

Table 2: Response and Recovery Matrix for South Carolina – State

State Entity	Authority / Responsibility Relating to Dams	How They Can Help Relating to Dam Incidents	Phone/Email / Website
South Carolina Department of Social Services (SC DSS)	The SC DSS has no authority or responsibility specifically related to dams, but has responsibilities related to disaster response. The SC DSS works with affected counties, the American Red Cross, and The Salvation Army to identify shelters and develop plans to support shelter and mass feeding operations, as needed.	In a disaster event, the SC DSS coordinates with the American Red Cross to open shelters in affected counties outside of the inundation area, or in a neighboring (receiving) county if necessary. The SC DSS coordinates with the County and ESF-6 (Mass Care) partners to manage general population shelter operations.	https://dss.sc.gov/
South Carolina Department of Transportation (SCDOT)	The SCDOT has no authority or responsibility specifically related to dams, but has responsibilities related to disaster response and recovery. The SCDOT coordinates transportation resources and provides for the assessment and reconstruction of the transportation infrastructure in South Carolina.	The SCDOT supports before, during, and after an event as follows: <ul style="list-style-type: none"> • Clears all debris from state-maintained roadways • Coordinates procedures to evaluate road structure integrity • Repairs roads, bridges, culverts, etc. when damaged • Maintains the SCDOT web page to show the latest update on road openings and closings • Assists with all evacuation plans when activated In the event of an emergency or evacuation, SCDOT/ESF-1 (Transportation) determines routes around the inundation area and coordinates with SC DPS/ESF-16 (Emergency Traffic Management) to establish roadblocks and traffic control points or diversion points to facilitate the flow of traffic and ensure evacuation traffic is routed correctly with a minimum of delay. The SCDOT also coordinates with SC DPS/ESF-16 (Emergency Traffic Management) to support evacuation operations, as needed.	http://www.scdot.org/travel/travel-emergencyresponse.aspx To report an emergency: contact SCDOT Customer Service Center at 1-855-GO-SCDOT (1-855-467-2368) or a local office: http://www.scdot.org/inside/countyOffices.aspx
South Carolina Emergency Management Division (SCEMD)	The SCEMD is responsible for planning for the consequence management response to anticipated dam failures, breaches, and overtopping of dam structures. It coordinates the EAP notification rosters with state and local emergency management organizations. The SCEMD also monitors potentially threatening conditions affecting South Carolina that may cause deteriorating conditions to dams, and coordinates appropriate warning and response actions.	The SCEMD coordinates with SC DHEC and affected County emergency management agencies to enact an organized response to address or resolve known or discovered issues and concerns at dams. In the event of a dam failure, the SCEMD may support local governments. The SCEMD also consults with NOAA's NWS and SERFC, USGS, SC DNR, and SC DHEC to monitor observed and forecasted flooding events that might lead to possible dam failures.	2779 Fish Hatchery Road West Columbia, SC 29172 (803) 737-8500 By County: http://www.scmd.org/who-we-are/county-agencies WebAlert@emd.sc.gov
CodeRED Alerts	Several South Carolina counties have systems to conduct automated telephonic notifications for CodeRED Alerts.	The State Warning Point initiates CodeRED Alerts to alert emergency responders and the threatened population of possible danger. Notifications are prioritized (or phased) based on the threat (such as speed of water flow). Other emergency alert notification systems that may be used in emergency situations include siren systems, Tone Alert Radio Notifications (NWS Flash Flood Watch or Flash Flood Warning), and other broadcast emergency alert systems.	http://www.scmd.org/component/content/article/2-uncategorised/177-codered-alerts-from-scmd
Statewide Mutual Aid Agreement	The Mutual Aid System is a way for South Carolina municipalities to voluntarily agree to share resources among themselves during a disaster. The South Carolina Statewide Mutual Aid Agreement is available on the SCEMD website.	Mutual aid agreements can be activated to support emergency and disaster response/recovery.	http://www.scmd.org/?option=com_content&view=article&id=113&catid=25
South Carolina Floodplain Mapping Program	The South Carolina Floodplain Mapping Program has no authority or responsibility specifically related to dams, but supports prevention and recovery by working with FEMA to update flood hazard information for all of South Carolina's 46 counties.	The South Carolina Floodplain Mapping Program assists FEMA in developing dam inundation maps and scenario-specific inundation maps.	http://www.dnr.sc.gov/water/flood/floodmaps.html

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South Carolina Law Enforcement Division	The South Carolina Law Enforcement Division has no authority or responsibility specifically related to dams, but can assist local law enforcement authorities with security in the event of a dam-related incident.	The South Carolina Law Enforcement Division provides and coordinates specialized support, including forensic support, investigative, and crime scene services (should a breach be determined to be by intentional means). It also coordinates additional assets, if needed, by activating the State Law Enforcement Mutual Aid Plan (SLEMAP). The South Carolina Law Enforcement Division coordinates with ESF-13 (Law Enforcement) to develop plans to assist local law enforcement authorities with security in the inundation area.	http://www.sled.sc.gov/
South Carolina National Guard (SCNG)	The SCNG has no authority or responsibility specifically related to dams, but has responsibilities related to disaster response. The National Guard is an element of the U.S. military; one of its purposes is to respond to domestic emergencies. Each state has its own National Guard. The SCNG can be activated by the Governor for a State-related mission, or be activated by the President of the United States for a Federal Government mission to respond to emergencies or disasters.	Once the President or Governor has issued a State of Emergency Declaration, the SCNG can provide aviation support for search and rescue, reconnaissance, and security operations in coordination with SCDOT, ESF-1/Air Branch and others, as relevant; assistance to SC DPS/ESF-16 for traffic management; and assistance to SLED/ESF-13 for establishing security operations.	https://www.scguard.com/ http://www.sg.sc.gov/
South Carolina Office of Regulatory Staff	The South Carolina Office of Regulatory Staff has no authority or responsibility specifically related to dams, but has responsibilities related to disaster response and recovery. The South Carolina Office of Regulatory Staff represents the public interest in utility regulation for the major utility industries in South Carolina (electric, natural gas, telecommunications, transportation, and water/wastewater) before the South Carolina Public Service Commission, the court system, the South Carolina General Assembly, and federal regulatory bodies.	The South Carolina Office of Regulatory Staff coordinates with counties to develop plans for supporting populations without electrical or water service, as needed.	http://www.regulatorystaff.sc.gov/Pages/default.aspx
SC State Fiscal Accountability Office, Division of Procurement Services	The Division of Procurement Services has no authority or responsibility specifically related to dams, but has responsibilities related to disaster response. The Division of Procurement Services administers the state's central procurement operation for all agencies covered by the South Carolina Consolidated Procurement Code.	In a disaster event, the Division of Procurement Services develops contracts to obtain bulk and bottled water to support population without water service.	https://www.procurement.sc.gov/

Table 3: Response and Recovery Matrix for South Carolina – Local

Local Entity	Authority / Responsibility Relating to Dams	How They Can Help Relating to Dam Incidents	Phone/Email / Website
County Sheriff	<p>County sheriff departments have no authority or responsibility specifically related to dams, but may support disaster response.</p> <p>County sheriffs are responsible for providing security for the courts; the service of civil process; enforcing local, state, and federal laws; aiding other law enforcement agencies in areas of mutual interest; and assisting other emergency service agencies to protect the lives and property of citizens and visitors</p>	<p>County sheriffs can participate in the development of EOPs, including dam-specific annexes to EOPs. They may also participate in EOP activation and may be able to help with evacuations at a local level. The Sherriff's Department can help with mass evacuations or help provide or augment security and law enforcement at the local level, as planned in the EOP or as coordinated through the local EOC.</p> <p>If additional security or law enforcement is needed, local sheriff departments can request additional support through their appropriate law enforcement channel or through the local EOC. Such support may be coordinated through the state EOC or through mutual aid agreements, as needed.</p> <p>Based on initial dam incident information received, county law enforcement may:</p> <ul style="list-style-type: none"> • Send personnel to the scene for an evaluation • Determine if an EOC should be activated • Determine whether or not roads should be closed • Perform swift water rescue • Enact evacuations to higher ground • Ensure that shelters or reception centers are available, if needed <p>County law enforcement will use door-to-door alert notifications as a backup and as appropriate.</p> <p>The County Sheriffs, in coordination with the SC DPS/ESF-16 (Emergency Traffic Management) and other law enforcement agencies, will coordinate traffic evacuation activities when an evacuation order has been issued by the Governor.</p>	
Local Emergency Management	<p>Local emergency management departments have no authority or responsibility specifically related to dams, but have responsibilities related to disaster response.</p> <p>Local emergency management staff can facilitate emergency preparedness planning for a community, working with local departments, support agencies, municipalities, the military, businesses and industry as well as citizens to identify specific responsibilities before, during, and after major emergencies. This is accomplished by identifying the community's hazards, identifying resources and capabilities, conducting preparedness briefs, and developing and exercising emergency operations plans, including dam-specific annexes to the local EOP.</p>	<p>During an emergency, local emergency management staffs the EOC as needed to provide leadership and coordination to respond to various requests for assistance.</p> <p>Local emergency management departments operate the local EOC and help coordinate local efforts amongst numerous government, non-profit, key business, or other organizations as needed to effectively respond to an emergency, disaster, or incident. Local emergency management helps request additional resources through the state EOC or through mutual aid agreements as might be needed in carrying out their EOP in response operations.</p> <p>Local emergency management departments can provide training and educational programs for emergency response agencies, business and industry, and the general public. These programs can cover such topics as hazardous materials response, search operations, incident command, radiological events, mitigation, or recovery operations.</p>	
Local Government Engineering Capability	<p>Local engineering departments have no authority or responsibility specifically related to dams, but have responsibilities related to disaster recovery.</p> <p>Local communities are organized in many different ways related to how they employ engineers and in which departments they are located.</p>	<p>Local government engineers might be able to help support emergency remedial actions for dams during incidents. Engineers working for local governments may also be able to help local leadership better understand risks, vulnerabilities, and consequence assessments of dams, thereby helping to improve various plans used by locals for dam incidents. The EOP should coordinate in advance, with local government engineering resources in order to best utilize their skillsets during an emergency, disaster or incident.</p>	

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Local Fire Departments	<p>Local fire departments have no authority or responsibility specifically related to dams, but have responsibilities related to disaster response.</p> <p>Local fire departments respond to emergencies including fires, medical emergencies, vehicle accidents, hazardous materials incidents, and technical rescues. Additionally, they often provide outreach and education.</p>	<p>Local fire departments can often help with evacuations at a local level. Support can be requested through a pre-arranged emergency management assistance compact or through local memorandums of understanding by other organizations to help with evacuations.</p> <p>Local fire departments are often well versed and trained in the Incident Command System (ICS) and often act as Incident Commanders for a wide variety of incidents.</p>	http://www.carolinasfirepage.com/members/sc_ctys.html
Local Planning Departments	<p>Local planning departments have no authority or responsibilities specifically related to dams, but have responsibilities related to disaster planning and risk reduction.</p> <p>Local planning departments coordinate mitigation plans and planned development to reduce risks associated with dams.</p>	<p>Local planning departments have community information that is critical for understanding the consequences and vulnerabilities from a potential dam failure. This information should be shared with local agencies that oversee local zoning, development, mitigation, and emergency management plans; these agencies in turn provide important information to those who need to take action to help reduce risks associated with dam failures.</p>	
Local Police Department	<p>Local police departments have no authority or responsibility specifically related to dams, but may support disaster response.</p> <p>Local police are responsible for enforcing local, state, and federal laws; aiding other law enforcement agencies in areas of mutual interest; and assisting other emergency service agencies to protect the lives and property of citizens and visitors.</p>	<p>Local police can participate in the development of EOPs, including dam-specific annexes to EOPs. They may also participate in EOP activation and usually help with evacuations at a local level. Local police can help with mass evacuations or help provide or augment security and law enforcement at the local level, as planned in the EOP or as coordinated through the local EOC.</p> <p>If additional security or law enforcement is needed, local police departments can request additional support through their appropriate law enforcement channel or through the local EOC. Such support may be coordinated through the state EOC or through mutual aid agreements, as needed.</p>	
Local Radio/TV Stations	<p>Local radio and TV stations have no authority or responsibility specifically related to dams, but can support disaster response.</p> <p>Many local radio, television, and cable stations are part of the South Carolina Emergency Alert System that sends out key information during emergencies such as dam incidents.</p>	<p>Local radio and television stations provide coverage and up-to-date information on developing situations and emergency notifications. Local media can distribute important information and key messaging provided by the state and local EOCs to help get it out to the public as quickly as possible.</p>	<p>http://www.nws.noaa.gov/nwr/coverage/ccov.php?State=SC</p> <p>http://www.nws.noaa.gov/nwr/coverage/stations.php?State=SC</p>

Table 4: Response and Recovery Matrix for South Carolina – Private Entities and Non-Governmental Organizations

Private Entity/Non-Governmental Organization	Type of Entity	How They Can Help Relating to Dam Incidents	Phone/Email / Website
Association of State Dam Safety Officials (ASDSO)	<p>ASDSO is a national non-profit organization serving state dam safety programs and the broader dam safety community. Members include federal dam safety professionals, dam owners and operators, engineering consultants, emergency managers, manufacturers, suppliers, academia, contractors, and others interested in improving dam safety.</p>	<p>ASDSO promotes dam safety awareness and can provide resources and contacts related to dams in South Carolina.</p> <p>ASDSO supports the state dam safety program by promoting innovative approaches to funding dam rehabilitation at the state and federal levels; increasing public awareness of the role of dams in society, the risks they present, and the importance of dam safety and preparedness; and advocating for laws, policies, and government programs that serve to improve the safety of dams and reduce the risk to the public.</p>	http://damsafety.org/south-carolina

Table 4: Response and Recovery Matrix for South Carolina – Private Entities and Non-Governmental Organizations

Private Entity/Non-Governmental Organization	Type of Entity	How They Can Help Relating to Dam Incidents	Phone/Email / Website
American Red Cross, South Carolina	The American Red Cross is a nationwide humanitarian organization.	The American Red Cross helps by providing emergency assistance and disaster relief, including emergency food and shelter. The South Carolina American Red Cross can coordinate with SC DSS to open shelters in affected counties outside of the inundation area, or in neighboring (receiving) counties, if necessary.	Lowcountry SC North Charleston, SC (843) 764-2323 Central SC Columbia, SC 803-540-1200 Northern SC Rock Hill, SC 803-329-6575 Eastern SC Myrtle Beach, SC 843-477-0020 Upstate SC Greenville, SC 864-271-8222
Salvation Army, South Carolina	The Salvation Army is a nationwide religious organization. It is the evangelical part of the Universal Christian Church.	The Salvation Army operates 7,546 centers in communities across the U.S. Programs can aid by providing disaster relief and food distribution.	https://www.salvationarmycarolinas.org/
American Planning Association (APA), South Carolina Chapter	The APA is a nationwide professional organization for planners.	The South Carolina chapter of the APA can provide contact information for South Carolina planners. Professional planners may be able to help with outreach and training in South Carolina for incorporating dams into community plans, zoning, or other mechanism for improving community resilience or reducing vulnerabilities from dams that can help inform preparedness, mitigation, operations, EOPs or other plans.	https://scapa.org/
South Carolina Association for Hazard Mitigation (SCAHM)	The SCAHM is a nonprofit organization consisting of planners, engineers, land surveyors, building inspectors, zoning officials, community officials, emergency management coordinators, private sector individuals, and companies with an interest in floodplain management and the National Flood Insurance Program.	The SCAHM provides outreach and education about floodplain management and facilitates cooperation, and is a vehicle for information exchange among hazard mitigation-related private organizations; individuals; and local, state, and federal agencies.	http://www.scahm.org/
American Society of Civil Engineers (ASCE), South Carolina Section	The ASCE is a nationwide professional organization for engineers. The South Carolina section of the ASCE is a professional organization for engineers that serves South Carolina and three counties in Georgia.	The South Carolina Section of the ASCE can provide contact information on South Carolina engineers.	http://sections.asce.org/south-carolina/home
State-Licensed Engineers (dam, structural, mechanical, geotechnical, hydrology, and hydraulics)	Not applicable.	Engineers licensed in South Carolina can provide engineering services.	https://verify.llronline.com/LicLookup/Engineers/Engineer.aspx?div=50
State-Licensed Surveyors	Not applicable.	Surveyors licensed in South Carolina can provide surveying services.	https://verify.llronline.com/LicLookup/Engineers/Engineer.aspx?div=51
Local Geographic Information System (GIS) Specialists	Not applicable.	Local GIS specialists in South Carolina can provide technical services assisting with inundation and evacuation mapping for dams.	
Civil Air Patrol, South Carolina Wing (SCWG CAP)	The Civil Air Patrol (a U.S. Air Force Auxiliary) is a nationwide, volunteer public service organization that carries out emergency service missions. South Carolina is served by the SCWG CAP.	The SCWG CAP can help with disaster response efforts such as aerial dam assessment and monitoring, data gathering for damage assessments, and search and rescue missions for small- or large-scale events. Local emergency managers needing Civil Air Patrol support can make their request through the state EOC watch center or online via their Web-Based Emergency Operations Center (WebEOC) system called Palmetto. FEMA often mission assigns CAP to perform aerial damage assessments to help with disaster operations.	http://www.scwgcap.org/
Community Emergency Response Teams (CERT)	The CERT program trains volunteers in basic disaster response skills. The program is part of Citizen Corps, a citizen program coordinated by the federal government.	The CERT program trains citizens on disaster response and recovery skills designed to assist when public safety resources are otherwise unavailable during a disaster.	https://www.fema.gov/community-emergency-response-teams

Acronyms

APA	American Planning Association
ASCE	American Society of Civil Engineers
ASDSO	Association of State Dam Safety Officials
CDBG-DR	Community Development Block Grant - Disaster Recovery
CERT	Community Emergency Response Teams
DHEC	Department of Health and Environmental Control
DHS	Department of Homeland Security
DNR	Department of Natural Resources
DPS	Department of Public Safety (South Carolina)
DSS	Department of Social Services (South Carolina)
EAP	Emergency Action Plan
EAS	Emergency Alert System
ECP	Emergency Conservation Program (USDA FSA)
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FSA	Farm Service Agency (USDA)
GIS	Geographic Information System
HUD	U.S. Department of Housing and Urban Development
HWM	High Water Mark
ICODS	Interagency Committee on Dam Safety
ICS	Incident Command System
IMAT	Incident Management Assistance Team (FEMA)
IP	Office of Infrastructure Protection (DHS)
IPAWS	Integrated Public Alert and Warning System
MSHA	Mine Safety and Health Administration (U.S. Department of Labor)
NDSP	National Dam Safety Program
NDSRB	National Dam Safety Review Board
NOAA	National Oceanic Atmospheric Administration (U.S. Department of Commerce)
NRC	Nuclear Regulatory Commission
NRCC	National Response Coordination Center

NRCS	Natural Resources Conservation Service (USDA)
NWS	National Weather Service (NOAA)
PA	Public Assistance (FEMA)
R&R	Response and Recovery (FEMA)
RRCC	Regional Response Coordination Center (FEMA)
SAWSC	South Atlantic Water Science Center
SBA	Small Business Administration
SCAHM	South Carolina Association for Hazard Mitigation
SCDOT	South Carolina Department of Transportation
SCEMD	South Carolina Emergency Management Division
SCHP	South Carolina Department of Public Safety (SC DPS) - Highway Patrol
SCNG	South Carolina National Guard
SCWG CAP	Civil Air Patrol, South Carolina Wing
SERFC	Southeast River Forecast Center (NOAA)
SLED	South Carolina Law Enforcement Division
SLEMAP	State Law Enforcement Mutual Aid Plan
SSA	Sector- Specific Agency (DHS)
TEPW	Training and Exercise Planning Workshops (FEMA Region IV)
THIRA	Threat, Hazard Identification and Risk Assessment
USACE	U.S. Army Corps of Engineers
USACE SAC	U.S. Army Corp of Engineers, Charleston District (USACE SAD)
USACE SAD	U.S. Army Corp of Engineers, South Atlantic Division
USDA	U.S. Department of Agriculture
USGS	United States Geological Survey
WEA	Wireless Emergency Alerts
WebEOC	web-based emergency operations center

Resources

- FEMA. 2015. *FEMA Mitigation Dam Task Force Strategic White Paper on Dam Risk*. November 2015. Available at <https://www.fema.gov/media-library/assets/documents/112356>.
- FEMA. 2015. *FEMA Resources and Services Applicable to Dam Risk Management*. FEMA P-1068. December 2015. Available at <https://www.fema.gov/media-library-data/1452453732996-ecaca7db5837aba46a7bbece7bc2f17e/DamRiskManagementResources.pdf>.
- FEMA, 2015. *Sources of Federal Grant Funds for Dams and Downstream Structures*. Technical Advisory Dams in South Carolina FEMA DR-4241-SC.
- FEMA. 2016. *South Carolina Dam Failure Assessment and Advisement*. FEMA P-1801. Available at <https://www.fema.gov/media-library/assets/documents/129760>.
- FEMA. 2016. *Pocket Safety Guide for Dams and Impoundments*. FEMA P-911. October 2016. Available at <https://www.fema.gov/media-library/assets/documents/127281>.
- FEMA. 2017. *Hurricane Matthew in North Carolina Dam Risk Management Assessment Report*. FEMA P-1090. Available at <https://www.fema.gov/media-library/assets/documents/131866>.