Lessons Learned During the Flood of 2009

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How It All Began

- **Mid-September:**
  - Nine days of rain in Metro Atlanta

- **September 20-22:**
  - Concentrated rainfall
  - In some areas: Over 20 inches of rain within 48 hours
How It All Began

- Flash flooding in Carroll, Cobb, Douglas, Gwinnett, and Paulding counties (state of emergency declared for 17 counties)
- Unprecedented flooding from rivers and creeks
- Homes and businesses damaged and destroyed (est. $250 million in damages)
- Bridges and roads closed
  - I-285, I-20, I-575, and I-75/85
- 10 flood related fatalities
It Gets Local

- **Cobb County**
  - Austell
    - More than 700 homes damaged (almost 40%)
  - Powder Springs
    - 92 homes damaged
- 5 – 15 feet of water entering homes
It Gets Local

- Douglas County
  - Widespread flooding
  - 256 properties damaged
  - 140 roads and 13 bridges out of service
It Gets Local
It Gets Local

- Peak gage heights (USGS)
  - Sweetwater Creek: 30.8 ft.
  - Dog Creek: 33.8 ft.

"The flooding in Atlanta is certainly near the top of the list of the worst floods in the United States during the past 100 years," – Robert Holmes, U.S. Geological Survey National Flood Program Coordinator
It Gets Local

Photo from AJC.com
It Gets Local

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Photo from City of Austell
It Gets Local

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Photo taken by Kathleen Schmidt
It Gets Local

Photo taken by Jennifer Delveau
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Photo taken by Toni Cole
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The Initial Response

- On the afternoon of September 21, EH was contacted for an inspection of a Red Cross shelter at the Cobb County Civic Center
  - Staff was limited due to inclement weather
  - Available staff were inexperienced with shelter inspections

Mini-lesson: It’s never too late for a little on the job training.
Red Cross Shelter

CDPH Photo
EH Emergency Response Plan

- Details EH role in emergency situations
- Forms for shelter and feeding site inspections
- Well chlorination
- Keep a printed copy handy
Lesson #1

- Just because the health department has closed for the day, doesn’t mean you get the day off.
The Restaurant Crisis

- Douglas County under a “boil water” advisory
- State EH: Water under such an advisory not suitable for commercial use
- 270+ food service facilities in Douglas
- DHD wants them all contacted by COB the next day
Lesson #2

- Use technology to get the word out to your target audience
Sending a Message

- Blast email (Douglas PIO)
- Prominent posting on Douglas County website
- Call lists
  - Mini-Call Center
  - Screening tool
- Field staff cruising concentrated areas
Lesson #3

- During certain situations, it’s OK to give your cell phone number out to a few hundred (maybe 1000 or more) strangers.
The Restaurant Crisis, Part II

- Brief “boil advisory” in the City of Austell (less than 24 hrs.)
- 14 Food Service establishments
- Individual site visits
- Performed daily water system status updates
As the Weekend Approached...

- Daily shelter inspections
- Three DRCs to be staffed by EH
- The word on the street: Shelter #2 was on the way
- The fair was in town
Lesson #4

- It’s OK to ask for help.
The Cavalry Arrives

- State EH office coordinated assistance for Douglas County DRCs (and offered encouragement to a frazzled new director)
- A big “Thank You” to:
  - The State EH DRC Team
    - Bill Dukes
    - Virgil Fancher
    - Greg Harless
    - Maurice Redmond
  - Fulton EH
    - Laurie Cunningham
Staffing The DRCs

- Three DRCs
  - Austell: Threadmill Mall
  - Lithia Springs: LS First United Methodist Church
  - Douglasville: Heritage Baptist Church
- Handouts, advice, and empathy
- Open from 8 AM to 7 PM
- Two shifts, three shifts?
- PH presence morphs into EH presence
- Largest EH staff obligation
Lesson #5

- When the volunteer spirit begins to wane, it’s time to make a schedule.
Schedules

- DRC staffing
- Daily shelter inspections
- Evens out participation
- Assures somebody will be there
- Prevents stranded staff
Mold Arrives

- After the flood water leaves, mold arrives
- Primary reason for EH phone calls
- Main EH role is information
  - CDC
  - EPA
- Used email as an effective way to deliver information
  - Links
  - Phone Numbers
  - PDFs
And Then Came the Media

- National media attention
- It eventually trickles down to EH
- Your PIO is your friend
- Local newspaper
  - Food service advisory
  - Dangers of debris
- Local television
  - Mold/Clean up
  - Abandoned properties
And Then Came the Media

CDPH photos
Where’s Joe?
And Then Came the Media
Lesson #6

- Some situations may be more than an EHS can handle alone.
A Volatile Situation

- Report of people living in flooded mobile homes
- Sick children
- Two EHS on the scene
- No running water
- Angry mob forms
- Staff got out intact
A Volatile Situation

The next day...

- Needed to get people out of damaged trailers ASAP
- Nuisance ordinance was too slow
- Building code was just right
- Transported to shelter
Lesson #7

- Just because you did something before doesn’t mean you need to do it again.
Mosquitoes: What to Do?

- The Hurricane Dennis (July 2005) approach:
  - Door to door (every flooded home)
  - Distribute mosquito prevention, mold, and clean-up info
  - Larvicide standing water, catch basins, etc.
  - Involves majority of staff
Mosquitoes: What to Do?

- It’s late September
- Call Dr. Kelly for advice
  - Mosquito season in its waning days
  - Utilize WNV staff for complaint driven larviciding
  - A prevention press release
The Event Comes to a Close...

- EH staffing at DRCs ends during the first week of October
- Remaining Civic Center shelter residents transferred to Mt. Zion Baptist Church
- By October 11, all shelter residents are relocated to more permanent housing
- EH staff start getting reacquainted with normal work schedule
...Or Does It?

- Recovery continues
- Abandoned homes
  - Garbage and debris
  - Mosquitoes
  - Rodents
- It flooded in 2005, 2009...

To be continued...
Mosquito Surveillance: 2010

- CDPH/CCWS WNV Program Partnership
  - Human: 1 positive
  - Horse: 1 positive
  - Birds: 2 positive
  - Mosquito pools: 2 positive (6 traps in use)
- 180 mosquito related complaints so far...
Questions?