



October 2015 Flooding Event





FLOOD SETUP

Saturday-Sunday

COOL

HEAVIEST RAIN

ABOVE-NORMAL WATER TEMPS

SLOW MOVING



JOAQUIN MOISTURE

TROPICAL MOISTURE

JOAQUIN

AccuWeather.com

14:48Z 10/5/2015

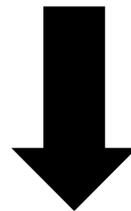
Hurricane Joaquin tropical moisture

+

Non-tropical storm in the South

+

Strong High Pressure to the North



Stalled System

SCDOT

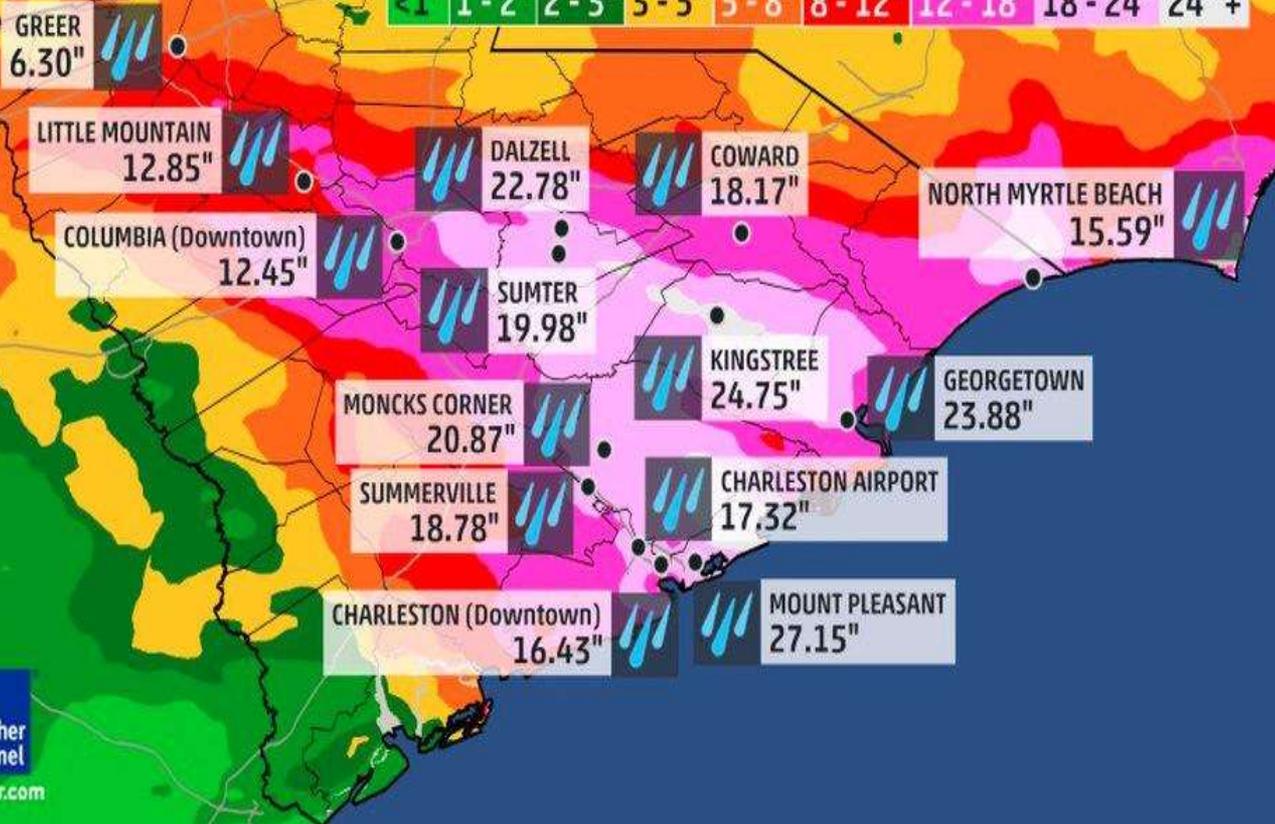


Prep Activities

- ✓ Clear drainage structures.
- ✓ Synch internal efforts.
- ✓ Coordinate externally.
- ✓ Pre-position and adjust.
- ✓ Analyze floodways.
- ✓ Activate pre-established contracts.

RAINFALL TOTALS OCTOBER 1 - 6, 2015

<1" 1-2" 2-3" 3-5" 5-8" 8-12" 12-18" 18-24" 24"+



The Weather Channel
weather.com



SCDOT



Caughman Road in Richland Co



Congaree Road in Lower Richland



Dorchester Road near Summerville



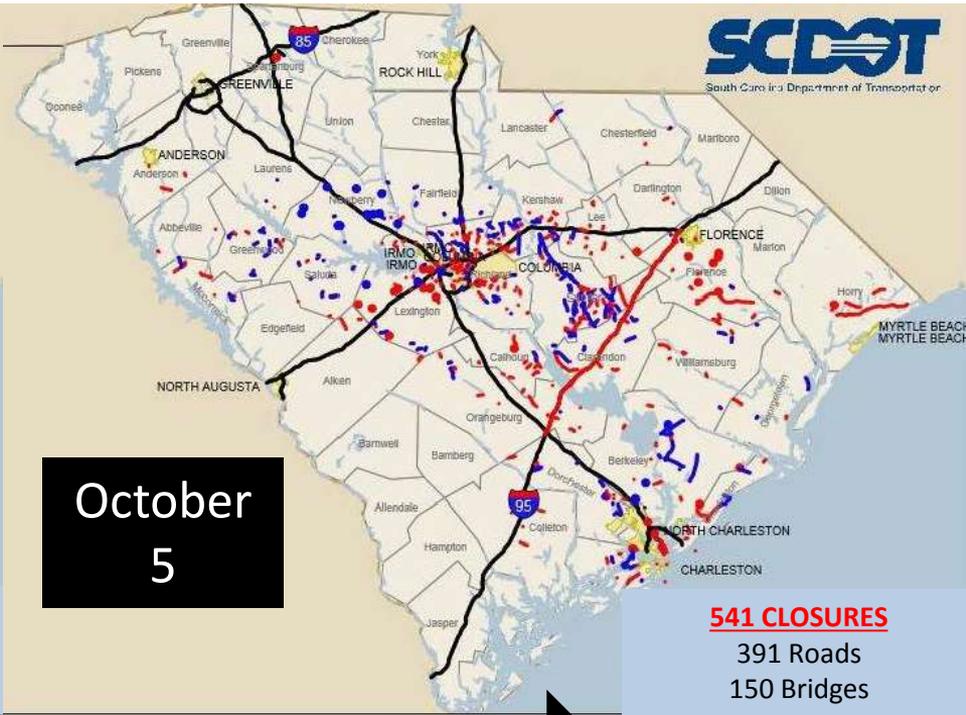
Clarendon County



Response

- Safety is top priority.
- Close roads and bridges as needed.
- Utilize entire maintenance force.
- Mobilize bridge inspectors & engineers.
- Coordinate.
- Assist Counties and Municipalities.
- Communicate often.





48 hours



Recovery Plan

- **Secure, Assess, Prioritize, Remove Debris & Restore.**
- **Develop a work plan and resource it.**
- **Effectively manage FHWA Emergency Relief and FEMA programs.**

Key Strategies

- **Maximize utilization of internal workforce.**
- **Close coordination.**
- **Communicate frequently.**
- **Contain costs & maximize reimbursements.**

SCDOT will participate in 2 Federal Programs



FHWA

Emergency Relief Program

FEMA



FHWA: Emergency Relief Program

- 100% reimbursement for temporary repairs on a portion of the Federal-Aid system for the first 180 days. Reverts to normal split after 180 days.
- Participation levels for permanent repairs follow normal split (80-20 or 90-10).

US 176 Bridge



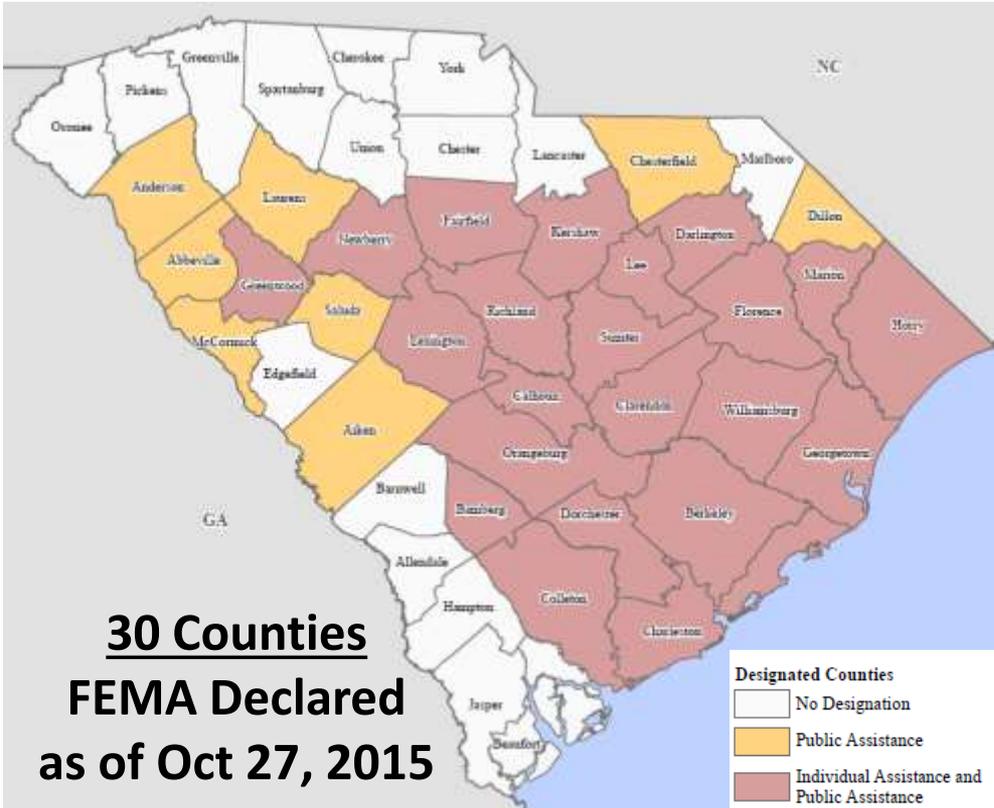
Monticello Road Bridge End Repairs



I-95 Bridge
Foundation Repairs



FEMA: Public Assistance Program



- **Category A: Debris Removal**
- **Category B: Emergency Protective Measures**
(temporary repairs / stabilizing)
- **Category C: Roads & Bridges**
(permanent repair/replacement)



FEMA Cat A: Debris Removal

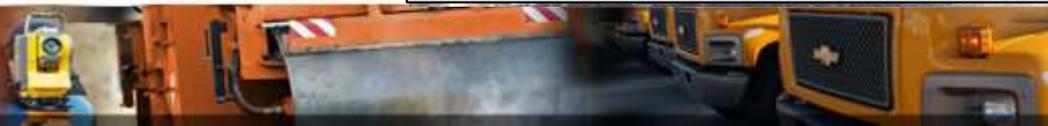
- All public rights of way are eligible.
- Storm generated debris only.
- Opted into pilot program.
 - 85% reimbursement for first 30 days.
 - 80% 31-90 days
 - 75% 91-180 days
 - >180 days not eligible
- Strict documentation & procurement requirements.



BEFORE



AFTER



FEMA Cat B: Emergency Protective Measures

- Temporary repairs to stabilize infrastructure.
- Must be able to demonstrate that work was required to mitigate threats to public safety.
- 75% reimbursement.
- Not applicable where FHWA Emergency Relief funds are eligible.



FEMA Cat C: Roads & Bridges

- Permanent repairs for damage caused directly by the disaster.
 - Repair if possible.
 - Replace only if beyond repair.
- 75% reimbursement.
- Generally, it is not a betterment program.
- Not applicable where FHWA Emergency Relief funds are eligible.



Shoulder and lane repairs

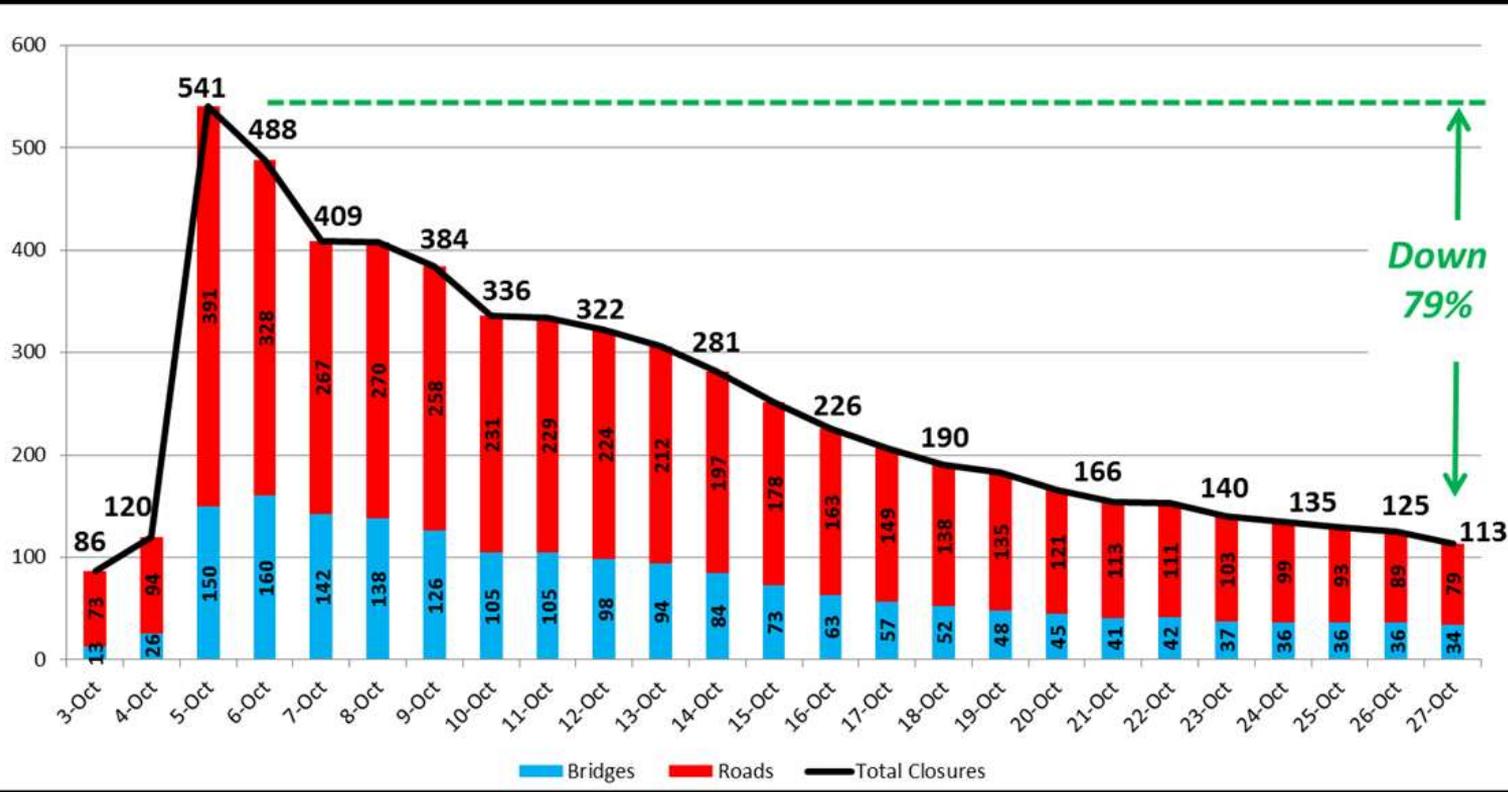


Bridge
end
washout



Current Status

Recovery Progress: Closure Status (as of Oct 27)



All Interstates are OPEN.

11 Primary Routes remain

CLOSED:

Richland: US 21, US 321, SC 48 & SC 769.

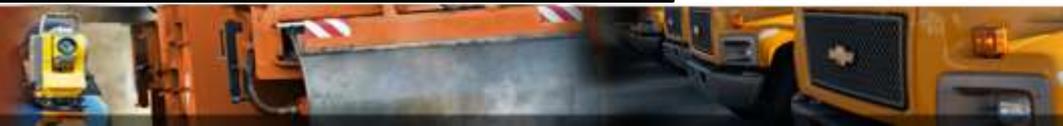
Clarendon: US 15, US 301 & US 521 (partial).

Newberry: US 176.

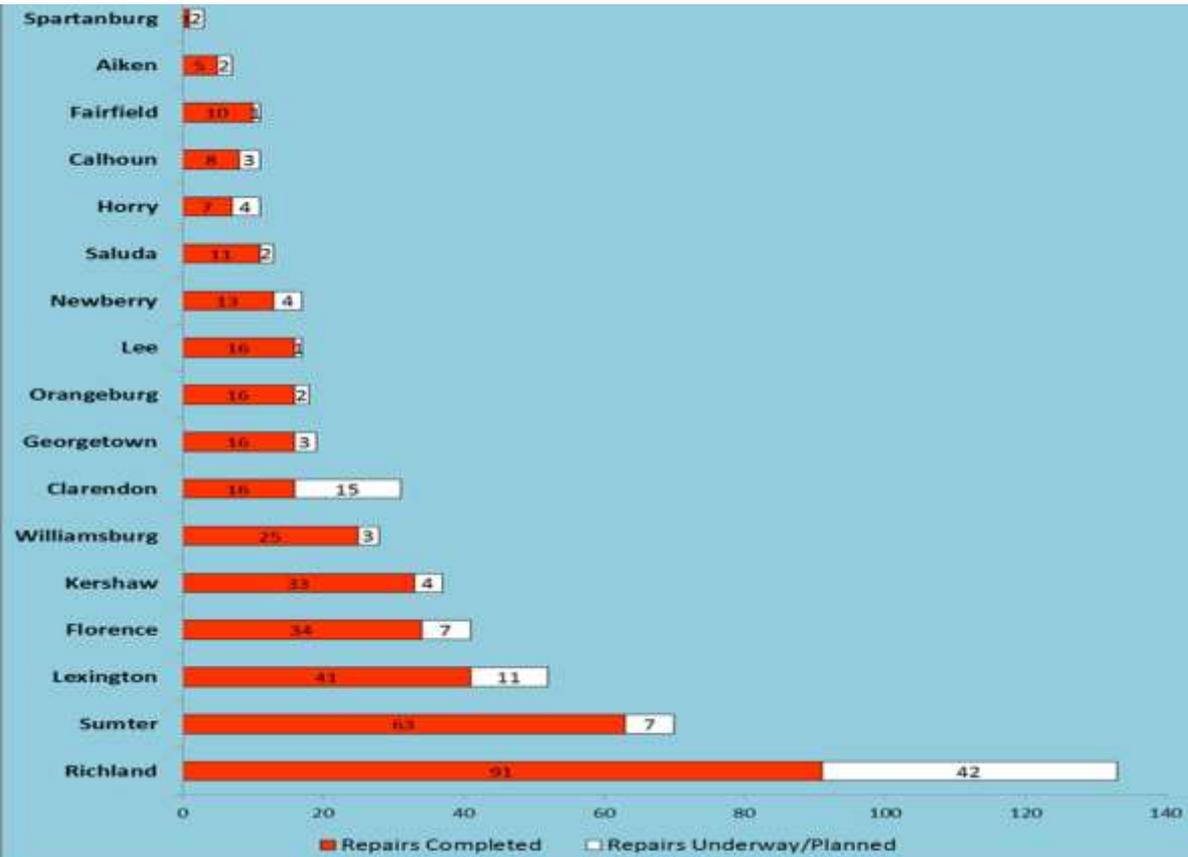
Florence: SC 51.

Sumter: US 76 Business (partial).

Williamsburg: SC 512.



Current Status as of Oct 27

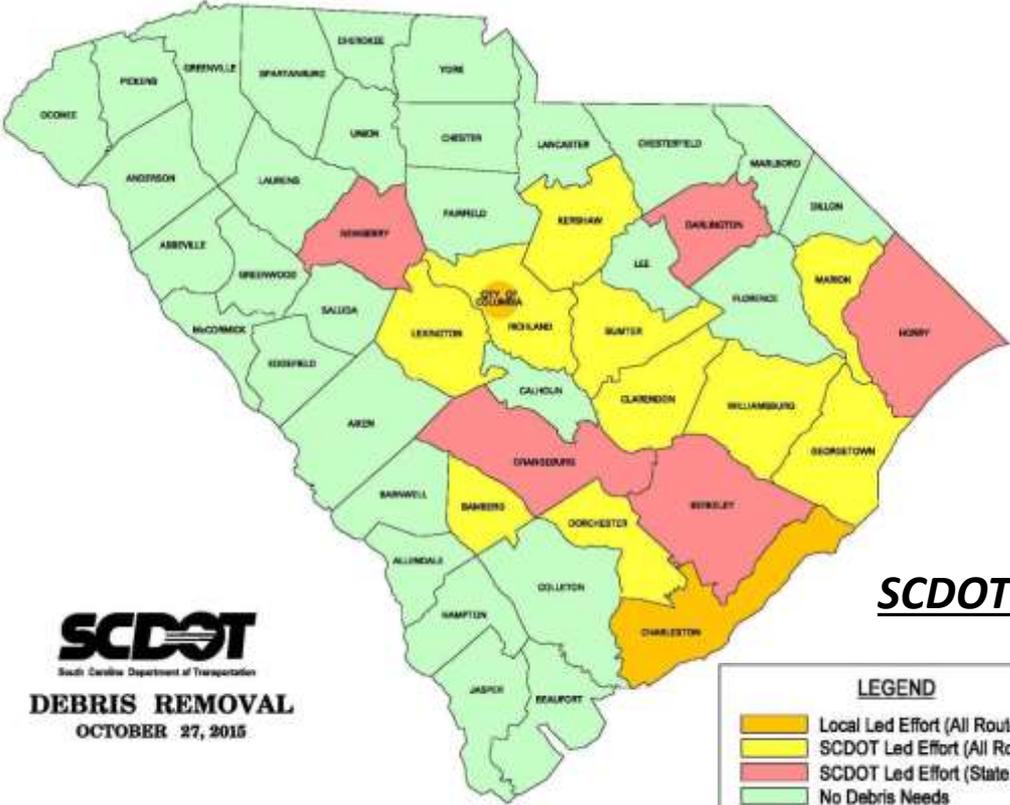


All repairs to the state system have been completed in 13 Counties:

- Abbeville
- Allendale
- Anderson
- Bamberg
- Berkeley
- Charleston
- Colleton
- Darlington
- Dorchester
- Greenwood
- Laurens
- Marion
- and McCormick



Recovery Progress:



871 loads or 42,384 CY collected as of Oct 27

SCDOT is leading Debris Removal in 10 Counties and 7 Municipalities

LEGEND

- Local Led Effort (All Routes)
- SCDOT Led Effort (All Routes)
- SCDOT Led Effort (State Routes)
- No Debris Needs

SCDOT
 South Carolina Department of Transportation
DEBRIS REMOVAL
 OCTOBER 27, 2015



Recovery: What's Next?

- **Continue Assessments.**
- **Review all bridges in the impacted floodways.**
- **Continue repairs with in-house and contract forces.**
- **Fast-track FEMA & FHWA ER bridge replacement projects.**
- **Continue debris removal operations.**
- **Formulate estimated event financial impact.**
- **Aggressively manage all funds to ensure all financial obligations are met.**
- **Strive to continue normal program activities.**



Many Thanks to the Team!



In Memory of Timothy Wayne Gibson



SCDOT mourns the loss of Timothy Wayne Gibson, 45, who died in flood waters on Garners Ferry Road in Columbia on Sunday, October 4 while overseeing emergency work being done at that location.

Mr. Gibson represented hundreds of SCDOT workers who worked around the clock all around the state. He did not hesitate to put his life on the line to protect the public during the flood event and he is a true HERO.





South Carolina Department of Transportation

Questions?

