



A view of the Lake Russell Spillway.

## Failures

Although no large dams have failed in South Carolina, the following significant events have occurred:

- ▶ In 1983 hundreds of people in Berkeley County were evacuated after a leak in the Pinopolis Dam was discovered.
- ▶ In 1990 floods caused 17 small dams to fail and 81 others to be overtopped.
- ▶ In 1993 Fogles Pond Dam in Orangeburg County failed and disrupted traffic on U.S. 321.
- ▶ In 1994 Red Bank Millpond Dam in Lexington County failed and two additional dams downstream were washed out.
- ▶ In 1997 structural failure at the Edisto Pond Dam in Aiken County caused two smaller dams below it to wash out.

These incidents were primarily caused by heavy precipitation. Failures could also result from earthquakes, bombs, civil disorder, rapid runoff, cracks, obstruction of spillways, vandalism, and neglect.

## Stay Tuned

Information about potential dam failures may come to you from various sources.

- ▶ National Weather Service Tone Alert Radios
- ▶ Commercial Radio or Television
- ▶ County Warning Systems (Sirens)
- ▶ U.S. Army Corps of Engineers
- ▶ State Agencies
- ▶ Local Citizens

## Survival

Citizens living in flood-prone areas should have plans. The following activities will help you prepare to survive in the event of a dam failure:

- ▶ Know where you are in relation to nearby dams. Contact your local emergency management agency for information concerning dams in your area. If you live downstream or in an area susceptible to flooding, develop a plan, know how to reach higher ground quickly and be prepared to take action.
- ▶ Maintain sufficient fuel in your vehicles.
- ▶ Know evacuation routes.
- ▶ Never try to walk, swim, drive, or play in flood water.
- ▶ If you take special medications, keep a plentiful supply on hand.

For more information contact:

**South Carolina Emergency Management Division**  
Office of the Adjutant General  
2779 Fish Hatchery Road  
West Columbia, SC 29172

Phone: 803-737-8500  
Fax: 803-737-8570

Or visit us on the Web at:  
**www.scemd.org**

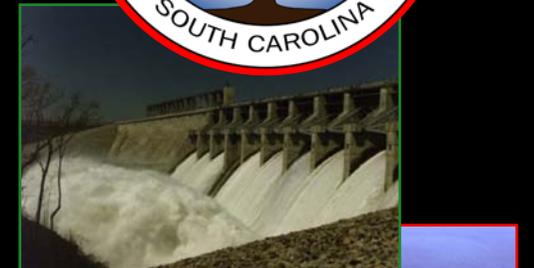


The Pine Ridge National Guard Armory was retrofitted to provide South Carolina with its first state-of-the-art Emergency Operations Center.



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## South Carolina Emergency Management Division



## What SCEMD Does

SCEMD works day-to-day with owners and operators of regulated dams, local governments and regulatory agencies to coordinate dam safety plans, with a primary focus on the vulnerable population downstream. Although SCEMD has no regulatory authority over dam owners or operators, the planning and exercising functions that the Division performs are vital to the safety of South Carolinians.



The South Carolina Emergency Management Division is co-located with the State Emergency Operations Center.

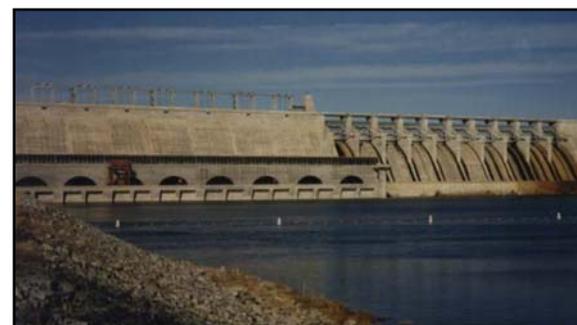
To enhance planning, SCEMD validates the ability of some dam operators to notify responders in case of a dam breach. SCEMD also analyzes the potential effects of dam failures on vital services, such as water supplies, sewage-treatment facilities, roadways, bridges, and communication systems. Then, SCEMD uses this information to coordinate development of integrated site-specific emergency response plans. The Division tests those plans by planning and facilitating exercises. Should a dam failure overwhelm local response capabilities, SCEMD coordinates state and federal assistance to help city and county governments respond.

## Regulators

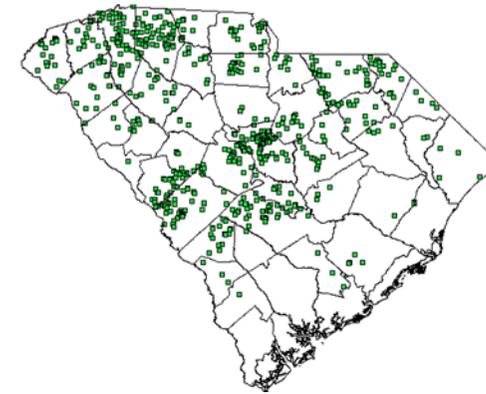
The federal government regulates the largest dams in South Carolina through the Federal Energy Regulatory Commission and the U.S. Army Corps of Engineers. Smaller dams that pose potential threats to life and property are regulated by the State Department of Health and Environmental Control. Small dams located on private property are not regulated.

**Federal:** Thirty-four dams in South Carolina are hydro-electric and are regulated by the Federal Energy Regulatory Commission in combination with various power companies and municipalities. These dams are required to have emergency action plans that must be updated annually and exercised periodically.

**U.S. Army:** Five of the dams, dikes, and locks along the Savannah River and one on the Santee River Basin are regulated by the U.S. Army Corps of Engineers.



A downstream view of the Lake Russell Dam.



DHEC-regulated dams of High and Significant Hazard.

**State:** Of the more than 50,000 dams located in South Carolina, only 2,200 are large enough to be regulated under state law. Most dams are privately owned, although a few are owned by public agencies and are regulated by the S.C. Department of Health and Environmental Control. State-regulated dams are divided into three classes, dependent on what is located below the dams: High Hazard, Significant Hazard, and Low Hazard. DHEC inspects High Hazard dams annually and Significant Hazard dams every three years. Low Hazard dams are not inspected, but areas below the dams are checked every three years for new development and possible reclassification. Under state law, owners of High and Significant Hazard dams are required to maintain emergency notification plans.

## Status

Most dams in South Carolina are small and are used primarily for recreation. The larger dams are used for the production of hydro-electricity, for control of the water supply, and for flood control. Generally, the most common structural material is earth, but there are a few masonry and concrete dams.

## Threat

Although no major dam failure has ever occurred in South Carolina, there is a potential for catastrophic failure. The greatest threat is where a significant population is located immediately downstream from a large hydro dam or several dams in succession. The Saluda Hydro-electric Project (Lake Murray Dam) in Lexington County, the Wylie Dam in York County, and the Keowee and Jocassee dams in Pickens all are examples of large-scale threats. These dams and thirty others in South Carolina are regulated by the Federal Energy Regulatory Commission. Their size and the population below them determine their threat.

## Liability

Liability issues are outlined in the South Carolina Code of Laws, Title 49, Article 1, and Article 3, Dams and Reservoirs Safety Act. Any person, business, or organization that impounds water for the purpose of constructing a dam or reservoir in South Carolina should be aware of their responsibilities in the event of an incident involving a breach or overtopping.



Aerial view of the Lake Murray Dam.