Critical Infrastructure Program

Danny Kilcollins, Facilities Unit Manager - FDEM
Dean Griffin, Facilities Unit - FDEM
Critical Infrastructure Program

Danny Kilcollins, FPEM
Planning Manager
Division of Emergency Management
TOPICS

- 2006 Statewide Emergency Shelter Plan
- 2006/07 Base Grant Scope-of-Work
  - Public Hurricane Shelter Program
  - Fuel Strategy
- HB 7121
2006 Statewide Emergency Shelter Plan
January 31, 2006
2006 Statewide Emergency Shelter Plan

Provides guidance to School Boards and local Emergency Managers:

- Chapter 1 – History and Statutory Authorities
- Chapter 2 – Exemptions
  - Includes estimate of school board compliance
- Chapter 3 – Summary of shelter space deficits/surplus
- Chapter 4 – Types of Facilities req’d to include EHPAs
- Chapter 5 – Funding
  - PECO – Includes estimate of PECO funds distributed since FY 97/98 thru 05/06
- Chapter 6 – Summary of state program
Minimum Hurricane Safety Criteria for DEM Recognized Hurricane Shelters

Standards for Hurricane Evacuation Shelter Selection
DEM “Recognized” Hurricane Shelters

DEM does **not** “certify,” “approve” or “designate” hurricane shelters

- There is no such thing as a licensed, registered or certified ARC 4496 inspector

“Recognition” means that, at a minimum, the identified facility appears to meet the intent of ARC 4496

“Recognition” is based on best available information, which is subject to change for cause

Local officials are responsible for reporting changes that could affect recognition
DEM “Recognized” Hurricane Shelters

- Landfalling vs Exiting hurricane recognition
  - Some facilities in southwest coastal counties are only recognized for exiting storms

- New school buildings (or facilities) reported as EHPAs by local emergency managers are assumed to meet ARC 4496
  - Exception: Cat. 5 storm surge inundation greater than one (1) foot

- Concern: Post-construction documentation of debris impact resistance of windows and doors!
2006 Statewide Emergency Shelter Plan

Appendices provide guidance to School Boards and local Emergency Managers:

- Appendix A – Summary of DEM-recognized ARC 4496 and EHPA shelter capacity
- Appendix B – EHPA Code Text; s. 423.25, FBC
- Appendix G – Guidance for Design & Construction of EHPAs
- Appendix H – FISH room types recognized as suitable/usable for public shelter
- Appendix J – Summary of Hurricane Shelter Demand Data
- Appendix K – List of Debris Impact Resistant Wall & Roof Assemblies
2006 SESP Regional Hurricane Shelter Space Deficit Map
2006 SESP Hurricane Shelter Deficit Reduction Progress

[Graph showing the status of hurricane shelter spaces from 1996 to 2013, with categories for capacity, demand, projection capacity, and projected demand.]
### 2006 SESP Summary of EHPA Compliance

As of 15DEC 05:

<table>
<thead>
<tr>
<th>Description</th>
<th>#Bldgs</th>
<th>NSF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognized EhPA</td>
<td>302</td>
<td>12,510,243</td>
</tr>
<tr>
<td>County Exempted Bldgs</td>
<td>269</td>
<td>7,327,606</td>
</tr>
<tr>
<td>Located in Cat 1/2/3 zones</td>
<td>296</td>
<td>8,691,039</td>
</tr>
<tr>
<td>Subtotal that met law:</td>
<td>867</td>
<td>28,528,888</td>
</tr>
<tr>
<td>Total of FISH Bldgs</td>
<td>1708</td>
<td>50,718,368</td>
</tr>
<tr>
<td>Total that should have been EHPA's:</td>
<td>841</td>
<td>22,189,480</td>
</tr>
<tr>
<td>% non-compliance:</td>
<td>49.24</td>
<td>43.75</td>
</tr>
<tr>
<td>% compliance:</td>
<td>50.76</td>
<td>56.25</td>
</tr>
<tr>
<td>Potential EHPA space lost (50% req'd)</td>
<td></td>
<td>11,094,740</td>
</tr>
<tr>
<td>Potential EHPA NSF lost x .65 usability</td>
<td></td>
<td>7,211,581</td>
</tr>
<tr>
<td>Potential EHPA spaces (divide by 20)</td>
<td></td>
<td>360,579</td>
</tr>
</tbody>
</table>

Total # Counties requested info: 61

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% responding with info:</td>
<td>91.04</td>
</tr>
<tr>
<td>(six counties had no new bldgs meeting criteria)</td>
<td></td>
</tr>
</tbody>
</table>
2006 SESP

Special Needs Shelters

- Demand per County estimate based on:
  - ’04 or ’05 Max. Daily Census
  - 35% of October ’05 PSN Registrants
  - County EM Office Demand Estimate
  - Whichever is higher

- PSN Growth Rate thru 2011 is based on growth rate of age 65+ Population

- PSN Demand is **not** in addition to Gen. Pop. Demand
#4 Hurricane Shelter Space Deficit Elimination Strategy
(all due May 1, 2007)
- Identify & Submit Recommended Retrofit Projects
- Report ALL Retrofit Projects, regardless of funding source
- Develop a strategy to ensure SpNS have emergency power supported air-conditioning
- Revise and Submit hurricane shelter deficit progress spreadsheets
- Coordinate with school board, community college and universities on hurricane shelter construction/EHPA and retrofit projects

#19 Develop an emergency fuel strategy
Identify and Submit Public Hurricane Shelter Retrofit Projects

- All projects submitted must be through local emergency managers with their respective recommendation.
- All recommended projects must at a minimum meet ARC 4496 upon completion.

Eligible Projects:
- Constructive wind & flood mitigation of existing buildings
- “Code-plus” wind & flood enhancements of new facilities
- Gen-set or pre-wire requests accepted, but very low priority
Identify and Submit Public Hurricane Shelter Retrofit Projects

Eligible Projects (cont’d)

- Funds requested can not exceed:
  - $300,000 per site;
  - 5% of new construction cost;
  - $200 per space ($600 for PSN); or
  - whichever is lesser

DEM’s “suggested” project list

- Consolidation of projects from statewide survey efforts; shutter-only based on info at time of survey
2006 Shelter Retrofit Report

September 1, 2006
Report All Retrofit Projects

- Report all public hurricane shelter construction or retrofit projects, regardless of funding source
  - Projects must meet ARC 4496
  - HMGP funds
  - State or local funds
  - EHPAs at school facilities

- Information will be consolidated with other data sources onto “hurricane shelter deficit reduction progress” spreadsheets
Strategy to Ensure SpNS have Gen-set Supported Air Conditioning

- HB 7121 provides partial solution for 2007
  - Insufficient funds to complete all designated SpNS
- Counties with Multiple Sites will need alternative solutions
  - Determine power & installation requirements
  - Gen-set prewiring when possible
  - Permanent, temporary and/or rental equipment
  - State can assist when local resources exhausted
    - Time/Delivery constraints
Electrical Power Restoration

**POWER RESTORATION:**
DENNIS-SOUTH, DENNIS-PANHANDLE, KATRINA, RITA, WILMA

- Dennis-South: 0.2 Million
- Dennis-Panhandle: 0.3 Million
- Katrina: 1.2 Million
- Rita: 24,800
- Wilma: 3.6 Million

Day 1 begins when the utility companies initiate restoration.

The PERCENT RESTORED column is based on customers that are capable of safely receiving power.

Dated: 03-06-06
Revise and Submit hurricane shelter deficit progress spreadsheets

- DEM staff regularly maintain spreadsheets of “recognized” public hurricane shelters
- Excel spreadsheet files include three (3) separate worksheets:
  - Historical data, 1995 thru Aug. 31, 2006
  - Verification of last year’s forecast, Sept. 1, 2006 thru Aug. 31, 2007
- Local emergency managers provide front-line information as well as quality control check
Revise and Submit hurricane shelter deficit progress spreadsheets

- Spreadsheets can be downloaded from DEM website:
  - [http://floridadisaster.org/bpr/Response/engineers/index.htm](http://floridadisaster.org/bpr/Response/engineers/index.htm)

- CI-Fac staff can e-mail spreadsheet files, and files will be accepted by e-mail

- Spreadsheets can also be distributed and received by CD, diskette or other media
Public Hurricane Shelter Space Deficit Reduction Progress

Hurricane Shelter Status

<table>
<thead>
<tr>
<th>Year</th>
<th>Shelter Capacity</th>
<th>Shelter Demand</th>
<th>Projected Capacity</th>
<th>Projected Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2000</td>
<td>200,000</td>
<td>400,000</td>
<td>600,000</td>
<td>800,000</td>
</tr>
<tr>
<td>2001</td>
<td>1,000,000</td>
<td>1,200,000</td>
<td>1,400,000</td>
<td>1,600,000</td>
</tr>
<tr>
<td>2002</td>
<td>1,600,000</td>
<td>1,800,000</td>
<td>2,000,000</td>
<td>2,200,000</td>
</tr>
<tr>
<td>2003</td>
<td>2,200,000</td>
<td>2,400,000</td>
<td>2,600,000</td>
<td>2,800,000</td>
</tr>
<tr>
<td>2004</td>
<td>2,800,000</td>
<td>3,000,000</td>
<td>3,200,000</td>
<td>3,400,000</td>
</tr>
<tr>
<td>2005</td>
<td>3,400,000</td>
<td>3,600,000</td>
<td>3,800,000</td>
<td>4,000,000</td>
</tr>
<tr>
<td>2006</td>
<td>4,000,000</td>
<td>4,200,000</td>
<td>4,400,000</td>
<td>4,600,000</td>
</tr>
<tr>
<td>2007</td>
<td>4,600,000</td>
<td>4,800,000</td>
<td>5,000,000</td>
<td>5,200,000</td>
</tr>
<tr>
<td>2008</td>
<td>5,200,000</td>
<td>5,400,000</td>
<td>5,600,000</td>
<td>5,800,000</td>
</tr>
<tr>
<td>2009</td>
<td>5,800,000</td>
<td>6,000,000</td>
<td>6,200,000</td>
<td>6,400,000</td>
</tr>
<tr>
<td>2010</td>
<td>6,400,000</td>
<td>6,600,000</td>
<td>6,800,000</td>
<td>7,000,000</td>
</tr>
<tr>
<td>2011</td>
<td>7,000,000</td>
<td>7,200,000</td>
<td>7,400,000</td>
<td>7,600,000</td>
</tr>
<tr>
<td>2012</td>
<td>7,600,000</td>
<td>7,800,000</td>
<td>8,000,000</td>
<td>8,200,000</td>
</tr>
<tr>
<td>2013</td>
<td>8,200,000</td>
<td>8,400,000</td>
<td>8,600,000</td>
<td>8,800,000</td>
</tr>
</tbody>
</table>

Graph showing the increase in shelter capacity and demand, with projections for the years 2000-2013.
Coordinate with school board, community college and universities on hurricane shelter retrofit and EHPA construction projects

- Encourage wind & flood resistance mitigation of appropriate facilities
- Local emergency manager is responsible for coordinating with public education facilities owners to ensure EHPA is considered
  - Ensure visibility of code requirement
  - Consultative assistance during design process
  - Exemptions when appropriate
- A brief summary of actions and results for the year required to be submitted on May 1
Fuel Strategy

- **Firm Fuel Contracts**
- Determine fuel users and daily consumption rates
- **Local Distribution System**
  - Fixed-Sites
  - Mobile Capability
  - 3 day minimum capacity, prefer 5 to 8 days
- Plan for fuel supply reduction (80% of normal, 60%, etc.)
- Prioritize recipients (life-saving emergency services, life-sustaining operations, critical infrastructure, public service normalization, etc.)
2006-71, Laws of Florida (HB 7121)
Hurricane Preparedness Funding

Facilities

$52.8 Million to install gen-sets @ SpNS’s
- Emergency Power must ensure air-conditioning
- Projects must be complete by June 1, 2007

$15.0 Million for Enhancement or Retrofitting of Public Hurricane Shelters
- All projects global matched

$45.0 Million to Construct or Improve County EOCs
- $20M in GR Basic Construction; $25M in HMGP
QUESTIONS???