



Dam Safety Program
2600 Bull Street
Columbia, SC 29201



We're On Call

Dam Safety Program Staff
are available 24-7 in the event
of an emergency situation at
803-898-1939

www.scdhec.gov/dams



South Carolina Dam Safety News

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A Message from Myra Reece, Director of Environmental Affairs

The South Carolina Department of Health and Environmental Control (DHEC) touches the lives of everyone who lives, works and plays in the Palmetto State. As the state's public health and environmental protection agency, our team provides a wide range of services that support our mission of improving the quality of life for all South Carolinians.

Our state has undergone tremendous challenges during and after the devastation caused by the 2015 flood and Hurricane Matthew. We are

still in the process of rebuilding and recovering in some areas, but South Carolinians are a resilient people. Here at DHEC we have continued to develop the Dam Safety Program and have been working with the South Carolina Legislature to improve the laws and regulations which cover local dams.

Through this newsletter, I look forward to continuing to share the great work that our agency is doing across the state when it comes to dam safety.



October 2015 and Hurricane Matthew

October 2015's historic rainfall event followed by Hurricane Matthew in 2016 charted a new, challenging course for South Carolina's Dam Safety Program. These events resulted in the failure of over 75 dams regulated under the South Carolina Dams and Reservoir Safety Act.

Following each of these events, DHEC partnered with the U.S. Army Corps of Engineers to assess the condition of dams throughout the state. A total of 652 dams were assessed after the 2015 flood and 469 were assessed

following the landfall of Hurricane Matthew the next year.

DHEC's Dam Safety Program continues to plan and prepare our response to severe weather through training and coordination with our partners at the local, state and federal level.

Dam Failures by Hazard Classification:

- Breached High Hazard Dams: 7
- Breached Significant Hazard Dams: 21
- Breached Low Hazard Dams: 42

Emergency Action Plans

Emergency Action Plans (EAPs) are the cornerstones of providing guidance to dam owners during a developing incident at a dam. Incidents that can lead to dam failure include high water level, clogged spillways, slides of soil on the earthen embankment and many other causes. EAPs guide dam owners and operators through who to call and what actions to take. Each High and Significant Hazard Dam is required to have an updated EAP.

A recent review of the EAPs on file shows that many are out-of-date. This summer, the Dam Safety Program with the assistance of recent college graduates and interns will

be preparing updated EAPs for dam owners.

One of the key components of an Emergency Action Plan is an inundation map. Inundation maps identify the area that may be flooded in the event of dam failure. With the aid of DHEC's engineering consultant, CDM Smith, inundation maps are now available for all High and Significant Hazard Dams. In addition, DHEC is coordinating with the South Carolina Emergency Management Division (SCEMD) to develop an EAP template that will be valuable to local emergency managers and first responders.



Preparing for Summer Storms

June 1 signaled the start of hurricane season in the Atlantic. As witnessed in 2015 and 2016, tropical weather systems can severely impact dams. When intense rainfall or heavy winds are in the forecast, dam owners should begin making preparations. Likewise, a summer thunderstorm that sits over a drainage basin for an extended period of time can quickly drop 6-8" of rain in a matter of hours.

When such an event is forecast or has occurred dam owners should:

- Evaluate the water level in the pond/lake. Determine if water

levels can be safely lowered to make room for incoming flows.

- Coordinate with dam owners and/or property owners downstream.
- Routinely clear debris from spillways.
- Review your Emergency Action Plan.
- Keep alert. As the storm passes, watch for rising waters.
- Report any concerns to the DHEC Dam Safety Program staff at 803-898-1939.

Transferring Ownership

Have you recently sold or plan to sell property with a regulated dam located on it?

The South Carolina Dam Safety Regulations require that DHEC be notified in writing, by the sellers, within 30 days of the transfer of title for property containing a regulated dam. It is important that DHEC be kept up-

to-date with owners' names and contact information so that we may schedule inspections and can reach the responsible party in the event of a dam safety-related emergency. Please call Meagan O'Leary with the Dam Safety Program at 803-898-4050 or email us at: response@dhec.sc.gov.



Meet Your Regional Engineer



The committed engineers and staff who work with dam owners and engineers to make dams safe make up the heart of South Carolina's Dam Safety Program. Each newsletter will highlight one of the program staff.

Hannah Vinson began her engineering career in North Carolina working for the City of Concord and then for an engineering consultant designing water, sewer and storm sewer lines. These jobs gave her the opportunity to use the skills and education she gained studying for her degree in construction engineering and management at North Carolina State University.

Hannah came to DHEC's Anderson Regional Office in 2013. As a regional engineer, Hannah gained experience in many of DHEC's environmental

regulatory programs, including dam safety, as she inspected facilities and responded to complaints. In September of 2016, Hannah accepted the challenge of working full time as one of six regional dam safety engineers.

When asked what she enjoys most about her job, Hannah, says, "I enjoy the time spent outside and getting to see so many different areas of the state. I enjoy helping the dam owners to better understand their dam and how to make it safe."

DHEC Regional Staff Listing

Area	Regional Office	Dam Safety Staff	Office Phone	Mobile Phone
1	Anderson	Hannah Vinson	864-260-5585	864-276-1907
2	Greenville	Chuck Owens	864-377-3273	864-561-1395
3	Columbia	Kaitlin Mahoney	803-896-0620	803-804-0477
4	Florence	Ryan Sullivan	843-661-4825	843-992-0238
5	Orangeburg	Dani Hallman	803-533-5490	803-614-5222
6	Aiken	Scott Simons	803-642-1637	803-508-9116



Code Red

Following October 2015's historic rainfall, DHEC's Dam Safety Program staff realized that it was critical to have a mechanism to reach the owners of dams in the state when intense rainfall was forecast. **It is during this time, prior to the arrival of tropical systems and other inclement weather, that owners should begin preparing.** Intense rainfall can raise water levels in a pond, which can lead to overtopping and ultimately dam failure.

Hurricane force winds can topple trees, causing large voids where trees are uprooted. Loss of soil from a dam can impact its structural integrity and can provide a path for water from the pond to exit in an uncontrolled manner. This condition may lead to failure.

DHEC has contracted with the Emergency Communications Network to utilize their CodeRed emergency notification system. CodeRed allows DHEC to send automatic voice call, text messages, and emails to owners

and operators of regulated dams so that they may be prepared. The Dam Safety Program also anticipates using the system for routine communications with owners, such as announcements of trainings and workshops for dam owners.

If you have not registered your contact information with DHEC for CodeRed, please call Meagan O'Leary with the Dam Safety Program at 803-898-4050 or email us at: response@dhec.sc.gov.