the following:

All coastal local governments are required to prepare a PDRP. Non-coastal communities are encouraged to do so as well.

- Distinguish between immediate repair and clean-up 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;
- Limit redevelopment in areas of repeated damage; and
- Incorporate the recommendations of interagency hazard mitigation reports, as deemed appropriate by the local government, into the local government's comprehensive plan when it is revised during the evaluation and appraisal process.

The Post-Disaster Redevelopment Plan

In addition to requiring data, analyses, and policies for the coastal management element, Rule 9J-5, F.A.C., also requires the preparation of PDRPs as one of the objectives of the element. The Rule specifies that the purpose of the Plan is to reduce or eliminate the exposure of human life and public and private property to natural hazards (Rule 9J-5.012 (3)(b)(8), F.A.C.). Local governments not required to prepare coastal management elements are encouraged to adopt hazard mitigation/post-disaster redevelopment plans, which should, at a minimum, establish long-term policies regarding redevelopment, infrastructure, densities, non-conforming uses, and future land use patterns (Section 163.3177(7)(l), F.S.).

Speed vs. Deliberation

Every post-disaster recovery manifests tension between speed and deliberation. Speed of recovery is important in order to keep businesses alive, rebuild infrastructure, and provide temporary and permanent housing. If official agencies do not act quickly, many victims will begin to rebuild on their own in ways and at locations that they determine.

Olshansky, 2006, pg. 148

Benefits of a Post-Disaster Redevelopment Plan

There are three principal benefits to having a well-developed Plan:

1) Faster and More Efficient Recovery
Without a comprehensive, long-term recovery plan, ad hoc efforts in the aftermath of a significant disaster will delay the return of community stability. Creating a process to make smart post-disaster decisions and prepare for long-term recovery requirements enables a community to do more than react, prompting post-disaster action rather than time-consuming debate. By identifying appropriate planning mechanisms, financial assistance, and agency roles and responsibilities beforehand, a community begins the road to recovery more quickly. Being able to show efficient and effective use of taxpayer dollars after a disaster is incredibly important for the public's perception of the recovery. See **Chapter 2** for more on how to assess and enhance resources and capabilities.

2) Opportunity to Build Back Better
A disaster, while tragic, can also create opportunities to fix past mistakes or leap forward with plans for community improvements. In the immediate aftermath of a disaster, local officials are under significant pressure to restore the community to its pre-disaster condition. Without a guiding vision, short-term decisions may inadvertently restrict long-term, sustainable redevelopment and overlook opportunities to surpass the status quo. A Post-Disaster Redevelopment Plan strengthens the recovery process, and communities benefit from assessing their risk levels and crafting a long-term redevelopment plan under "blue skies." Local officials and the public can thoughtfully analyze and debate issues, linking redevelopment goals with other important community plans. Careful thought and planning achieves a more sustainable and resilient outcome than decisions made under emergency circumstances, compromised budgets, and political pressures.

CAN A DISASTER PROVIDE OPPORTUNITY TO ADVANCE YOUR COMMUNITY'S VISION?

All communities have already prepared comprehensive plans and participated in other planning initiatives that include a vision for the community's future. The PDRP can identify disaster scenarios in which opportunities may be present to advance the community's already-stated vision in a compressed timeframe. The planning process presented in **Chapter 2** will assess what policy and procedural tools are needed to ensure that post-disaster opportunities to build back better are not missed in the rush to rebuild.

Plans That Have Blueprints for the Community's Vision

- Local comprehensive plan
- Area-specific redevelopment plans
- Regional plans (e.g., Strategic Regional Policy Plan)
- Local economic development strategy plans
- Long-Range Transportation Plans

Opportunities to Consider During Post-Disaster Redevelopment

- Disaster-resilient land use patterns
- Hazard mitigation construction techniques
- Energy-efficient buildings
- Healthy community design
- Affordable or workforce housing
- Alternative transportation networks
- Environmental preservation and habitat restoration
- Sustainable industry recruitment

3) Local Control Over Recovery

Developing a PDRP provides local government officials, residents, and businesses the opportunity to determine long-term redevelopment goals and develop policies and procedures that will guide redevelopment before well-intended outside agencies and non-government organizations rush to aid the community. While outside resources are needed and welcomed in a major or catastrophic disaster, a locally developed Plan will best channel those resources to effectively meet the community's specific needs and goals. A Post-Disaster Redevelopment Plan will show outside agencies and donors that the community is prepared to play an active role in the recovery process and promote its capabilities to wisely use donated and loaned resources. There will always be rules and, occasionally, strings attached to external sources of funding, but a community that has researched the allowable uses of Federal and State assistance can better work within their boundaries in an effort to fund projects that further local redevelopment goals.

In studying disaster-stricken communities, Daniel Alesch, Lucy Arendt, and James Holly found that communities most likely to recover see themselves as self-organizing rather than reliant on an external agency.

Alesch et al., 2008

Photo (above left): Port Charlotte residents view the Charlotte county Long Term Recovery Plan presented by FEMA and the State to the local community. FEMA photo/Andrea Booher (December 7, 2004, Port Charlotte, Florida).

Photo (above right): Todd Davison of FEMA (second from right) speaks at a town hall meeting in Wauchula to discuss the recovery from Hurricane Charley. Other attendees included: Congresswomen Katherine Harris (center) and Janet Hale, DHS Under Secretary for Management (far left). FEMA Photo/Mark Wolfe (September 24, 2004, Wauchula, Florida).

All Florida Communities are Vulnerable to Disaster

Florida had 62 major disaster declarations between 1960 and 2009 (FEMA, 2009). Of those 62 disaster declarations, 22 followed hurricanes and seven were due to tropical storms. The remaining declarations were categorized as severe storms, severe weather, thunderstorms, flooding, tornadoes, or a combination thereof. In addition, five freeze events, one abnormally high tide event, and the wildfires of 1998 also resulted in major disaster declarations.

Coastal storms are by far the most common disaster in Florida. The coast experiences the highest wind speeds from hurricanes and is at risk from storm surge and beach erosion – key ingredients for a catastrophic disaster scenario requiring a major long-term redevelopment effort. The State's acute vulnerability to tropical storms and hurricanes stems from the fact that 78% of the population resides in Florida's 35 coastal counties (Florida Division of Emergency Management, 2010). The future vulnerability of our coastal communities may be even greater as sea level rise increases the impacts of beach erosion and storm surge.

Inland communities are also impacted by hurricanes and tropical storms. Flood and wind impacts from coastal storms can travel across the interior of the state, as was experienced with the 2004 hurricanes, Hurricane Wilma, and Tropical Storm Fay. Inland communities also may be indirectly impacted by becoming the host community for displaced survivors of neighboring coastal communities devastated by a hurricane. Some inland communities will also face other hazards, such as wildfire, tornadoes, sinkholes, and freezes, which can cause physical and economic damages constituting a disaster for local jurisdictions.

Although a Post-Disaster Redevelopment Plan is required only for Florida coastal jurisdictions, all communities can benefit from developing and implementing a Plan, regardless of their geographic location. Hurricanes, wildfires, floods, and other disasters do not confine themselves to jurisdictional boundaries. Regardless of whether a community is coastal or inland, it can experience the impacts of disasters. Displaced residents, compromised infrastructure, changes in economic conditions, hazardous materials contamination, and degradation of sensitive environments are some of the impacts that can affect an entire region after a major disaster. When recovery is slow, neighboring communities also experience these impacts for an extended period of time. With a Plan, local governments have a better chance of rebuilding a community more resilient to future disasters.

"Sarasota County recognized the need for a PDRP many years ago – our community was ahead of its time in this regard. In fact, it has been an objective in the County's Comprehensive Plan for quite some time. What finally moved it from a listed intention for "someday" to an actual initiative and undertaking was the two-fold motivation of 1) the severe back-to-back storm seasons of 2004 and 2005 and 2) more specifically, the near-miss of Hurricane Charley that caused such devastation to Charlotte County immediately south of us. These events were the "nudge" that caused us to begin the process of building a PDRP for the County."

Laird Wreford, Sarasota County Coastal Resources Manager

Photo (left): The warning sign in this Volusia County neighborhood applied to boats as well as vehicles, following the flooding from Tropical Storm Fay. Local, State, and Federal emergency agencies had to work through such community flooding to assess the state-wide damage caused by the slow moving storm. FEMA Photo/Barry Bahler (August 24, 2008, Deltona, Florida).

Types of Disaster

The Plan is designed to be used in any disaster, regardless of type, as long as the damage will require long-term redevelopment efforts. It is an all-hazards plan addressing disasters caused by any of the natural or human-caused hazards identified in each county's Local Mitigation Strategy (LMS) and Comprehensive Emergency Management Plan (CEMP). Florida communities are most vulnerable to hurricanes, major flood events, tornados, and major wildfire events. Examples in this Guide, therefore, focus on these common, high-risk disaster types. Some additional disaster scenarios that can be incorporated into the Post-Disaster Redevelopment Plan include social/technological disasters (e.g., terrorist attack or public health emergencies) as well as future sea level rise (see **Figure 1**) and the associated increases in coastal flooding. Additional disaster types can be incrementally incorporated during Plan updates and as time and funding permit in each local government.

Levels of Disaster

A Post-Disaster Redevelopment Plan is useful for all levels of disaster – minor, major, or catastrophic. In general, however, the scale of long-term recovery and redevelopment is proportional to the severity of the disaster. Therefore, the Plan will be most valuable in the event of a major or catastrophic disaster affecting a large segment of the community or region. Particular components of the Plan and certain actions, such as acquisition of damaged properties, could also occur in a minor or localized disaster. A minor disaster may also be an excellent time to exercise the Plan and practice implementation of post-disaster actions.

Photo (above left): Homes along Pensacola Bay show the fury of Hurricane Ivan's winds and storm surge. Waves reaching 20 to 30 feet leveled the home in the foreground, leaving only the foundation. The home in the background also sustained catastrophic damage. FEMA Photo/Butch Kinerney (September 20, 2004, Pensacola, Florida).

Photo (above right): Flames light up the sky as wildfires in central Florida forced hundreds of residents to evacuate their homes. Florida Today photo/Craig Rubadoux (May 12, 2008, Malabar, FL).

State of Florida Definition of Disaster (Section 252.34, F.S.)

"Disaster" means any natural, technological, or civil emergency that causes damage of sufficient severity and magnitude to result in a declaration of a State of Emergency by a county, the Governor, or the President of the United States. Disasters are identified by the severity of resulting damage:

a. "Catastrophic disaster" – requires massive State and Federal assistance, including immediate military involvement.

b. "Major disaster" – likely exceeds local capabilities and requires a broad range of State and Federal assistance.

c. "Minor disaster" – likely within the response capabilities of local government and results in only a minimal need for State or Federal assistance.

Figure 1. Estimated effects of a one meter rise in sea level.

Although sea level rise is not considered a disaster in the typical sense of an emergency event, the impact of sea level rise is predicted to be disastrous for existing development patterns. Rebuilding after a more typical disaster, such as a hurricane, could also consider mitigation opportunities to increase the community's resilience to future sea level rise. Including sea level rise scenarios as a component of the PDRP would improve coastal redevelopment decisions where risk from future erosion, inundation, and higher storm surges may be an issue.

Disaster Phases and the PDRP

Disaster management is typically viewed as a cycle with overlapping phases: 1) pre-disaster mitigation and emergency management preparedness; 2) emergency response; 3) short-term recovery; and 4) long-term recovery and redevelopment. **Figure 2** depicts the disaster management cycle and major plan interaction.

The Plan has an implementation role in pre- and post-disaster phases, but the intent of all Plan implementation activities is to improve the community's ability for long-term recovery and redevelopment. Implementation considerations for all disaster phases are further discussed in **Chapter 4**.

Pre-Disaster Phase – Initial Plan development occurs during the pre-disaster phase (except if a community is struck by a disaster before a Plan has been drafted). **Chapter 2** details the pre-disaster planning process. Once the Plan is adopted, preparatory activities detailed in the Plan should be implemented on an on-going basis during normal operations, which are sometimes referred to as "blue skies." The Plan should also be exercised prior to a disaster event so that all stakeholders with a post-disaster implementation role are familiar with their responsibilities.

Emergency Response Phase – The Post-Disaster Redevelopment Plan does not address this phase. Emergency response activities are addressed in the CEMP and include immediate actions to save lives, protect property, and meet basic human needs. This is the shortest phase of the cycle, lasting only a few days in minor disaster conditions.

Short-Term Recovery Phase – The role of the Plan during the short-term recovery phase is to begin organizing for long-term redevelopment activities and guide short-term recovery decisions that may have long-term implications (e.g., placement of temporary housing or debris sites). Short-term recovery operations are addressed in the CEMP, but the Post-Disaster Redevelopment Plan can provide direction for transitioning to long-term redevelopment during this phase. The short-term recovery phase begins as the emergency response phase is winding down and will continue until critical services are restored. The duration of the short-term recovery phase depends on the severity of the disaster and the level of community preparedness; it could range from several weeks to one year to complete this phase.

Long-Term Recovery and Redevelopment Phase – The Plan is used most during this phase. Long-term recovery and redevelopment include efforts to reconstruct and enhance the built environment as well as recover the economy, environment, and social systems. This phase begins as short-term recovery activities are accomplished and can last from a couple years for a minor disaster to five or more years for a major or catastrophic disaster.

Photo (top left): Emergency Response Phase – Urban Search and Rescue workers search for any survivors in a house that was destroyed by Hurricane Ivan. A thermal imaging unit is used in the search. FEMA Photo/Jocelyn Augustino (September 16, 2004, Navarre, Florida).
Photo (middle left): Short-Term Recovery Phase – A worker removes vegetative debris left by the recent tornadoes. The tornadoes caused extensive damage to the Lady Lake area. FEMA Photo/Mark Wolfe (February 6, 2007, Lady Lake, Florida).
Photo (bottom left): Long-Term Recovery and Redevelopment Phase – John Mafera fixes the roof outside of his house which had damage from Hurricane Frances. FEMA Photo/Jocelyn Augustino (September 11, 2004, Grant, Florida).

The PDRP acts as a guide for utilizing the policies and procedures found in other documents when making post-disaster redevelopment decisions.

Interaction with Other Plans

The objective of the Post-Disaster Redevelopment Plan is to guide the redevelopment decision-making process following a disaster in a manner consistent with local comprehensive plans (especially the Future Land Use and Coastal Management Elements, where applicable), the Local Mitigation Strategy, the Comprehensive Emergency Management Plan, and other relevant plans or codes such as the Long-Range Transportation Plan, land development regulations, and economic development and redevelopment plans. Each of these plans, and potentially others, has pre-existing policies or procedures that affect post-disaster redevelopment. For instance, the comprehensive plan has many policies that determine where and to what extent redevelopment can occur. Ultimately, the PDRP acts as a guide for utilizing the policies and procedures found in other documents when making post-disaster redevelopment decisions. The planning process provides an opportunity to examine how local plans and codes will impact redevelopment and to recommend changes that could result in a faster and more sustainable recovery (see **Chapter 2**).

Implementation of the Post-Disaster Redevelopment Plan will overlap with implementation of other plans that also address some of the same topics, such as housing or infrastructure (see **Figure 2**). The focus on long-term post-disaster redevelopment, however, is unique to the Plan and its implementation strategy should include specific actions for integrating long-term redevelopment considerations into other local plans, as applicable. **Chapter 3** describes how each post-disaster redevelopment topic interacts with other plans.

DIFFERENT APPROACHES TO PLAN DEVELOPMENT

Countywide, Stand-Alone PDRP Examples

Seven Florida counties have developed countywide, stand-alone PDRPs:

- Hillsborough County, 2010
- Manatee County, 2009
- Nassau County, 2010
- Palm Beach County, 2006
- Polk County, 2009
- Sarasota County, draft
- Alachua County, 2010

State requirements for the Post-Disaster Redevelopment Plan are general, providing communities some flexibility in how they approach planning for and implementing their Plan. This Guide presents several approaches that a local government (or community) can take, but focuses on the best practice of a stand-alone Plan as tested through the pilot projects. Examples and resources referenced in this section can be located by referring to the Resources section at the end of this Guidebook or the Department of Community Affairs website (www.dca.state.fl.us/fdcp/dcp/PDRP).

1. Stand-Alone PDRP Integrated with Other Local Plans

The best practice for developing a PDRP is for a county and its municipalities to collaboratively create a new countywide document through a planning process dedicated to the subject of post-disaster redevelopment. A stand-alone Plan provides a single reference for guiding action and decision-making during the difficult disaster recovery period and detailing actions that can be taken before a disaster strikes to speed the recovery process. This Guide is concentrated on providing recommendations on how to perform the planning process, develop the content, and implement a stand-alone Plan.

By itself, a stand-alone Plan is not adequate for successful post-disaster redevelopment. The Plan provides the strategy and action plan, but other local plans must support the Post-Disaster Redevelopment Plan strategy through policy, regulations, procedures, and projects. The approaches below for integrating the Plan into other local plans can be used in combination with the stand-alone approach.

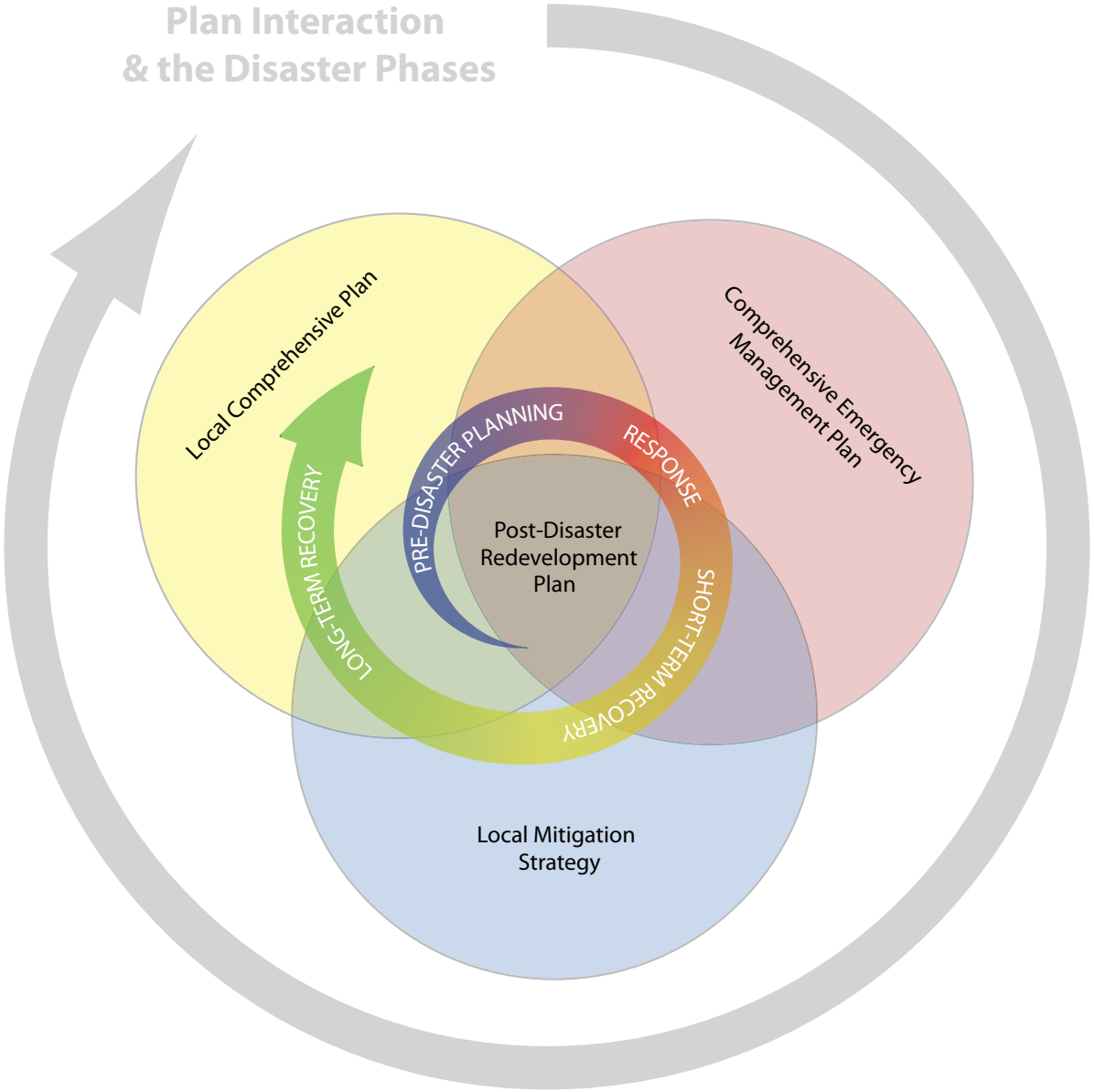


Figure 2. The Post-Disaster Redevelopment Plan is a guide that provides direction on how to implement other relevant local plans such as the comprehensive plan, CEMP and LMS during the different phases of a disaster. The overlap between the plans notes key integration and transition points such as the need to integrate hazard mitigation into the local comprehensive plan, pre-disaster and the transition between short-term and long-term recovery post-disaster. The nature of the planning process matches well with that of the disaster management cycle as they are both continuous with overlapping and imprecise phases.