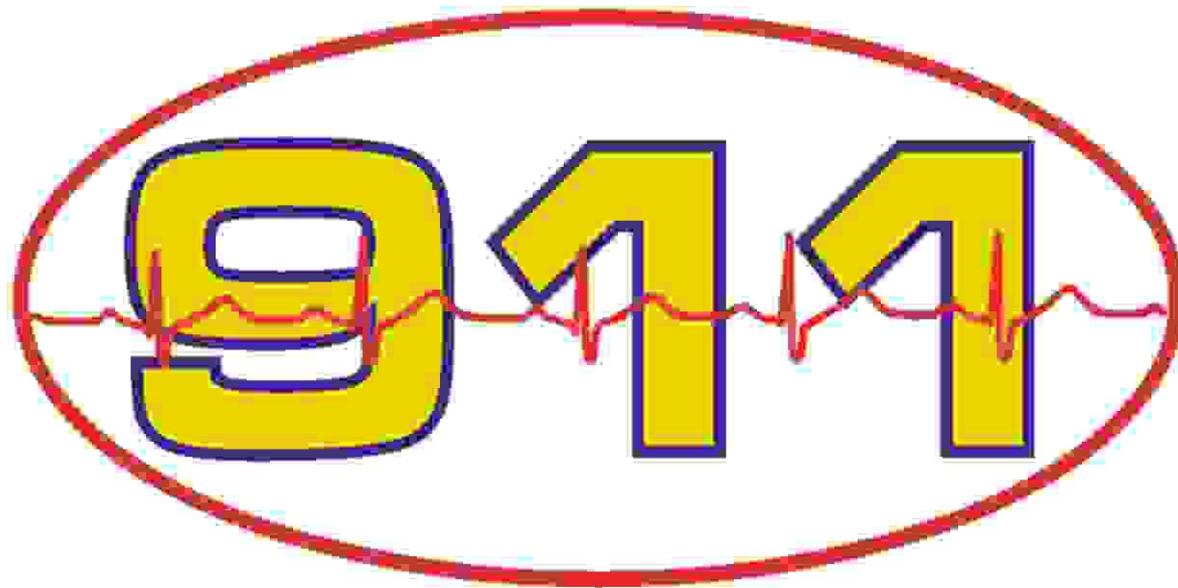


# Bartholomew County Flood

## JUNE 7, 2008

**BARTHOLOMEW COUNTY**

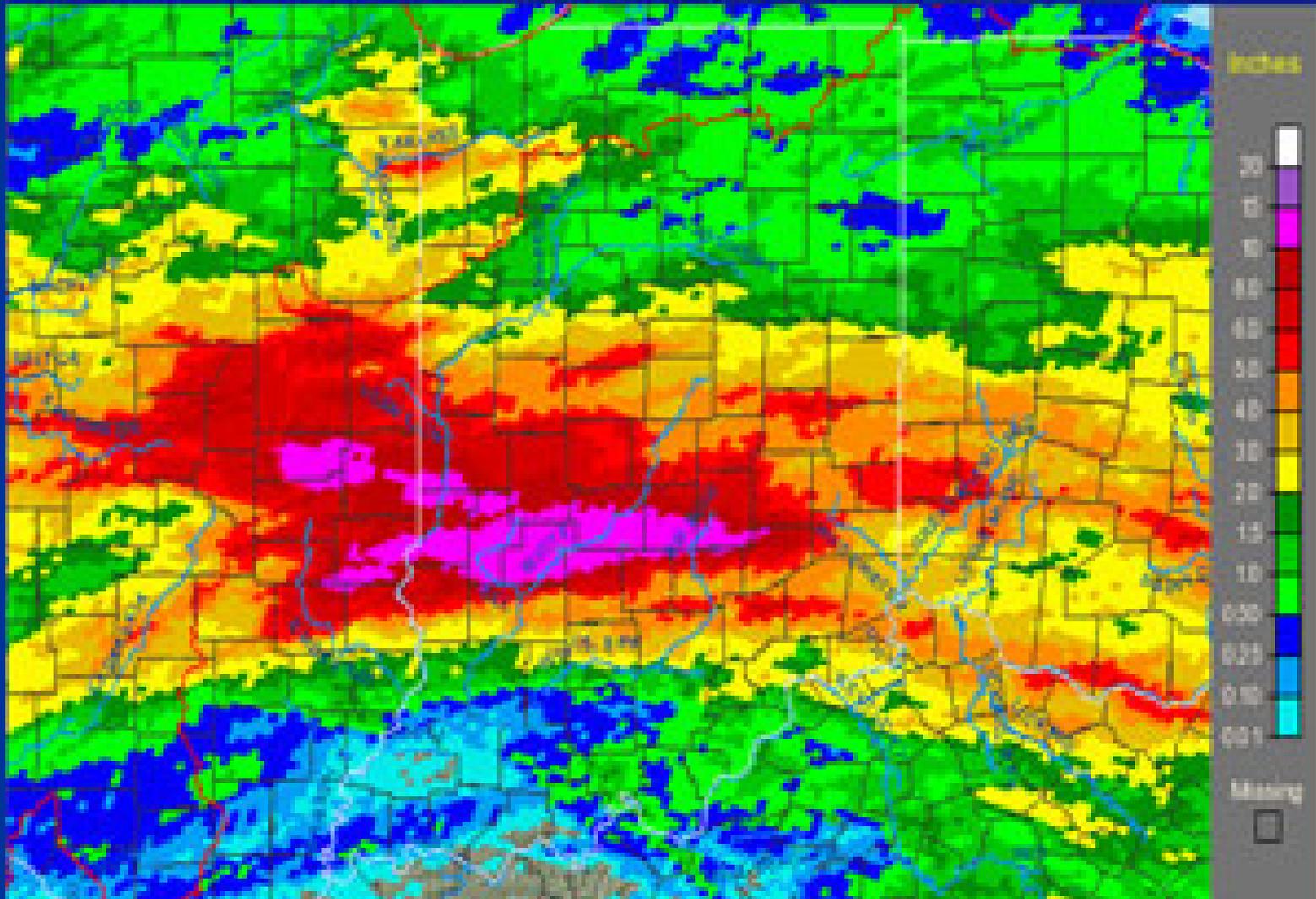


**EMERGENCY OPERATIONS CENTER**

# Rainfall for previous 7 days

Indiana

7-Day Observed Precipitation - Valid 6/8/2008 1200 UTC



Rainfall Amount Inches	Location
10.94	Edinburgh
9.85	3 miles south of Paragon
9.80	Spencer
9.50	3 miles east of Center Point
8.80	Martinsville
7.50	1 mile north of Brazil
7.29	2 miles east of Franklin
6.83	Terre Haute
6.58	Brooklyn
6.37	Mooreville
6.00	2 miles south of Ellettsville
5.30	Hope
4.00	4 miles west of Plainfield
3.09	7 miles east of Southport
2.36	Columbus

# Rainfall Amounts

## FRIDAY, JUNE 6<sup>TH</sup>

## SATURDAY, JUNE 7<sup>TH</sup>

### Indiana Daily COOP Precipitation

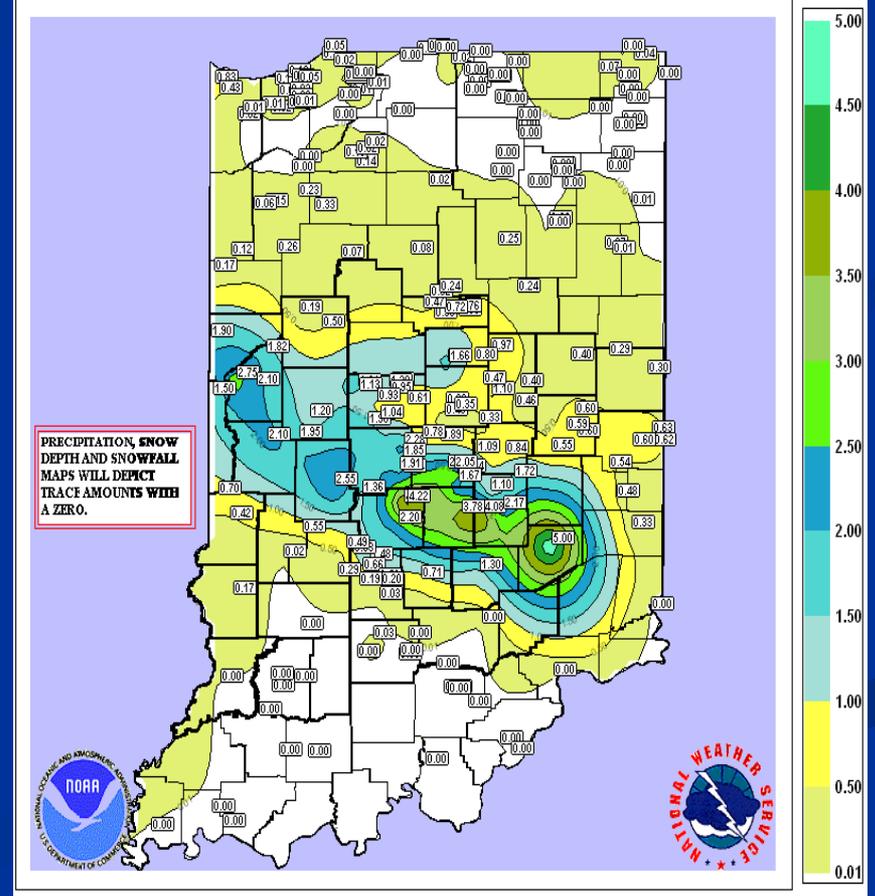
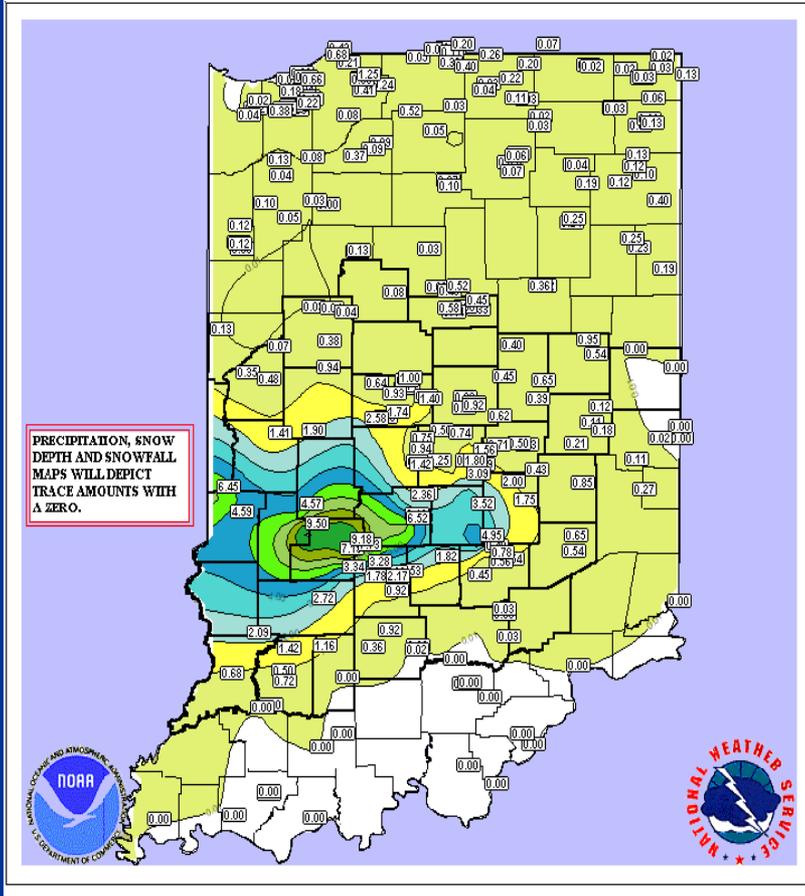
Reports the Past 24 hours ending 7 AM EDT Jun 07 2008

Prepared Jun 07 2008

### Indiana Daily COOP Precipitation

Reports the Past 24 hours ending 7 AM EDT Jun 08 2008

Prepared Jun 08 2008



# News Coverage

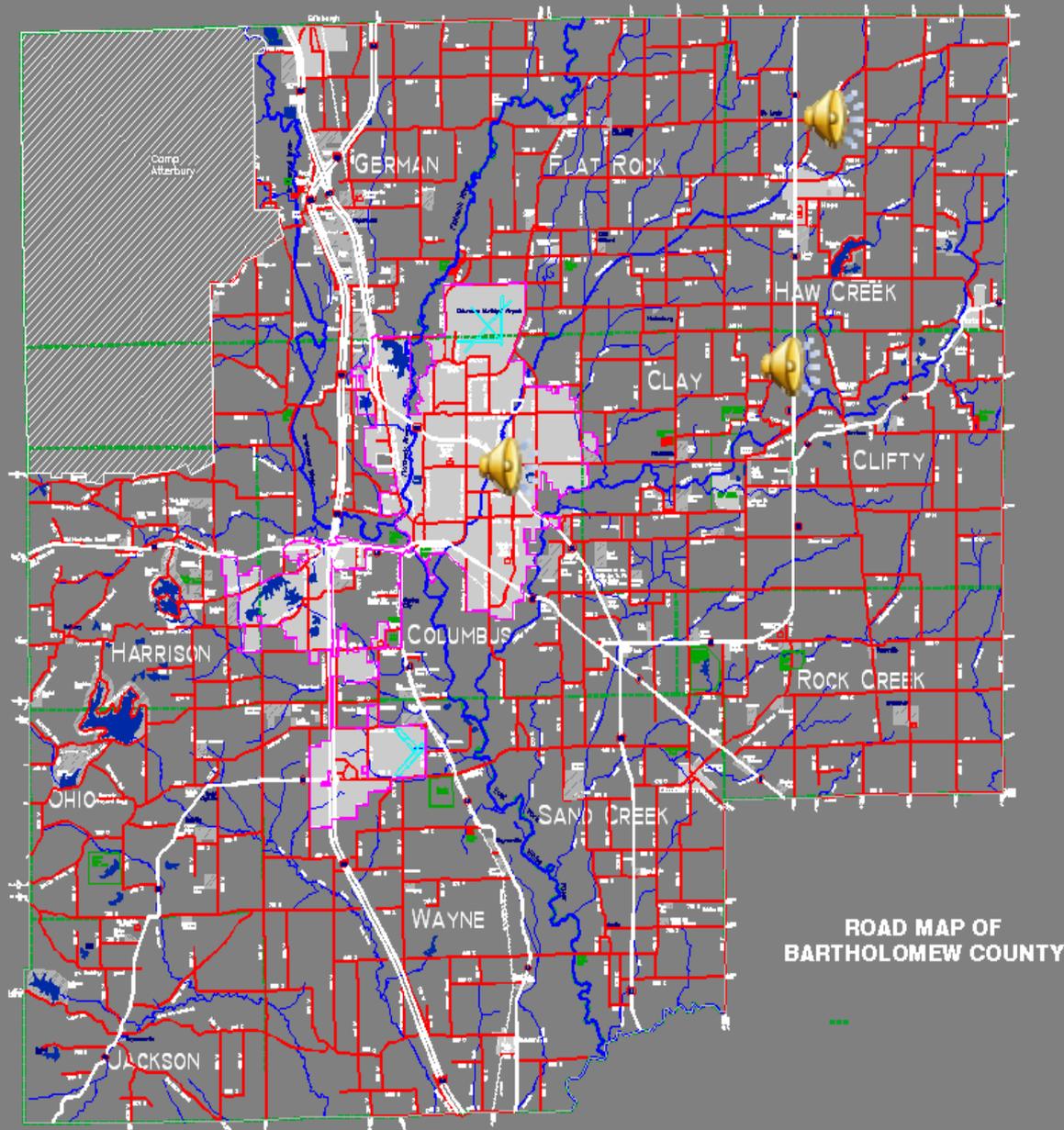


**Rob Youngblood**

[rob.youngblood@wishtv.com](mailto:rob.youngblood@wishtv.com)

**T. STORM  
WARNING**

# Bartholomew County

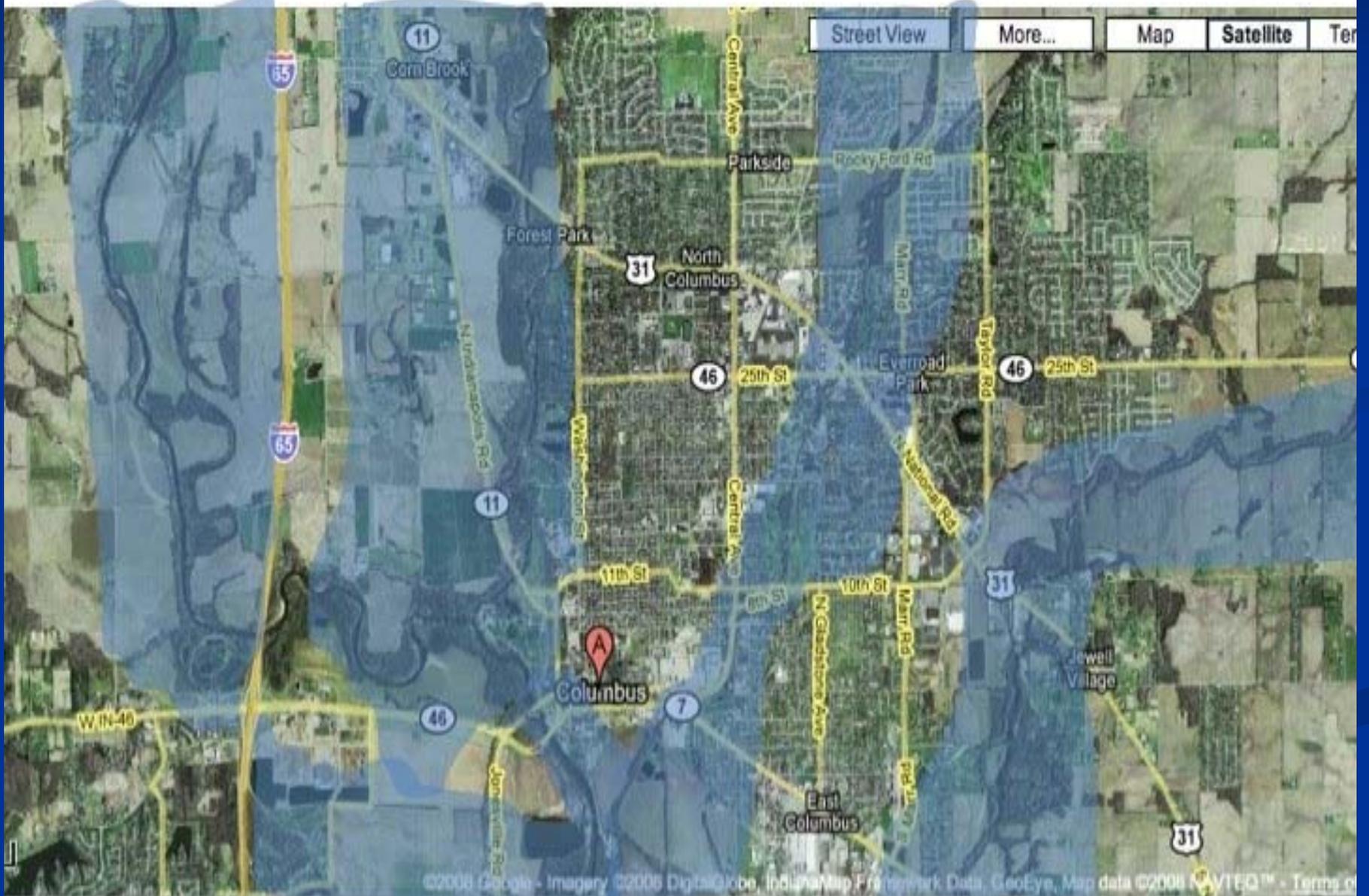




**20 minutes later**  
**Arrowwood Addition**  
**NO ONE IS EXEMPT**



# Columbus Flood Map



# Timeline

## Flood timeline A partial timeline of events for flooding of Bartholomew County and Columbus:

### June 3

Tornadoes strike the region,

### June 6

**5:31 p.m.** - National Weather Service issues tornado watch.

**9:35 p.m.** - Severe thunderstorm warning issued.

**10:15 p.m.** - Tornado watch remains. Up to 11 inches falls in some areas, swelling rivers, destroying homes and businesses and killing two people.

### June 7

**9:31 a.m.** - Water reported over road at Rocky Ford Road and Central Avenue.

**9:59 a.m.** - Report of water over the road at U.S. 31 and Lewis Place.

**10:30 a.m.** - Report of water rescue at roads 800N and 100W.

**11:03 a.m.** - Report of flooding in Taylorsville.

**11:21 a.m.** - Report of flooding in Hope.

**11:25 a.m.** - Water reported over bridge at Talley Road and Conestoga Trail.

**1:47 p.m.** - Interstate 65 and U.S. 31 northbound and southbound to and from Columbus shut down.

**2:14 p.m.** - Flash flood warning extended for Bartholomew and Decatur counties until 9 p.m.

**3 p.m.** - Bartholomew County Emergency Management calls meeting to discuss flood watch in Bartholomew County and Columbus.

**3:33 p.m.** - Report of water at

Candlelight Village and at Rocky Ford and Marr roads.

**3:39 p.m.** - Report of water in Arrowwood Addition.

**4:15 p.m.** - Puddle starts forming on main parking lot of CRH from water spilling over from Haw Creek.

**4:16 p.m.** - Report of water in The Woods Addition.

**4:33 p.m.** - Report of water in Greenbriar Addition.

**4:37 p.m.** - Report of water in Everroad Park East.

**4:45 p.m.** - Report of water in Hillcrest Addition.

**5:10 p.m.** - At CRH, water flooding northern- and easternmost parts of employee parking lot. Water heading towards loading dock and filling

basement rapidly. Also, reports of water at 10th Street and Central Avenue.

**5:12 p.m.** - Report of water at Eastbrook Plaza.

**5:15 p.m.** - CRH evacuates basement.

**5:45 p.m.** - CRH basement filled with water.

**6 p.m.** - Water reaches first floor of CRH.

**6:15 p.m.** - CRH's Emergency Department closes.

**6:30 p.m.** - CRH begins evacuating patients.

**9:48 p.m.** - Report of water in Pleasant Grove.

**10:25 p.m.** - Report of water in the Wehmeier Addition.



# Bartholomew County Flood

- Established Command Post at Emergency Operations 911 Center.
- At 1500 hours, the initial briefing was conducted to coordinate rescue efforts.
- Attendees included Emergency Management, Emergency Operations 911 Center, Columbus Police, Bartholomew County Sheriff, Indiana State Police, Columbus Fire, County Fire, Red Cross, Columbus Regional Hospital, Bartholomew County Commissioner's and Columbus Mayor.
- Briefings were every three hours for the initial 24 hours, two a day first week, one a day second week.



# Flood Disaster Meetings

## ■ **Agenda Items**

- Roll call
- Emergency Management City Government
- Red Cross County Government
- FEMA Volunteer Organizations
- Law Enforcement-- (City, County, State) Media
- Fire (CFD, County Fire) Private Business
- Emergency Operations 911 Center Concerns
- Health Department Weather
- Columbus Regional Hospital Next Meeting
- Indiana Department of Homeland Security

# Bartholomew County 911 Emergency Operations Center June 7, 2008

Time of day	Telephone Transactions	Calls per hour
1200-0600	101	16.8
0600-1200	306	51
1200-1800	1,677	279.5
1800-2350	2,462	410.3
Totals	4,546	189.4

# Radio Usage

- The 800 digital radio systems were challenged with the number of police and fire personnel responding to the disaster.
- At 11:01 a.m. the Columbus Police Department and the Bartholomew County Sheriff's Department switched to the 800 analog radio systems.
- City Fire and EMS units operated on 800 analog and County Fire operated on the digital systems.



# Columbus Tower

Weekend of	Calls	Busies
June 6-June 9	34,882	8,989
May 30-June 1	15,904	40

# Other Communications

- Ham Operators initiated their operation at the Bartholomew County Emergency 911 Center.
- Columbus Regional Hospital lost power causing the county paging system fail.
- The EOC lost e-mail access due to high water in the REMC building.
- E-mail was re-established on Sunday by IDOH assigning a communications mobile command from Stout Field.
- County IT department coordinated with the city IT department for service.
- Cellular phones usage was also limited due to the volume of calls being made as the disaster progressed.
- On June 8<sup>th</sup> the police agencies city, county and state operated on MA 1 to coordinate security and response efforts.



# Tactics Used by Dispatch

- With volume of incoming calls for service, assignments were dispatched in batches in affected housing additions to the rescue teams.
- (Computer screen could not hold the number of calls.) Dispatchers were directed to document the call locations on paper by name, address, and number of individuals that needed be rescued in each subdivision affected.
- Columbus Police and the Bartholomew County Sheriff's Departments were assigned the 800 analog system (switch from 800 digital).
- Columbus Fire, County Fire and EMS remained on normal radio channels.
- Every hour a dispatcher was alternated into a console position for relief.
- For 7 days City, County and State police operated on MA 1.
- (The police officers were assigned to the affected residential areas for security.)
- Dispatchers were assigned to 12 hour shifts for a period of seven days.
- Administrative calls in a pending status until the EOC returned to normal operating status.

# Bartholomew County in Action



# Bartholomew County Response

- EMA Director—contacted School Corporation for transport of evacuees and shelters.
- County Fire—assisted City Fire in rescue efforts and house to house check the day after.
- City, County and State Police—were assigned to 24 hours patrols in housing additions.
- Government worked as one at all levels. (40 INDOT dump trucks removed debris)
- Red Cross—provided meals, shelters.
- Volunteer Organizations—developed a long term recovery program.
- Volunteers responded in recovery and rescue efforts.



# Columbus Disaster



# Logistics

- No telephone or radio failures. (max capacity)
- 911 EOC lost email and internet connectivity.
- County Paging system failed/primary location at Columbus Regional Hospital.
- CAD System – too many calls to read on screen.
- Power outage in City – ATT Generator Fuel concerns.

# Lessons Learned

- This incident proved that 100% cooperation among the agencies was essential to function and it was. The police and fire agencies worked very well together to maintain the protective services for Bartholomew County.
- The Emergency Operations 911 Center did not have enough telephones on the dispatch floor. Currently there are six console positions.
- Some First Responders did not know how to locate MA1 on radios.
- Due the high volume of inbound calls, only the FAX machine was available to make outgoing calls.
- The available space within the EOC was not large enough when all of the agencies arrived.
- The tornado warning system could not be activated in this type of disaster. If activated the casualties may have been higher with citizens seeking shelter in low areas such as basements.

# Warning Systems???

<b>City</b>	<b>Type of Flood Notification</b>	<b>Siren Usage</b>
Cedar Rapids, IA	Local TV	Yes-Tornado
Davenport, IA	Local TV	Yes-Tornado/Wind
Columbus, WI	Reverse 911	Yes-Tornado
Indianapolis, IN	Local TV	Yes-Tornado
Waterloo, IA	Local Media	Yes-Tornado

# By The Numbers

- **2,817** Homes damaged.
- **100+** Businesses damaged
- **500** Million dollars in damages to the City and County.
- **125** Million dollars in damages to Columbus Regional Hospital-
- **147** Patients transferred to area hospitals.
- **4,546** Telephone calls into 911 Center.
- **950** people evacuated from their homes and placed in shelters.
- **2** deaths.



# FEMA RESPONSE

## Bartholomew County

Provided over **\$10,259,749.07** – Housing  
Assistance

Provided over **\$1,557,130.55** – Business  
Assistance

800-621 FEMA (3362)

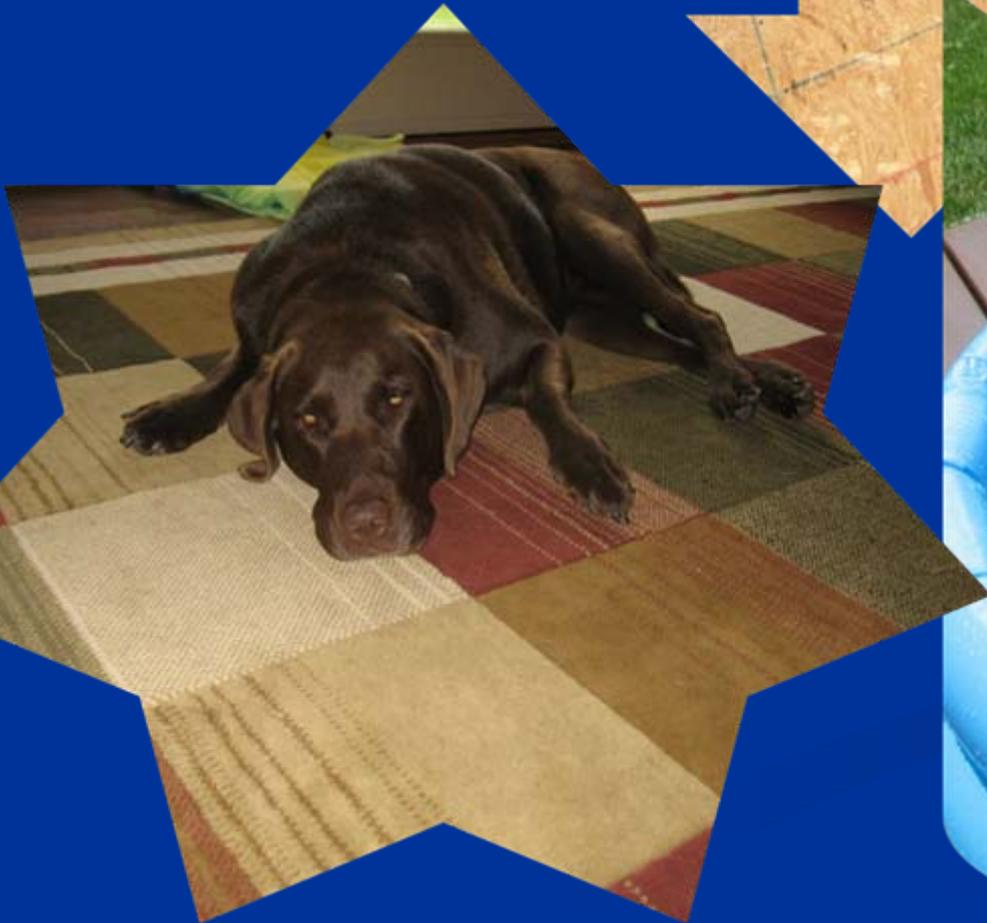
[www.fema.gov](http://www.fema.gov)

# SBA Approved Loans Bartholomew County

■ 140 Residential Homes	\$7,562,000
■ 16 Businesses	\$1,037,500
-----	
■ Total	\$8,599,500

# Conclusion

- The magnitude of this disaster extended all available resources within the Emergency Operations 911 Center.
- The coordination from Bartholomew County Emergency Management Office and cooperation among the agencies (city, county and state) was at its highest level in developing an initial response to the citizens of Bartholomew County.
- The Indiana Department of Homeland Security provided a link to the State EOC for additional assistance as this event unfolded.
- With every available resource activated it was necessary to utilize private citizens who volunteered their services with the rescue efforts. This was especially critical with the evacuations from residential subdivision areas as well as the Columbus Regional Hospital.
- No one could have predicted the devastating results when all of the water traveled down the rivers and streams into the city of Columbus. The rising waters entered residential areas where there has never been flooding before at such accelerated speeds with very little chance for an advanced warning to the public as this disaster began.
- This flood disaster has provided enough data for the County to develop a written comprehensive plan for the EOC.



# Bartholomew County Emergency Operations 911 Center

Edward A. Reuter, Director

[ereuter@bartholomewco.com](mailto:ereuter@bartholomewco.com)

812-379-1551