

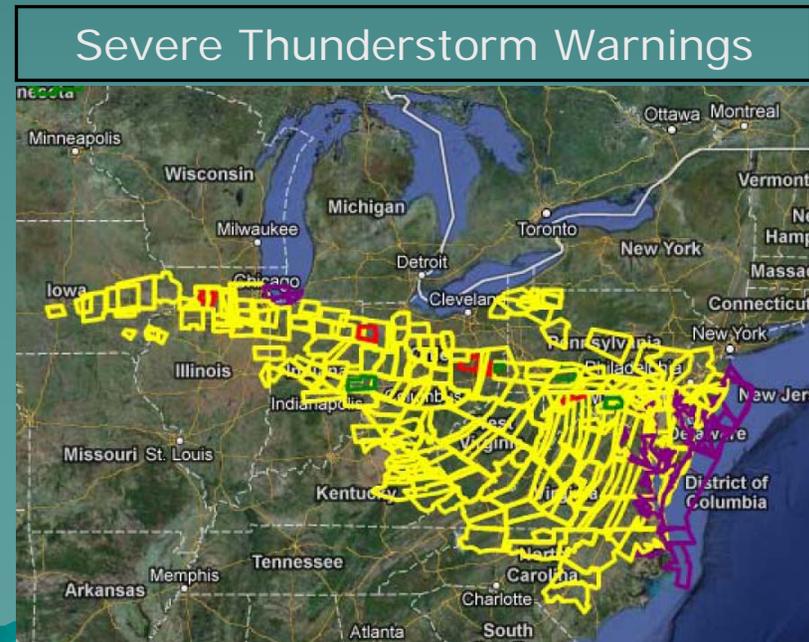
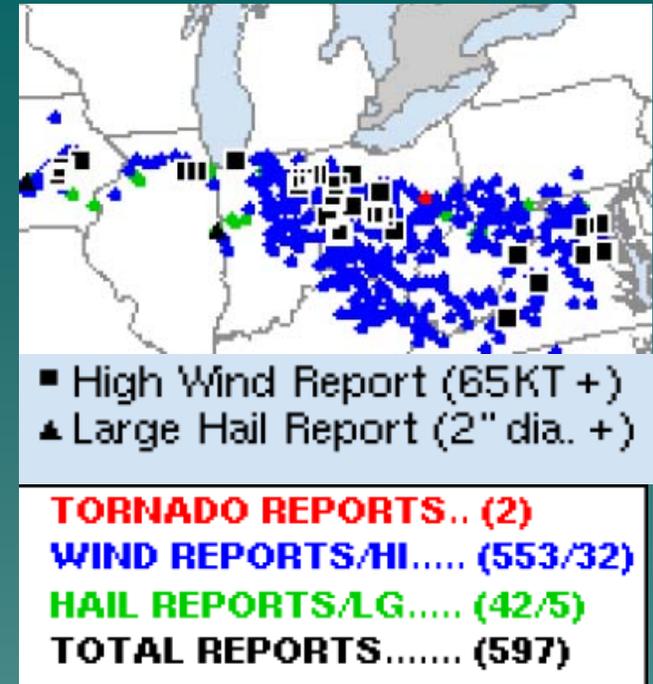
Montgomery County Government

June 29, 2012 Severe
Storm (Derecho)
Overview

A stylized, layered mountain range graphic in shades of teal and blue, located in the bottom right corner of the slide.

Alerts and Notification

- ◆ At 6:54, OEMHS forwarded National Weather Service (NWS) Severe Thunderstorm Watch via Alert Montgomery
- ◆ At 9:41, OEMHS forwarded NWS Severe Thunderstorm Warning via Alert Montgomery
- ◆ The NWS did release a total of 9 Severe thunderstorm watches and warnings for the county on June 29, 2012
- ◆ The Storm began impacting the county at approximately 10:25
- ◆ By 11:01 the county had 135,000 outages and order to activate the Emergency Operations Center (EOC) was given.



Injuries and Damage

- ◆ One fatality was recorded as a result of a tree landing on a house
- ◆ One heat related fatality was recorded on July 4th in the county
 - One heat related fatality occurred several hours prior to the storm impacting the county on June 29th and one was after the heat wave broke on July 9th.
- ◆ Approximately 80 homes have been reported with significant damage
 - Most homeowners work through their insurance company and our number is likely to rise when we get insurance reports from the State in Mid-August.
- ◆ No significant damage to County Structures
- ◆ Cost Still being determined
 - County Officials have met with FEMA regarding possible reimbursement and Federal Declaration

The Second Hazard - Heat Wave

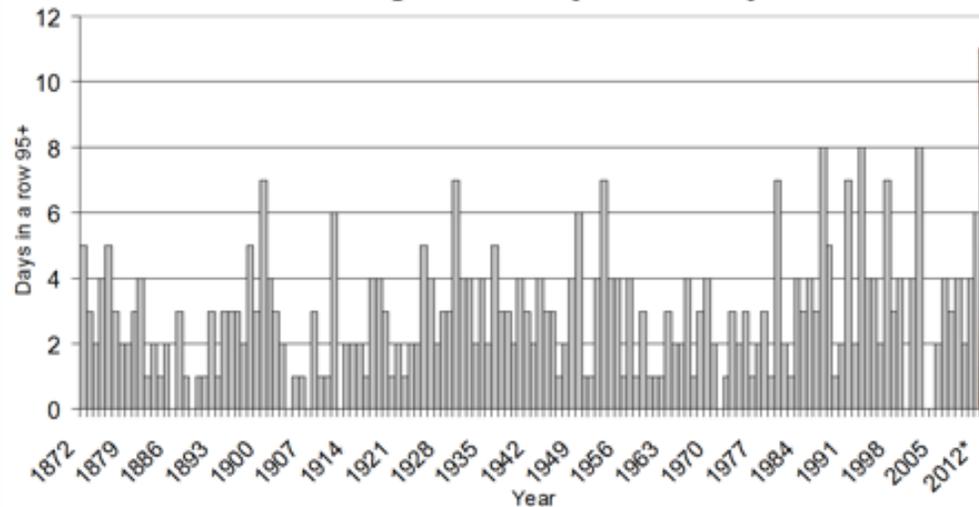
Heat Related Fatalities

- 2012 (YTD)
 - ◆ Montgomery County 3
 - ◆ MD State 23
- 2011
 - ◆ Montgomery County 0
 - ◆ MD State 34
- 2010
 - ◆ Montgomery County 4
 - ◆ MD State 32

Top 10 Hottest 11-Day Stretches in D.C.

Year	Dates	Avg Hi	Highest	Days 100+
2012	6/28-7/8	99.5	105	5
1930	7/19-7/29	99	106	6
2011	7/22-8/1	97.9	104	4
1993	7/4-7/14	97.4	100	3
1988	7/7-7/17	97.3	104	4
1980	8/1-8/11	97	100	2
1953	8/25-9/4	96.5	100	2
1988	8/7-8/17	96.3	103	2
1999	7/23-8/2	96.2	101	1
2002	8/10-8/20	96.1	100	1

Maximum Straight 95F+ Days at D.C. by Year

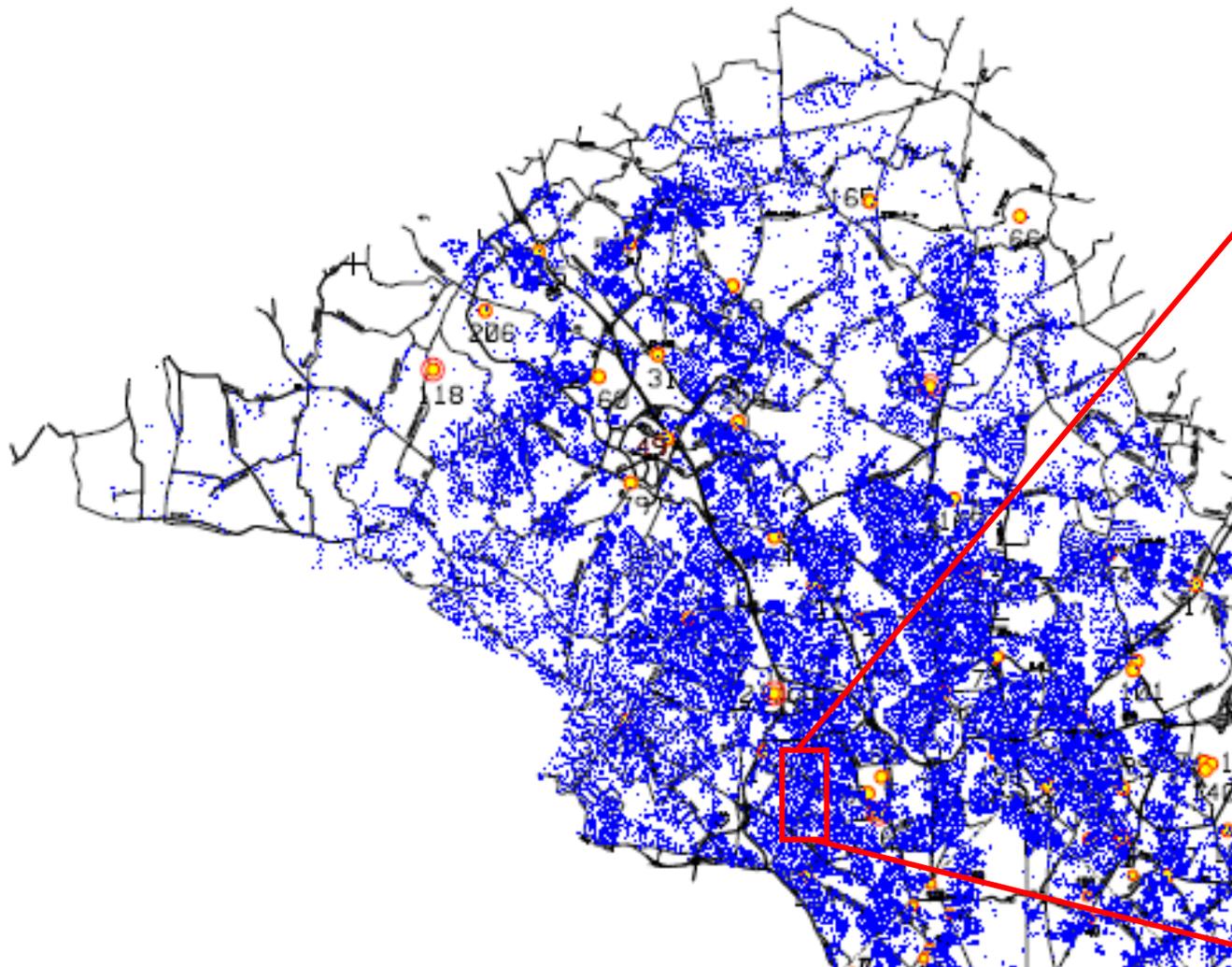


By The Numbers

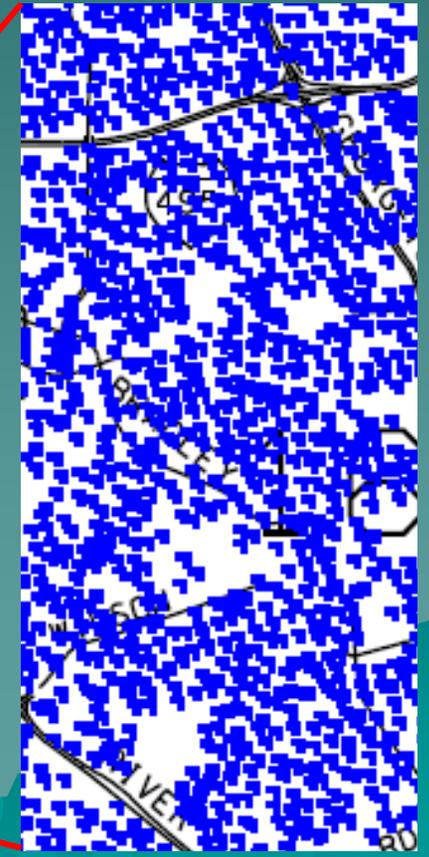
- ◆ Total Montgomery County Outages (Peak Number)
 - Pepco: 238,000 out of 309,583 (77%)
 - BGE: 13,622 out of 13,663 (99%)
 - First Energy: 9,823 out of 28,725 (34%)
- ◆ 31 of 34 Nursing Homes lost power (91%)
- ◆ 25 of 27 large Assisted Living Facilities lost power (93%)
- ◆ Both WSSC Water Treatment plants lost power - Potomac (Pepco) and Patuxent (BGE)
- ◆ 550 of 800 Traffic Signals lost power (69%)



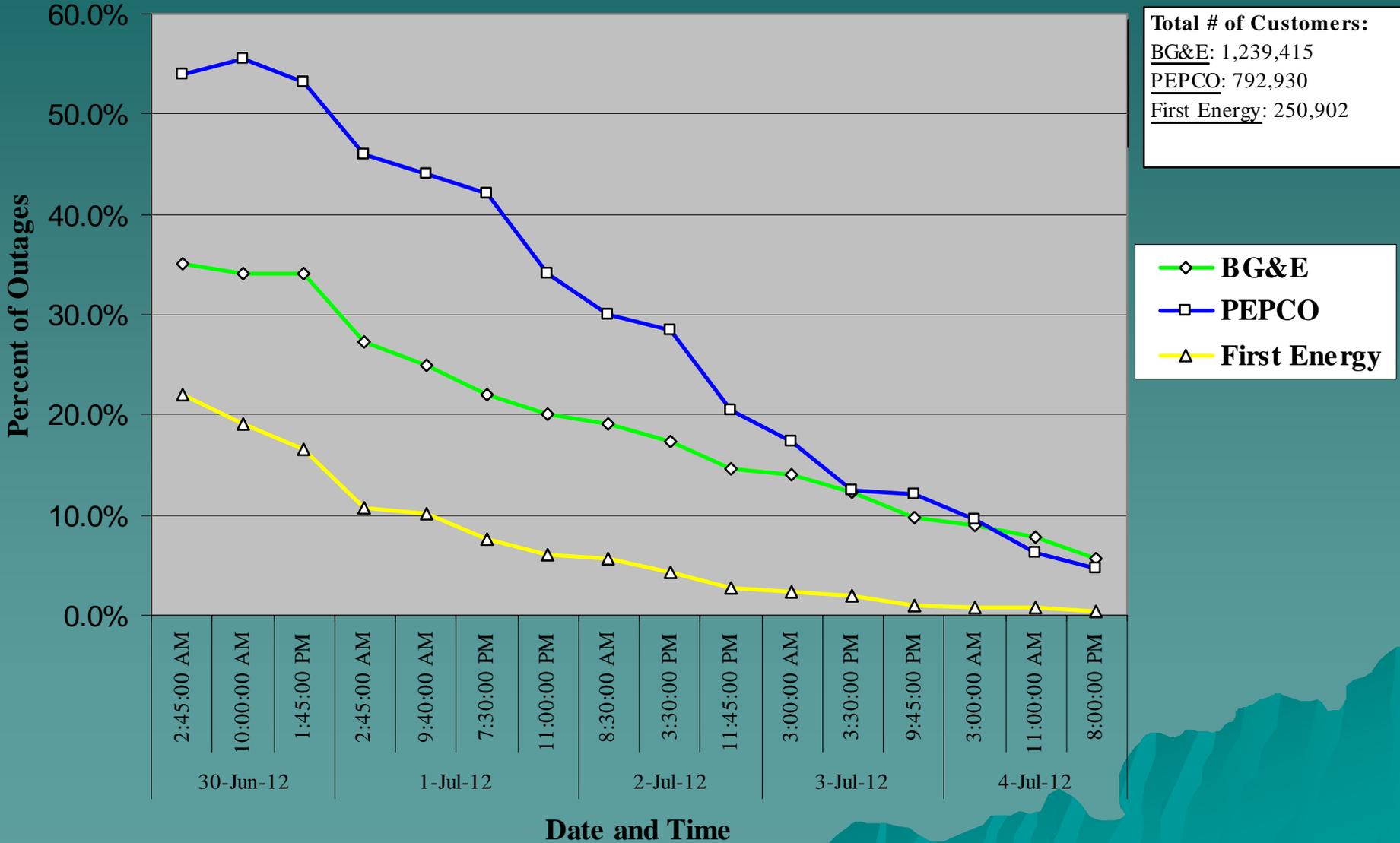
Pepco Transformers Without Service (2pm June 30, 2012)



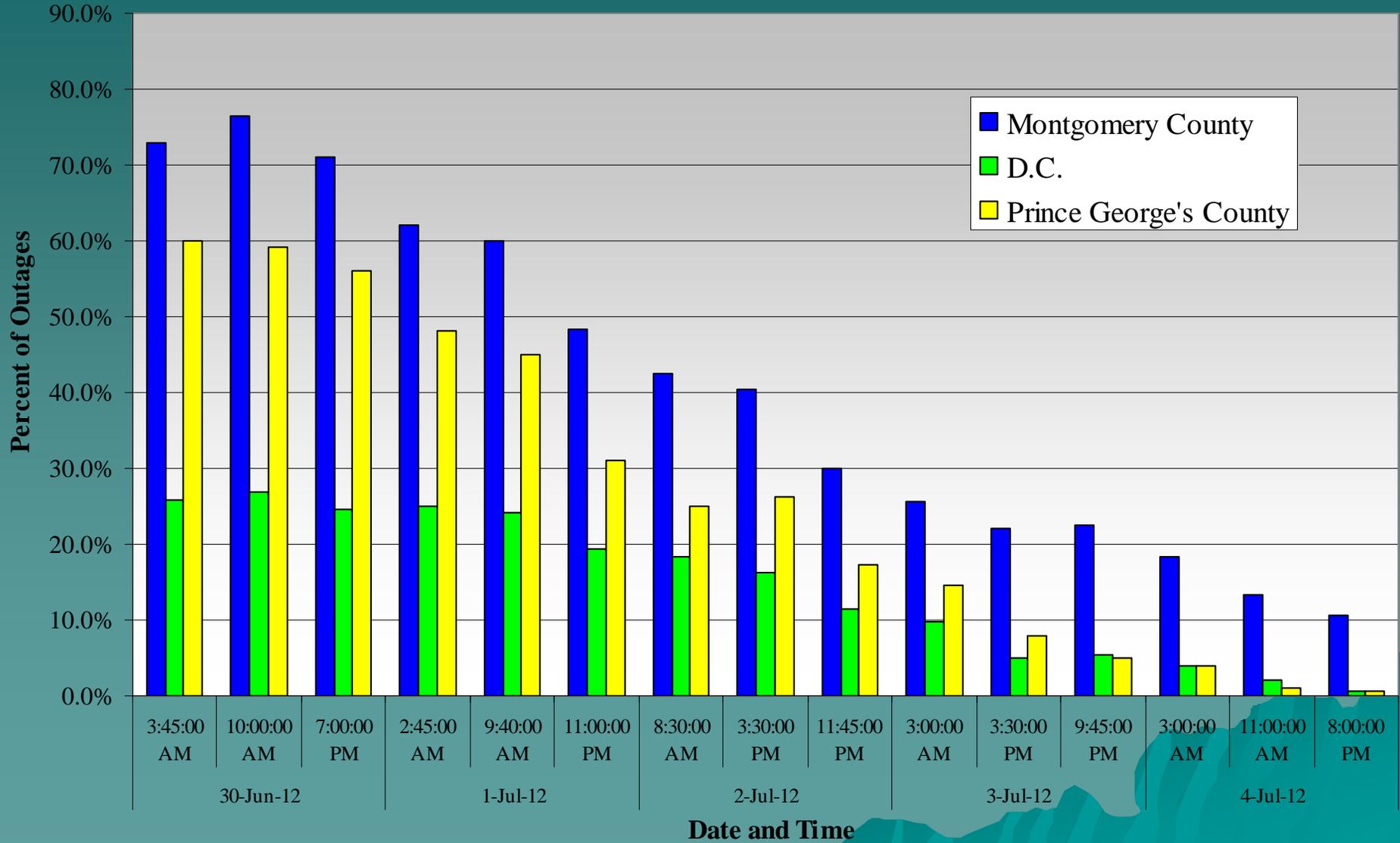
10 Times
Magnification



Total Customer Outages for All Service Areas

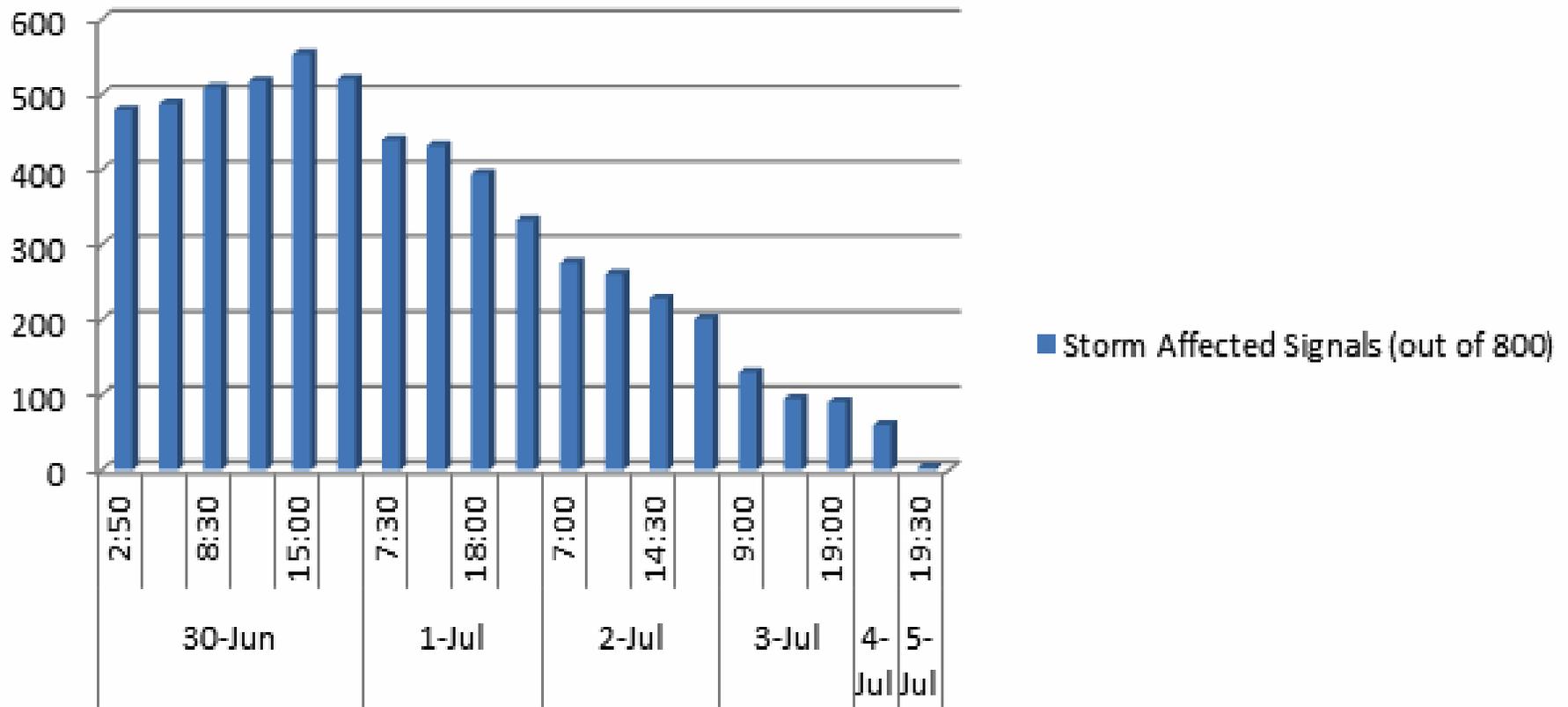


PEPCO System Outages

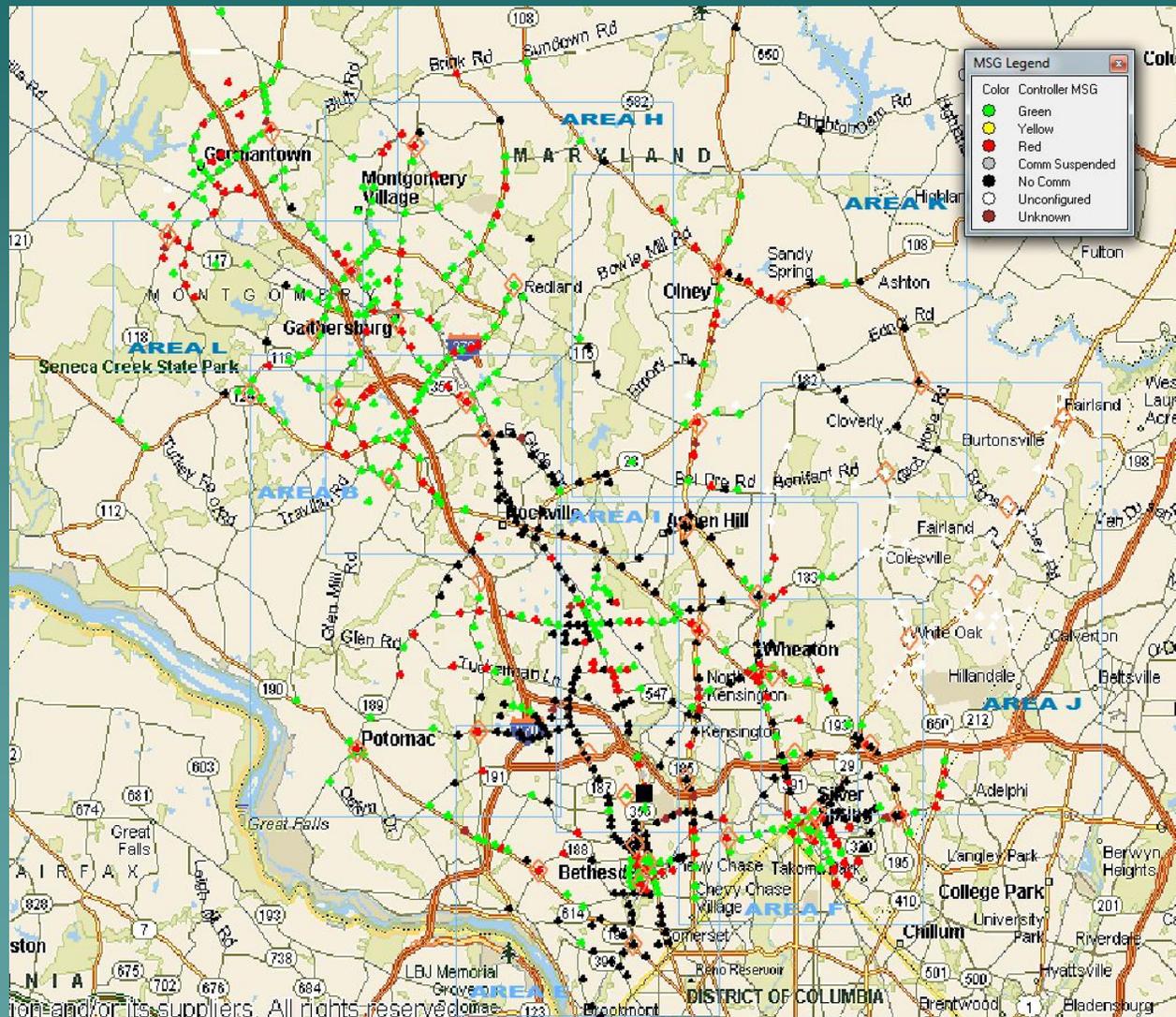


Response Actions

Storm Affected Signals (out of 800)



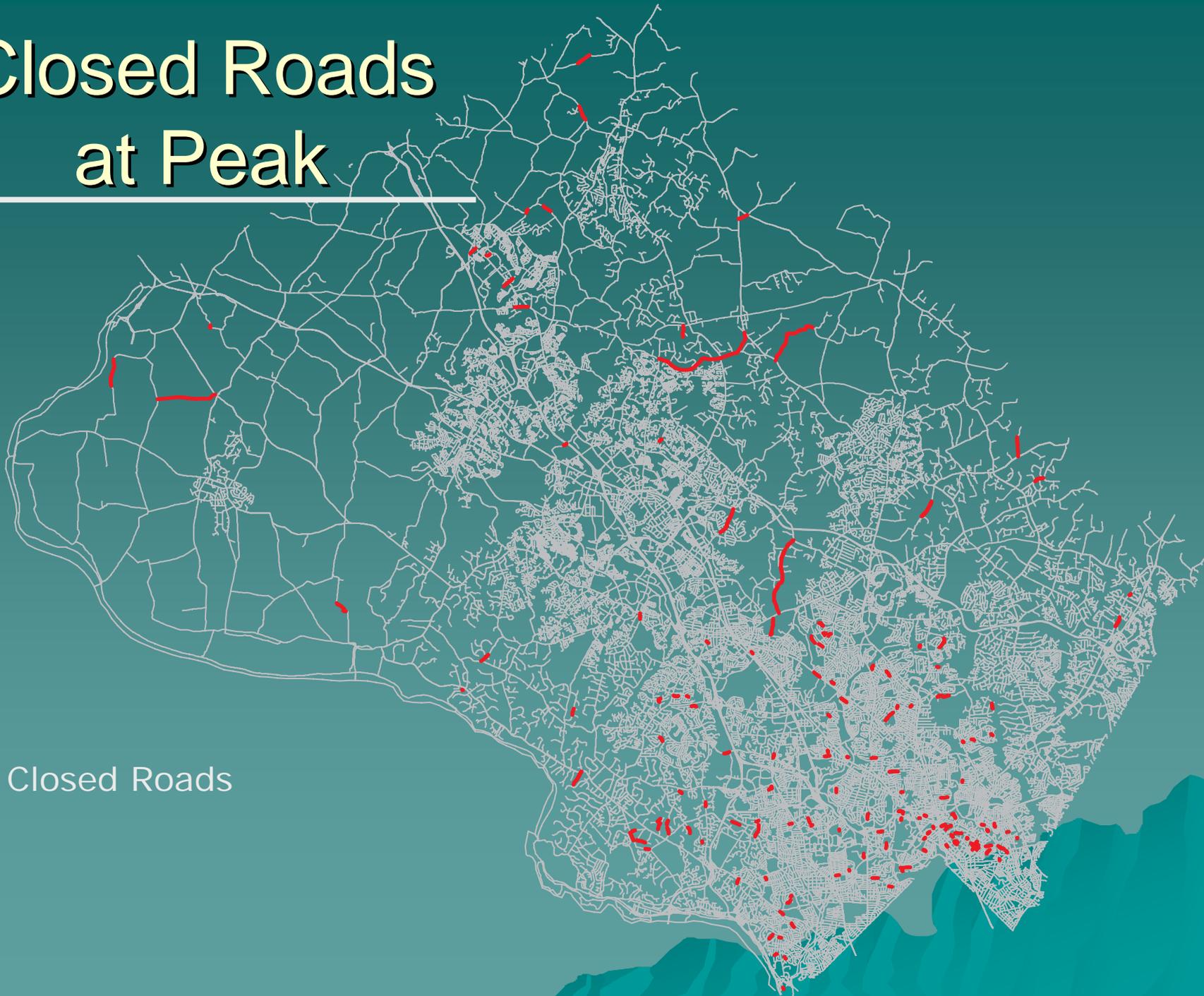
Signals Out During Monday Morning Rush Hour (July 2nd 7:30am)



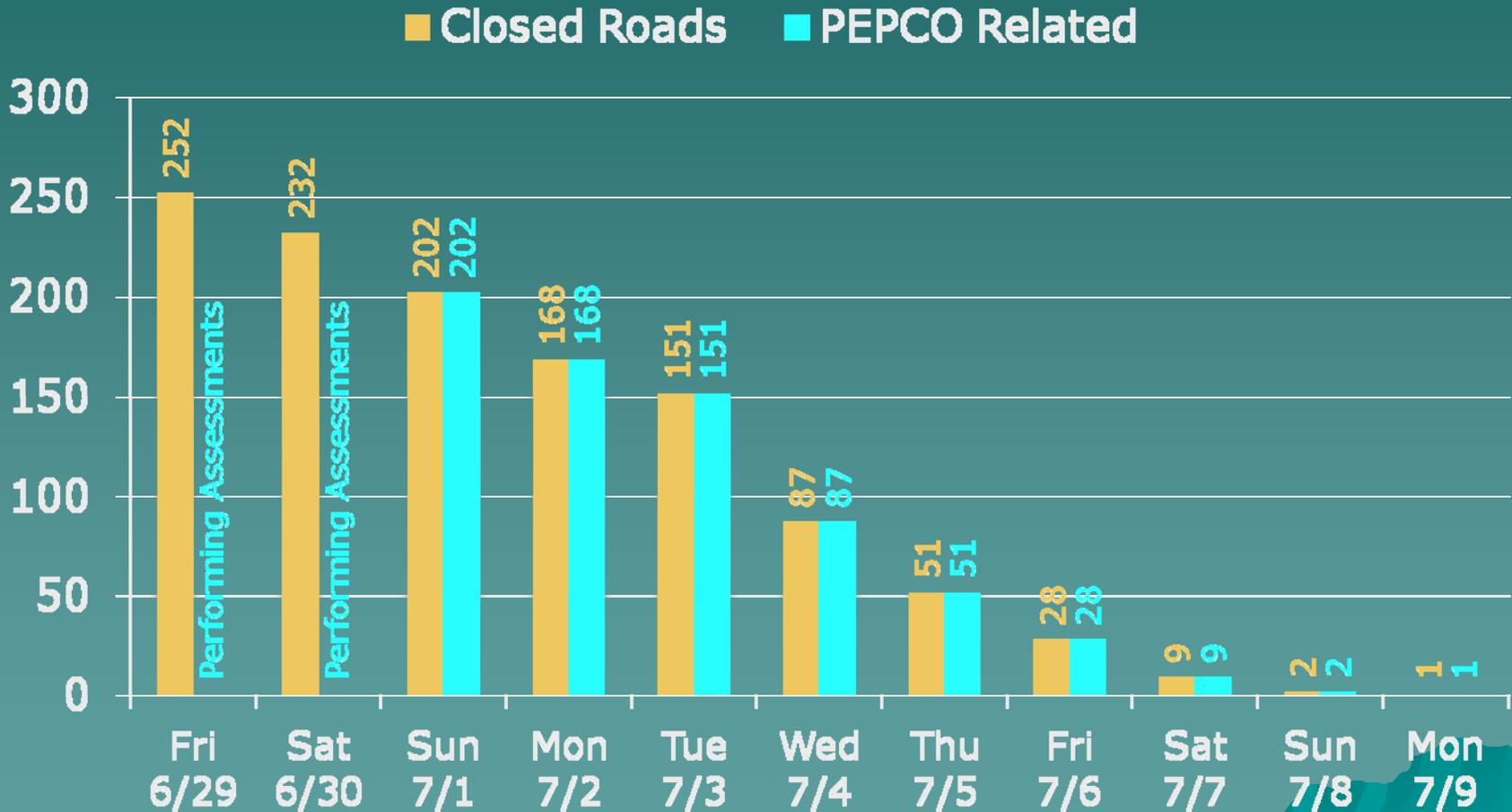
- ◆ Old Georgetown Road (North Bethesda)
- ◆ 355 (Rockville)
- ◆ River and 355 (North of DC Line)
- ◆ Veirs Mill Road (Rockville)
- ◆ Route 29 (Silver Spring and Fairland Park)
- ◆ East West Hwy (Chevy Chase)

Closed Roads at Peak

 Closed Roads



Closed Roads



Response Numbers

- ◆ Emergency Communications Center
 - Increase in 911 calls for service
 - ◆ 250% increase in calls during the first 2 hours.
 - ◆ 177% increase in calls during the first 16 hours.
 - Loss of 911 phone lines
 - ◆ Loss of four 911 trunks (1 wireline, 1 wireless, 2 VoIP).
 - ◆ Minimal impact on operations.
- ◆ 2,000 FRS responses in 48-hour period
 - 4 times normal
- ◆ Response times increased because of:
 - Increased call load
 - Down trees
 - roads blocked with debris and power lines
 - intersections w/ non-working traffic lights

Response Numbers (cont'd)

- ◆ 25 Press Releases issued
- ◆ 20 Alert Montgomery Messages
 - All User Messages to >240,000 devices
- ◆ 3,000 additional 311 calls
- ◆ PEPCO dispatched 16 certified tree crews dedicated to clear county roads.
- ◆ 42,000 cubic yards of debris has been picked-up by DOT (as of July 18, 2012)
- ◆ 52 Generators refueled (at least once)



Department of Environmental Protection - Response Activities

- ◆ DEP Processed 80,000 cubic yards of storm debris as of July 13, 2012
- ◆ Transfer Station Accommodated Record Numbers of Vehicles Depositing Yard Waste:

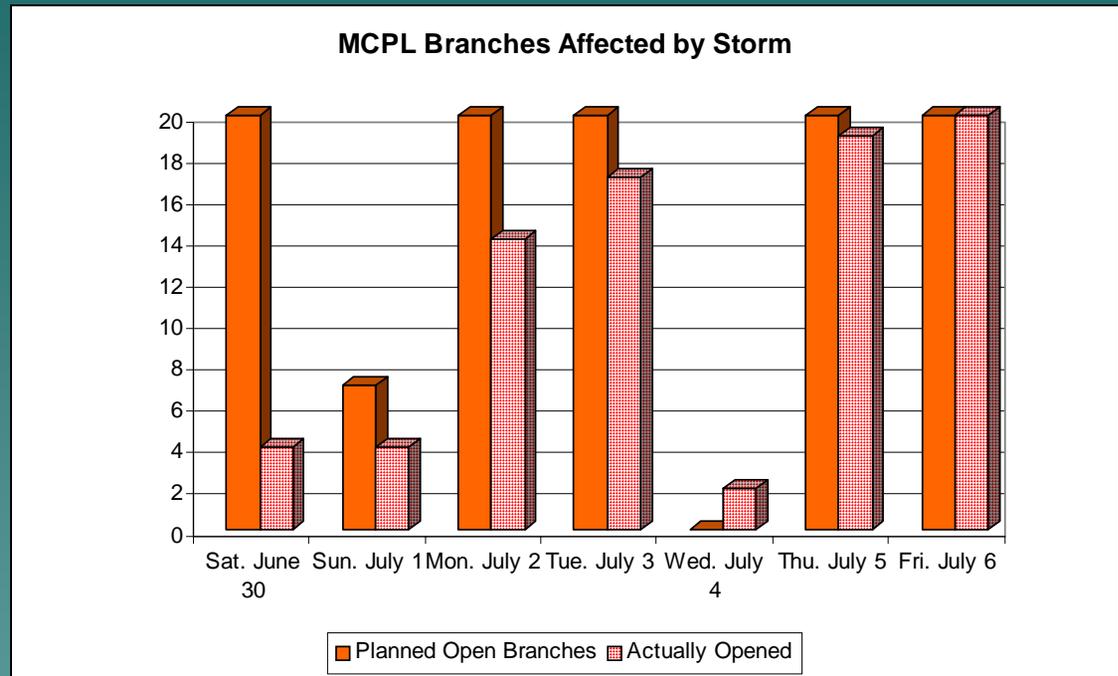
– Friday	June 29	326
– Saturday	June 30	1,998
– Sunday	July 1	1,644
– Monday	July 2	1,650
– Tuesday	July 3	4,279
– Wednesday	July 4	619
– Thursday	July 5	3,181
– Friday	July 6	2,477
– Saturday	July 7	2,125
– Sunday	July 8	977
– Monday	July 9	1,944



FY12 Average Day = 356 vehicles

Storm Impact to Libraries

- ◆ 14 of 20 branches lost power (see graph)
- ◆ Air Conditioning system repairs or resets required in several branches
- ◆ Trees/debris in parking lots and grounds



Footnotes

On Monday July 2, Twinbrook and Long Branch opened late; Twinbrook and Kensington Park stayed open until 8pm (2 hours beyond scheduled closing) to assist affected residents

Bethesda and Wheaton branches opened (12pm to 8pm) for the Wednesday, July 4th Holiday to assist affected residents

Silver Spring branch opened late (12pm) on Thursday, July 5th

Little Falls opened late (2pm) on Friday, July 6

Response Activities - Shelters

- ◆ HHS coordinated the opening of 3 Shelters on June 30, 2012
 - Richard Montgomery HS,
 - Clarksburg HS and
 - White Oak Community Recreation Center
- ◆ Shelter Residents (peak):
 - Clarksburg - 8 residents (closed 7/1)
 - WOCRC – 50 (closed 7/3)
 - RMHS – 130 (closed 7/6)
- ◆ Meals - 1,117;
- ◆ Snacks – 1,588

Response Activities Shelters (cont'd)

- ◆ Each shelter typically requires 8 – 12 staff
- ◆ During this multi-day, multi-shelter event, over 160 MCG staff deployed to support Shelter operations
 - 60 Human Services Specialists
 - 40 Community Health/School Nurses
 - 35 Sheriff Deputies
- ◆ 24 Certified Nursing Assistants (contract)
- ◆ 6 Shelter Specialists State DHR
- ◆ Over 65 American Red Cross Volunteers

COOP Actions

- ◆ On Monday Morning the county had 71 facilities without power – Every Department opened for business:
 - Corrections (MCDC) relocated 120 prisoners to MCCF
 - 311 relocated to COB
 - DPS relocated many services to EOB
 - Finance relocated 255 functions to EOB
 - ◆ Deed pick up and drop off, customer inquiries moved to Lobby
 - ◆ Cashier Activities to the 5th floor
 - ◆ Billing to 8th floor EOB
 - ◆ Treasury staff to 8th and 15th



After Action Questions

- ◆ The last Montgomery County Nursing Home had power restored 6 days after event (140 hours after initial storm). Why did restoration on this facility start so long after the Storm impacted the County?
- ◆ How are Pepco resources shared across the Pepco region?
 - At approximately 72 hours after the storm
 - ◆ Montgomery County had 59 critical facilities w/o power
 - ◆ Prince George's County had 5 critical facilities w/o power
 - ◆ The District of Columbia had 2 critical facilities w/o power
 - On July 5, 2012 at 2:15pm
 - ◆ Montgomery County had 15,508 outages
 - ◆ Prince George's County had 361 outages
 - ◆ The District of Columbia had 670 outages
- ◆ What actions can Pepco take to improve electric power resilience at the WSSC Potomac Water treatment Plant?
 - This WSSC plant has lost power several times and is one of the county's most critical facilities.

Pepco ETRs and Call Backs

- ◆ Global Estimated Time of Restorations (ETRs) have minimal value for decision making in the Emergency Operations Center (EOC).
 - Pepco reported they would have “90% of all customers power restored by Midnight Friday July 6th”. This information had minimal operational value. Specific ETRs for the county’s most critical facilities (including nursing homes and assisted living facilities) would be much more valuable if possible.
- ◆ Many of the County’s critical facilities reported calls from Pepco indicating power was restored when it had not been. What can be done to improve call accuracy and expand the number of weighted facilities reported to the EOC with power and without by Pepco?

Issue Impacting Pepco Needing Attention

- ◆ Verizon and Comcast need to improve their situational awareness with the county (how bad the damage is, where it is and when restoration will occur).
 - OEMHS believes the Pepco burden to identify wires down after an event would be alleviated if Comcast and Verizon mobilized to identify their portion of wires down.
 - OEMHS believes the community would be better served if information was provided to impacted Verizon and Comcast customers on the status of their service

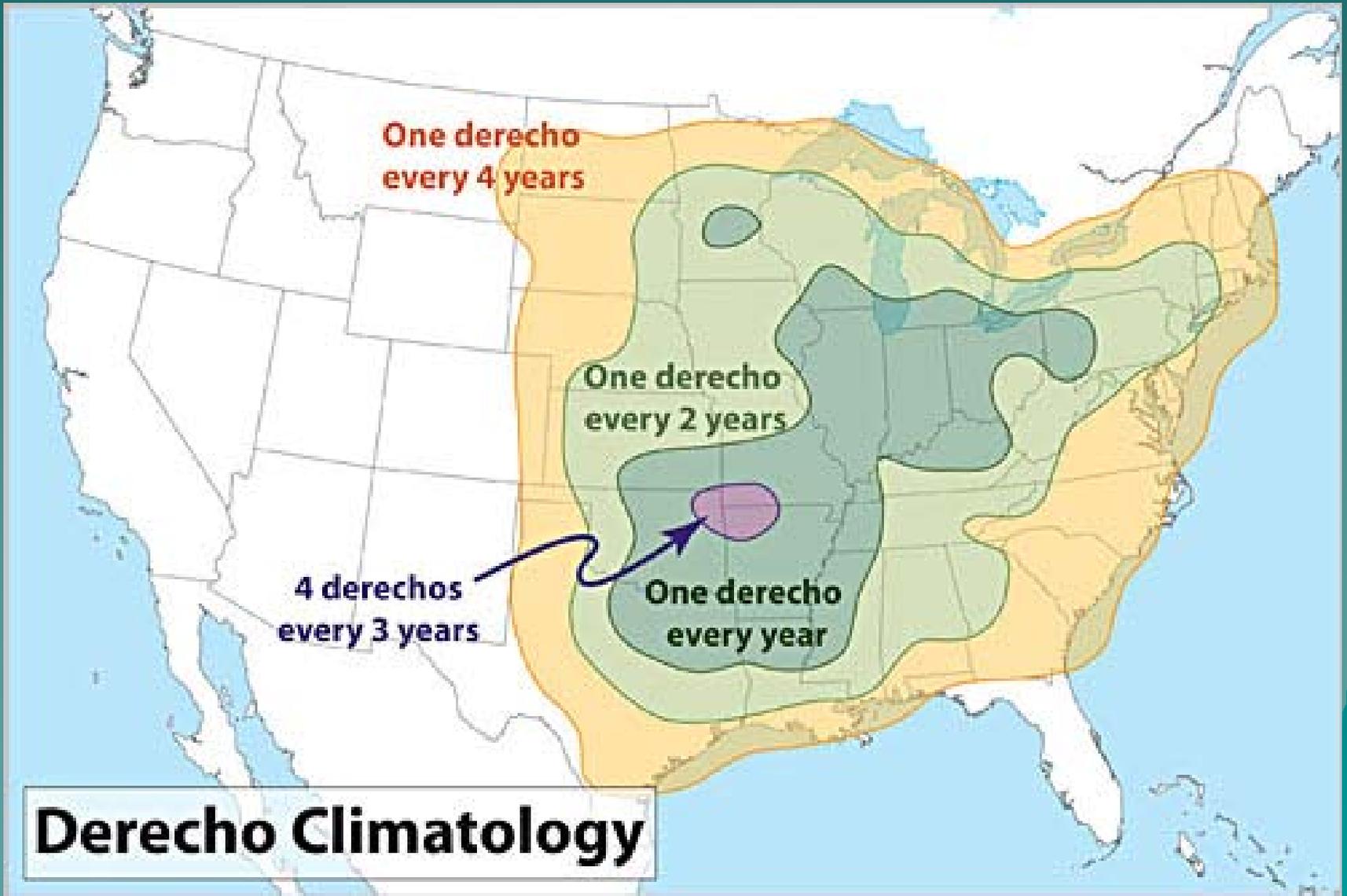
Additional Montgomery County Government Reference Information



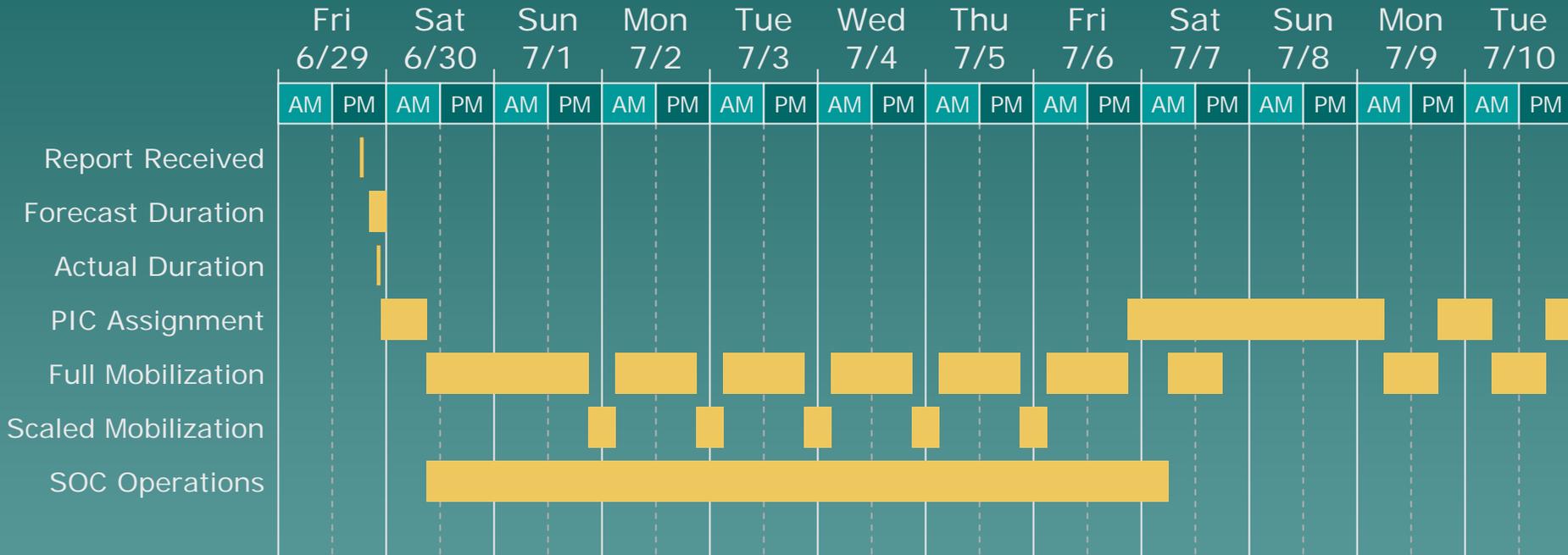
What is a Derecho?

- ◆ A long-lived severe thunderstorm complex with damaging winds. It differs from normal severe thunderstorms and bow echos in that it maintains its structure and intensity for 100s of miles and is self propagating. Almost always associated with heat waves and extremely high atmospheric instability.
- ◆ On average the U.S. sees 3-4 Derecho events per year.
- ◆ A 2011 Derecho event in the Midwest produced winds of 110-130mph. The winds were so severe that every tree in Iowa towns of Vinton and Garrison were snapped or damaged. Entire roofs were removed from homes and businesses.

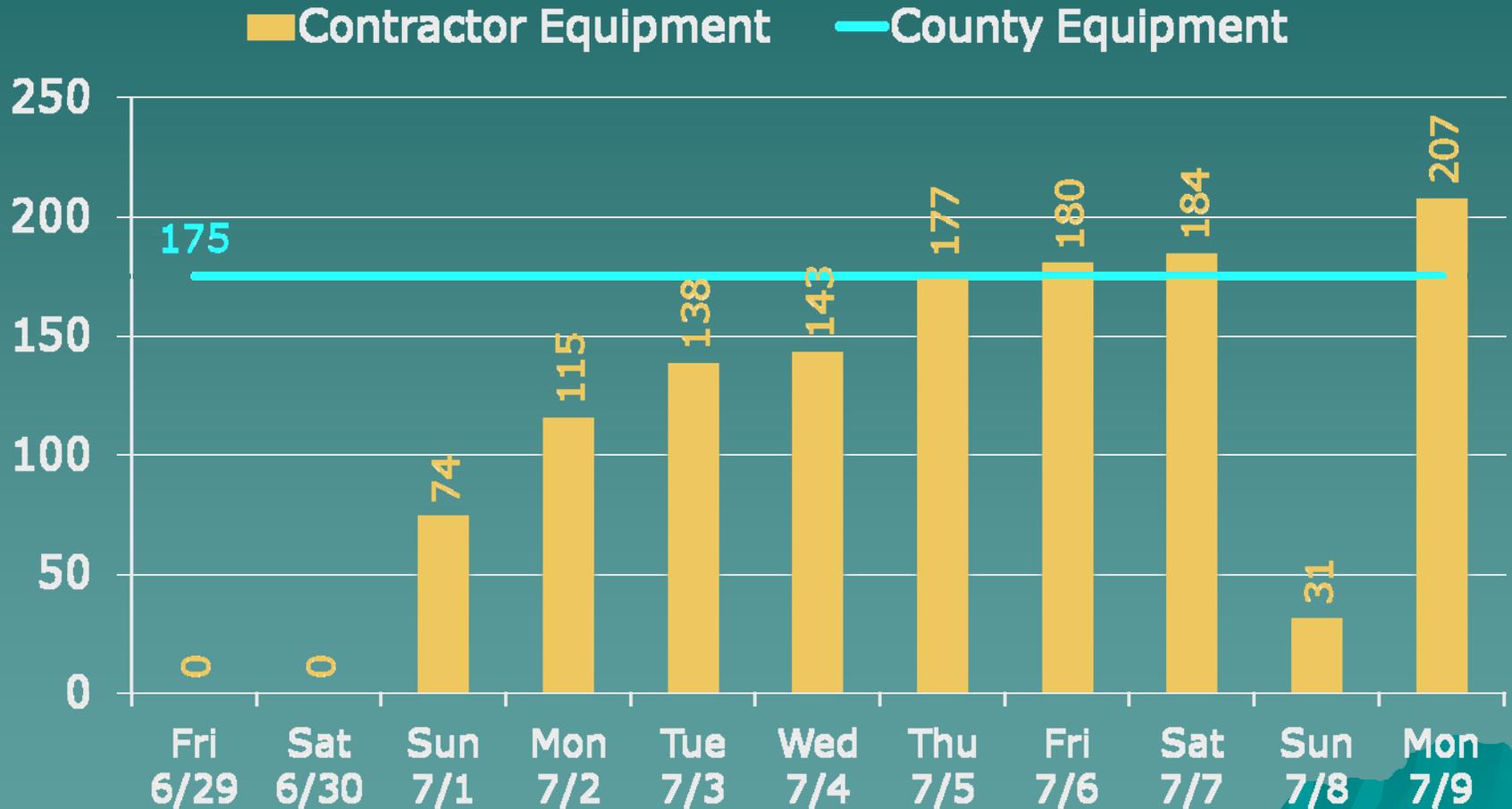
Derecho Frequency



DOT Storm Timeline



DOT Response Activities



Police Storm Impact

◆ Lost Power

- 5 District Stations (generators)
- Evidence Section
- ECC (PSCC Building) (generator)
- Special Operations Division (7/5/12)

◆ Damage to Facilities: None

Police Response Activities

- ◆ Incident Management Team
 - Executive officers
 - 500-600 traffic light outages due to power failure
 - Functioned as Area Command supporting district station incident commanders
 - Coordinated situational awareness and the assignment of resources to the six district stations.
- ◆ AT&T: Being managed at the same time
 - Traffic
 - Security

Police Response Activities

- ◆ Traffic Direction by LE officers from:
 - Montgomery County Police
 - Montgomery County Sheriffs
 - MNCPPC PD
 - Maryland State Police
 - Maryland Transportation Authority
 - Other LE agencies (GCPS & RVCPCD)
- ◆ MCPD Staffing
 - 2,100+ hours of staff overtime.
 - 2,600+ hours of regular staff time.

Police Response Activities



◆ Emergency Services Section

– Cleared trees based on Public Safety:

- ◆ Patrol officers being held out of service on a tree call.
- ◆ Public safety hazard.
- ◆ Major transportation artery blocked. (Example: see photo of tree on top of vehicle in the middle of Old Georgetown Road.)
- ◆ Neighborhood single access/egress blocked.
- ◆ They DO NOT touch trees involved with wires.
- ◆ Misc: ESS arranged for the removal of a large tree that crashed through a Silver Spring house and killed a 71 year old woman sleeping in bed.

– Other Duties

- ◆ Traffic control support provided (flares, cones, light towers)
- ◆ Numerous other jobs handled that are outside the scope of the patrol officers' resources.

HHS COOP Actions

- ◆ 6 buildings housing HHS staff without power at start of storm.
- ◆ By Sunday night there were four sites – 255 Rockville Pike, 51 Monroe, Broome School and the Colesville Health Center. Staff from these locations were relocated without interruption to service.
- ◆ The only service that was suspended was Drug monitoring for one business day

Storm Impact



Storm Impact



Storm Impact

