July 14, 2010

David Halstead, Director
Florida Division of Emergency Management
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100

Re: Statewide Regional Evacuation Study Parameters

Dear Mr. Halstead:

I have received the Division's letter concerning the planning assumptions to be used in the methodology for determining evacuation clearance times for growth management and emergency management purposes. It is important to confirm these assumptions from the perspective of growth management as the updated regional evacuation studies will help guide future decisions on comprehensive plan amendments in the coastal areas of the state. Thank you for extending the opportunity to work with the Division of Emergency Management to define these parameters.

My staff has coordinated with our Office of Comprehensive Planning, the Department's Office of General Counsel, and the Northeast Florida Regional Council in preparing our response. Our conclusions regarding each of the four parameters are presented in order below, followed by comments about the definitions presented in the Statewide Regional Evacuation Study Program Lists "A" and "B."

(1) What percentage of the population in an evacuation zone should be utilized in calculating the clearance times for that zone?

Regarding this parameter, the Department concludes 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:

A component which outlines principles for hazard mitigation and protection of human life against the effects of natural disaster, including population evacuation, which take into consideration the capability to safely evacuate the density of coastal population proposed in the future land use plan element in the event of an impending natural disaster. The Division of Emergency Management shall manage the update of the regional hurricane evacuation studies, ensure such studies are done in a consistent manner, and ensure that the methodology used for modeling storm surge is that used by the National Hurricane Center. (Section 163.3178(2)(d), Florida Statutes)

Consequently, the Regional Evacuation Studies that support the Coastal Management Element should reflect this requirement.

(2) Should ‘shadow’ evacuation be included in clearance time calculation? If so, what percentage should be used?

Based on the statutory authority above, we further conclude that shadow evacuation is an important factor to consider when calculating clearance time. The ability to exit an evacuation zone is dependent upon the road capacities outside the evacuation zones. Therefore, the impact of all shadow evacuees must be taken into account. This should be viewed as a factor integral to determining clearance times. The percentage used to estimate the numbers of shadow evacuees should be derived from the behavioral analyses conducted as part of the Statewide Regional Evacuation Study Program.

(3) What vehicle usage rate should be used?

The Department concludes that the vehicle usage rates should be based upon the behavioral analyses conducted as part of the Statewide Regional Evacuation Study Program. These analyses take into consideration the different characteristics throughout the state with regard the numbers of vehicles persons might use when evacuating.

(4) What evacuation response rate should be used in the baseline?

Last, while there is no statutory basis for selecting a particular evacuation response rate, the Department concludes that the 12 hour evacuation response curve should be used in the baseline for the evacuation clearance time methodology. We understand that this is consistent with emergency planning practices currently used by county emergency managers and is a reasonable approximation of evacuation responses over a range of scenarios. We do not believe that a faster response rate should be employed because it assumes scenarios in which the evacuating population consistently responds quickly to evacuation orders and that such orders are issued at times that are convenient to allow for prompt action.
Please note that the Department administers the Areas of Critical State Concern program. Under Section 380.0552(4)(e)2., Florida Statutes, the hurricane clearance time for the Florida Keys Area of Critical State Concern is to be determined by a hurricane evacuation study conducted in accordance with a professionally accepted methodology and approved by the Department:

2. 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.

While we affirm that the assumptions discussed above are appropriate for calculating clearance times for general growth management and emergency management purposes pursuant to Section 163.3178, Florida Statutes, professionally accepted assumptions for the Florida Keys may differ as necessary to comply with the unique provisions of Section 380.0552(4), Florida Statutes.

With regard to the Final Draft of the Statewide Regional Evacuation Study Program Terms A and B, the Department has previously provided the Northeast Florida Regional Council specific suggestions that have already been accepted and incorporated into revised documents that have not been released. We offer the following additional suggestions:

- The two current documents (Terms “A” and “B”) should be merged and ordered alphabetically. Also, these terms should be alphabetically integrated with Terms “C” when it is developed.

- Several definitions in the Terms B document refer to the “Department.” As the definitions for these terms derive from Rule Chapter 9J-2, Florida Administrative Code (F.A.C.), it may be necessary to clarify that the “Department” is the Department of Community Affairs. [Inland Shelter Study; Special Hurricane Preparedness District; Substantial Impact on Hurricane Preparedness]

- The definition of “Mitigation of Hurricane Impacts” borrows language from Rule 9J-2.056, F.A.C. However, it includes references to “paragraphs (a) and (b),” and (b) was not included in the definition provided. Further, paragraph (a) refers to “subsection (5) above,” which is a reference to Rule 9J-2.0256(5), F.A.C. Without complete cross-references, or incorporation of the balance of the referenced text, the definition is incomplete and is unclear to the user. The first reference (b) can be safely deleted.
• The definition of "Inland Shelter Study/Plan" should read "is a study."

• The parenthetical phrase in the heading for "Regional Hurricane Evacuation Study" should include the label "Regional Hurricane Evacuation Plan." Please note that the Rule 9J-2.0256, F.A.C., definition includes DCA as a contributor to such studies, but this definition does not.

• The correct citation for "Special Hurricane Preparedness District" should be Rule 9J-2.0257, F.A.C.

Should you have any questions or require further clarification or additional information, please feel free to contact me.

Sincerely,

Charles Gauthier, AICP
Director, Division of Community Planning

CG/cd

cc:  Gwen Keenan, DEM
     Sandy Meyer, DEM
     Jeffrey A. Alexander, NEFRC