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## **Chapter III: Emergency Preparedness**

### **I. EXISTING REQUIREMENTS OF OTHER PLANNING OR REGULATORY PROGRAMS**

#### **A. Chapter 252, Part I, F.S.**

The State of Florida, because of its location, size, and large population residing in coastal areas, is vulnerable to a wide range of emergencies, including natural, technological, and manmade disasters. The State Emergency Management Act was enacted to "reduce the vulnerability of the people and property of this state; to prepare for efficient evacuation and shelter of threatened or affected persons; to provide for the rapid and orderly provision of relief to persons and for the restoration of services and property; and to provide for the coordination of activities relating to emergency preparedness, response, recovery, and mitigation among and between agencies and officials of this state, with similar agencies and officials of other states, with local and federal governments, with interstate organizations, and with the private sector." Coordination, long-term planning, and adequate funding are major portions of the Act. The state comprehensive emergency management plan includes evacuation, shelter, and post-disaster response and recovery components that include specific regional and interregional planning provisions which promote intergovernmental coordination activities. Additionally, the Act addresses deployment of state resources, state-wide communications and warning systems, exercises, and the establishment of responsibilities to state agencies for emergency support functions (ESFs).

The Act mandates that counties establish and maintain an emergency management agency and develop an emergency management plan and program which is consistent with the state comprehensive emergency management plan and program. The Act also established an Emergency Management, Preparedness, and Assistance Trust Fund so that funds could be distributed to county emergency management agencies who have either a full-time or part-time emergency management director. Each county is also required to prepare a Comprehensive Emergency Management Plan containing elements explaining sixteen ESFs. These ESFs address the responsibilities of each emergency response agency within the county. The sixteen ESFs are transportation, communications, public works and engineering, fire fighting, information and planning, mass care, resource support, health and medical services, urban search and rescue, hazardous materials, food and water, energy, military support, public information, volunteers and donations, and law enforcement and security. Other components of the Act include the establishment of mutual aid agreements; registry of disabled persons; and addressing the deficit of safe public shelter space.

It is essential that all counties in the region be consistent with the state comprehensive emergency management plan so that during an emergency each responding agency will be aware of their responsibilities as well as the state resources which are available. Local governments should be encouraged to apply for funding from the Emergency Management, Preparedness, and Assistance Trust Fund in order to establish or enhance their emergency management programs. The use of a mutual aid agreement is beneficial during an emergency; however, the key to its use is to have it prepared before the emergency occurs. Mutual aid agreements should be addressed between each municipality and county and between each county with its adjoining counties.

#### **B. SARA Title III (EPCRA)/Chapter 252, Part II, F.S.**

With the enactment of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986, Congress imposed upon state and local governments additional planning and preparedness requirements for emergencies involving the release or spill of hazardous materials. EPCRA contains

four major provisions: emergency planning, emergency notification of chemical accidents and releases, reporting of hazardous chemical inventories, and toxic chemical release reporting.

**1. Emergency Planning**

In compliance with the emergency planning requirements, the Governor appointed members to the State Emergency Response Commission (SERC) which, in turn, designated Local Emergency Planning Districts. The SERC favored the use of already established Regional Planning Council (RPC) boundaries and through contracts with the Florida Department of Community Affairs, Division of Emergency Management, a staff person at each RPC was made responsible for the functioning of the Local Emergency Planning Committee (LEPC). The District 5 LEPC has prepared a plan for use in responding to and recovering from a release or spill of hazardous materials from information supplied by those facilities that are subject to the requirements of the Act. The LEPC membership consists of representatives from law enforcement, emergency management, fire fighting, first aid, health, local environmental, community groups, hospitals, media, owners and operators of facilities subject to the requirements of EPCRA, interested citizens, water management districts, non-elected local officials and elected local officials. Important objectives of the LEPC are to maintain the hazardous materials emergency plan for the Withlacoochee Region; design and conduct hazardous materials exercises; identify hazardous materials training deficiencies throughout the District; provide awareness and educational opportunities to the public, to facilities subject to the Act, and to emergency responders; and to continually assess other issues affecting emergency responders.

**2. Emergency Release Notification**

If a chemical is released into the community above predetermined quantities, the facility must notify the SERC, the LEPC, and the local fire department. If the release occurs during transportation, then the transporter must call 911. Facilities are required to submit a follow-up report to the SERC and LEPC as soon as practicable after a release. The LEPC then reviews the spill information and makes recommendations for revisions to the regional Hazardous Materials Emergency Plan.

**3. Hazardous Chemical Inventories**

Based upon the public's right to information about the amounts, locations, and potential effect of hazardous chemicals present in the community, facilities must report their chemical inventories to the SERC, the LEPC, and the local fire department. The LEPC must make the information available to the public.

**4. Toxic Chemical Release Reporting**

If manufacturing plants are routinely releasing certain toxic chemicals into the air, water, or soil, they must report that information to the EPA and the SERC. Many chemicals covered under this section pose long-term health and environmental hazards such as cancer, nervous system disorders, and reproductive disorders from routine exposure.

The intent of the legislation is to provide the public with information regarding chemicals in their community. Since chemicals know no bounds, the potential exists for large populations to be exposed during a chemical release. Prior to a release, emergency responders should have identified routes used to transport hazardous materials (e.g., highway, rail, pipeline, etc.), evacuation routes, potentially affected populations, and facilities that have present hazardous materials. Additionally, local governments should establish mutual aid agreements with

municipalities, other counties in the region, and/or other regions in the State and they should also participate in multi-jurisdictional exercises as well as maintain representation on the LEPC. Local governments should discourage industrial and public utility land uses where extremely hazardous substances would routinely be used near large populations and/or public facilities. Additionally, local governments should work in conjunction with the LEPC to provide community education programs addressing chemical safety, evacuation, in-place sheltering, and basic functions of emergency responders during a hazardous materials incident.

**C. OSHA 29 CFR 1910.120**

In order to protect emergency responders from exposure to hazardous materials during the course of performing their duties, EPCRA required the Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA) to promulgate regulations (29 CFR 1910.120 and 40 CFR 311) to ensure that emergency responders are trained to respond to hazardous materials incidents. According to Title 29 CFR 1910.120, emergency responders must be trained to respond to a hazardous materials incident before they are permitted to take part in any actual emergency operations. OSHA has identified five levels of response and training competencies: first responder awareness level, first responder operations level, hazardous materials technician, hazardous materials specialist, and on scene incident commander. Employees must also receive annual refresher training. According to a region-wide hazardous materials training survey, emergency responders have not been adequately trained. Although specifically dictated by OSHA, many emergency response agencies have not established policies for hazardous materials training programs.

**D. F.A.C. Rule 38I-20**

As of January 12, 1995, the Florida Department of Labor and Employment Security adopted the 1993 OSHA labor standards for all public sector employees. Volunteer emergency responders must now also be trained to respond to hazardous materials incidents. Previously, public sector emergency responders (career and volunteers) were excluded from State regulation under Rule 38I-20. In order to provide guidance for emergency responders, the SERC Training Task Force published guidelines for public sector hazardous materials training. The guidance includes training for emergency medical services, law enforcement, fire fighters, public works, utilities, transportation, public health and other public sector employees as well as guidelines for hazardous materials technicians, incident commanders, and instructor qualifications. Local governments in the region should establish hazardous materials training policies and programs and provide adequate training and equipment for emergency responders.

**E. Hurricane Evacuation Planning**

In 1984, a regional hurricane evacuation plan was prepared for the Withlacoochee region. The primary purposes of the plan were to analyze how many persons in the region's coastal counties are vulnerable to hurricane hazards, how long it takes for the vulnerable population to evacuate, and how to manage the evacuation from a regional perspective.

In 1989, a technical data report update for the Withlacoochee Hurricane Evacuation Study was completed. This report addressed hazard and vulnerability analyses, population data, evacuation routes and scenarios, shelter inventories and assignments, evacuation times and transportation analyses, warning systems, and evacuation procedures. Additionally, a behavioral analysis was completed for the Withlacoochee region which predicts the behavior of hurricane evacuees.

Since emphasis should be placed on the development of advance plans for safe evacuation and protection of residents and property during time of natural disaster, vulnerabilities from high winds,

storm surge, rainfall, flooding, and tornadoes as well as the impact of development in hurricane vulnerable areas were addressed in order to determine how they will affect evacuation times in the region. Evacuation routes and public shelters were also assessed to determine if adequate capacity exists for evacuees from the Withlacoochee region as well as from the Tampa Bay region.

The Withlacoochee Hurricane Study concluded that there is adequate shelter space and reasonable clearance times for evacuation when scenarios were developed for the Withlacoochee region based on estimated 1995 population figures; however, even when secondary shelters are used for a simultaneous evacuation with the Tampa Bay region, there will not be an adequate supply of shelter spaces. Hurricane evacuation studies for the Withlacoochee Region should be updated every four years in order to reflect current data, SLOSH modelling, and population figures, etc.

**F. Coastal Zone Management Act of 1972, as amended**

The Coastal Zone Management Act of 1972, as amended, "encourages states to develop comprehensive management programs which ensure the beneficial use, protection and management of the nation's coastal resources...The Florida Coastal Management Program (FCMP) was approved by NOAA in 1981" and "consists of 28 Florida statutes administered by 11 state agencies and four of the five water management districts." (U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) 1995) The Act is significant for emergency preparedness purposes because it mandates states to implement programs for "the management of coastal development to minimize the loss of life and property caused by improper development in flood-prone, storm surge, geological hazard, and erosion-prone areas and in areas likely to be affected by or vulnerable to sea level rise, land subsidence, and saltwater intrusion, and by the destruction of natural protective features such as beaches, dunes, wetlands and barrier islands."

**G. Chapter 380.20, Part II, F.S.**

The intent of the Florida Coastal Management Act is to establish a Florida Coastal Management Program. The program consists of policies, goals, and programs necessary to comply with the requirements of the federal Coastal Zone Management Act of 1972, as amended.

**H. Chapter 163.3178, F.S.**

The intent of Chapter 163.3178, F.S., is for local governments to incorporate into their comprehensive plans the restriction of development activities in areas where such activities would damage or destroy coastal resources. The plans are also required to protect "human life against the effects of natural disasters" and limit "public expenditures that subsidize development in high-hazard coastal areas." The Chapter designates category 1 evacuation zones as high-hazard coastal areas. Comprehensive plan coastal elements must contain "an identification of regulatory and management techniques that the local government plans to adopt or has adopted in order to mitigate the threat to human life and to control proposed development and redevelopment in order to protect the coastal environment and give consideration to cumulative impacts."

**I. F.A.C. Rule 9J-5.012 Coastal Management**

Rule 9J-5.012 requires that local governments, for the purposes of natural disaster planning concerns, inventory or analyze hurricane evacuation planning to consider the "hurricane vulnerability zone, the number of persons requiring evacuation, the number of persons requiring public hurricane shelter, the number of hurricane shelter spaces available, evacuation routes, transportation and hazard constraints on the evacuation routes, and evacuation times." Other issues such as the impact of anticipated population density, special needs of the population, post-disaster redevelopment, and identification of coastal high-hazard areas must also be addressed. Local comprehensive plans must

contain specific objectives which "limit public expenditures that subsidize development permitted in coastal high-hazard areas;...direct population concentrations away from known or predicted coastal high-hazard areas;...maintain or reduce hurricane evacuation times;...prepare post-disaster redevelopment plans which will reduce or eliminate the exposure of human life and public and private property to natural hazards."

**J. F.A.C. Rule 9J-2.0256, Hurricane Preparedness Policy Rule, and F.A.C. Rule 9J-2.0257, Special Hurricane Preparedness Districts for Developments of Regional Impact**

Proposed Developments of Regional Impact (DRI) and Florida Quality Developments (FQD) are reviewed by the affected local government(s), the applicable regional planning council(s), the Department of Community Affairs (DCA), and other reviewing agencies. The review involves consideration of the proposed DRI's or FQD's compliance with local, regional, and state plans and applicable statutes and rules. Regional planning councils, in particular, prepare reports for local governments which identify and provide recommendations on regional issues. Their identification of regional issues is based upon statutory review criteria and adopted lists of regional issues. The statutory review criteria include whether and to what extent (1) the development will have a favorable impact on state or regional resources or facilities identified in the applicable state or regional plans and (2) the development will significantly impact adjacent jurisdictions.

Additionally, the rule applies to all proposed mobile home and trailer park developments, all proposed residential developments located in the hurricane vulnerability zone, and all proposed recreational vehicle and hotel/motel developments located in high-hazard hurricane evacuation areas. It includes thresholds deemed to create a substantial impact on regional hurricane preparedness and techniques to mitigate anticipated impacts on public shelter availability and evacuations.

**K. State of Florida Comprehensive Emergency Management Plan**

The Florida Comprehensive Emergency Management Plan (CEMP) is an operations-oriented document authorized by Chapter 252, F.S. The CEMP establishes the framework for an effective system to ensure that the State of Florida will be adequately prepared to deal with the occurrence of emergencies and disasters. The plan outlines the roles and responsibilities of the state agencies, special districts, local governments and volunteer organizations. To facilitate effective intergovernmental operations, the CEMP adopts a functional approach that groups the type of assistance to be provided under emergency support functions to address functional needs at the state and county level. (DCA/DEM 1994)

**II. TRENDS AND CONDITIONS**

**A. Present Trends and Conditions**

Located in west-central Florida, the Withlacoochee Region is composed of Levy, Citrus, Hernando, Marion and Sumter Counties. Levy, Citrus, and Hernando border the Gulf along the southern portion of the Big Bend, one of two relatively intact coastal ecosystems remaining in the State. Class II waters for propagation and harvesting of shellfish extend south from the mouth of the Suwannee River along much of the Levy and Citrus coastline. Nine first magnitude springs (discharging over 100 cubic feet per second) and 17 second magnitude springs flow in the five counties.

The surface and ground waters of the region are closely linked. The Suwannee, Withlacoochee, and Ocklawaha Rivers originate primarily from surface runoff, but also receive water from springs. The coastal rivers of Citrus and Hernando Counties - Crystal, Homosassa, Chassahowitzka and Weeki Wachee - have their primary source in springs flowing from the Floridan aquifer. In Levy County

the Waccasassa River and Otter Creek are heavily influenced by both surface runoff and springs. During dry periods many streams depend on base flow from ground water. A third of Levy County is wetlands. Sumter also has extensive wetland areas. The Green Swamp, which covers Sumter's narrow southern portion, is the source of the Withlacoochee River.

All land areas contributing runoff to a particular watercourse constitute its watershed. Land use throughout the watershed can affect the quality of ground water as well as surface water, as runoff flows into sinkholes and drainage wells and across land where the unconfined Floridan is near the surface. The unconfined Floridan aquifer is extremely susceptible to infiltration of pollutants. Contamination can occur as a result of approved activities such as the widespread use of pesticides and herbicides, intentional dumping of hazardous wastes such as battery acid on the ground and accidental spills and leaks. (See Major Aquifers map and Natural Resources chapter for further discussion regarding the Floridan aquifer.)

The climate of the region is humid and subtropical, characterized by high mean annual rainfall and temperature. Generally, the summers are hot and humid with the majority of the rainfall occurring between June and October. The average summer temperature is 81.2 degrees Fahrenheit and the average winter temperature is 58.5 degrees Fahrenheit. (Table 2, Appendix B) Summer temperatures usually peak in the low to mid 90's and are cooled by frequent convective thundershowers. Winter temperatures are quite variable due to the frequent passage of cold fronts. Cold temperatures from a front generally last only two to three days and temperatures rarely remain below freezing during the day.

Rainfall in the region varies both seasonally and annually. Mean annual rainfall in the region is about 51 to 56 inches. The least amount of rainfall occurs in the spring and winter. In these transition periods, low pressure systems do not influence the state nearly as frequently as in winter and local convective shower activity is much weaker than in summer. Long lasting rainstorms are uncommon during the summer months, but when they do occur, they are usually associated with tropical storms or hurricanes. Two-hour rainfalls in excess of 3 inches and 24-hour amounts of around 10 inches may be associated with these types of storms.

Several highways cross these sensitive lands and waters. (See Regionally Significant Roadways listed in Table 5-3.) U.S. 19 runs north and south near the coast. Moving inland and closely paralleling each other are U.S. 19 and U.S. 41, Interstate 75 and U.S. 301/441. U.S. 27 and Alternate 27 cut northwest and west from Ocala across Levy County to U.S. 19 and State Road 200 runs southwest from Ocala to U.S. 41 near Inverness. Going east, State Road 40 extends from Dunnellon through Ocala and the National Forest to the east coast. Evacuation routes inland from the Gulf coast area are provided by State Road 44 through Citrus and Sumter, and State Road 40 and U.S. 98 across Hernando, all two-lane.

Traffic is particularly heavy through Sumter County because of the juncture of the Florida Turnpike with I-75 just west of Wildwood. Once recognized as a bottleneck after Hurricane Andrew in 1992, I-75 has since been widened throughout Sumter County to better accommodate increased traffic flow and to eventually accommodate traffic flow from evacuees within the region as well as evacuees from other regions of the State when the inland counties will become host to other regions. Additionally, I-75 is being widened throughout Marion County as well as Alachua County. (For additional discussion regarding evacuation routes, see section 1.b.(2) below.)

A railroad yard is located in Wildwood which contains 51 tracks with a holding capacity of 990 cars. Three 500,000 gallon diesel storage tanks are located at the railroad yard. Lake Panasoffkee, which is directly connected to the aquifer and to the Withlacoochee River, lies near the Interstate.

Hazardous materials are routinely transported through all the counties by rail and/or truck. The Region remains largely rural, but three of the counties are growing rapidly. Marion County has seen a significant increase in industrial activity in the last few years. High growth residential areas include central Citrus, southwest Hernando, and Marion southwest of the City of Ocala.

The current regional population is estimated to be about 499,874 with approximately 27 percent over age 65 (Bureau of Economic and Business Research). There are 9 hospitals, 7 mental health facilities, and approximately 55 nursing homes/adult congregate living facilities located in the region. There is no local bus service, although services are available for people needing transportation assistance in each county.

## **1. Why Strategic Regional Subject Area is of Concern to Region**

### **a. Vulnerability of Population to Disasters**

#### **(1) Hurricanes**

##### **a) Historical Experiences**

The most significant regional disaster in recent years was the March 13, 1993 Winter Storm. Although not classified as a hurricane, the storm produced heavy rains, strong thunderstorms, and high winds. High winds in combination with high tides caused coastal flooding. Storm surge reached heights of between 8 - 9.5 feet in the coastal counties within the region. Coastal flooding occurred reaching as far east as U.S. 19 in southern Citrus County and northern Hernando County. The region is more susceptible to storm surge because there are too few barrier islands to cushion the impact of the surge. All counties in the region experienced significant damage due to high winds, thunderstorms, and tornadoes. Many communities were without power and water for several days. Homes that were built according to the National Flood Insurance Program (NFIP) requirements and which were elevated above flood waters were spared the devastation caused by flooding. All counties in the region were presidential-declared disaster areas. Six deaths were attributable to the March 13th storm (Citrus, Levy, and Marion Counties). Approximately \$4 million were paid out in Federal and State public assistance with total damages ranging in the amount of \$47-48 million (include Citrus County figures). Approximately 7550 conventional and mobile homes and businesses were damaged or destroyed. Citrus, Hernando, and Levy Counties have been identified by the NFIP as being "repetitive loss communities" based on the number of repetitive loss properties located in each county. The NFIP study shows that Citrus County has 25 repetitive loss properties, Hernando County has 12, and Levy County has 4. Counties impacted by coastal flooding and who have experienced two or more NFIP losses of at least \$1,000 each since 1978 are considered to have repetitive loss property. A repetitive loss community has one or more repetitive loss properties. The significance of the NFIP study is to determine highly vulnerable areas which may benefit from mitigation efforts. The State of Florida has adopted strategies which restrict state and federal subsidies in these areas, ultimately discouraging development in them.

##### **b) Vulnerable Population**

Although the region has not been significantly impacted by a hurricane since September 1985 when Hurricane Elena sat in the Gulf of Mexico, the forecasts indicate that Florida will see an increase in hurricane activity in the

foreseeable future. Incidents associated with the Winter Storm of 1993 and the very active 1995 hurricane season have confirmed fears of the potential impact a hurricane will have upon the region.

Storm surge occurs when severe winds and their forward motion pile water up in front of the storm as it moves toward shore. Levy, Citrus, and Hernando Counties are particularly susceptible from storm surge because the Gulf Coast has a long, gently sloping shelf and shallow water depths. According to the National Hurricane Center, the storm surge near Seville in Hernando County is predicted to be 34.6 feet above NGVD (1929) during the "worst case" modeled Category 5 storm, which is the greatest elevation in the region. Storm surge data for the region is based on the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model. In such tropical storm scenarios that involve hurricane force winds and storm surges, the residents of the areas predicted to be inundated by the storm surge are typically ordered to evacuate. Due to the construction and foundation conditions of manufactured homes (mobile homes) and the historical wind-tolerance experience of these structures during storms, all mobile home residents are also evacuated in advance of any hurricane event impacting the region.

The April 1996 U.S. Army Corps of Engineers' Cedar Key Basin, Florida, Hurricane Evacuation Study Final Technical Data Report estimates that coastal counties in the region may have to evacuate between 18,900 and 261,300 persons.

The hurricane evacuation studies for the Withlacoochee Region that predict the numbers of persons vulnerable to deadly storm impacts, and that likewise assess the need for sheltering space, should be updated every four years in order to reflect current data, SLOSH modelling, and population figures. Table 3-1 illustrates population changes in the region since 1970. Population projections for the region can be found in Table 3-10.

Equally relevant to emergency preparedness when analyzing development or demographic trends is dwelling preferences. Ample concern exists over that segment of the population who choose to place themselves at greater risk by living in mobile homes. Mobile homes, while affordable and easily sited, are particularly vulnerable to wind damage and are not designed to withstand the wind velocities of a Category 3 or greater hurricane. An example of their vulnerability to wind damage is that 98 percent of all mobile homes structurally affected during Hurricane Andrew were totally destroyed (FDCA 1995). Local emergency management agencies recommend evacuation of mobile homes for Category 1 or greater hurricanes.

Inland wind studies indicate that the entire State of Florida is hurricane vulnerable. Although the region's inland counties are not impacted by storm surge, they may certainly be impacted by hurricane-force winds. Consequently, the inland counties of Marion and Sumter would evacuate all mobile home residents in the event of a hurricane. Table 3-2 reflects the number of total housing units and mobile homes in the Region:

Under some conditions, hurricanes will necessitate the evacuation of residents from both the Tampa Bay region and the Withlacoochee region. In these situations, it is expected that persons leaving the Tampa Bay region

will seek shelter in the Withlacoochee region, although it is not clear what percentage of Tampa Bay evacuees would prefer to be sheltered in public shelters in the Withlacoochee region. However, the numbers of persons expected to leave the Tampa Bay region is so great that only a small percentage of those persons could be sheltered in the Withlacoochee region. According to the 1989 Withlacoochee Hurricane Evacuation Study, secondary shelters would have to be used if both the Withlacoochee and Tampa Bay regions are ordered to evacuate. There is insufficient secondary shelter capacity to accommodate Tampa Bay evacuees. It was noted during Hurricane Andrew that evacuees came from the South Florida region to the Withlacoochee region looking for shelter. Approximate calculations made after the storm indicate that nearly 4,000 persons evacuated to the Withlacoochee region.

(2) Tornadoes

Tornadoes occur most frequently during the months of May through August, with June as the peak month. However, tornadoes do occur during the cooler months from October through April. Currently, there is no accurate way in which to predict where and when a tornado will "touch down." Because of the violent nature of these storms coupled with population increases and number of structures being built in the region as well as the increased number of mobile homes, the probability of tornado damage increases along with the probability of deaths and injuries.

Several destructive tornadoes have impacted the region during the last several years. In Marion County on October 30, 1993, tornadoes damaged or destroyed 6 homes, 9 mobile homes and 8 barns at horse farms totalling \$433,600 in damages. Again in Marion County, another tornado on January 7, 1995 damaged or destroyed 300 homes totalling \$4,900,000 in damages and causing one death. Levy County reports that there were also tornadoes on October 30, 1993 in the county causing between \$150,000 - \$200,000 in damages and totally destroying three mobile homes. Other minor instances have occurred in the region where between one and five homes and/or mobile homes have been damaged.

(3) Floods

In August, 1994, rains inundated the Green Swamp causing the Withlacoochee River to overflow its banks prompting residents in Hernando and Sumter Counties to evacuate. Minor flood damage was reported.

Significant flooding occurred during the March 13, 1993 Winter Storm. In Levy County, mostly in the Yankeetown, Inglis and Cedar Key areas, 70 homes were significantly damaged and 15 homes were destroyed. Approximately one-quarter of these homes were mobile homes. As discussed previously, significant flooding occurred in most low-lying coastal areas during the March 13th storm. (See section(a) above for additional information regarding flooding.) Additionally, the very active 1995 hurricane season produced flooding in all Counties within the Region.

(4) Nuclear Event

The Crystal River nuclear plant is located in Citrus County. Citrus County emergency management officials report that the only incident recorded at the Crystal River nuclear plant happened in February 1980 when a trace leak was detected. On another occasion, the media reported an incident of possible contamination of employees during servicing of the reactors; however, company

officials deny that any of their employees were contaminated. Every county in the region is within a 10 and/or 50 mile radius of the Crystal River plant. The 10 mile radius and 50 mile radius are action levels for which counties are required to have in place an addendum to their Comprehensive Emergency Management Plan for radiological emergencies.

(5) Hazardous Materials

Hazardous materials emergency response has become an important issue in the region as well as in the State of Florida. Critical time variables and other variables affecting response, access, capabilities, and evacuation must be considered for each individual incident and must be evaluated prior to commencement of response by any emergency responder(s) or unit(s). These considerations include, but are not limited to, taking into account the route of travel, time of day, and anticipated traffic congestion and any unfavorable weather conditions as well as wind direction at the scene of a hazardous materials incident which may affect the approach route of the various responder(s) and responding units(s).

From January 1, 1993 through April 26, 1995, 191 hazardous materials incidents have been reported to the State Warning Point for the region. Hazardous materials incidents which have occurred in the region can be separated into two categories: facility and transportation. Each county in the region has reported transportation-related hazardous materials incidents. Examples include an incident on December 12, 1992 in Hernando County where 8,500 gallons of gasoline were released during an accident on I-75. Due to the accident, soil and groundwater contamination occurred. Environmental damage was caused by the accident and estimates are for over \$1 million to clean up the site. On September 2, 1992, another incident occurred on I-75 in Marion County when two semi-trailers collided. The highway was closed for over nine hours and evacuations were called for because one of the semi-trailers was leaking an unknown liquid. After closer evaluation of the scene, it was found that quantities of 29 different chemicals were being transported in one of the semi-trailers. Many of the chemicals were incompatible with each other. Because of the response by Marion and Citrus County hazardous materials teams, no populations were adversely affected. However, all transportation-related incidents cause concern to local officials, emergency responders, and the community for the simple reason that it is hard to plan for an incident when the chemicals are unknown.

On the other hand, planning for a hazardous materials incident at a facility can be accomplished. Facilities subject to EPCRA must report that they have present certain chemicals at or above established thresholds. The SERC, LEPC, and local fire department receive copies of the reports. These reports give emergency responders enough information with which to preplan for a spill or release of a hazardous material. When facilities have extremely hazardous substances, additional hazards analyses are performed. These hazards analyses identify such information as vulnerable zones if a release were to occur, effected populations should an evacuation be called for, transportation corridors, and facility-specific information such as emergency procedures and equipment. Examples of facility-related incidents which have occurred in the region include several releases of sulfur dioxide and a release of hydrazine from a facility in Citrus County and, more recently, a warehouse caught fire in Marion County which contained many fertilizers, pesticides, and chemicals.

a) Hazardous Materials Training Needs Assessment

A hazardous materials training survey was developed and then administered to public sector hazardous materials emergency response agencies in the

areas of law enforcement, fire fighting, emergency medical services, and public works. District 5 was chosen by the Department of Community Affairs for this survey based upon its rural characteristics. District 5 is comprised of Citrus, Hernando, Levy, Marion, and Sumter Counties.

In January 1993, the SERC created a Training Task Force in order to focus upon training issues for emergency responders. The SERC Training Task Force developed a mission to "formulate a statewide policy for the delivery of standardized hazardous materials training for all sectors." In conjunction with the SERC Training Task Force and its Training Guidelines, the effort was made through the Hazardous Materials Training Needs Assessment to further the mission by compiling data regarding hazardous material training activities in the region.

According to 29 CFR 1910.120, training for emergency response employees shall be completed "before they are permitted to take part in actual emergency operations on an incident." OSHA has identified five levels of response and training competencies: first responder awareness level, first responder operations level, hazardous materials technician, hazardous materials specialist, and on scene incident commander. Employees must also receive annual refresher training. Also, according to the Law, the employer of each emergency response organization "shall so certify" that each covered employee has attended and successfully mastered competencies at each level of training.

Based upon survey results, 51.7% of respondent agencies in the region had any staff trained at the awareness level, 34.5% at the operations level, 5.3% at the technician level, 1.7% at the specialist level, and 15.8% at the command level. Obviously, additional training is needed in order to meet minimum training requirements as required by federal and state law. It is noted by the statistical data that responders are beginning work without the required training. Additionally, 30% of respondent agencies in the region only train employees when training is made available. If training opportunities are not provided, through grants or other opportunities, then no training is being provided to emergency responders.

The concern to the region is obvious. If emergency responders are not being trained, then the region is at risk in the event of a hazardous materials release or spill. Not only is the general public at risk, but the emergency responders are at risk as well. It has been shown through hazards analyses that vulnerable zones in excess of 10 miles exist for some facilities in the region.

b) Railroad Commodity Flow Study

The District 5 Local Emergency Planning Committee was prompted to initiate a commodity flow study via the railroad because of an incident which happened in February, 1992 where a rail car loaded with 179,000 pounds of liquid chlorine and a rail car loaded with phosphate derailed within the City limits of Ocala. Rail carriers and hazardous materials transported were identified in the study. At the time of the study, thirty-five different hazardous materials were transported into or through the district, five of which are listed as extremely hazardous substances. Vulnerable zones for each extremely hazardous substance were calculated along the rail lines based upon concentrations of population and environmentally sensitive areas. Certainly, at any point of the route, the potential exists for a release to occur. Currently, modelling is designed to calculate vulnerable zones for

extremely hazardous substances only and then only to a maximum of 10 miles. Two of the five extremely hazardous substances have a vulnerable zone greater than 10 miles. At this time, populations in Marion and Sumter Counties are at the greatest risk if a release should occur.

(6) Explosions/Deliberate Releases

Recent events such as the explosion of the federal building in Oklahoma City and the deliberate chemical release in a subway in Tokyo, Japan, highlight the need to ensure that state and local emergency response plans consider these possibilities. As a result of the Oklahoma City incident, numerous threats were likewise made to governmental complexes in the region. Although existing emergency response plans address many of the issues that may be considered in the event of an explosion or deliberate chemical release, additional planning should be done in order to respond immediately to the particular threats and risks involved with these incidents.

The natural, man-made, and technological hazards discussed above will all usually impact more than one jurisdiction and/or region and will require a coordinated multi-jurisdictional response and recovery approach to manage.

b. Response

Much has been accomplished during the last few years in the area of State and local response efforts and activities. The focus of the Florida Comprehensive Emergency Management Plan is to be an operations-oriented document incorporating Emergency Support Functions (ESFs) for responding to all hazards. Local governments should be encouraged to take advantage of State grant moneys in order to establish or enhance their emergency planning efforts in order to be consistent with State and regional planning.

(1) Alert and Notification Systems

In most every exercise conducted in the region, communications were identified as the number one problem in notification of and response to an incident. After the March 13 Winter Storm, the Interagency Hazard Mitigation Team identified a deficiency in which NOAA weather radio coverage is incomplete in Citrus, Hernando, and Levy counties (as well as other counties in the State). The Team made a recommendation that funding should be provided "for NOAA radio transmitters to ensure complete signal coverage in all counties." Since the Winter Storm, there is now complete signal coverage in our region. Also, a recommendation was made by the Team that sirens and voice transmission systems in populated areas should be reviewed and installed where deemed effective. Citrus County, for example, has an extensive warning system because it is near a nuclear power plant. Its system of sirens is electrically run, using a back-up power generator with 1/2 hour capacity. Should something happen to power in Citrus, the system is backed up through Levy County as well. The warning system is activated through a command center. During the Winter Storm, Citrus County lost electrical power, and relied on Levy County to deliver back-up warnings. Severe winds and tornadoes knocked out power in Levy County as well, leaving the area completely blacked out from warning capabilities. The last chance for warning was the battery reserves on each individual siren. Because the motor driven sirens use such an enormous amount of energy to operate, a short blast was all the sirens could deliver. Today Citrus County is protected by a combination siren and voice transmission system. The system can be used to warn residents and provide information such as type of disaster, alternate evacuation routes, etc. Counties in the region should be encouraged to evaluate their alert and notification systems and upgrade them as necessary.

All counties in the region should evaluate their alert and notification systems. When emergencies occur during the night, radio and television warnings are inappropriate as well as ineffective. Perhaps through public education, residents should be encouraged to purchase inexpensive NOAA Weather Radio Receivers in order to monitor local weather conditions.

Radio communications are vital during any incident. When organizations respond on a multi-jurisdictional incident, radio communications often suffer due to the incompatibility of the systems. Counties and municipalities should establish a procedure whereby all radio purchases are checked for their compatibility with other agencies and municipalities within each county and with other counties within the region.

(2) Evacuation Routes

Some hurricane evacuation routes are identified in coastal counties; however, when evacuees arrive in inland counties there is clearly no indication of designated evacuation routes. Identification of appropriate hurricane evacuation routes, including formal designation of routes in risk and host communities, should receive high priority in Florida Department of Transportation (FDOT) or local capital improvement programs. Hurricane evacuation routes are identified in Chapter 5: Regional Transportation. See also, related transportation goals and policies.

(3) Evacuation Times

Evacuation times are the sum of clearance time and pre-landfall hazard time. The pre-landfall hazard time used in evacuation time calculation is that of pre-landfall hazard time due to gale force winds, since the hazard time for the onset of these strong winds exceeds the length of hazard time for other pre-landfall hazards. The evacuation time should not be confused with the time it takes the population to evacuate, rather it specifies a minimum number of hours prior to the predicted landfall (or closest point of approach) of a hurricane's eye, that an evacuation order shall be issued in order for the population to reach a shelter destination before the onset of pre-landfall hazards. Hence, it expresses the latest hour prior to landfall at which an evacuation order may be issued.

Hurricane winds present a significant threat to coastal residents. Hurricane force winds are defined as winds with a maximum sustained velocity of 74 - 200 miles per hour. These winds affect both the number of evacuees as well as the timing of the evacuation order. All evacuation must be completed prior to the arrival of sustained tropical storm force winds (40 miles per hour with significantly higher gusts). In the Withlacoochee Region, hurricane evacuation is based upon the evacuation of residents west of US 19 in Citrus, Hernando, and Levy Counties. The April 1996 Army Corps of Engineers, Cedar Key Basin Hurricane Evacuation Study Final Technical Data Report updated estimates of evacuation times based on the different storm track scenarios modeled by the SLOSH model for the Cedar Key Basin. All mobile home residents must evacuate, regardless of their location within the region. Any hurricane threatening the region will require the complete evacuation of the low-lying coastal areas and barrier islands. In addition, the impact of growth in coastal areas and mobile home parks will have a direct impact on the future evacuation population and evacuation times. Since the structure of every hurricane is unique, there is no way to determine the rate and distribution of the expected 6 to 12 inches of rainfall which generally accompanies the storm. Although rainfall will not normally require the emergency evacuation of large numbers of residents during the passage of a hurricane, it may cause flooding of evacuation routes.

Based upon different storm scenarios (i.e., paths, intensity, speed of storm, and whether or not there is an accompanying Tampa Bay region evacuation), Table 3-4 depicts minimum and maximum clearance times for each county. The methodology used for calculating these times comes from the 1996 Cedar Key Basin Hurricane Evacuation Study Final Technical Data Report. According to this study the times are likely to change as populations and development increases.

(4) Emergency Shelters

a) On-site/Self-shelters

i) Single-family/Multi-family, Site-built Homes

After Hurricane Andrew it was recognized that large populations will unnecessarily evacuate. Persons living in single- or multi-family, site-built homes will be requested to shelter in-place if they are not in an evacuation area. All persons in mobile homes will be ordered to evacuate. Building codes for construction of new homes have become more stringent since Hurricane Andrew and, therefore, increase a home's capacity to withstand hurricane-force winds.

ii) Prisons

Prison populations will be evacuated, if necessary and feasible, through mutual aid agreements with other prisons outside the region. However, since all prisons in the region are located within inland counties, they will most likely adapt in-place sheltering procedures.

iii) Mobile Home Park Community Buildings

Community buildings which are located within mobile home parks, but outside of evacuation areas, can provide adequate sheltering for evacuees of mobile homes. These buildings not only provide shelter, but they also keep evacuees close to their homes and keep people from seeking public sheltering thereby reducing the burden for public assistance as well as reducing highway congestion. Local officials should encourage the use of community buildings in mobile home parks as shelters and require that all new mobile home parks construct a community building which meets all sheltering specifications.

b) Public Shelters

According to the 1989 Withlacoochee Evacuation Study, the capacity of each shelter is defined as the useable space which would permit 20 square feet per person. This is a relatively small amount of space per person, but the length of time that persons are usually sheltered is short, 18 to 24 hours, and the 20 square foot minimum is considered acceptable for such a duration. Primary and secondary shelters have been determined to be regionally significant resources. The regional total of primary shelter capacity is 82,734 and the regional total of secondary shelter capacity is 20,300. Public schools and other buildings (such as civic club buildings and houses of worship), if qualified, are designated as primary or secondary shelters by the American Red Cross. Tables 3-5 through 3-9 display the name and capacity of each primary and secondary shelter in the region.

Most buildings designated as primary shelters do not have auxiliary power or an emergency water supply. Water and wastewater treatment are mainly

provided by municipal service; however, some utilize wells, septic tanks, or other on-site wastewater treatment methods. Most of the kitchen facilities require electric power for cooking; others are not susceptible to power outages since they are fueled by natural gas. Ample parking may be a problem at some shelters due to a small number of parking spaces, or limited open acreage (playing fields, etc.) that would be suitable for parking.

New building construction standards for public schools and community colleges adopted by the Department of Education will facilitate addressing the shelter deficit statewide. Beginning in July 1994, new public educational facilities in appropriate locations must be designed with the expectation that all or a part of the facility will some day be used as a shelter.

i) Community Colleges

Central Florida Community College's main campus in Ocala (CFCC) is a designated reception center in the event the Tampa Bay region must evacuate. Evacuees will register at CFCC and will be assigned to a shelter facility. After registration, evacuees will be directed with maps and instructions to their assigned shelters. Other community colleges in the region are CFCC Citrus Campus and Levy Campus, Lake-Sumter Community College, and Pasco-Hernando Community College. These community colleges are neither being utilized as reception centers nor emergency shelters.

c) Hotels/Motels and Other Commercial Alternatives

During Hurricane Andrew several thousand evacuees sought sheltering at area hotels and motels. Other alternative sheltering choices may include places of employment, taverns, social club buildings, etc.

Private schools located within the region are an untapped source for emergency shelter designation. Local governments should address the need for these sheltering resources and should consider entering into memorandums of agreement with private schools which qualify as shelters according to the American Red Cross. A listing of private schools can be found in the List of WRPC Regionally Significant Facilities.

c. Recovery

Past recovery experiences in the region are mainly due to Hurricane Elena and the Winter Storm as well as numerous tornadoes and floods. Damage assessment during these incidents went smoothly. Problems were identified in the following areas: debris removal, landfill and recycling, price gouging, and long-term sheltering. Building restrictions were not well received by the general public. Incident control seemed to be exemplary in all instances.

## **B. Identification and Description of Existing Status of Significant Regional Facilities and Systems**

Each of the institutions involved in emergency preparedness, recovery, redevelopment and mitigation are essential resources to the region. Facilities utilized by these institutions in time of emergency, such as emergency operating centers, police and fire/rescue stations, and hospital emergency rooms have significance toward averting and recovering from disasters. These institutional facilities should be considered in development decisions to prevent negative impacts to their operating abilities.

Among the most regionally significant facilities for promoting emergency preparedness include the various public buildings, especially schools, used as emergency shelters. As development of the region continues, it will be increasingly important that it not reduce the ability of the region's roads to handle the flow of evacuees traveling from the threatened areas to shelter. Likewise, as the need for public buildings increases with development it is important to utilize every opportunity to increase and maintain emergency shelter capacity for the region. The standardization for the design of new schools to include wind-resistance for adequate sheltering is an example of what local governments can do to reach that goal. Regionally significant shelter facilities that have been designated by the American Red Cross as meeting sheltering requirements can be found in Tables 3-4 through 3-8. Other resources and facilities of regional significance, including hurricane evacuation routes, are shown in the List of WRPC Regionally Significant Facilities.

## **C. Forecast of Future Conditions Based on Expected Regional Growth Patterns**

### **1. Recovery**

Pre-disaster planning provides more time, fewer constraints, better solutions, more public involvement, and a more efficient recovery which, in turn, will minimize additional loss of life, minimize continued property loss, minimize "downtime", and maximize assistance. Recovery planning should be coordinated with economic development plans, comprehensive plans, capital improvement plans, and environmental plans in order to use the opportunity of recovery for accomplishing goals of existing plans, making improvements, and correcting mistakes. Counties should form a recovery and reconstruction task force to address recovery issues before a disaster is imminent.

### **2. Mitigation**

Mitigating future hurricane impacts can be partially accomplished through state and local policies which address the social and economic cost of rebuilding damaged areas to pre-disaster conditions. Additional hazard mitigation opportunities lie in strengthening building codes and standards, developing and implementing floodplain management strategies, and reducing susceptibility and vulnerability to all hazards, especially hurricanes (wind and storm surge), and flooding. Two areas that should be emphasized are: (1) decreasing the susceptibility of structures, especially critical facilities, in flood-prone areas, and (2) reducing the impact of catastrophic storms on critical facilities. A flood-prone area is any area within the 100-year floodplain, as defined by the Federal Emergency Management Agency (FEMA), and those areas susceptible to hurricane surge inundation. Critical facilities are those facilities vital to the post-disaster recovery of a community and include facilities such as the following: potable water lines, sanitary sewer systems, transportation systems, and public buildings -- including emergency shelters, hospitals, fire and police stations.

a. Coastal Development/Redevelopment

Strategies need to be developed to control population growth and development in storm surge areas. Additionally, incentives should be established to direct redevelopment to higher ground within the region. Counties should consider the incorporation of any inter-agency hazard mitigation reports into their comprehensive plans. Local governments should enforce all existing regulations and policies which affect repairs and reconstruction.

A significant portion of the region is located within the 100-year floodplain. As such, it is important that mitigative measures be undertaken for construction in the 100-year floodplain to reduce public safety impacts. In particular, it is important that local governments adopt floodplain ordinances which require that all new development be constructed with the lowest floor at or above the 100-year floodplain elevation.

FEMA offers assistance for hazard mitigation through its Hazard Mitigation Grant Program, which is a federally funded and state-administered program. This program assists in the development and implementation of qualified applicants' hazard mitigation projects that are environmentally sound and cost-effective.

In Citrus County, the majority of vacant land in coastal areas will be subject to fixed densities of one unit per 40 acres in the Coastal High Hazard Area and one unit per 20 acres elsewhere in the coastal area. These lower density standards are expected to encourage new development to occur in the central part of the county in low risk areas. Citrus County has also limited the future expansion of infrastructure to supply existing residents with adequate sanitary sewer and potable water and prohibits the expansion and extension of infrastructure to allow increased densities and new subdivisions greater than one unit per five gross acres. Citrus County has instituted a floodplain protection ordinance which requires structural elevation at the base flood height as determined by the Flood Insurance Rate Maps prepared by the Federal Emergency Management Administration. Additionally, it is expected that flood-prone areas within the coastal high hazard area will be purchased under the CARL program through the expansion of the Crystal River State Reserve. (Citrus County Comprehensive Plan 1989-2005)

Forty percent of Hernando County's coastal zone is comprised of the Chassahowitzka National Wildlife Refuge and state CARL lands. The majority of activity and development is in the southwest portion of the coastal zone. Infrastructure in the Hernando County coastal zone is very limited in amount. Major plans are currently being implemented to relocate water and sewer systems inland. Additional facilities will be provided to meet the needs of the limited growth planned for the coastal zone. Road improvements will be made to satisfy the need for access to water-dependent facilities and to provide adequate and safe routes for hurricane evacuation. (Hernando County Comprehensive Plan 1989-1992)

Almost the entire coastline of Levy County is undeveloped and in public ownership with the exception of the Cedar Key and Yankeetown areas. Growth in the Cedar Key and Rosewood areas are not expected to have an impact on infrastructure. In order to be consistent with the need to direct population concentrations away from coastal high-hazard areas, privately-owned islands with no land area above the 100-year flood elevation is limited to one dwelling unit per island. The County's Floodplain Ordinance restricts fill and requires flood-proofing or elevation for new construction. It is the County's policy to limit development in coastal high-hazard areas and to relocate or replace infrastructure away from these areas. (Levy County Comprehensive Plan 1992)

b. Post-Disaster Redevelopment Planning

In the event of a disaster, local governments will need to decide how to deal with post-disaster redevelopment within an affected area. Several options include: land use changes; public acquisition of lands; relocation of residents, businesses, governmental investments, and/or infrastructure to low-risk areas; structural modifications to existing buildings; permitting the repair of "essential" infrastructure only; and reconstruction of buildings to conform to updated building codes. Obviously, the establishment of land uses appropriate to high-hazard areas would reduce the need for post-disaster redevelopment in the first place.

Local governments should identify sources of funding for the long-term recovery following a disaster. In November 1994, the Governor formed the Community Redevelopment Task Force. The Task Force produced a guidance document entitled "Post-Disaster Community Redevelopment and Economic Revitalization" to provide guidance to local governments in identifying and reviewing funding sources which can be used for the long-term recovery of Florida communities following a disaster. The document compiles information about over 40 assistance programs offered by 20 different public (state and federal) and private agencies. The document is updated periodically to reflect changes in program funding levels, emerging new programs, and the phasing out of existing programs.

**D. Relationship of Strategic Regional Subject Area to Pertinent Goals and Policies of the State Comprehensive Plan**

The Emergency Preparedness chapter of the Strategic Regional Policy Plan incorporates goals and policies of the State Comprehensive Plan in the areas of State Goal #7, Public Safety, and State Goal #13, Hazardous and Nonhazardous Materials and Wastes. All other information contained in the Emergency Preparedness chapter have been added due to new or updated regulations in the emergency preparedness area.

**III. PROBLEMS, NEEDS, AND OPPORTUNITIES ASSOCIATED WITH GROWTH AND DEVELOPMENT**

Table 3-10 provides county and regional population projections for the years 2000 - 2020.

As depicted by the population projections, the region will continue to grow at a substantial rate. Projections indicate that by the year 2020, the regional population will have increased by 386,726 residents. This significant increase in population could have a detrimental impact upon the region if proper mitigation techniques and emergency preparedness procedures are not implemented. Transportation routes, emergency shelters, emergency communications, special needs evacuations, emergency services, and evacuation time delays are just some of the areas that will be impacted by growth. Opportunities exist for the directing of growth toward areas which will limit the impacts of a disaster.

**IV. EMERGENCY PREPAREDNESS GOALS, POLICIES, AND REGIONAL INDICATORS**

**A. PREPARATION, RESPONSE, AND RECOVERY**

**Goal 3.1 All counties in the region will be prepared to respond to and recover from the impacts of all hazards.**

Policy 3.1.1 Develop and maintain a coordinated Comprehensive Emergency Management Plan consistent with Rules 9G-6 and 9G-7, F.A.C.

Policy 3.1.2 Periodically conduct a self-assessment of emergency preparedness, response, and recovery capabilities.

Policy 3.1.3 Prepare and maintain a five-year plan of action that outlines issues to be completed based up on the self-assessm ent.

Policy 3.1.4 Apply for funding annually from the Emergency Management, Preparedness, and Assistance Trust Fund adm inistered by the Florida Dep artment of Community Affairs, Division of Emergency Management, in order to establish or enhance emergency management programs.

Policy 3.1.5 Establish and maintain mutual aid agreements with municipalities, other counties in the region, and or other regions in the State or sign the Statewide Mutual Aid Agreement in order to obtain resources statewide during an emergency.

Policy 3.1.6 Develop and maintain Standard Operating Procedures to implement the provisions identified in the County comprehensive emergency management plan.

Indicators: (A) Number of County Comprehensive Emergency Management Plans completed.  
(B) Number of Standard Operating Procedures completed.  
(C) Number of County self-assessments and five-year plans completed.  
(D) Number of local governments participating in Emergency Management, Preparedness, and Assistance Trust Fund grants.  
(E) Number of local governments who participate in mutual aid agreements.

**B. PUBLIC AWARENESS**

**Goal 3.2 Local governments shall provide awareness and educational opportunities to the public regarding natural, technological, and man-made disasters.**

Policy 3.2.1 Establish and annually conduct an emergency preparedness informational program to educate the public regarding natural, technological, and man-made disasters.

Policy 3.2.2 In conjunction with the District 5 Local Emergency Planning Committee, provide community education programs addressing chemical safety, evacuation, in-place sheltering, and basic functions of emergency responders during a hazardous materials incident.

Indicators: Assessment of public behavior during and after disasters.

**C. TRAINING**

**Goal 3.3 Local governments shall train emergency responders to appropriate levels for responding to hazardous materials incidents in accordance with the SERC Training Task Force Training Guidelines.**

Policy 3.3.1 Annually identify and assess hazardous materials training deficiencies, establish hazardous materials training policies and programs, and provide adequate training opportunities for emergency responders.

Policy 3.3.2 Participate in multi-jurisdictional hazardous materials exercises in conjunction with the District 5 Local Emergency Planning Committee.

Policy 3.3.3 Maintain representation on the District 5 Local Emergency Planning Committee.

Indicators: (A) Number of hazardous materials training programs established.  
(B) Number of representatives on District 5 Local Emergency Planning Committee.  
(C) 100% of agencies providing training.  
(D) Number of properly trained hazardous materials responders.  
(E) Number of multi-jurisdictional hazardous materials exercises in which local governments participated.  
(F) Number of injuries and fatalities recorded in response to hazardous materials incidents.

**D. PUBLIC NOTIFICATION**

**Goal 3.4 Local governments shall provide timely alert and notification to the public in the event of any type of disaster.**

Policy 3.4.1 Establish a work group to coordinate compatibility among communications systems within each county and with other counties within the region.

Policy 3.4.2 Establish a work group to consider the feasibility of a portable transmitter system or alternative communications backup system in the event the existing communications system is rendered inoperable during an emergency.

Policy 3.4.3 Evaluate alert and notification systems and upgrade them as necessary.

Policy 3.4.4 Through education and awareness, encourage the public to purchase inexpensive NOAA Weather Radio Receivers in order to monitor local weather conditions.

Indicators: Number of communications-related problems encountered during disasters.

**E. TIMELY MODELING UPDATES**

**Goal 3.5 Update hurricane evacuation studies for the Withlacoochee Region every four years in order to reflect current data, SLOSH modelling, and population figures.**

Policy 3.5.1 The WRPC should seek funding from the Department of Community Affairs, Division of Emergency Management, every four years in order to update hurricane evacuation studies for the Withlacoochee Region. The updates shall include impacts of evacuees from Counties outside the Withlacoochee Region.

Indicators: Number of Withlacoochee Hurricane Evacuation Study updates completed.

**F. SITING TO MINIMIZE RISK**

**Goal 3.6 Local governments shall protect the public from hazardous materials releases.**

Policy 3.6.1 Limit industrial and public utility land use activities where extremely hazardous substances would routinely be used near large populations and/or public facilities.

Policy 3.6.2 Establish a system for identifying the location, type, and quantity of hazardous materials.

Policy 3.6.3 Discourage or prohibit the location of new commercial or public facilities which regularly use, handle, or store hazardous materials in coastal high-hazard and floodplain areas or within defined well-field cones of influence. Where such siting occurs in accordance with local government comprehensive plans, require the development of a comprehensive facility emergency preparedness plan which clearly defines measures to mitigate the effects of hazardous materials releases.

Indicators: (A) Number of hazardous materials incidents requiring evacuation.  
(B) Limited scope of hazardous materials incident.

**G. EVACUATION CLEARANCE TIMES**

**Goal 3.7 Hurricane evacuation clearance times for the region shall be reduced by requiring that new developments not degrade the existing evacuation level of service as identified in the Withlacoochee Hurricane Evacuation Study.**

Policy 3.7.1 Alternatives for reducing or better managing the potential influx of Tampa Bay evacuees during a hurricane evacuation affecting the Withlacoochee region should be investigated and implemented by the Florida Department of Community Affairs, Division of Emergency Management; Withlacoochee Regional Planning Council; and Tampa Bay Regional Planning Council.

Policy 3.7.2 Ensure that development orders for developments of regional impact contain conditions which require mitigative measures for impacts on hurricane shelter capacity and hurricane evacuation times.

Policy 3.7.3 Enact development regulations that require the construction of community buildings in new mobile home parks or expansions of existing mobile home parks which can be used as hurricane shelters in non-surge vulnerable areas.

Policy 3.7.4 Newly proposed or expansions of DRIs, planned unit developments, subdivisions, and mobile home parks shall be reviewed by County emergency management officials prior to issuance of the final development order.

Policy 3.7.5 Identification of appropriate hurricane evacuation routes, including formal designation of routes in risk and host communities, should receive high priority by the Florida Department of Transportation or by local governments in local capital improvement programs.

Policy 3.7.6 Prepare an annual report estimating the increase or decrease in the population at risk in coastal high-hazard areas and distribute such report to the County's emergency

management director, the WRPC, and the Florida Division of Emergency Management for analysis, improvement, and maintenance of evacuation times.

Policy 3.7.7 Direct population concentrations away from known or predicted coastal high-hazard areas by designating all undeveloped lands within the coastal high-hazard areas for low density development.

Indicators: (A) Number of development orders which contain hurricane-related mitigative conditions.  
(B) Reductions in evacuation times and evacuation clearance times.  
(C) Number of hurricane shelters located within mobile home parks in non-surge vulnerable areas.  
(D) Number of hurricane evacuation signs located in risk and host communities.

## H. HAZARD MITIGATION AND POST-DISASTER REDEVELOPMENT

**Goal 3.8 Local governments shall identify mitigation opportunities and funding mechanisms and develop strategies to implement mitigation.**

Policy 3.8.1 Develop and maintain post-disaster reconstruction and redevelopment plans.

Policy 3.8.2 Enact development regulations to protect the general population by regulating post-hurricane rebuilding in vulnerable areas by prohibiting substandard pre-hurricane building practices.

Policy 3.8.3 Federal, State, and local governments should target hurricane vulnerable lands, particularly low-lying and shoreline areas, for acquisition to discourage growth of the area.

Policy 3.8.4 Enact development regulations which state that permits issued in hurricane-vulnerable areas be accompanied by a disclosure statement describing the property and cautioning the public to potential hurricane hazards.

Policy 3.8.5 Enact regulations that allow for the relocation of structures significantly damaged in major hurricane events outside those areas vulnerable to hurricane surge.

Policy 3.8.6 Prohibit improvement of or building of public facilities which encourage growth in hurricane surge vulnerable areas, except for necessary public services for existing developments.

Policy 3.8.7 Identify potential disaster field offices and disaster application centers and designate them in the County Comprehensive Emergency Management Plan so their locations are known to citizens. These locations shall be outside hurricane surge vulnerable areas.

Policy 3.8.8 Consider the additional disaster preparedness requirements of new developments whose future residents might have limited mobility and/or demand specialized facilities.

Policy 3.8.9 Form a recovery and reconstruction task force to address recovery issues.

Policy 3.8.10 Participate in a comprehensive flood plain management program such as the Community Rating System which provides for annual outreach to the public on potential natural, technological, and man-made hazards.

Policy 3.8.11 Prohibit development of new critical care, health care, and special needs facilities inside coastal high-hazard and floodplain areas.

- Indicators:
- (A) Number of post-disaster reconstruction and redevelopment plans.
  - (B) Value of property lost due to hurricanes.
  - (C) Number of hurricane-related development regulations implemented by local governments.
  - (D) Number of Comprehensive Emergency Management Plans which designate disaster field offices and disaster application centers.