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FLORIDA'S CURRENT EVACUATION AND EMERGENCY SHELTER PLANS

Issue Description

Florida is similar to many other coastal states in the U.S. in its susceptibility to a variety of hazards. These include wild fires, floods, and storm events. Hurricanes often receive the majority of attention paid to hazards because their season is long, and they can affect large geographic areas with one event. However, all hazards share the potential for evacuation and need for emergency public shelter.

The problems associated with attempting to evacuate Florida's major population centers were classically illustrated by Hurricane Floyd in 1999. Hurricane Floyd created transportation grid-lock from Florida to South Carolina as the unpredictable storm traveled along the eastern U.S. coast. In the aftermath of Floyd, studies looked at the problems and attempted to determine better methods for evacuations. Floyd illustrated that, due to Florida's peninsular geography and limited evacuation transportation road networks, evacuating major population centers for distances out-of-county would result in lengthy evacuation clearance times.¹ For example, evacuating metropolitan Southeast Florida to as far away as the Orlando area was estimated at 66 hours under optimal conditions using normal traffic flow patterns.²

Current technologies generally afford decision-makers the opportunity to track and provide sufficient warning in order to call for timely evacuations of threatened areas, but this is not always true. For example, Hurricane Opal in 1995 rapidly strengthened to a Category 4 storm overnight before striking the Florida Panhandle. Many who awoke the next morning found themselves in grid-lock and caught out in the storm as they attempted to evacuate inland.

The 2004 and 2005 hurricane seasons further pointed out deficiencies in Florida's emergency response capabilities relating to evacuation and emergency public shelters. In an effort to address these issues, the 2006 Legislature passed HB 7121, which provided for a number of improvements in Florida's emergency response strategy.

The purpose of this Interim Project Report is to review the efforts completed since the passage of HB 7121 and evaluate the strategies that are now implemented in Florida for evacuation and emergency public sheltering.

Background

Chapter 252, Florida Statutes (F.S.), confers certain emergency powers upon the Governor, the Division of Emergency Management, and the governing bodies of each political subdivision of the state.³ Included in these powers is a requirement to establish a comprehensive emergency management plan that has an emergency evacuation component and an emergency shelter component.⁴

¹ An evacuation clearance time is defined as the time required from the point an evacuation order is given until the last evacuee can either leave the evacuation zone or arrive at a safe shelter within the county. This does not include those evacuees leaving the county on their own before the order to evacuate is given.

² Analysis of Florida's One-Way Operations for Hurricane Evacuation-Florida Turnpike from SR70 to Milepost 253 North of Osceola Parkway, prepared for the Florida Department of Transportation by PBS&J, February 2001, p. 7.

³ Section 252.32 (1)(b), F.S.

⁴ Section 252.35 (2), F.S.

The Governor is granted the power to, “Direct and compel the evacuation of all or part of the population from any stricken or threatened area within the state if she or he deems this action necessary for the preservation of life or other emergency mitigation, response, or recovery.”⁵ The Governor is further authorized in statute to delegate emergency responsibilities.⁶

Executive Order 80-29,⁷ as supported by Attorney General Advisory Opinion 95-24,⁸ authorizes a board of county commissioners acting through the duly appointed director of its emergency management agency to lawfully order the evacuation of persons from areas of the county threatened by an imminent natural or manmade disaster.

Florida’s Comprehensive Emergency Management Plan

Florida’s Comprehensive Emergency Management Plan (CEMP) makes certain assumptions regarding evacuations including:

- Local governments will initiate actions to save lives and protect property;
- Evacuation and sheltering may require regional coordination;
- Disability civil rights laws require physical accessibility of shelter facilities, effective communication using multiple methods, full access to emergency services, and modification of programs where needed. In accordance with Title II of the Americans with Disabilities Act, evacuation shelters will offer individuals with disabilities the same benefits provided to those without disabilities. These benefits include safety, comfort, food, medical care, and the support of family and care-givers;
- Planning at the county and state levels will be based on pre-identification of populations and determination of resource shortfalls and contingencies. The counties will identify resources for persons with special needs.⁹ The counties will use local registries for persons with special needs to identify needs and plan appropriately; and
- Florida’s population resides in diverse communities across coastal, urban, and rural areas. With the exception of Orlando, most of the state’s population is located near the coast. There are other communities that are not fully urbanized but are emerging as centers of growth, such as Polk County and the cities of Ocala and Tallahassee. Rural Florida consists largely of cattle ranches, farms, pine forests, fishing villages and small towns. Therefore, response recovery and mitigation activities must be tailored to the type of community impacted by disasters.¹⁰

The CEMP states that:

- The Division of Emergency Management has the responsibility for maintaining a program to reduce the deficit of evacuation shelter spaces and for increasing the number of special-needs evacuation shelter spaces. Shelter spaces are required to comply with standards as set forth in American Red Cross ARC 4496, which establishes minimum shelter structural criteria.¹¹
- A local state of emergency (as opposed to a statewide or regional state of emergency) must be declared by a mayor, city manager, or board of county commissioners. Pursuant to section 252.38, F.S., if an emergency is declared by the Governor, each political subdivision shall have the power and authority to perform certain activities such as appropriating and expending funds and entering into contracts related to the emergency. Local governments are authorized to take whatever prudent action is necessary to ensure the health, safety, and welfare of the community.¹²

⁵ Section 252.36 (5)(e), F.S.

⁶ Sections 252.36(1) and 252.36(8), F.S.

⁷ State of Florida, Governor Executive Order 80-29, dated April 14, 1980.

⁸ Florida Attorney General Advisory Legal Opinion, AGO 95-24, dated April 3, 1995.

⁹ A person with special needs is defined in Rule 64-3.010, Florida Administrative Code, as someone, who during periods of evacuation or emergency requires sheltering assistance due to physical impairment, mental impairment, cognitive impairment, or sensory disabilities.

¹⁰ State of Florida, Comprehensive Emergency Management Plan 2010, Basic Plan pp. 13-14.

¹¹ Ibid, p.19.

¹² Ibid, pp. 24-25.

- Counties may initiate their own protective measures, such as ordering evacuations and activating public shelters, including special needs shelters and pet-friendly shelters. The State Emergency Response Team will coordinate regional evacuation in concert with local emergency management, law enforcement, sheltering organizations, public information offices, and adjacent states.¹³

The CEMP, relating to regional evacuations, goes on to state that:

- One-way evacuation operations (reverse-lane operations) will be implemented at the direction of the Governor (It should be noted that reverse-lane operations are conducted only during daylight hours and require considerable human and equipment resources to ensure safety);
- All destination counties will activate their emergency operations centers to support major evacuations when directed by the State Coordinating Officer (SCO);
- All destination counties will open and operate host shelters as directed by the SCO;
- All counties that open host shelters will be covered under the Governor's Executive Order declaring a state of emergency and will be included in all requests for federal emergency or major disaster declaration assistance; and
- The regional evacuation process will be used by state and county governments to manage and coordinate any multi-county and/or regional evacuation. This includes the implementation of state guidelines for lifting tolls on state toll facilities, locking down drawbridges, deploying and pre-deploying personnel, designating host counties for sheltering, ensuring the sufficiency of reasonably priced fuel, and addressing any emergency medical issues in accordance with the most current versions of the State of Florida Regional Evacuation Procedure.¹⁴

The State of Florida Regional Evacuation Procedure makes the following assumptions:

- The evacuation of large numbers of people from vulnerable areas will stress the limited capabilities of roadways available for this purpose, potentially requiring substantial additional time to complete an evacuation. A regional evacuation must be initiated as soon as feasible upon recognition of the threat and must continue to function efficiently until completion;
- Regional evacuations will require a substantial level of personnel and equipment for traffic control which could stress or exceed the capabilities of threatened jurisdictions;
- Coordination between state and local agencies involved in the implementation of a regional evacuation will occur through exchanges of information regarding decision-making, protective actions, and resource coordination and deployment;
- The capacity of available public evacuation shelter facilities in and adjacent to the impacted region may be limited, potentially requiring the full use of all shelters within the evacuation region;
- For certain hazards, large vulnerable populations and limited evacuation road networks may necessitate termination of regional evacuations prior to full completion and evacuees still at risk would need to be directed to refuges-of-last-resort as quickly as possible; and
- A regional evacuation will require expedited coordination of numerous jurisdictions to maintain an efficient and safe movement of evacuation traffic out of the impacted areas and to adequate shelter locations.¹⁵

Statewide Emergency Shelter Plan

The Division of Emergency Management is also responsible for preparing a Statewide Emergency Shelter Plan.¹⁶ The plan is used as a guide for local emergency planning and provides consultative assistance to school districts contemplating construction of educational facilities.¹⁷

¹³ Ibid, p. 35.

¹⁴ Id.

¹⁵ State of Florida, Regional Evacuation Procedure, located at http://webcache.googleusercontent.com/custom?q=cache:3iu-2m1XxJ0J:www.floridadisaster.org/EMIT/Accreweb/Documents/Operations/RegionalEvac/2002%2520REVAC%2520ROL_R.doc+regional+evacuation+procedure&cd=2&hl=en&ct=clnk&gl=us&safe=vss last viewed on September 8, 2010.

¹⁶ Section 252.385(2)(b), F.S.

¹⁷ State of Florida, 2010 Statewide Emergency Shelter Plan, January 31, 2010, page i.

Florida Statutes require that newly constructed educational facilities incorporate design criteria so that they may also function as public emergency shelters.¹⁸ Florida relies heavily on newly constructed educational facilities as its principal source of additional public emergency shelter space used to reduce its shelter space deficit.

In accordance with the statute, the plan must:

- Identify the general location and square footage of existing shelters by Regional Planning Council regions;
- Identify the general location and square footage of needed shelters by Regional Planning Council regions for the next five years;
- Identify the types of facilities which should be constructed to comply with the public shelter design criteria; and
- Recommend an appropriate and available source of funding for the additional cost of constructing emergency shelters within those public facilities.¹⁹

The following table illustrates the current and projected demand, current capacity, and current and projected deficit of shelter spaces for both general population and special needs persons.

General Population Shelter Demand and Capacities					Special Needs Shelter Demand and Capacities				
2010 Cat. 5 Shelter Demand, persons	2015 Cat. 5 Shelter Demand, persons	2010 Shelter Capacity, persons	2010 Shelter Surplus/ (Deficit), persons	2015 Shelter Surplus/ (Deficit), persons	2010 Cat. 5 Shelter Demand, clients	2015 Cat. 5 Shelter Demand, clients	2010 Shelter Capacity, clients	2010 Shelter Surplus/ (Deficit), clients	2015 Shelter Surplus/ (Deficit), clients
1,388,590	1,533,125	1,073,305	(315,285)	(459,820)	51,221	55,217	39,753	(11,468)	(15,464)

Source: Division of Emergency Management

There are 11 Regional Planning Council regions in Florida, only five of which currently have a surplus of general population shelter space. These five regions include West Florida/Region 1, Apalachee/Region 2, Central Florida/Region 6, Treasure Coast/Region 10, and South Florida/Region 11.²⁰

These five regions include the following counties: Bay, Brevard, Broward, Escambia, Gadsden, Gilchrist, Hardee, Hernando, Highlands, Indian River, Lake, Leon, Liberty, Madison, Manatee, Martin, Miami-Dade, Okaloosa, Orange, Osceola, Palm Beach, St. Johns, St. Lucie, Santa Rosa, Seminole, Taylor, Walton, and Washington.²¹

Only two regions are deemed to have a surplus of special needs shelter spaces, Treasure Coast/Region 10 and South Florida/Region 11.²² These two regions include the following counties: Indian River, Martin, Palm Beach, St. Lucie, Broward, Miami- Dade, and Monroe.

According to the Statewide Emergency Shelter Plan, when appropriately located, designed, and constructed, the following types of facilities are normally considered suitable for use as public hurricane shelters:

- Community and civic centers, meeting halls, gymnasiums, auditoriums, cafeterias and open floor multipurpose facilities, exhibition halls, sports arenas, field houses, conference and training centers, certain classroom buildings, and other public assembly facilities.²³

Conditions which would prevent a facility from being used as a public shelter include:

¹⁸ Section 1013.372(1), F.S.

¹⁹ State of Florida, 2010 Statewide Emergency Shelter Plan, January 31, 2010, p. i.

²⁰ Id.

²¹ Ibid, page v.

²² Ibid, page ii.

²³ Ibid, page iii.

- Location (facilities within Category 1, 2, or 3 hurricane evacuation zones, and possibly Category 4 and 5; facility isolation due to possible surrounding flooding; presence of certain hazardous materials; low evacuation demand, etc.);
- Size (less than 2,000 square feet of usable floor area); or
- Other characteristics (incompatibility with a facility's normal use or availability e.g. a mass care facility, long range planning considerations, etc.).²⁴

In order to eliminate the statewide deficit in public shelter spaces, the Division has implemented a multifaceted program that includes:

- Survey of existing buildings, both public and private to identify suitable shelter capacity;
- Where cost effective and practical, support mitigation and retrofitting of existing facilities;
- Construct new facilities to meet the public shelter design criteria;
- Reduce shelter demand through the use of both improved hurricane hazard models that more accurately depict threatened areas and updated behavioral studies that better predict population evacuation decisions; and
- Improve public information/education to reduce unnecessary “shadow”²⁵ evacuations.²⁶

While Florida relies on new educational facility construction to aid in meeting its public shelter deficit, there are drawbacks to the program. For example, district school boards have generally been reporting a cost premium of between three to six percent for incorporating shelter construction criteria in educational facility designs. This can be a significant additional cost to state and local agencies.²⁷

In addition, certain newly constructed educational facilities are exempted from the statutory requirement for incorporation of shelter design criteria. For example, if a county has a current and projected surplus of shelter spaces, the facility is exempt from having to incorporate the shelter criteria.

Not all new educational facility construction benefits the reduction in shelter space deficit effort. According to a report by the State Auditor General, there were 3,092 new buildings constructed between 2000 and 2009. Of these, only 669 were recognized as meeting the requirements of the law while an additional 1,125 were lawfully exempt.²⁸ The Division considers square footage as the most reliable measure of non-compliance. The combined net square footage, 20,951,764 square feet of non-compliant buildings constructed during the period amounted to a non-compliance rate of 34.11 percent.²⁹ While s.1013.372, F.S., requires shelter criteria incorporation for educational facilities, the section does not impose any sanction for non-compliance.

However, since 2000 Florida's deficit of hurricane shelter space has been reduced by 72 percent. Based on current trends, the Division estimates that 84,000 spaces will be added to the state's inventory each year.³⁰

Pursuant to its statutory obligation, the Division has identified the Public Education Construction Outlay (PECO) as the only capital outlay fund available to support new hurricane shelter construction. PECO funds are used to support site acquisition and improvements necessary to accommodate buildings, equipment, and other structures of district school boards, community colleges, and universities. The Department of Education has distributed about \$1,877,969,362 in new construction funds to district school boards since the requirement for incorporating shelter construction criteria was first introduced in 1997.³¹

²⁴ Id.

²⁵ Shadow evacuations are evacuations made by people who are not in the threat area and which are generally unnecessary. Shadow evacuees place additional strain on evacuation route capacity and possibly on available shelter capacity.

²⁶ State of Florida, 2010 Statewide Emergency Shelter Plan, January 31, 2010, page iv.

²⁷ Id.

²⁸ Ibid, page iii.

²⁹ Ibid, page iv.

³⁰ Ibid, page v.

³¹ Ibid, page iv.

Special Considerations Relating to Evacuations

There are several population groups that present unique challenges to emergency managers during evacuation operations. They include hospital and nursing home patients and transportation disadvantaged persons.

The Government Accountability Office highlighted some of these challenges in previous testimony before Congress. Hospitals and nursing homes have to make the difficult decision whether to evacuate or stay and “shelter-in-place.” Nursing homes differ from hospitals in that nursing home residents generally have been in residence for some time and may not have somewhere else to go. Hospital patients generally have a residence to which they can return if they can be safely discharged. Nursing home administrators therefore must be able to locate suitable facilities in order to evacuate residents and plan for a lengthy stay at the evacuation site. In addition, transportation, including specialized transportation capable of accommodating wheel chairs, etc., may be difficult to obtain.³²

Transportation disadvantaged populations may include the elderly, low-income individuals, persons with disabilities, and persons who by choice or circumstance do not own or have access to cars. Such populations may also include persons with limited English proficiency, homeless persons, and temporary workers. Identifying these populations in advance of an emergency can be difficult due to unknowns such as size, location, and composition. Evacuating transportation disadvantaged persons presents challenges such as obtaining transportation means, establishing pick-up points, getting information out to the public, and coordinating shelter facilities.³³

Out-of-county evacuees present an additional challenge. The percentage of evacuees who leave their own county is variable from place to place and is dependent on the availability of safe refuge locally and accessibility of out-of-town friends, relatives, and motels. In northwest Florida, it is not unusual for two-thirds of all evacuees to go to destinations outside their own counties, often out-of-state. By contrast, only one-third of the evacuees from southeast Florida left their counties in Hurricane Andrew. Evacuees from beach areas are more likely than others to go out-of-town.³⁴

Statewide Regional Evacuation Study Program

In response to the provisions of HB 7121, the Division of Emergency Management began an initiative known as the Statewide Regional Evacuation Study Program (SRESP). The program includes a series of interconnected studies conducted by each of the state’s eleven Regional Planning Councils that will ultimately result in a highly accurate tool for managing emergency evacuations. Phase I of the program included:

- A systematic enumeration and mapping of the dwelling units, population, vehicles, and socio-economic characteristics of the counties within each region as well as the population projections for the years 2006, 2010, and 2015;
- A comprehensive analysis of the potential hazards in each region including storm surge, tornadoes, flooding, hazardous sites, terrorism, nuclear facilities, and critical facilities;
- A systematic investigation of the probable tendencies of potential future evacuees based on a detailed residential survey;
- A region-wide inventory of existing public shelters and shelter capacity analysis and geo-coding of the data to create a statewide layer of shelter locations; and
- Establishment of a regional evacuation transportation network that links existing county-level evacuation routes and any additional arterials/collectors in the region.³⁵

³² Government Accountability Office, *Disaster Preparedness: Preliminary Observations on the Evacuation of Vulnerable Populations due to Hurricanes and Other Disasters*, GAO-06-790T, May 18, 2006, p 5.

³³ Ibid, p. 8.

³⁴ Earl J. Baker, *Hurricane Evacuation in the United States*, Department of Geography, Florida State University

³⁵ South Florida Regional Planning Council, Statewide Regional Evacuation Study Program, at <http://www.sfrpc.com/sresp.htm> last viewed on September 2, 2010.

Phase II of the program includes a vulnerability analysis consisting of the delineation of the storm tide limits and evacuation zones, identification of population-at-risk and evacuation populations, storm surge analysis of critical facilities, and an evacuation transportation analysis.³⁶

As part of SRESP, a mapping project covering all coastal counties statewide has been completed using a light detection and ranging system commonly called LIDAR. LIDAR is an airborne laser profiling system that produces location and elevation data to define the surface of the earth and heights of above-ground features.³⁷ This mapping project has resulted in the most accurate data available to date for use in delineating storm surge zones using the National Oceanographic and Atmospheric Administration's (NOAA) SLOSH model.

The SLOSH model, which stands for Sea, Lake, and Overland Surges from Hurricanes, is a computerized model run by NOAA's National Hurricane Center to estimate storm surge heights. The model is used to analyze at-risk-areas that will require evacuation.³⁸

Another completed component of SRESP is the regional behavioral analysis. The behavioral analyses indicate that each county or region have certain unique factors that influence individuals' decisions to evacuate. However, there are common behavioral factors indicated by the studies that generally apply to all Floridians. They include:

- Of the great majority of evacuations, fewer than 15 percent of evacuees leave on their own prior to an evacuation notice being issued by public officials;
- Actions by public officials have a great impact on evacuation rates. People are much more likely to evacuate when they believe they have been ordered to evacuate than when they believe they have received a recommendation to evacuate or have not been told at all whether they should evacuate;³⁹
- Many evacuees go farther than necessary to reach safety. Going out-of-county can increase evacuation clearance times but has occurred in the past and will in the future until officials are more successful at dissuading evacuees from doing so;
- Very few out-of-county evacuees seek refuge in public shelters. The great majority go to the homes of friends and relatives;
- Survey respondents tend to overstate their likelihood of using public shelters and understate their likelihood of going to the homes of friends and relatives;
- Not all evacuees leave at the same time. Some leave before an evacuation is ordered, some leave immediately after the order, and some wait until shortly before they expect the threatening storm to arrive;
- People prefer not to evacuate at night but will do so if necessary; and
- There is no evidence that vacationers are reluctant to evacuate when a hurricane interrupts their visit to a coastal community. Fewer than five percent will go to public shelters. Between 25 and 50 percent will seek inland hotels and motels. The remainder will return home or stay with friends and relatives in Florida. Those most likely to return home live within a one-day drive of where they vacation.⁴⁰

The Division of Emergency Management is in the process of rolling out a new transportation evacuation modeling tool for use by each of the Regional Planning Councils. The modeling tool includes features such as multiple scenarios based on severity differences, socioeconomic data, Traffic Analysis Zones,⁴¹ transportation

³⁶ Id.

³⁷ FUGRO EARTHDATA, Inc., LIDAR Mapping Fact Sheet at http://www.fugroearthdata.com/pdfs/FCT_Lidar-Educational_11-07.pdf last viewed on September 2, 2010.

³⁸ National Oceanographic and Atmospheric Administration, SLOSH Model, at http://nhc.noaa.gov/HAW2/english/surge/slosh_printer.shtml last viewed on September 2, 2010.

³⁹ Planning assumptions assume that officials issue mandatory evacuation orders for surge-related evacuation zones corresponding to threat hurricane intensities. They also assume that all mobile homes are ordered to evacuate for hurricanes of all intensities.

⁴⁰ Earl J. Baker, Hazards Management Group, Inc., Volume 2 Statewide Regional Evacuation Study Behavioral Analysis-South Florida Region.

⁴¹ A Traffic Analysis Zone (TAZ) is the basic unit of analysis in a travel demand model. A TAZ may be as small as a city block or as large as hundreds of rural acres. All trips begin and end in a TAZ.

network data, behavioral analysis data, at-risk population data, expected number of evacuation trips data, population demographic data, and number of vehicles available for evacuation. Once the number of households located in an evacuation zone is determined, the model then applies the participation rates to see how many households evacuate for that scenario. Once the number of evacuating households is known, the vehicle use rates are applied to determine how many vehicles will be on the roads as a result of the evacuation. The model analysis is used to eventually determine evacuation clearance times. Maximum clearance times ultimately determine the latest time at which an evacuation order can safely be given.⁴²

The Division has also developed an initiative known as the Florida Catastrophic Planning Initiative. This initiative is based on a well-developed scenario known as Hurricane Ono which is a fictional but plausible event. The Florida Catastrophic Planning Initiative promotes development of operational concepts, protocols, plans, and decision tools that can be used across the state to prepare for hurricane emergencies.⁴³

Findings and/or Conclusions

Senate professional staff makes the following findings:

- Florida's evacuation strategy calls for timely evacuation of areas threatened by storm surge and for those who live in structures that would be unsafe in high wind conditions (e.g. mobile homes);
- In order to avoid stranding persons, Florida's evacuation strategy calls on decision-makers to make timely decisions to order evacuations, attempt to dissuade unnecessary evacuation trips, and reduce evacuation clearance times by encouraging persons to limit their evacuation trips to safe in-county shelter;
- Florida recognizes that each emergency event is unique and that each region of the state presents unique circumstances that effect individuals' decisions to evacuate. One size does not fit all when managing evacuations across the various regions of the state;
- Florida has made significant progress in developing highly accurate means for delineating storm surge threatened areas and predicting evacuee behavioral tendencies thereby increasing the state's potential effectiveness in identifying at-risk populations and taking appropriate actions to ensure their safety during hurricane events;
- Certain regions of the state have deficiencies in both general population and special needs population public emergency shelter spaces. Construction of new educational facilities that are emergency shelter criteria compliant is Florida's principal source of facilities used to reduce the state's public emergency shelter deficit;
- Current statute requires newly constructed educational facilities to incorporate emergency shelter criteria in their building designs. However, s. 1013.372, F.S., does not include a mechanism for enforcing compliance. A significant factor in non-compliance is the additional cost premium incurred by state and local entities in order to construct such facilities to meet emergency shelter standards; and
- The Division of Emergency is in the final stage of a multi-year multi-phase program to study and develop better means for managing emergency evacuations.

Senate professional staff offers the following conclusions:

- Emergency evacuations are complex operations that require detailed prior planning including development of demographic, behavioral, transportation, socioeconomic, at-risk populations, and geographic data;
- Decisions to evacuate must be made on a timely basis;
- Population and geographic differences among the state's regions dictate differing regional evacuation strategies. For example, Panhandle coastal counties tend to evacuate out-of-county while large population centers such as southeast Florida are more in-county oriented due to the lengthy times often necessary to clear an evacuation zone; and

⁴² Wilbur Smith Associates, SRESP Transportation Evacuation Model Users Training (footnote continued on next page) at <http://flghc.org/ppt/09-10/TS%20EM11.pdf> last viewed on September 8, 2010.

⁴³ Division of Emergency Management, Florida Catastrophic Planning Interim Contingency Guidance for Catastrophic Events, July 24, 2009, p. 2.

- Florida has made significant improvement in developing its evacuation programs and strategies since the passage of HB 7121.

Options and/or Recommendations

Senate professional staff recommends that the Legislature continue to monitor the completion and implementation of the Statewide Regional Evacuation Study Program.

In addition, the Legislature may wish to consider amending s. 1013.372, F.S., to further encourage the use of newly constructed educational facilities to reduce the state's public emergency shelter deficit.