



South Carolina Department of Health and Environmental Control

Promoting and Protecting the Health of the Public and the Environment

House Ways & Means Committee: Flood Recovery & Assessment

**Catherine E. Heigel
November 18, 2015**



Overview

- Impact of the historic floods on dams
- Emergency response efforts still under way
- Providing regulatory oversight to dams
- Dam safety program improvements
- Additional response and recovery efforts



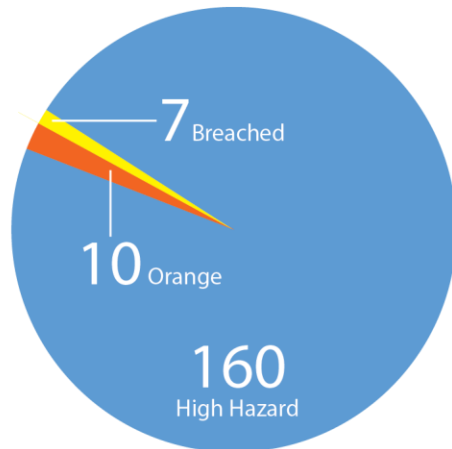
Flood Impact on Dams

- **36** dams failed in the historic flooding event:
 - 31 regulated, 4 unregulated, and 1 federal
- DHEC and the U.S. Army Corps of Engineers assessed all **652** High and Significant Hazard dams statewide post-flood.
- Of the **2,370** regulated dams statewide:
 - **1.3%** failed as a result of the floods
 - **3%** have been issued Emergency Orders
 - **7%** have been issued non-emergent Repair Orders

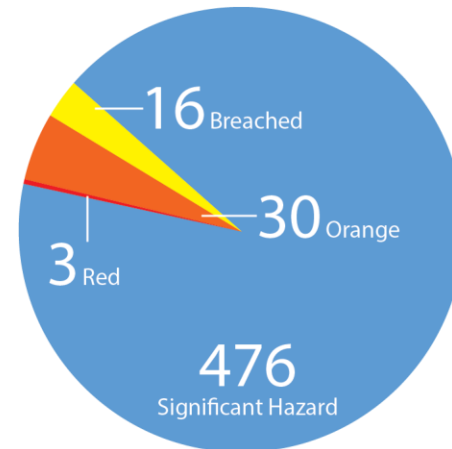


DHEC & Army Corps of Engineers Assessments

Class 1 (High Hazard)



Class 2 (Significant Hazard)



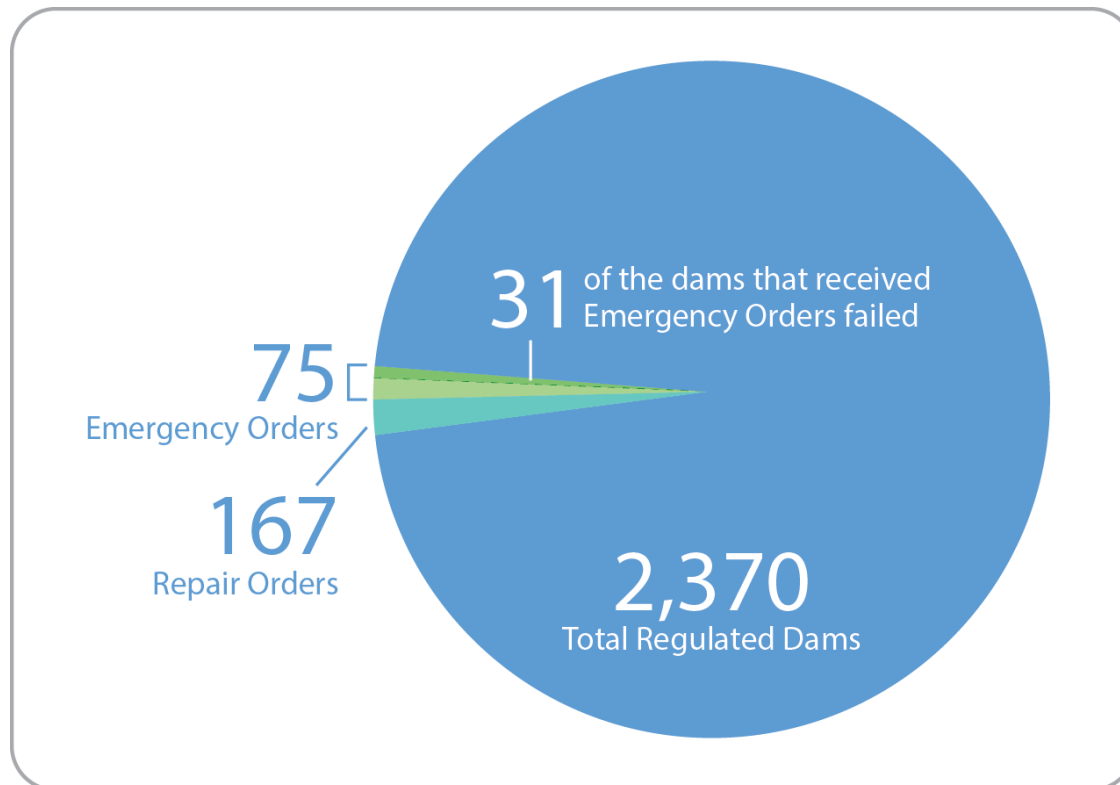
Red = Needs immediate attention, failure possible

Orange = Needs damage repair, could lead to failure

Breached = Has failed



Flood Impact on Regulated Dams





Ongoing Emergency Response Efforts

- Emergency dam stabilization work is still ongoing:
 - DHEC has issued **75** Emergency Orders based on our assessments conducted with the Corps.
 - **17** dams have been referred to our outside contractor, HDR Engineering, for evaluation.
 - As many as **30** dams may require state intervention for long-term stabilization.



Providing Regulatory Oversight

- DHEC has issued **24** Notices of Violations to dam owners who have not responded to both requirements of their Emergency Order.
- DHEC also issued **167** non-emergent Repair Orders.
 - These are dams that our post-flood assessment with the U.S. Army Corps of Engineers determined needed repairs or maintenance but were not at risk of failure.
 - Owners have until February to respond.



Providing Regulatory Oversight

- We are working with dam owners to help them come into compliance.
- Repair and maintenance plans must be reviewed and accepted by DHEC.
- We will work to expedite reviews of plans and issuance of required repair/reconstruction permits.



Program Improvements

- DHEC is working with HDR to assess the dam safety program and to conduct a complete engineering review and assessment of the Gills Creek Watershed.
- We have submitted our FY 2017 budget request for an additional **7** full-time staffers to sufficiently carry out existing statutory and regulatory duties.
- DHEC is working to draft proposed legislative changes that would enhance our dam safety program and bring it in line with national best practices.

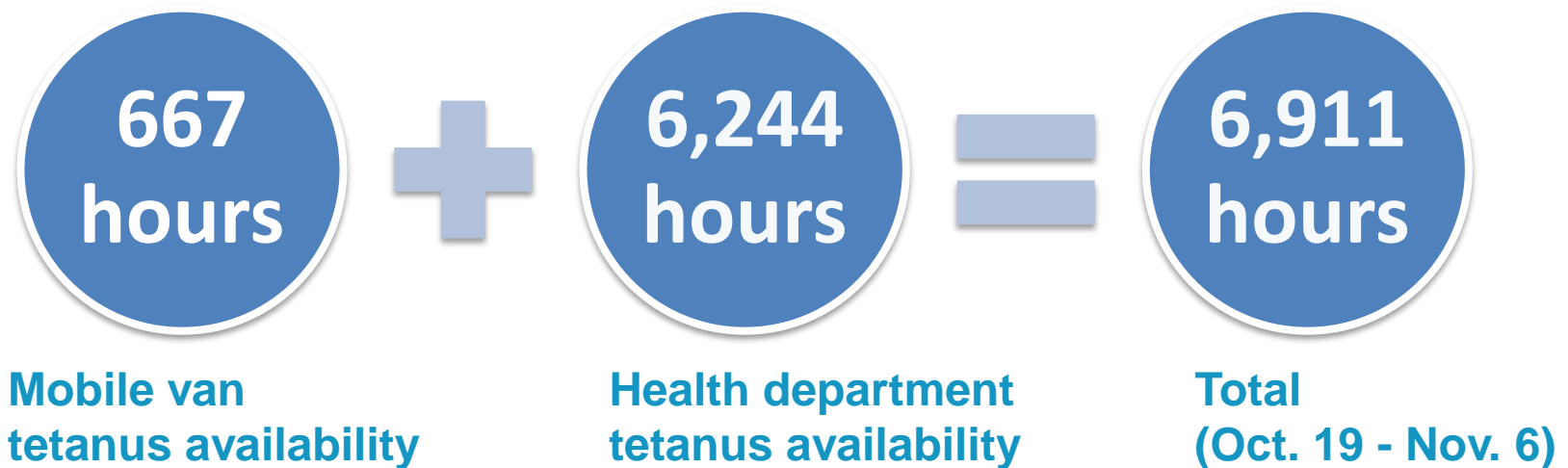


Providing Free Tetanus Vaccines

- **4,568** tetanus vaccinations administered via mobile clinics as of Nov. 1.
 - Conducted at **144** sites in **18** counties.
- **1,391** vaccinations administered in local health department clinics as of Nov. 6.
- **5,959** total vaccinations given as of Nov. 6.



Tetanus Vaccine Clinic Availability

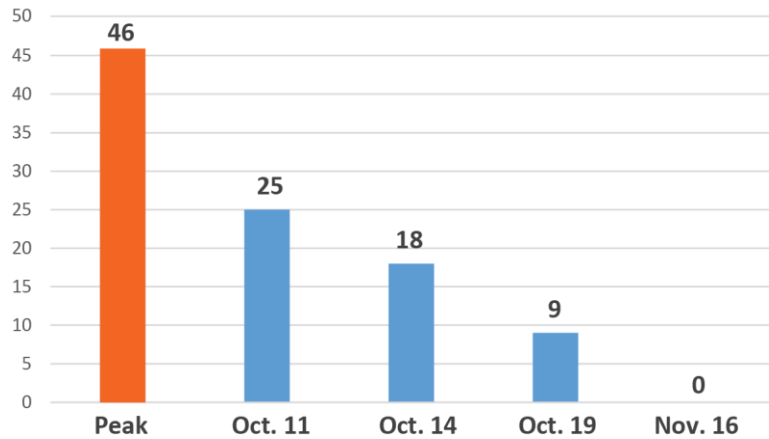


DHEC has waived the \$25 administrative fee for tetanus vaccines statewide at a cost of **\$148,975**.

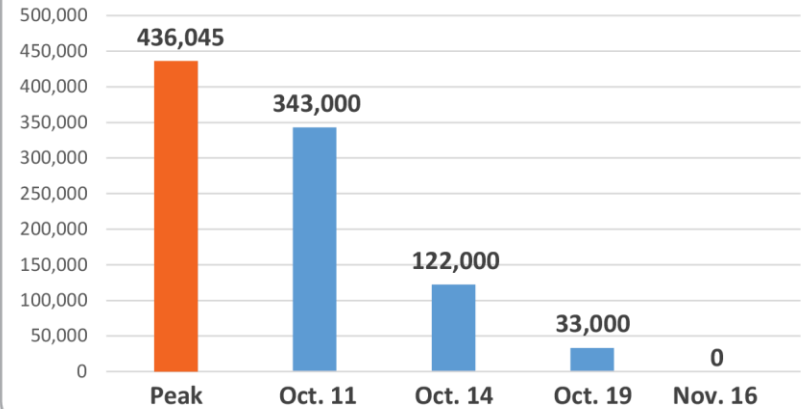


Monitoring Boiled Water Advisories

Number of Advisories



Number of People Impacted





Providing Free Private Well Testing

- Tested **2,306** well water samples from **41** counties as of Nov. 12.
- Distributed more than **5,366** well water testing kits statewide.
- DHEC has waived the fee for well water testing statewide at a cost of **\$44,300**.



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