South
Florida
Regional
Planning
Council

# MEMORANDUM

AGENDA ITEM #12a

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DATE:       JULY 12, 2010

TO:         COUNCIL MEMBERS

FROM:       STAFF

SUBJECT:    STATEWIDE REGIONAL EVACUATION STUDY PROGRAM – UPDATE

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Council staff participates along with the other ten regional planning councils in the Statewide Regional Evacuation Study Program (SRESP), funded through the Florida Division of Emergency Management (DEM).  Deliverables will include printed documents and digital data, including GIS outputs.  The completed study will consist of eight volumes, described below.

**Volume 1 – Technical Data Report**
- Regional Demographic and Land Use Analysis – A systematic enumeration and Geographic Information System (GIS) mapping of the dwelling units, population, vehicles and socio-economic characteristics for the three counties and the region in 2000 and 2006, as well as the projected dwelling units, population and vehicles within those areas in the years 2010 and 2015.
- Regional Hazards Analysis – A comprehensive analysis of the potential hazards to the South Florida region, including investigations of past hurricanes, storm surge, tornadoes, flooding, hazardous sites, terrorism and nuclear facilities, and a critical facilities inventory.
- Regional Behavioral Analysis Summary – A summary of the probable tendencies of potential evacuees based on a detailed residential survey by evacuation zone (Volumes 2 and 3).
- Regional Population and Vulnerability Analysis – Delineation of the storm tide limits and the evacuation zones, identification of population-at-risk and evacuation populations, and a storm surge analysis of critical facilities.
- Regional Shelter Analysis – An inventory of existing public shelters and shelter capacity analysis, and geocoding of the data to create a layer of shelter locations.
- Regional Transportation Analysis – Use of an evacuation transportation model specially developed for the study to calculate clearance times for five categories of storm, according to both a baseline set of assumptions and "operational" scenarios developed by the county emergency management staff.

**Volume 2 – Regional Behavioral Analysis (Dr. Earl Jay Baker, Hazards Management Group) –** A set of planning assumptions developed by Dr. Baker based on the survey results in Volume 3.  These will be used to establish the behavioral assumptions used in the transportation analysis.

**Volume 3 – Regional Behavioral Survey Report (Kerr and Downs Research) –** A total of 18,800 telephone surveys were completed statewide by the contractor, Kerr & Downs, in late 2007 and early 2008.  The volume for South Florida includes extensive tabulations of the questions asked in 400 phone surveys conducted in each county (Monroe, Miami-Dade and Broward).

**Volume 4 – Evacuation Transportation Analysis (Wilbur Smith Associates)**
**Volume 5 – Evacuation Transportation Supplemental Data Report (Wilbur Smith Associates)**
**Volume 6 – Emergency Management Evacuation Tool Kit (one for each county)**
**Volume 7 – Storm Tide Atlas (one for each county)**
**Volume 8 – Methodology of Evacuation Transportation Modeling (Wilbur Smith Associates)**

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The principal document of the evacuation study will be the Technical Data Report, prepared by Council staff. In addition, Council staff will prepare an Emergency Management Evacuation Tool Kit (Volume 6) and a Storm Tide Atlas (Volume 7) for each of the three counties in the region. Volumes 2, 3, 4, 5 and 8 are products of consultants who have compiled technical support data and analysis under contract for the statewide program.

As part of the statewide study, the DEM managed a separate contract for the production of updated Light Detection and Ranging (LiDAR) elevation data, which was completed for about 28,000 square miles across the State of Florida. CH2M Hill was the contractor that collected data for South Florida. Processing of the LiDAR data and preparation of the data for the National Oceanic and Atmospheric Administration's National Hurricane Center (NHC) was completed in May 2009. New Sea, Lake and Overland Surge from Hurricanes (SLOSH) modeling was then completed for two SLOSH basins involved in the update for South Florida: Biscayne Bay for Miami-Dade and Broward Counties, and Florida Bay for Monroe County. Additional information about the LiDAR and SLOSH project is available on the Florida Division of Emergency Management website at www.floridadisaster.org/gis/lidar.

Several of the Councils have been designated as leads for development of the methodology for specific sections of the studies. South Florida Regional Planning Council staff is the lead for the demographic analysis. In that role, Council staff developed a set of guidelines for the collection of data for demographic profiles for each county and each region, as well as for the collection of small-area data to support the transportation analysis. In addition, Council staff prepared demographic data for all 67 counties in the State of Florida, organized by RPCs, from the 2000 Census (block group data) and from the 2006 American Community Survey (ACS) (county data), to support the development of demographic profiles. Council staff also provided data from the 2000 Census Transportation Planning Package for 31 counties with over ten thousand traffic analysis zones (TAZs) for use in the transportation analysis.

Project Timeline

Completion of the regional evacuation study for South Florida is contingent upon the transportation analysis. The deliverables from the transportation analysis are currently projected to be complete in July or August 2010, with training in the use of the transportation model scheduled to follow. Once the study is complete and delivered, county emergency management officials are expected to begin updating county emergency plans for operational purposes.

Additional information related to the Statewide Regional Evacuation Study Program, including printable copies of intermediate products, can be found at www.sfrpc.com/sresp.htm. Please contact Richard Ogburn (rogburn@sfrpc.com), or Manny Cela (mcela@sfrpc.com) if you have any questions or need additional information.

Recommendation

Information only.