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May 14, 2012

Barbara Ellen Powell, Planning Analyst
Area of Critical State Concern
Department of Economic Opportunity
Division of Community Planning and Development
107 E. Madison Street
Tallahassee, FL 32399

Dear Ms. Powell,

Please disseminate this to the 2012 Monroe County Hurricane Evacuation Clearance Time Working Group distribution list.

Also, please place this on the agenda and ask for a vote on each of these items at our June 8, 2012 meeting.

1. **WHEREAS**, in his July 14, 2010 letter to Florida Department of Emergency Management Director Mr. David Halstead, Florida Division of Community Planning Director Charles Gauthier stated that "...existing law requires that one-hundred percent of the population in an evacuation zone as proposed within the future land use element of the local comprehensive plan should be utilized in calculating the clearance times for growth management purposes. Specifically, Section 163.3178(2)(d), Florida Statutes, requires that the capability to evacuate the density of the coastal population (and not a fraction of this density) must be included in the Coastal Management Element of local government comprehensive plans...Consequently, the Regional Evacuation Studies that support the Coastal Management Element should reflect this requirement"; and

2. **WHEREAS**, Jonathan Rizzo, Warning Coordination Meteorologist, National Weather Service, Key West stated, "The science of weather forecasting, including track, intensification, wind field and storm surge does not support the assumption that Monroe County will always have 48 hours in which to carry out a phased evacuation," and James Franklin, Branch Chief of the National Hurricane Center Hurricane Specialist Unit stated, "While Average Track Errors for Atlantic hurricanes have been cut in half over the past 15 years, there has been virtually no change in average intensity forecast errors over that period. Rapid intensification is particularly difficult to forecast. Accurate forecasts of storm surge 48 hours in advance are complicated by a lack of ability to forecast changes in storm structure and size, where almost no forecast skill exists. The structure or distribution of a storm's wind field is one of several critical factors in determining the amount of surge that a particular location will experience"; and

3. **WHEREAS** Section 163.3178(9)(a)1(9)(a) states, "A proposed comprehensive plan amendment shall be found in compliance with state coastal high-hazard provisions if: 1. The adopted level of service for *out-of-county* hurricane evacuation is maintained for a category 5 storm event as measured on the Saffir-Simpson scale;" and

4.WHEREAS “Out-of-County” clearance time is defined in the Statewide Regional Evacuation Study Program Glossary as, “...the time necessary to safely evacuate vulnerable residents *and visitors* to a ‘point of safety’ within the county based on a specific hazard, behavioral assumptions and evacuation scenario. Calculated from the point an evacuation order is given to the point in time when the last vehicle assigned an external destination exits the county;” and

5.WHEREAS Florida Statute 380.0552 requires “...Adoption of goals, objectives, and policies to protect public safety and welfare in the event of a natural disaster by maintaining a hurricane evacuation clearance time for permanent residents of no more than 24 hours. The hurricane evacuation clearance time shall be determined by a hurricane evacuation study conducted in accordance with a professionally accepted methodology and approved by the state land planning agency”; and

6.WHEREAS permanent residents of Monroe County live in both site-built and mobile homes; and

7.WHEREAS the Department of Economic Opportunity cites the 2010 Census update as reporting 20,135 “vacant” Monroe County site-built and mobile-home dwelling units; and

8.WHEREAS the Statewide Regional Evacuation Studies Program (Volume 1-11 South Florida, Appendix IC - Monroe County, page IC-12) reports 75% of “vacant” units are for “seasonal, recreational, or occasional use”; and

9.WHEREAS a portion of the seasonal, recreational, or occasional units will contribute to the evacuation traffic, either because they are second homes being occupied for their stated use, or because mainland owners of these second homes will make round trips to prepare for the storm; and

10.WHEREAS it would be indefensible to include ZERO of the second homes in calculating the clearance time for growth management purposes; and

11.WHEREAS the Statewide Regional Evacuation Studies Program (Volume 2-11 South Florida, Regional Behavioral Analysis, page 11) states, “If officials issue evacuation notices more than 24 hours prior to anticipated landfall, evacuation departures will be distributed over a period longer than 24 hours. Some evacuees will leave shortly after the evacuation notice during daylight hours, then departures will essentially stop on the evening of the first day, and then resume on the morning of the second day” and cites the two-day evacuation response curve of Dr. Earl (Jay) Baker; and

12. WHEREAS in accordance with Comprehensive Plan Policy 216.1.8, evacuation of the Florida Keys is a two-phase, 48-hour (two-day) process; and

13.WHEREAS Billy Wagner, Director of Monroe County Emergency Management Operations; Javier Gonzalez, Florida Department of Transportation; Royce Tipton, US Army Corps of Engineers; Nora Williams, Monroe County Commissioner; Terry Rice,

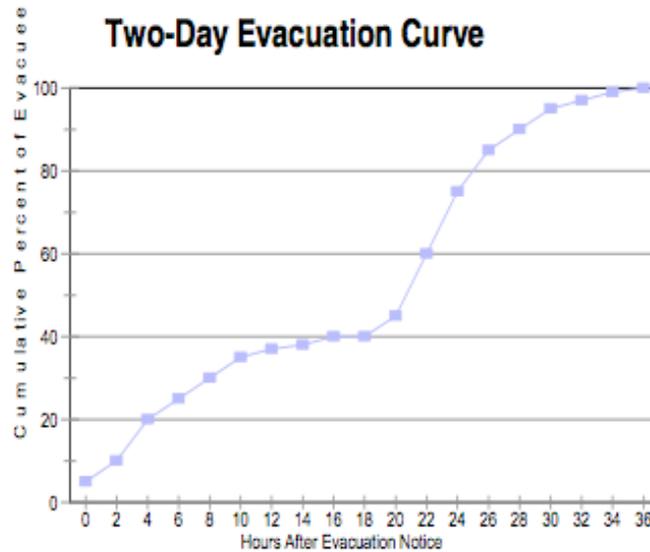
FIU, Former Army Corps of Engineers District Commander; Bob Collins, Florida Division of Emergency Management; Frank Koutnik, Florida Division of Emergency Management; David Rivera, Vanasse-Hangen-Brustlin; Brian Fowler, Vanasse-Hangen-Brustlin; Craig Miller, Miller Consulting; and Joaquin Vargas, Miller Consulting stated in the 2001 Florida Keys Evacuation Study, "For the purposes of this study, traffic generated by hotels and other tourist units were included in determining clearance times, rather than discounted because they will be required to evacuate early... According to the Director of Emergency Management Operations for Monroe County, and others, not all hurricanes approaching the Keys will be 'considerate' enough to provide ample warning for advanced tourist evacuation"; and

14. **WHEREAS** Rule 28-20.140 (5)(a), Florida Administrative Code, states that, "...The memorandum of understanding shall stipulate...the input variables and assumptions, *including regional considerations*...to accurately depict evacuation clearance times..."; and

NOW THEREFORE, the Parties wish to set forth the following understandings:

1. One-hundred percent of the population in an evacuation zone as proposed within the future land use element of the local comprehensive plan will be utilized in calculating the clearance times for growth management purposes.
2. Monroe County residents who live in mobile homes are "permanent residents" for the purposes of calculating the clearance times for growth management purposes.
3. Twenty-five percent of the "seasonal, recreational or occasional use" dwelling units will be utilized in calculating the clearance times for growth management purposes.
4. The two-day response curve of Dr. Earl (Jay) Baker will be utilized in calculating the clearance times for growth management purposes.

Figure 2. Two-day evacuation timing response curve



5. "Regional considerations" will be included by using the Monroe County "Out-of-County" clearance time calculation for a regional evacuation which includes Miami-Dade, Collier and Broward Counties.

Sincerely,

John Hammerstrom, Member
2012 Monroe County Hurricane Evacuation Working Group