

EXECUTIVE SUMMARY



To: Jim Scholl, City Manager

Through: Donald Leland Craig, AICP, Planning Director

From: Donald Leland Craig, AICP and Nicole Malo, Planner II

Meeting Date: June 5, 2012

RE: Update on Hurricane Evacuation Modeling effort by the Florida Department of Economic Opportunity and Request for the use of a maximum of \$25,000 to provide a portion (25%) of the funds required to complete a countywide hurricane evacuation behavioral study for mobile home owners to be used in the Statewide Regional Evacuation Study Program model by the Department of Economic Opportunity.

ACTION STATEMENT:

Request: That the City support the on-going effort by the state and the jurisdictions of Monroe County to refine current hurricane evacuation policies and procedures by undertaking computerized modeling and agree to funding a maximum of \$25,000 from the City Managers General Fund Contingency Account to the Planning Department /Professional Services Account to assist the County and Keys wide municipalities to more precisely identify participation by Keys citizens by updating the Hurricane Evacuation Behavioral Study

Location: Keys wide

BACKGROUND:

As part of the 2011 Florida Administrative Code updates the Department of Economic Opportunity (DEO, formerly DCA) is required to enter into a Memorandum of Understanding (MOU) with the Division of Emergency Management, Monroe County, Marathon, Islamorada, Key West, Key Colony Beach and Layton regarding a 24 hour hurricane evacuation rate for permanent residents (see attached Rule 28-20.140 F.A.C). The MOU will form the basis for determining maximum build-out capacity and the remaining unit allocation distribution for the Keys for at least the next ten years. The MOU, due by July 1, 2012, will address input variables and assumptions that have been collected by the state departments involved in both Community Planning and Emergency Management including a statewide survey of hurricane evacuation behavior. The City Commission early in 2012 appointed Commissioner Johnston as liaison and its representative to the Hurricane Evacuation Clearance Time Work Group made up of local

elected and appointed officials, state appointed citizen members and state officials and employees who will guide the hurricane modeling effort.

To date, the DEO has hosted three Hurricane Evacuation Clearance Time Work Group meetings with interested parties throughout the County to discuss the following and other pertinent data : the state statutes that regulate areas of critical state concern, Rule 28-20.140 F.A.C, the Statewide Hurricane Evacuation Study Program Model (Census data, behavioral studies, military evacuation procedures, traffic flow rates, hurricane forecasting), property rights and takings claims (county wide vacant lot analysis), and the draft MOU. Staff has attended all three meetings and at the most recent meeting held April 30, 2012 City and County staff contributed to review and revisions of the MOU based on the results of the modeling to date and the particular needs, Comprehensive plan and Land Development Regulations of each jurisdiction.

While much progress has been made to refine the model and the inputs into it to determine if the legislative mandate of 24 hour evacuation of permanent residents can be maintained and new residential development allowed consistent with that mandate, the predictions of allowable growth and efficacy of assumptions have proved sometimes confusing and inconclusive. This has been due largely to what is the realistic participation of mobile home dwellers in an early evacuation, which is now not the case and what is the consensus on the worst case storm event scenario for evacuation modeling.

Outstanding discussion items which will be further discussed at the upcoming and anticipated last HEM Meeting/Workshop:

1. Evacuation Time Categories:

The DEO has recommended revisions to the current three phase evacuation management policy to a two phase policy. The changes proposed that approximately 48 hours in advance of tropical storm winds a mandatory evacuation of non-residents, visitors, recreational vehicles (RV's), travel trailers, live-aboards (transient and non-transient), mobile home residents, special needs residents and hospital and nursing home patients evacuate. The remaining permanent residents would be ordered to evacuate 30 hours in advance of the arrival of tropical storm force winds in the Keys. An underlying assumption of this two phased approach is that these types of dwellings and uses would not have an effect on the required 24 mandate for permanent residents.

2. Storm Category - Cat 5:

The Working Group has reluctantly come to the conclusion that as mandated by statute, evacuation modeling is driven by the assumption of a Category 5 storm approaching the Keys. There remains disagreement as to how to assume its direction and landfall and if such is applicable to the model at all.

3. Evacuation of Mobile Home Units - Behavioral study:

The Keys’ jurisdiction Planning Directors, including the City of Key West have discussed coordinating and funding additional data collection with regard to “participation rates.” It appears the sample size for the development of participation rates especially mobile home residents within the Statewide Regional Evacuation Study Program may have been based on a small/limited survey interview sample of Florida Keys residents and it may be beneficial to do a more comprehensive survey of the Florida Keys residents to ensure accurate participation rates. It is vitally important to understand the realistic mobile home participation rate if all or a portion of these units are assumed and required to leave in the Phase evacuation.

Preliminary discussion with Reid Ewing, a consulting social scientist, who participated in earlier evacuation models and studies, and currently on contract with Monroe County indicated that a new survey may cost between \$50,000 to \$100,000 for a survey approaching 1,000 respondents – this is dependent on type and complexity of the survey. Mr. Ewing is refining a survey structure and will provide the local jurisdictions a better estimate of the cost soon.

Based on these current estimates, dividing the cost of the surveys based upon the local jurisdictions’ current ROGO/BPAS allocation distribution, the approximate cost to each entity would be:

	Current Allocations				Approx. Cost	
					\$50,000.00	\$100,000.00
Layton	3	0.0084746	0.847458	1%	\$500.00	\$1,000.00
Key Colony Beach	6	0.0169492	1.694915	2%	\$1,000.00	\$2,000.00
Islamorada	28	0.079096	7.909605	8%	\$4,000.00	\$8,000.00
Marathon	30	0.0847458	8.474576	8%	\$4,000.00	\$8,000.00
Key West	90	0.2542373	25.42373	25%	\$12,500.00	\$25,000.00
Monroe County	197	0.5564972	55.64972	56%	\$28,000.00	\$56,000.00
TOTAL	354			100%	\$50,000.00	\$100,000.00

4. Shoulder Improvements:

Currently the use of US Highway 1 shoulder improvements is not assumed in the evacuation of vehicles from the Keys. This is an operational determination by the Monroe County Sheriff. He has indicated a willingness to consider the use of the shoulder north of Jewfish Creek Bridge. This new assumption will be considered in new runs of the model which is to be provided on June 8.

5. Allocation distribution rates (existing and proposed):

The City of Key West has not received new BPAS/ROGO allocations from the state in at least 10 years because the required Comprehensive Plan Evaluation and Appraisal Report (EAR) based amendments have not been yet completed. However, the City according to the City’s BPAS system and the Florida Administrative Code applicable to the City is entitled to receive 90 BPAS/ROGO unit allocations annually of the total 355 unit distribution throughout the county.

All of the modeling to date has been based on the current allocations County wide, inclusive of the City's, or a percentage of the allocations system wide to test the effects of a smaller number of units on maintaining the 24 hour evacuation requirement. The City's assumption that the present allocation of 90 units per year could change if DEO accepts the position that allocations should go to the jurisdictions which have the greatest number of vacant lots for which residential use is the only reasonable use and for which there are no current allocations. The City of Key West has reserved beneficial use allocations and covered potential adverse takings claims. The County and other jurisdictions have not. Therefore, new modeling scenarios have and will be considered where allocation distribution are based on a percentage of vacant lots not protected which could negatively impact the City's current mandated allocation of 90 units per year. City staff maintains the current 90 unit allocation is necessary for affordable housing, economic development, permanent housing loss and unforeseen situations.

Previous and Scheduled Events

January 30, 2012	HEM Meeting/Workshop
February 27, 2012	HEM Meeting/workshop
April 30, 2012	HEM Meeting/Workshop
May 9, 2012	County-wide Planners Meeting
June 6, 2012	County-wide Planners Meeting
June 8, 2012	HEM Meeting/Workshop

Previous City Actions: None

Planning Staff Analysis:

At the time this executive summary was written Monroe County, the City of Marathon, the City of Layton, the City of Key Colony Beach and the Village of Islamorada were to discuss, or had discussed the findings of the HEM workshops including the request to aide in the funding of the mobile home evacuation behavioral survey, based on the table above. Not all the jurisdictions have yet to decide as to funding the revised study. By the time of the June 5th meeting, City staff will have an update. If the other jurisdiction, most notably the County agree to fund the revised behavioral survey, the City of Key West should also participate.

Further, the BOCC on Tuesday, May 22, 2012 made the following recommendations, the results of which will be presented to at the next HEM Meeting to be held June 8, 2012:

1. That hurricane evacuation modeling runs be done assuming a Phase 2 evacuation be initiated at 36 hours instead of 30.
2. That Mobile homes be assumed to evacuate with the remaining permanent residents at the 36 hour timeframe.

Options for Action

Option 1

Planning Staff recommends the following actions:

1. Should the County agree to fund the revised Mobile Home and Permanent evacuation participation study, the City of Key West, should participate not more than \$25,000 based upon the 25% of the current BPAS/ROGO allocations.
2. The staff should continue to monitor the latest Monroe County Board of County Commissioners (BOCC) recommendations for a 36 hour evacuation order for Phase 2 and its impacts both on the achieving the state mandated 24 hour evacuation goal, but also on the number, type, timing and sharing of BPAS/ROGO allocations.

Option 2 :

1. Decide not to participate in the revised participation study and to continue to monitor and participate in all aspects of the Hurricane Evacuation Modeling (HEM) workshops.

Options/Advantages/Disadvantages:

Option 1:

1. **Consistency with the City's Strategic Plan, Vision, and Mission:** The recommended action is consistent with the City's Strategic Plan in that it responds to the Plan's goal of protecting the citizens' welfare in planning responses to natural disasters.
2. **Financial Impact:** The recommended action will require the allocations of not more than \$25,000 from the City Manager's Contingency Fund.

Option 2:

1. **Consistency with the City's Strategic Plan, Vision, and Mission:** The recommended action is consistent with the City's Strategic Plan in that it responds to the Plan's goal of protecting the citizens' welfare in planning responses to natural disasters.
2. **Financial Impact:** The city would not expend \$25,000 for the revised study. The City already funds the participation of staff in the HEM process.

Recommendation

Staff recommends Option number 1.