



# Bluestone Dam Functional Exercise

Warm Start (Player) Briefing

16 June 2012



# Agenda



- Schedule
- Scope
- Purpose
- Objectives
- Exercise Control & Simulation Cell
- Exercise Communications
- Scenario
- Key Issues
- Questions



# Schedule



- 0800-0900 Warm Start (Player) Brief
- 0900 Start of Exercise (STARTEX)
- 1600 End of Exercise (ENDEX)
- 1600-1630 Hotwash
- 1700 Controller / Evaluator Debrief
  
- 11 July After Action Report (AAR) Conference
- 15 August AAR Published



# Scope



- This exercise emphasizes the role of State, county, and local emergency management leadership personnel during the response phase of catastrophic event related to the Bluestone Dam.
- Two primary audiences will be targeted for this exercise.
- The county and local emergency management agencies for Summers, Raleigh, Fayette, Kanawha, Putnam and Mason counties.
- Those state, county and local emergency management agencies that will either receive evacuees from the principal counties or provide direct or indirect support to evacuation and mass care operations.



# Purpose



- The purpose of this exercise is to provide participants with an opportunity to evaluate current response concepts, plans, and capabilities for a response to a flood in the New and Kanawha River Valleys related to a potential Bluestone Dam failure.
- This exercise is a follow-on exercise to the West Virginia Division of Homeland Security and Emergency Management (WVDHSEM) Bluestone Dam Tabletop Exercise (TTX) conducted in March, 2012.



# Objectives



- **EOC Management.** Demonstrate the capability to provide multi-agency coordination (MAC) for incident management by operating an EOC for a short-notice event. EOC management will include staffing, management, direction, control, and coordination of response activities; coordination of efforts among neighboring governments at each level and among local, regional, State, and Federal EOCs; coordination of public information and warning; and maintenance of the information and communication necessary for coordinating response activities.



# Objectives



- **Evacuation.** Demonstrate the ability to execute the policies, plans, and procedures related to citizen evacuation and the capability to prepare for, ensure communication of, and execute the organized and managed evacuation of the at-risk population and companion animals to areas of safe refuge in response an incident affecting the Bluestone Dam.
- **Mass Care.** Demonstrate the ability to execute the policies, plans, and procedures related to providing mass care services, to include sheltering, feeding, caring for special needs populations, and providing for companion animals in response an incident affecting the Bluestone Dam.



# Exercise Control



- Oversees all exercise functions.
- Oversees and remains in contact with controllers and evaluators.
- Debriefs controllers and evaluators after the exercise.
- Provides narration and explanation during exercise events, as needed.



# Simulation Cell



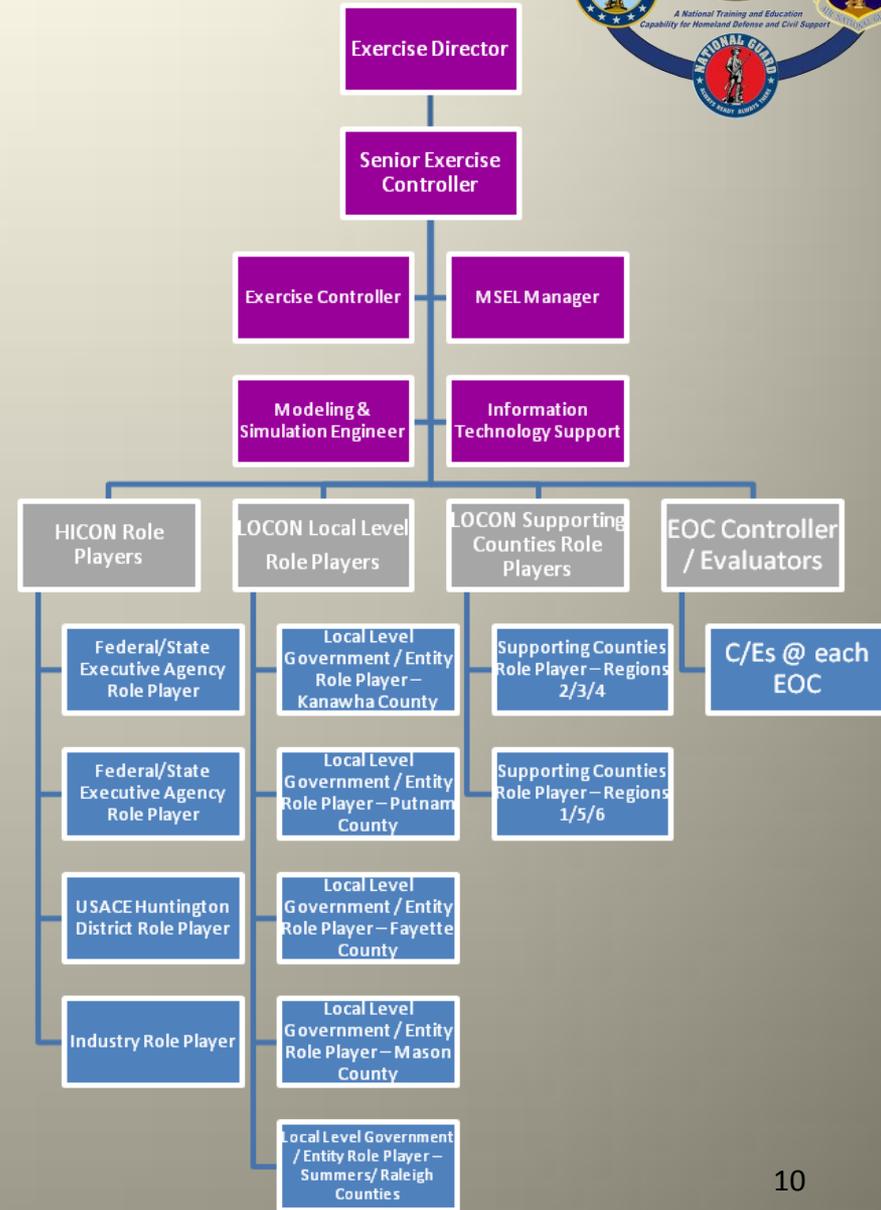
- Issues exercise materials to players.
- Provides input to players (i.e., injects) as described in MSEL.
- Monitors exercise timeline.
- Provides input to players (i.e., injects) as described in MSEL.
- Some Role Players will play multiple agencies and organizations.



# Simulation Cell



- SIMCEL Role Players **simulate non-participating** “higher”, “lower” and “lateral” **agencies and entities.**
- Role Players for:
  - Federal/State Entities
  - Principal County Entities
  - Supporting County Entities
  - USACE
  - Industry





# Exercise Communications



- Exercise communication and coordination will be limited to exercise participants and the SimCell.
- Communications (e.g., written, radio, telephone) begin and end with the statement **“This is an exercise.”**
- **“Real-world emergency”** designated phrase to indicate that there is an emergency and may stop exercise play.
- **“Timeout”** is the designated phrase that controllers use to temporarily stop exercise play.



# Exercise Communications



- Exercise players who place telephone calls or initiate radio communications with the SimCell must identify the **organization, agency, office, or individual** with whom they wish to speak.
- Player elements will use routine, in-place agency communications systems.
- The need to maintain a response capability for real-world response may preclude the use of all communications channels or systems that would usually be available for an actual incident.
- Exercise communications will **NOT** interfere with real-world emergency communications.



# Exercise Artificialities



- The exercise will be played in real time.
- Some events, however, may be accelerated to meet exercise objectives.
  - Traffic congestion due to large volumes of traffic in initial stage of scenario.
  - Evacuees arriving in supporting counties at beginning of exercise.
  - Expedited movement of assets.



# Scenario

## Situation June 16, 2012

### 0800 Hours





# Situation June 16, 2012



- It is mid-June and the National Hurricane Center (NHC) has been tracking the progress of Tropical Storm Jason as it stalls over southwestern Virginia.
- Beginning as a Category I Hurricane with maximum sustained winds of 80 mph, the storm is very large and is carrying extreme amounts of moisture resulting in significant rainfall in the Bluestone Lake drainage basin.

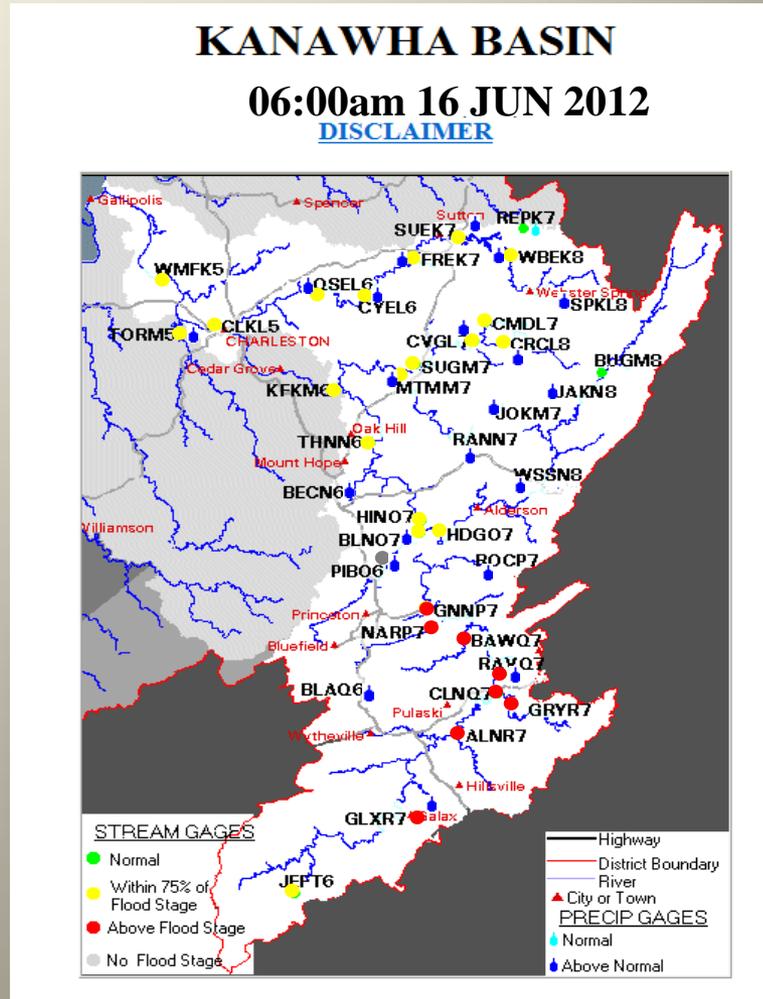




# Situation June 16, 2012

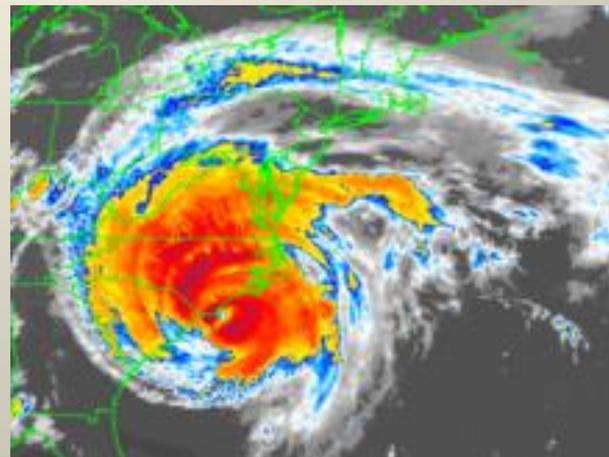


- The ground in areas of central and southwest West Virginia are already saturated from previous storm fronts that passed through the region in the previous two weeks, creating conditions for quick runoff of any additional rain.
- The New and Kanawha Rivers, and their tributaries are near flood stage at many points.





# Situation June 16, 2012

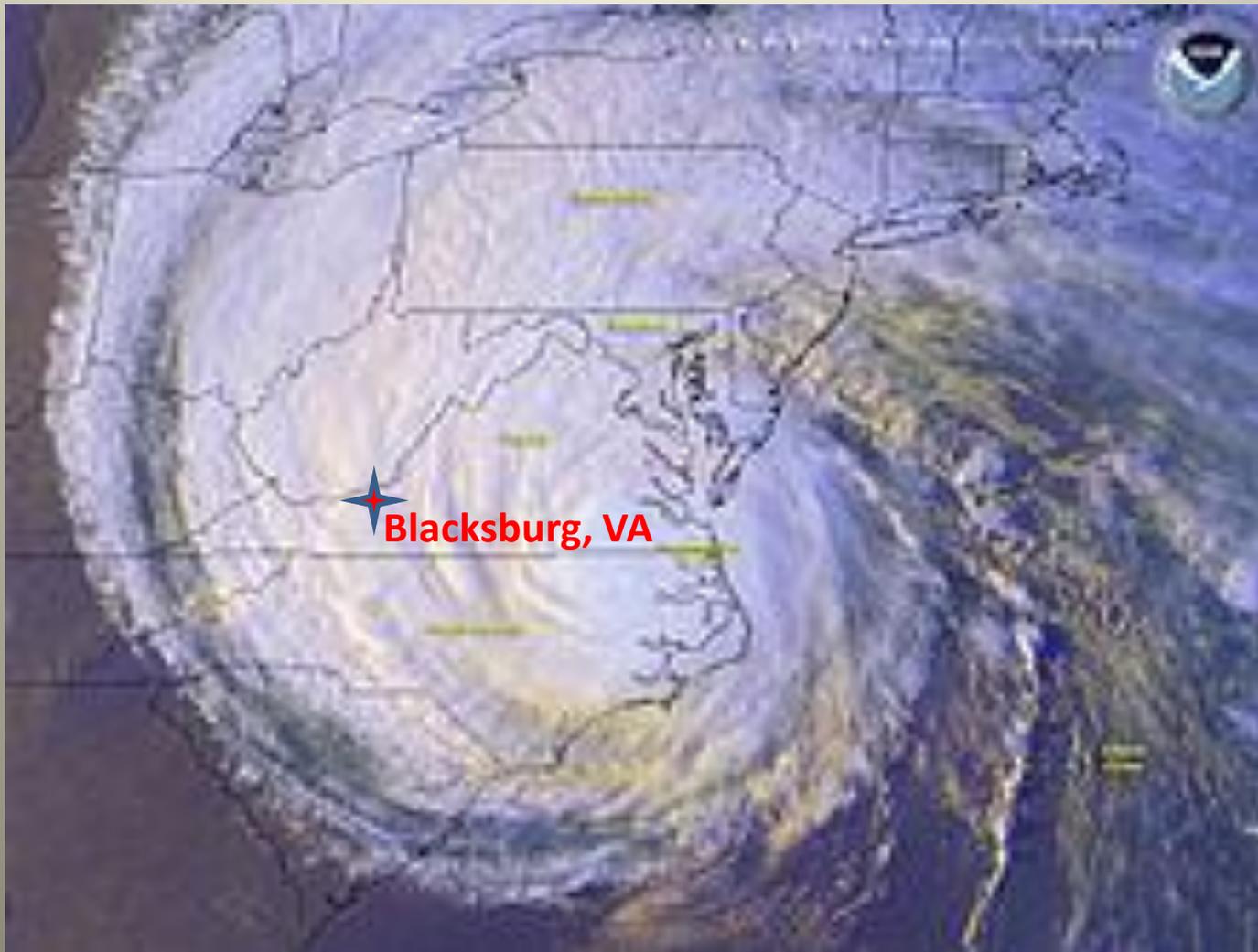


- Hurricane Jason made landfall in the early morning hours on June 14, then crossed the North Carolina-Virginia border on a west-northwest path to its current location, centered above Blacksburg and over the New River basin.





# Tropical Storm Jason Current Location

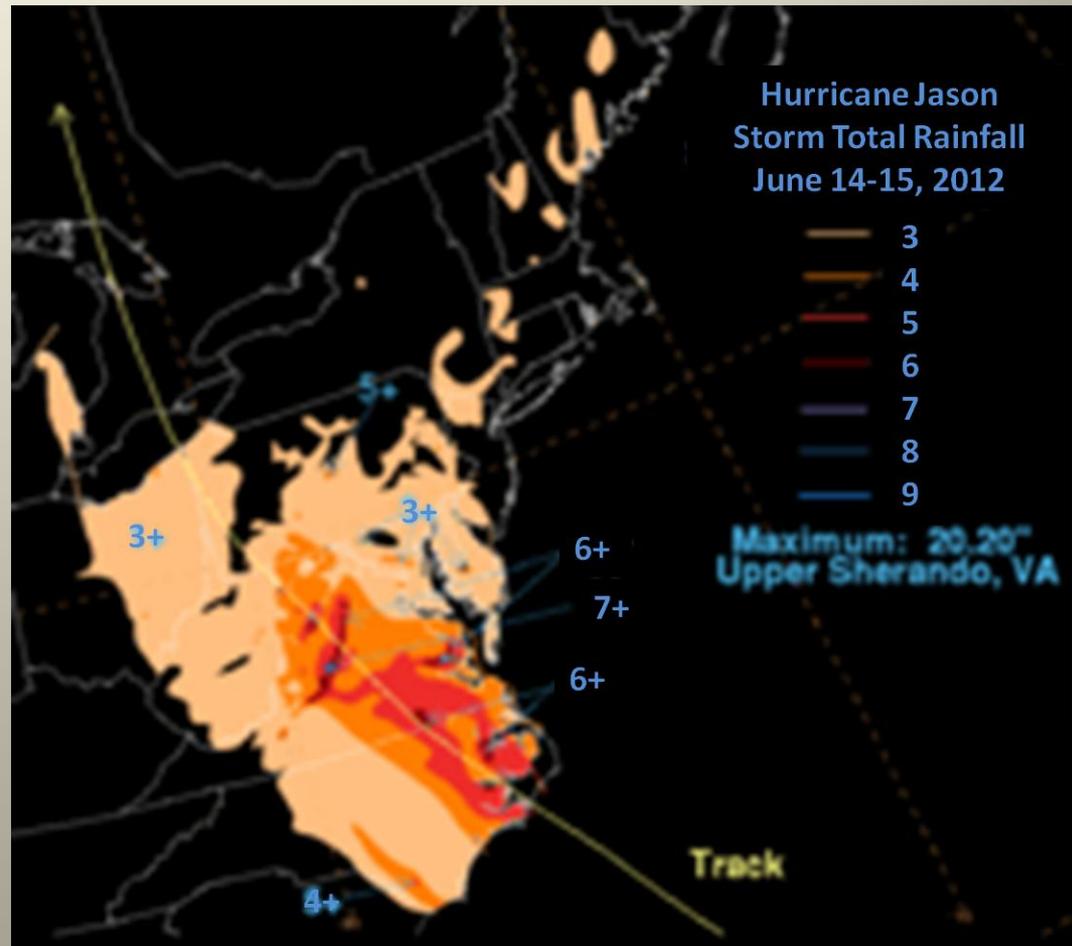




# Situation June 16, 2012



- The Kanawha, Gauley, and Elk River Basins have received **3.5 inches** of rainfall over the **last 48 hours**, leading to high water levels throughout the New River Basin.

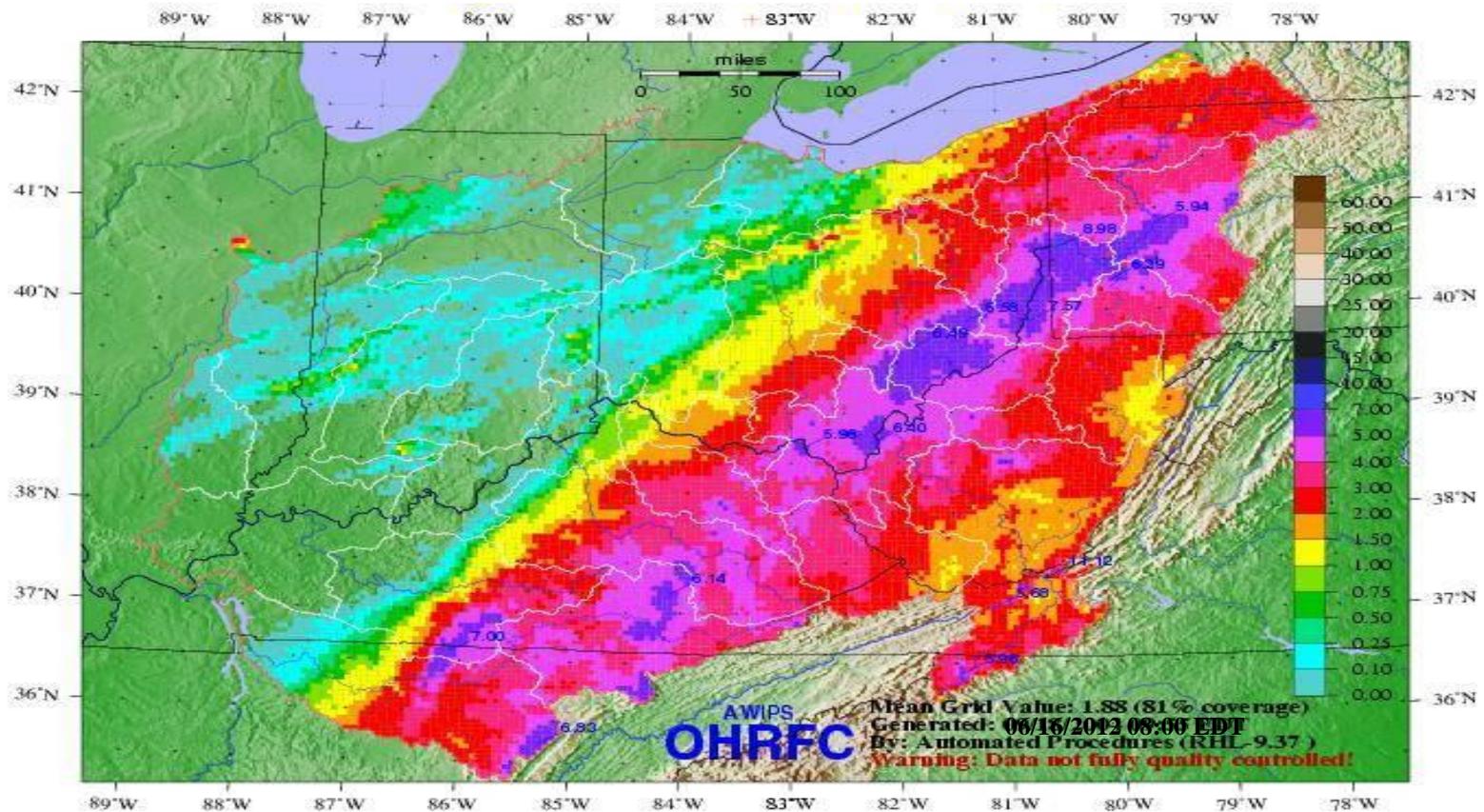




# Precipitation Totals



## 2-day Precipitation Total Ending 8 AM EDT, Sat, Jun 16, 2012

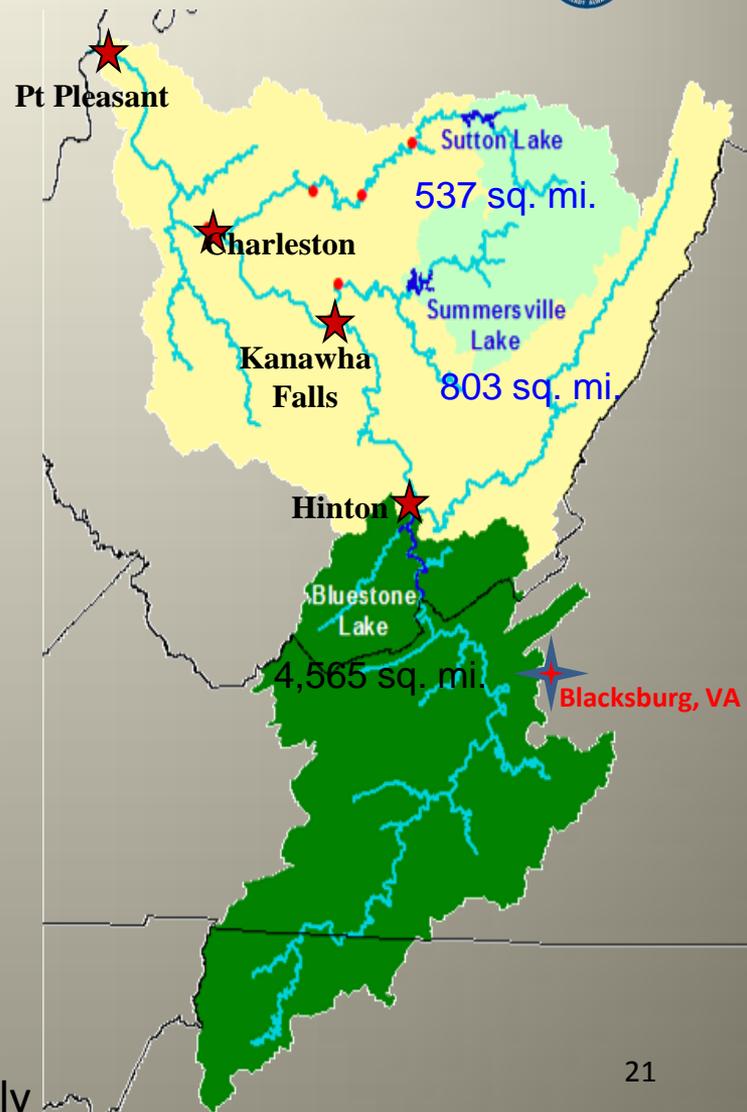




# Situation June 16, 2012



- The National Weather Service (NWS) and the US Army Corps of Engineers (USACE) are concerned that the storm will continue to stall over the New River Basin for the next two days. This scenario likely will result in an additional **2-4 inches of rain in the next 24 hours**, and an **additional inch of rain in the 12 hour period to follow.**



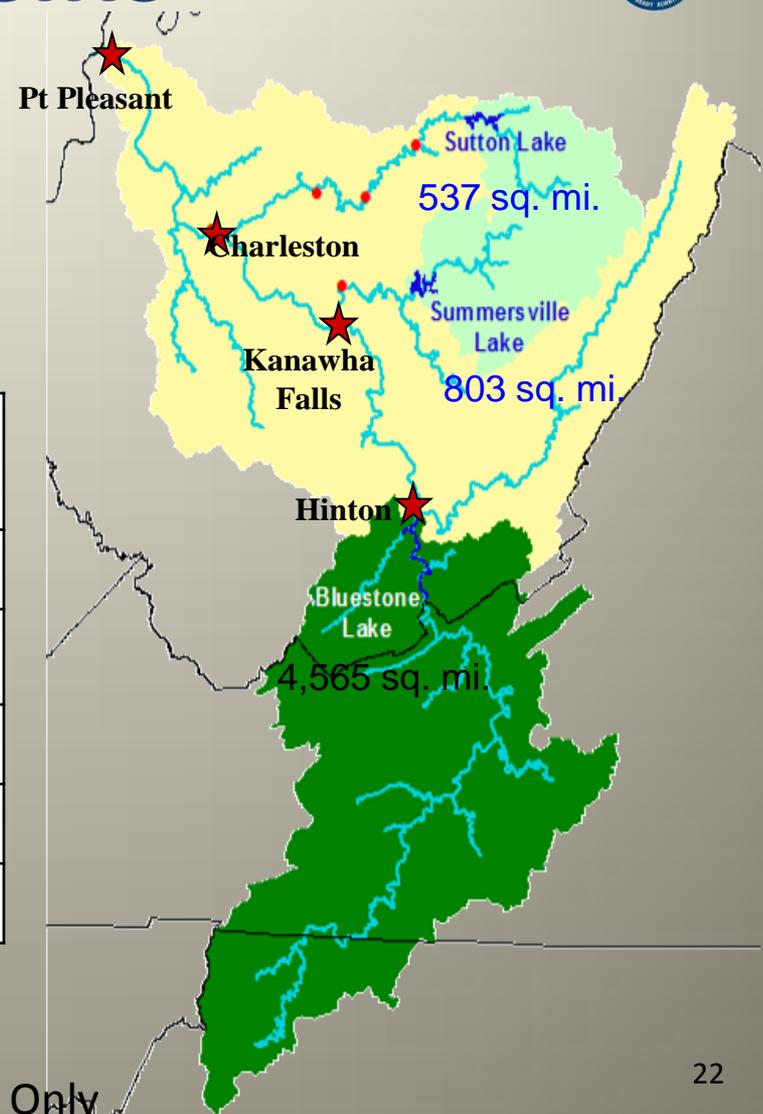


# New & Kanawha River Basins



## Drainage Areas

Location	Drainage Area (sq. mi.)	Uncontrolled Drainage (sq. mi.)	Controlled Drainage (%)
Bluestone Lake	4,565	0	100
Hinton	6,257	1,692	72.9
Kanawha Falls	8,371	3,002	64.1
Charleston	10,420	4,512	56.7
Pt Pleasant	12,300	6,396	48.0





# Situation June 16, 2012



- The State Emergency Operations Center (SEOC) is activated at the Capitol to coordinate state-level support to the affected counties.

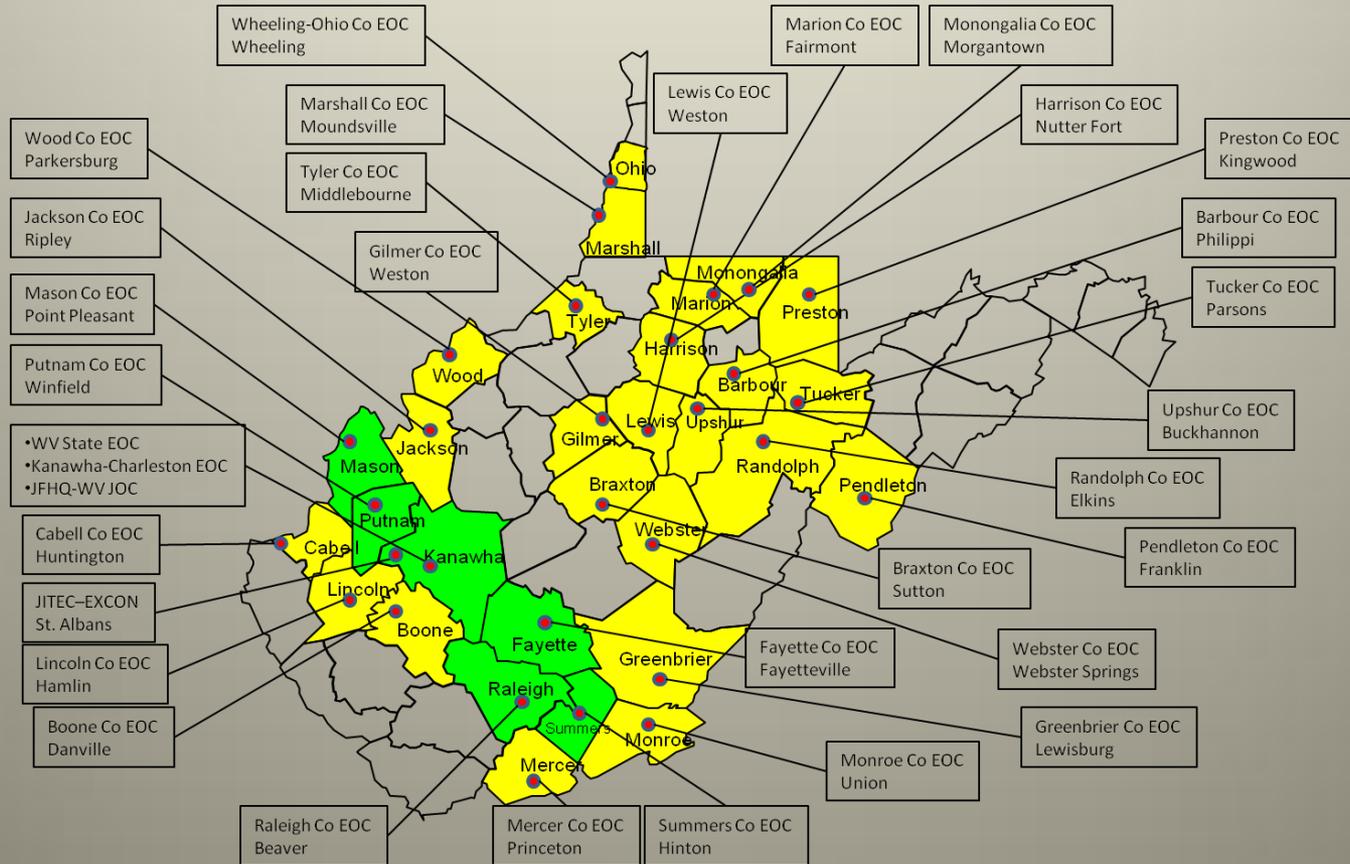




# Activated EOCs



- Several Counties EOCs are in preparation for response to the pending emergency as well.





# National Guard Response



- The WVNG has activated its Joint Operations Center (JOC) at the Coonskin Armory in Charleston. Under the authority of the Governor, WVNG forces are mobilizing to provide aviation, transportation, logistics, communication, traffic control, and security support to the affected counties.

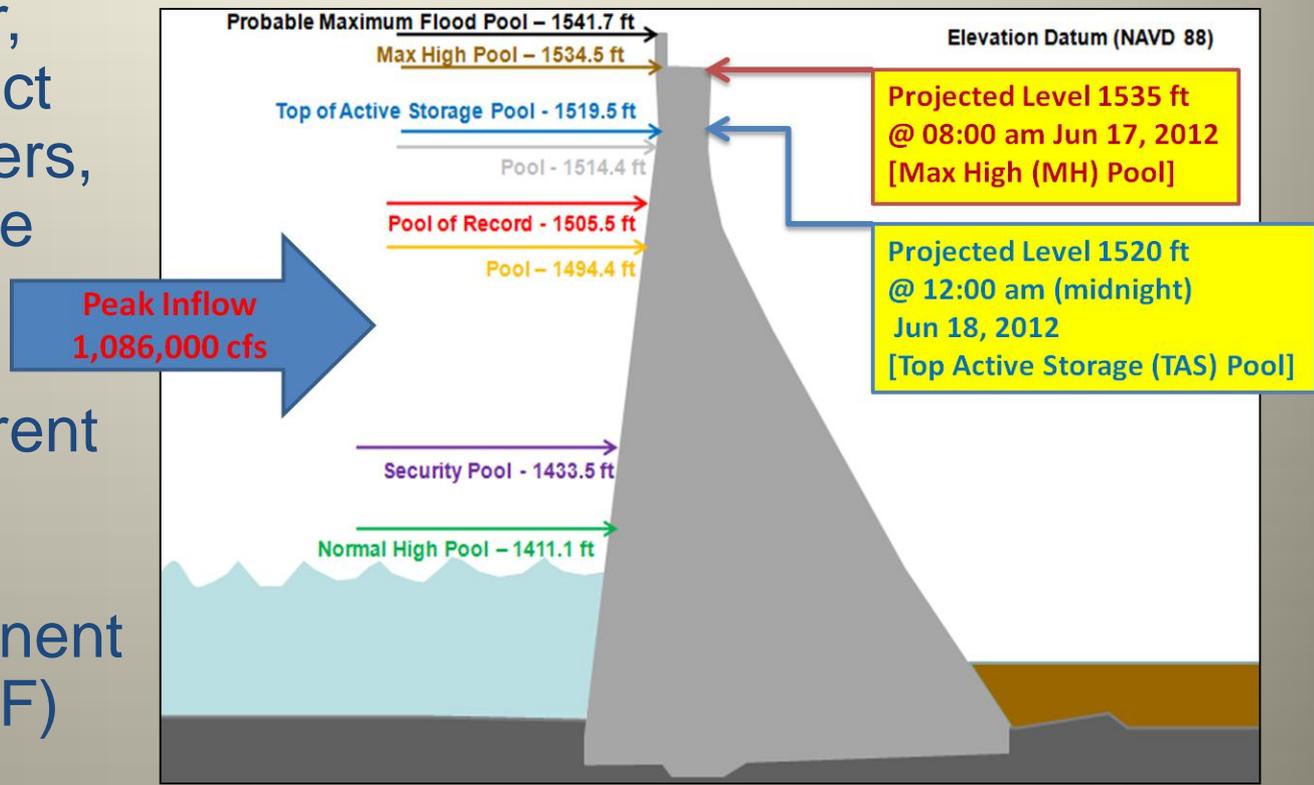




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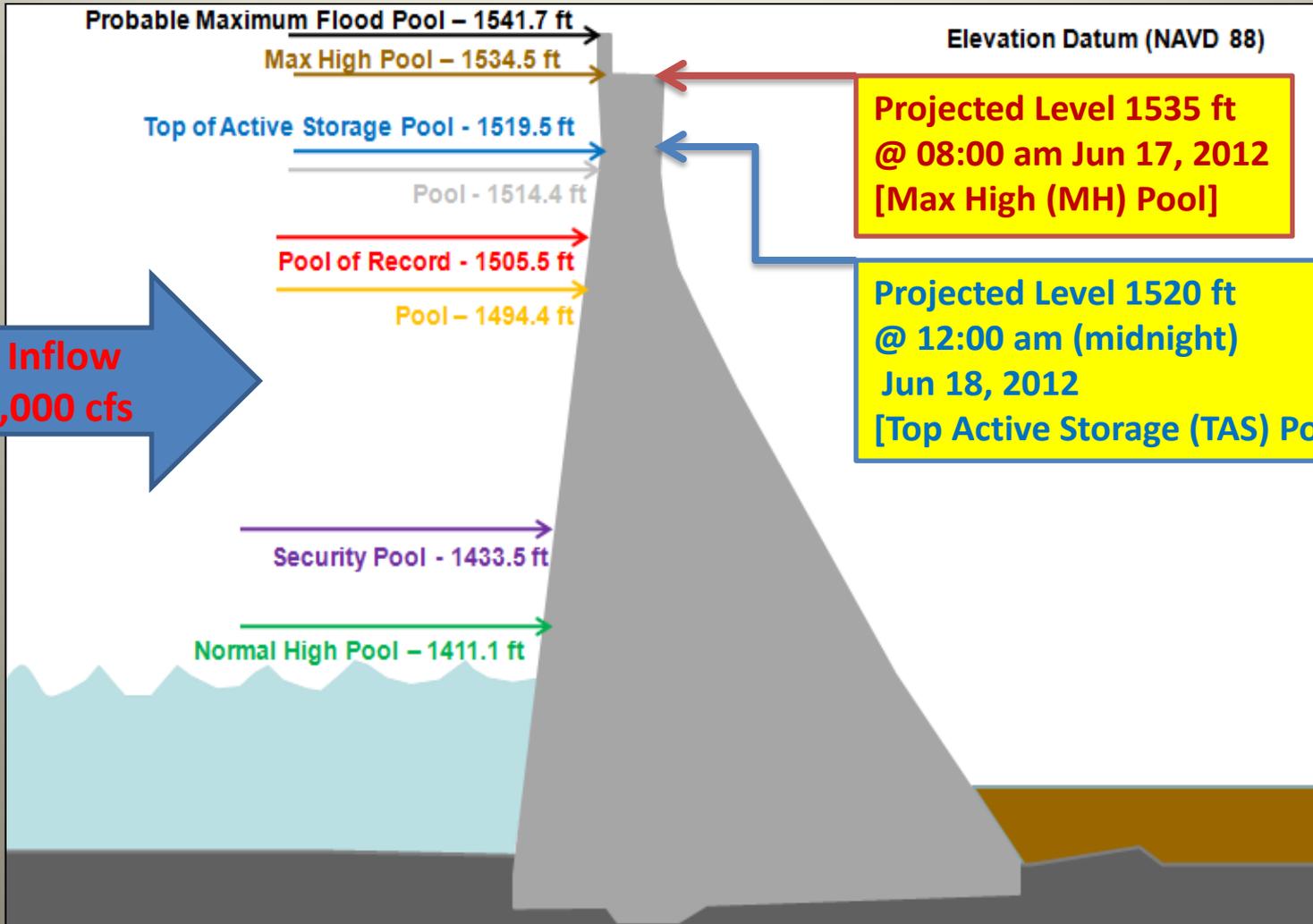


- The Commander, Huntington District Corps of Engineers, has contacted the Governor and expressed his concern that current and potential conditions may exceed the Imminent Flood Failure (IFF) capacity of the Bluestone Dam.





# Bluestone Dam Projection

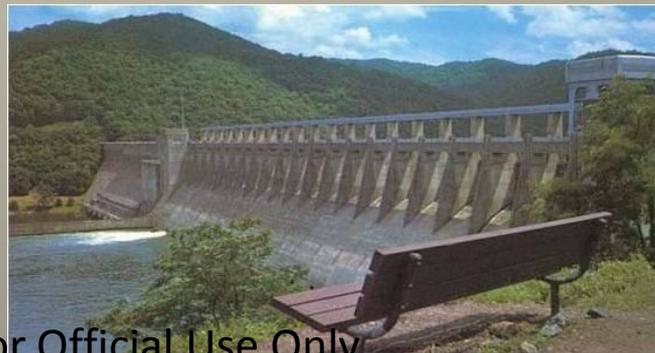




# Bluestone Dam Projection

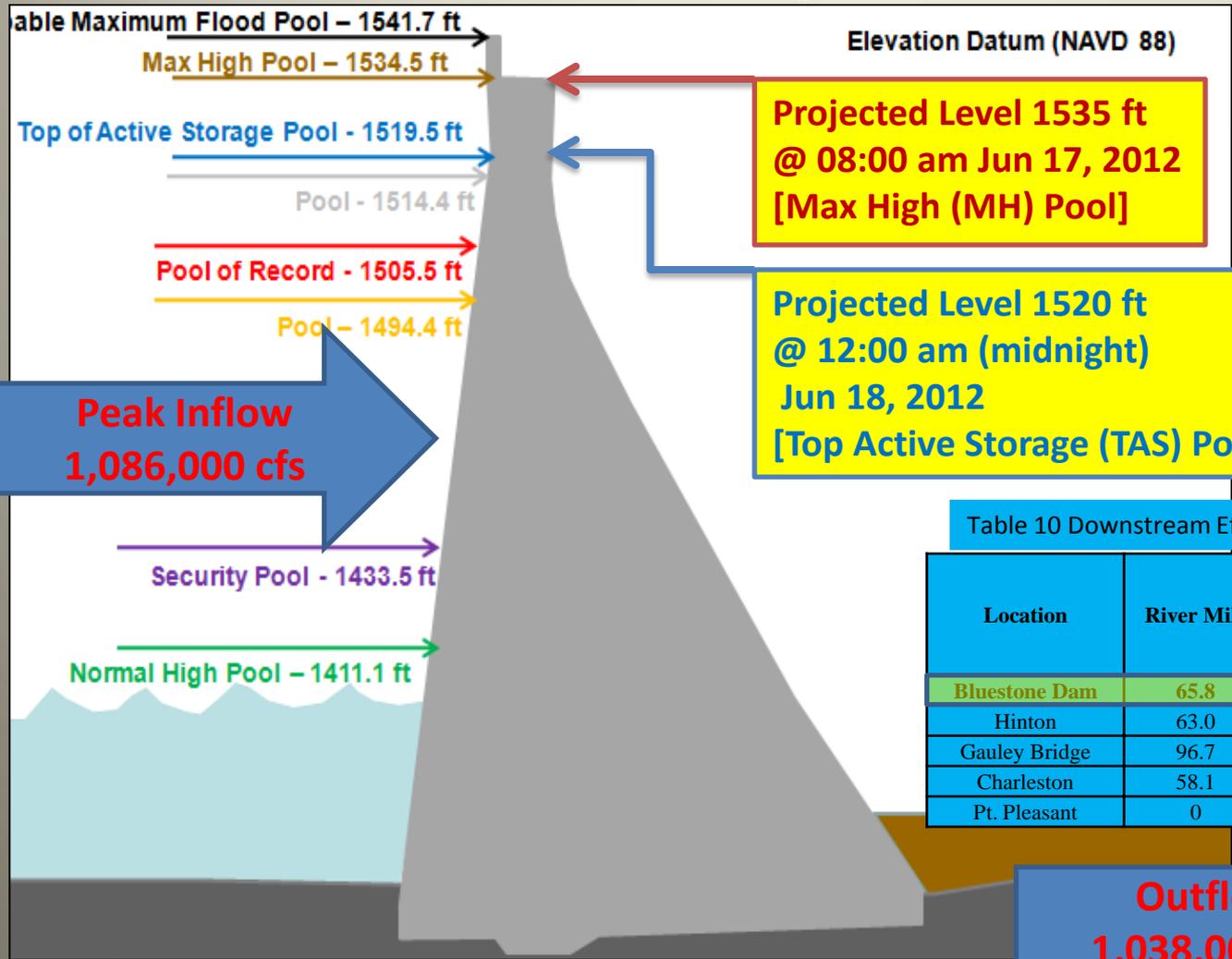


- Conditions have reached a point that the Corps of Engineers cannot guarantee that **current outflow** will match current and **projected inflow** without overtopping the dam.
- The only solution that guarantees prevention of total dam failure is to implement a **Spillway Design Flood**, essentially releasing the maximum amount of water possible from the dam, **resulting in a flood of the New River and Kanawha River basins within the next forty-eight hours.**





# Bluestone Dam Projection



Approximately 16 hours to TAS pool elevation @ 1,038,000 cfs discharge rate.

**Projected Level 1535 ft @ 08:00 am Jun 17, 2012 [Max High (MH) Pool]**

**Projected Level 1520 ft @ 12:00 am (midnight) Jun 18, 2012 [Top Active Storage (TAS) Pool]**

**Peak Inflow 1,086,000 cfs**

**Outflow 1,038,000 cfs**



# Governor's Press Conference 0700 Hours



- The Governor holds a press conference to announce the declaration of a **State of Emergency** for the Counties of **Summers, Raleigh, Fayette, Kanawha, Putnam and Mason** based on the pending crisis.

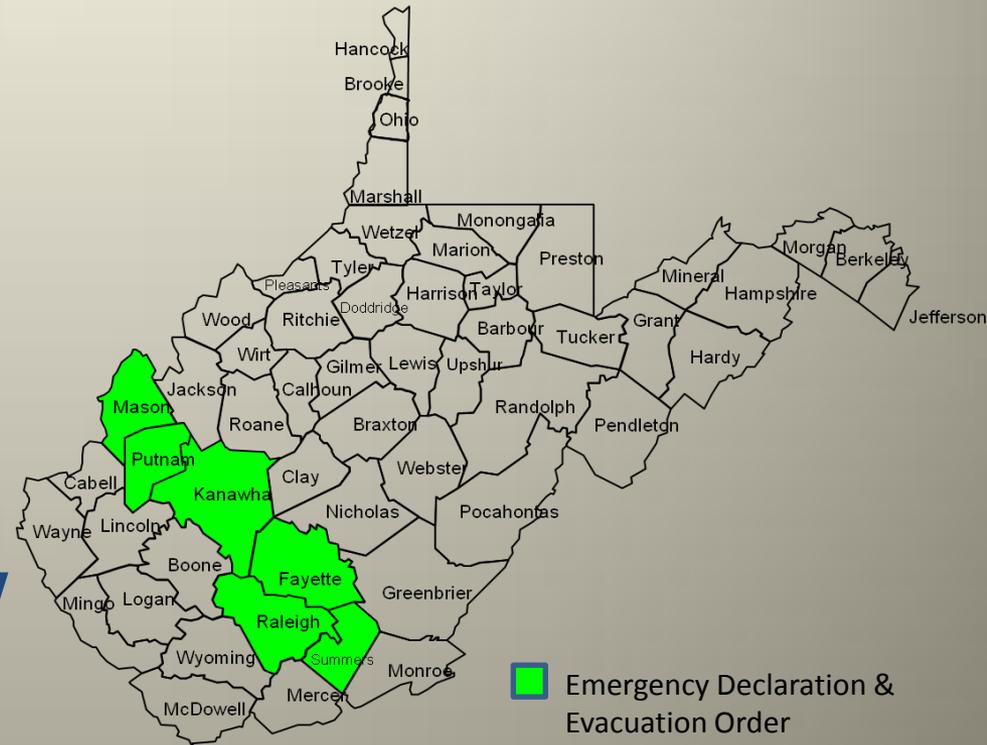




# Governor's Press Conference 0700 Hours



- In consultation with Headquarters, USACE, the Huntington District Commander, FEMA, and County Emergency Managers, the Governor issues an **Evacuation Order** of the **cities and communities along the New River, the Kanawha River and their affected tributaries.**

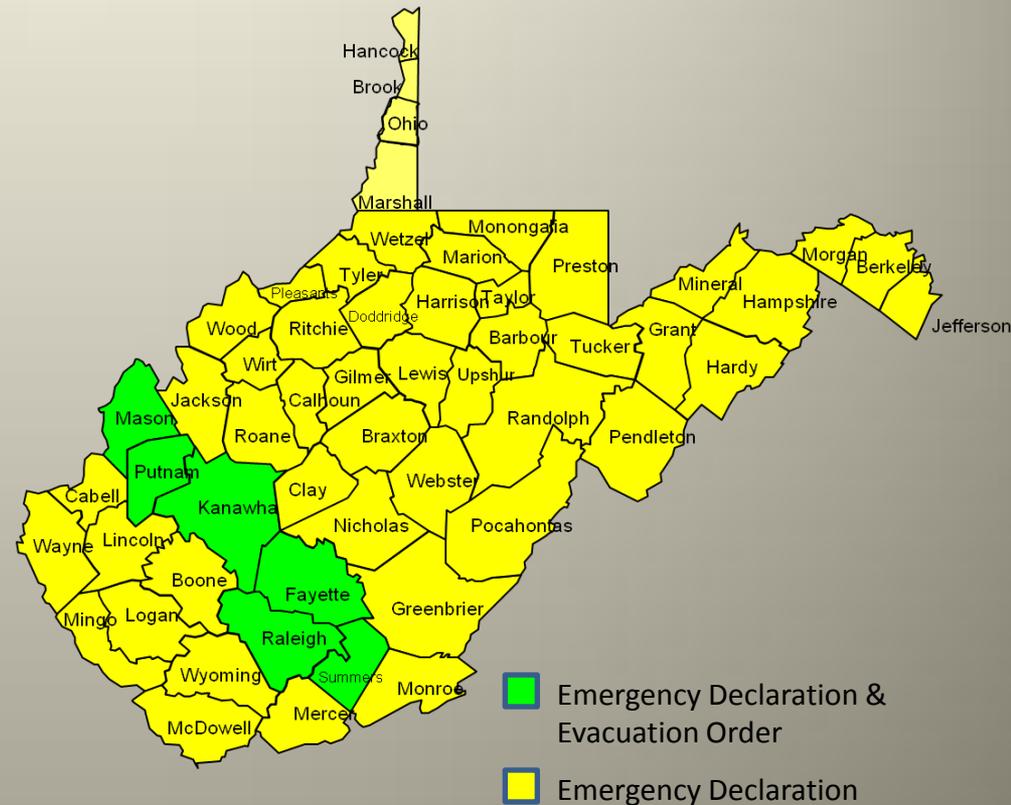




# Governor's Press Conference 0700 Hours



- In addition, the Governor has extended the **Declaration of Emergency** to the **additional forty-nine counties** of West Virginia in order to expedite a total-state response to the crisis.





# Governor's Press Conference 0700 Hours



- All available State assets will be mobilized to assist County and local authorities.
- The Evacuation Order is effective immediately.
- Citizens should remain calm and follow county and local directives and emergency information in order to conduct an orderly evacuation.
- Priority for evacuation assets to citizens with special needs and without the ability to self evacuate.
- Request to the President for a Federal Declaration of Emergency.





# DMAPS / USACE Press Conference 0730 Hours

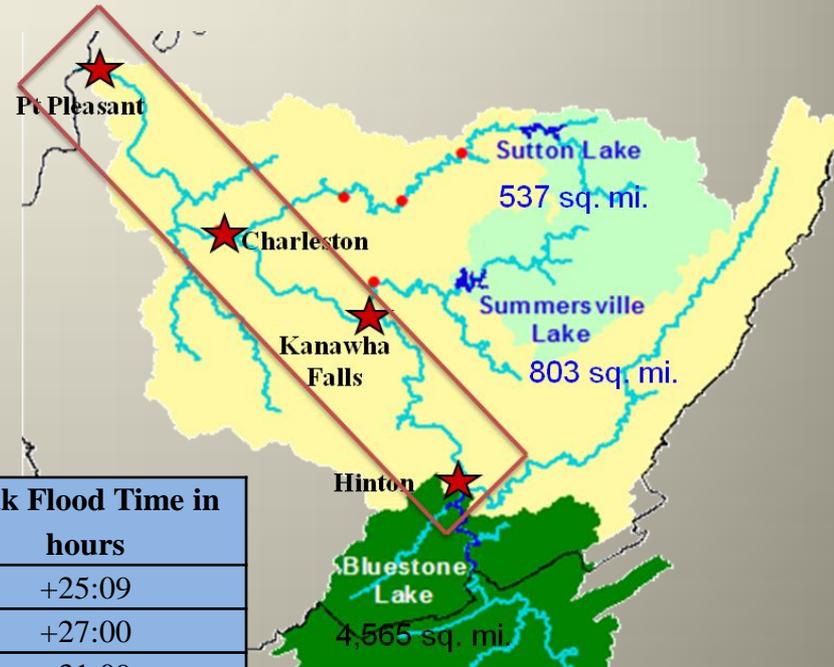


- A follow-on press conference is conducted by the Secretary of Military Affairs and Public Safety and the Commander, Huntington District of the Corps of Engineers, to inform the general public of the gravity of the situation.
- The Corps of Engineers provides an estimated timeline of when the New River, Kanawha River and their affected tributaries will begin to exceed flood stage based on current and forecasted accumulation of rainfall.





# DMAPS / USACE Press Conference 0730 Hours



County	Location	Arrival Time at Flood Stage in hours	Peak Flood Time in hours
Summers	at Hinton	+24:12	+25:09
Raleigh	at Terry	+25:07	+27:00
Fayette	at Montgomery	+27:47	+31:09
Kanawha	at East Bank / Cedar Grove	+28:44	+32:30
	at Marmet	+29:11	+33:09
	at Charleston	+30:52	+36:49
	at Nitro	+33:05	+41:09
Putnam	at Eleanor	+36:20	+46:19
	at Buffalo	+36:59	+47:09
Mason	at Point Pleasant	+45:56	69:39

All times are estimates effective beginning June 16, 2012, 0800 Hours.

6/7/2012

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# Situation June 16, 2012



- Citizens in low-lying areas along the New and Kanawha rivers begin inundating local 9-1-1 dispatch centers with calls for advice on whether to evacuate and where they should go.

- Cellular services in the greater Kanawha Valley and Teays Valley are overwhelmed with calls by concerned citizens.

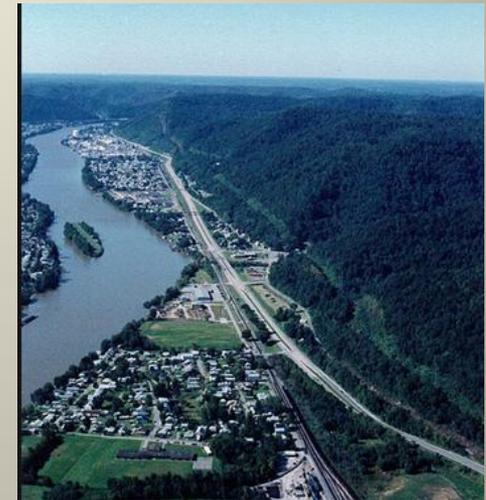




# Situation June 16, 2012



- Rumors abound as to the extent of the projected area of impact of the pending flood. Citizens as well as businesses share in the confusion as to whether they lie within the flood zone.



- Traffic along the Interstates in the Kanawha Valley has increased over the last twelve hours as some citizens began evacuation in advance of the emergency declaration and evacuation order.

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# Key Issues



- State of Emergency declared for Summers, Raleigh, Fayette, Kanawha, Putnam and Mason Counties.
- Evacuation Order issued for cities and communities along the New River, the Kanawha River and their affected tributaries.
- State of Emergency extended to remaining forty-nine Counties to expedite a State-wide response.
- Priority for evacuation assets to citizens with special needs and without the ability to self evacuate.
- The New River at Hinton should begin reaching flood stage within 24 hours.



# Key Issues



- Estimated timelines provided for New River, Kanawha River to exceed flood stage. Total span of arrival time at flood stage ranges from 08:00 hours, 17 June, at Hinton, to 16:00 hours, 18 June, at Point Pleasant.
- State EOC and several County EOCs are activated.
- WVNG JOC activated and mobilizing forces to provide support to the affected counties.
- 9-1-1 dispatch centers overwhelmed with calls from concerned citizens.
- Rumors abound as to the extent of the projected area of impact of the pending flood.



# Key Issues



- Citizens as well as businesses are confused as to whether they lie within the flood zone.
- Some citizens have begun evacuation in advance of the emergency declaration and evacuation order.



# Bluestone Dam Functional Exercise

Warm Start (Player) Briefing  
16 June 2012

## Questions?