

## Purpose

This Response and Recovery (R&R) Dam Response Operations Matrix was primarily developed for stakeholder outreach, and as a reference for emergency or disaster dam-related response or recovery operations in South Carolina. This matrix can also be used elsewhere in Federal Emergency Management Agency (FEMA) Region IV or throughout the country, but only if appropriately adapted to reflect state- and county-specific information. The R&R Matrix shares information about key stakeholders and organizations that have the authority, key knowledge, or responsibilities related to dams and how they can assist prior to, during, and after a dam-related emergency or disaster event. The information presented in this matrix is general in nature and intentionally lacks specific contact information which is often subject to change.

## Audience

The intended audience for this matrix includes key federal, state, local, tribal, private sector, and nonprofit entities; the audience also includes dam safety professionals or those with dam-related responsibilities or special skills. The matrix is a useful reference for dam owners, dam operators, and citizens living near reservoirs and dams.

## Dam Owner Roles and Responsibility

Dams are owned and operated by individuals, private and public organizations, and various levels of government (e.g., federal, state, local, tribal). Federally owned and regulated dams are subject to the laws, regulations, and guidelines of the owner agency. The responsibility for operating and maintaining a safe dam rests with the owner. When an incident (or threat of an incident) happens at a dam, the dam owner's role is to implement the Emergency Action Plan and communicate with all necessary stakeholders to initiate and facilitate the implementation of their responsibilities.

## How to use the Response and Recovery Matrix

The intended audience should use the R&R Matrix to understand what organizational authorities exist, and how these organizations can help with dam-related response and recovery efforts to provide organizations with information about various resources and to facilitate interagency coordination. Acronyms are defined on pages 11 and 12.

## R&R Matrix for South Carolina

The R&R Matrix for South Carolina is on the following pages, organized in alphabetical order within four sector tables: federal, state, local, and private.

**Table 1: Response and Recovery Matrix for South Carolina – National and Federal**

National or Federal Entity	Authority / Responsibility Relating to Dams	How Entity Can Help with Dam Incidents	Phone/Email / Website
Catawba Indian Nation	The Catawba Indian Nation is a sovereign nation. As of 2017, there are no dams on the Catawba Indian Nation.	The Catawba Indian Nation has relationships with the U.S. federal government and the South Carolina state government and fulfills similar roles as both a state and / or local government would if an event occurs. It coordinates with other stakeholders and address dam incidents affecting their land. See also State and Local Government in this matrix.	(803) 366-4792 e-mail: <a href="mailto:info@catawbaindian.net">info@catawbaindian.net</a> <a href="http://catawbaindian.net/">http://catawbaindian.net/</a>
Federal Emergency Management Agency (FEMA) - National Dam Safety Program (NDSP)	As the lead federal agency for the NDSP, FEMA is responsible for coordinating efforts to secure the safety of dams throughout the U.S. The NDSP makes federal funds available to the states, which are primarily responsible for protecting the public from dam failures of non-federal dams, and pursuing initiatives that enhance the safety of dams posing the greatest risk to people and property. The NDSP, which encourages individual and community responsibility for dam safety, is a partnership of the states, federal agencies, and other stakeholders.	FEMA works with its partners to develop technologies to help improve dam safety. FEMA also provides financial assistance to state dam safety programs under the Water Resources Reform and Development Act of 2014. The NDSP supports states through State Assistance Grants, training, research, and public safety and awareness.  FEMA coordinates partnerships through two federal organizations: the National Dam Safety Review Board (NDSRB) and the Interagency Committee on Dam Safety (ICODS).	Fact Sheet: <a href="https://www.fema.gov/media-library/assets/documents/5865">https://www.fema.gov/media-library/assets/documents/5865</a> <a href="https://www.fema.gov/national-dam-safety-program">https://www.fema.gov/national-dam-safety-program</a>
FEMA - National Response Coordination Center (NRCC)	The NRCC is a multiagency center that coordinates the overall federal support for major incidents and emergencies. The NRCC coordinates with the affected FEMA Region(s) and provides resources and policy guidance in support of the incident. NRCC staff consists of FEMA personnel, appropriate Emergency Support Functions from various federal agencies, and other appropriate personnel/agencies. The staff provides emergency management coordination, planning, and resource deployment. The NRCC collects and disseminates disaster information as it builds and maintains situational awareness.	The NRCC can request information from the Regional Response Coordination Center (RRCC) relating to dams and may also provide information or resources and support to the RRCC for dam-related emergencies and disaster efforts.  <b>Example:</b> The NRCC coordinated with Region IV RRCC regarding dams of concern and dam breaches after Hurricane Matthew. Information obtained was included in senior leadership briefs that are shared with senior leadership in FEMA, Department of Homeland Security (DHS), other federal agencies, and the White House.	Fact Sheet: <a href="https://www.fema.gov/media-library-data/1440617086835-f6489d2de59dddeba8bebc9b4d419009/NRCC_July_2015.pdf">https://www.fema.gov/media-library-data/1440617086835-f6489d2de59dddeba8bebc9b4d419009/NRCC_July_2015.pdf</a>
FEMA Region IV - Dam Safety	Region IV Dam Safety acts in several capacities, as follows:  1) Liaisons between FEMA and federal, state, local, and private partners to identify and assess high-risk dams and to work with partners to develop community and regional preparedness, response, recovery, and mitigation strategies for those risks.  2) Coordinates dam risk mitigation multi-hazard planning, exercise planning and execution, and emergency operation planning and activities.  3) Works with FEMA Directorates and with federal, state, local, and private partners to develop dam risk communication and public awareness strategies.  4) Provides subject matter expertise in the FEMA RRCC and/or Joint Field Office during dam-related emergencies and disasters.	Region IV Dam Safety provides information to and coordinates with multiple organizations on dam safety, and helps identify where data gaps might exist. Because of its broad coordination with stakeholders, Region IV Dam Safety is in an excellent position to provide outreach, awareness, and resources to help organizations become more resilient to dam failures and their consequences.	Main Number: 770-220-5200 <a href="https://www.fema.gov/region-iv-al-fl-ga-ky-ms-nc-sc-tn">https://www.fema.gov/region-iv-al-fl-ga-ky-ms-nc-sc-tn</a> <a href="https://www.fema.gov/region-iv-about-us">https://www.fema.gov/region-iv-about-us</a>

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FEMA Region IV - Incident Management Assistance Team (IMAT)	IMATs are made up of emergency management professionals who deploy on a moment's notice, when requested by the state, to anywhere in the Region or the country to support emergency response efforts. IMATs generally consist of 10 members with expertise in operations, logistics, planning, and recovery. The teams provide a federal presence to facilitate the management of the national response to catastrophic incidents.	<p>The FEMA Region IV IMAT can coordinate with a wide range of organizations, as needed, to help support states or tribes during a federally declared emergency or disaster. They can mission assign other federal agencies or work through contracts to provide critical and timely support for urgent dam-related actions.</p> <p>IMATs rapidly deploy to an incident and work with partners across jurisdictions to support the affected state or territory. They will also help identify ways federal assistance can be used to best support response and recovery efforts during planning or for preparedness activities prior to an event.</p>	<a href="https://www.fema.gov/incident-management-assistance-teams">https://www.fema.gov/incident-management-assistance-teams</a>
FEMA Region IV - National Preparedness	FEMA Region IV - National Preparedness oversees the coordination and development strategies necessary to prepare for all hazards within the Region. It is responsible for coordinating with the Region IV states on their Threat and Hazard Identification and Risk Assessment (THIRA) and state Preparedness Reports as well as then developing a Regional THIRA.	<p>FEMA Region IV - National Preparedness coordinates with its eight state national preparedness counterparts during their annual Training and Exercise Planning Workshops (TEPW). Exercise and training officers from Region IV and the states come together during the TEPW and have the opportunity to discuss key dam-related items of interest, training opportunities that can be carried out by the states, and dam-related scenario exercises or supplemental activities for other existing exercises that can be carried out in future workshops. After-action reports and corrective action programs resulting from these exercises are used to improve future response/recovery capabilities.</p> <p>Each state has a unique portfolio of dams that either reside in their state, or can potentially impact their state from another. States are encouraged to consider dam scenarios in the development of their THIRA.</p> <p>FEMA Region IV - National Preparedness assists each state in evaluating and assessing the state's highest priority scenarios. The lack of a dam failure scenario in a THIRA does not indicate low priority, but more likely a lack of staff -hours to fully develop the scenario as currently prioritized.</p>	<a href="https://www.fema.gov/region-iv-about-us">https://www.fema.gov/region-iv-about-us</a>
FEMA Region IV - Public Assistance (PA)	Public Assistance (PA) is FEMA's largest grant program providing funds to assist communities responding to and recovering from major disasters or emergencies declared by the President. The program provides emergency assistance to save lives and protect property, and assists with permanently restoring community infrastructure affected by a federally declared incident.	FEMA processes PA grant funding according to the type of work an applicant undertakes. To be considered eligible, the work must be required as a result of the declared incident, be located in the declared area, be the legal responsibility of the applicant, and be undertaken at a reasonable cost. Eligible activities may include dam-related emergency work or permanent work (See linked Fact Sheet for more information about emergency and permanent work).	<p>Fact Sheet: <a href="https://www.fema.gov/media-library-data/1497559657642-a01f6ee60e25394fa9a25cae2fd289d5/PublicAssistanceFactSheetJune2017.pdf">https://www.fema.gov/media-library-data/1497559657642-a01f6ee60e25394fa9a25cae2fd289d5/PublicAssistanceFactSheetJune2017.pdf</a></p> <p><a href="https://www.fema.gov/public-assistance-local-state-tribal-and-non-profit">https://www.fema.gov/public-assistance-local-state-tribal-and-non-profit</a></p>
FEMA Region IV -Response	FEMA Region IV - Response coordinates federal emergency management response operations, response planning, logistics programs, and integration of federal, state, local, and tribal disaster programs for the eight states within Region IV.	Region IV - Response can help coordinate with many different organizations and include or incorporate dam-related information into various plans they help to develop or review, thereby ultimately improving the effectiveness of those plans as they relate to dam safety.	<a href="https://www.fema.gov/region-iv-about-us">https://www.fema.gov/region-iv-about-us</a>
FEMA Region IV Regional - Response Coordination Center (RRCC)	<p>FEMA's RRCCs operate within each of the 10 FEMA Regional offices in the Nation. The RRCCs provide response and recovery support to each of the states and tribal governments within their respective regions.</p> <p>The Region IV RRCC functions as the interface between the North Carolina and tribal governments and the FEMA NRCC, maintaining situational awareness and executing mission objectives until a Joint Field Office opens.</p>	<p>The RRCC provides federal support for activities responding to federally declared disaster response. Additionally, it coordinates personnel and resource deployments to support disaster operations and prioritizes interagency allocation of resources.</p> <p><b>Example:</b> The RRCC provided subject matter experts on dams and dam breaches after Hurricane Matthew and coordinated with each of the state dam safety programs in the impacted area. The Region IV RRCC also coordinated with FEMA's NRCC; U.S. Army Corps of Engineers (USACE); DHS-IP (Infrastructure Protection); FEMA Infrastructure; the FEMA Region IV Dam Safety liaison to the South Carolina Emergency Operations Center (EOC), University of Mississippi National Center for Computational Hydroscience and Engineering (UM-NCCHE); the Region IV GIS Resource Center, Planning, External Affairs; U.S. Department of Transportation; and other entities concerning possible dam issues following Hurricane Matthew. The RRCC submitted daily situation reports to WebEOC, a web-based emergency operations center used by federal, state, and local governments.</p>	<p>Fact Sheet: <a href="https://www.fema.gov/media-library-data/1440617086850-f6489d2de59dddeba8bebc9b4d419009/RRCC_July_2015_508.pdf">https://www.fema.gov/media-library-data/1440617086850-f6489d2de59dddeba8bebc9b4d419009/RRCC_July_2015_508.pdf</a></p>

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Federal Energy Regulatory Commission (FERC)	<p>FERC licenses and inspects private, municipal, and state hydroelectric projects. Approximately 3,036 dams are in the program. FERC regulates 22 dams in South Carolina through licenses issued to utility companies and municipalities. FERC does not own any dams.</p> <p>FERC publishes "Engineering Guidelines for the Evaluation of Hydropower Projects," which guides its engineering staff and licensees in evaluating dam safety.</p> <p>FERC has a dam safety program and provides guidance on Emergency Action Planning and exercises, coordination with emergency management, and inundation maps.</p>	<p>During and following floods, FERC staff visit dams in its program, to determine the extent of damage, if any, and direct any necessary studies or remedial measures the licensee must undertake.</p> <p>FERC monitors and evaluates seismic research in geographic areas where there are concerns about possible seismic activity. This information is applied in investigating and performing structural analyses of hydroelectric projects in these potentially affected areas.</p> <p>FERC also requires licensees to prepare Emergency Action Plans (EAPs) and conducts training sessions on how to develop and test those plans.</p>	<p>Atlanta Regional Office:  <a href="https://www.ferc.gov/contact-us/tel-num/regional/atlanta.asp">https://www.ferc.gov/contact-us/tel-num/regional/atlanta.asp</a>  <a href="https://www.ferc.gov/">https://www.ferc.gov/</a>  <a href="https://www.ferc.gov/industries/hydropower/gen-info/regulation/dam-safety.asp">https://www.ferc.gov/industries/hydropower/gen-info/regulation/dam-safety.asp</a></p>
Interagency Committee on Dam Safety (ICODS)	<p>ICODS is comprised of representatives from several federal agencies involved with dams and serves as the permanent forum for coordinating federal activities in dam safety and security. ICODS advises FEMA in setting national dam safety priorities.</p>	<p>ICODS is a federal agency advisory board to FEMA that has expertise, guidance, and resources that can help in developing federal strategies, policies, or procedures for improving response and recovery to dam-related incidents.</p>	<p><a href="https://www.fema.gov/national-dam-safety-review-board-and-interagency-committee-dam-safety">https://www.fema.gov/national-dam-safety-review-board-and-interagency-committee-dam-safety</a></p>
Integrated Public Alert and Warning System (IPAWS)	<p>IPAWS has no authority or responsibility specifically related to dams, but provides information helpful for response activities. IPAWS is the nation's alert and warning infrastructure.</p> <p>IPAWS provides public safety officials and federal, state, local, tribal, and territorial alerting authorities with an effective way to alert and warn the public about serious emergencies using the Emergency Alert System (EAS), Wireless Emergency Alerts (WEA), the National Oceanic and Atmospheric Administration (NOAA) Weather Radio, and other public alerting systems from a single interface.</p>	<p>IPAWS can be used to alert the public during a dam incident.</p>	<p><a href="https://www.fema.gov/integrated-public-alert-warning-system">https://www.fema.gov/integrated-public-alert-warning-system</a>  <a href="https://www.fema.gov/media-library/assets/documents/117152">https://www.fema.gov/media-library/assets/documents/117152</a></p>
Mine Safety and Health Administration (MSHA) - Dam Safety Program	<p>MSHA's Dam Safety Program regulates the safety of the numerous dams constructed and operated by the mining industry. MSHA does not own any dams.</p> <p>MSHA also publishes dam safety standards and technical guidance and conducts training in dam safety.</p>	<p>MSHA reviews and approves engineering design plans, inspects dams, and investigates construction and operation issues for dams operated by the mining industry.</p> <p>MSHA's primary concern is the safety of miners, but they also check for possible releases that would affect areas beyond the mine site.</p>	<p><a href="https://arlweb.msha.gov/DamSafety/DamSafety.asp">https://arlweb.msha.gov/DamSafety/DamSafety.asp</a>  <a href="https://arlweb.msha.gov/DamSafety/DamSafetyTechGuidance.asp">https://arlweb.msha.gov/DamSafety/DamSafetyTechGuidance.asp</a>  <a href="https://arlweb.msha.gov/TRAINING/2015coursecatalog.pdf">https://arlweb.msha.gov/TRAINING/2015coursecatalog.pdf</a></p>
National Dam Safety Review Board (NDSRB)	<p>The NDSRB, comprised of federal, state, and private sector partners, advises FEMA's Administrator in setting national dam safety priorities and assesses the effects of national policy issues affecting dam safety. The NDSRB also helps monitor performance of state dam safety programs.</p>	<p>The NDSRB is an advisory board that can help FEMA by providing expertise, guidance, and resources to develop strategies, policies, or procedures for improving response and recovery for dam-related incidents.</p>	<p><a href="https://www.fema.gov/national-dam-safety-review-board-and-interagency-committee-dam-safety">https://www.fema.gov/national-dam-safety-review-board-and-interagency-committee-dam-safety</a></p>



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National Oceanic and Atmospheric Administration (NOAA) - National Weather Service (NWS)	<p>The NWS has no authority or responsibility specifically related to dams, but provides information helpful for planning and response activities.</p> <p>NOAA's NWS provides weather, water, and climate data. It also provides forecasts, watches, and warnings to help protect life and property and enhance the national economy.</p>	<p>The NWS provides technical advice and weather forecasts. NWS can issue dam-specific flood watches and warnings to inform the public, emergency management entities, and other cooperating agencies that flooding is possible, in progress, imminent, or highly likely.</p>	<p><a href="http://www.weather.gov/cae/">http://www.weather.gov/cae/</a>  <a href="http://www.weather.gov/chs/">http://www.weather.gov/chs/</a>  <a href="http://www.weather.gov/gsp/">http://www.weather.gov/gsp/</a></p>
NOAA - Southeast River Forecast Center (SERFC)	<p>The SERFC has no authority or responsibility specifically related to dams, but provides information helpful for planning and response activities.</p> <p>NOAA's SERFC uses research and instrumentation to provide daily weather forecasts, severe storm warnings, and climate monitoring. The SERFC is responsible for producing river forecasts for all rivers that drain into the Atlantic Ocean along the coasts of North Carolina, South Carolina, Georgia, and Florida, as well as the rivers that drain into the Gulf of Mexico from Mobile Bay to the southernmost tip of Florida.</p>	<p>The SERFC provides a wide variety of hydro-meteorological information, such as hydrographs and forecasting for river gauges in South Carolina, daily river gauge summaries and forecasts, and results from dam breach modeling tools, such as DSS-WISE Lite.</p> <p>The SERFC also coordinates with agencies such as USACE, U.S. Geological Survey (USGS), and FEMA.</p>	<p><a href="http://www.weather.gov/serfc/">http://www.weather.gov/serfc/</a>  <a href="http://www.noaa.gov/">http://www.noaa.gov/</a></p>
Small Business Administration (SBA)	<p>The SBA has no authority or responsibility specifically related to dams, but can help in recovery.</p> <p>Created in 1953 as an independent agency of the federal government, the SBA aids, counsels, assists, and protects the interests of small business concerns in order to preserve free competitive enterprise and to maintain and strengthen the overall economy of our Nation.</p>	<p>The SBA can provide loans to repair privately owned dams that experience disaster-related damage.</p>	<p>Fact Sheet:  <a href="http://www.sbtcd.org/hurricanemattthew/pdf/SBA_Loan_Fact_Sheet.pdf">http://www.sbtcd.org/hurricanemattthew/pdf/SBA_Loan_Fact_Sheet.pdf</a>  <a href="https://www.sba.gov/">https://www.sba.gov/</a></p>
U.S. Army Corps of Engineers South Atlantic Division (USACE SAD)	<p>The USACE SAD is a division of USACE that owns and self regulates its own dams throughout the Nation. The USACE maintains the National Inventory of Dams for the country.</p> <p>The USACE SAD is one of nine divisions overseeing military and water resources design, construction, and operations in the U.S. and throughout the world. The USACE SAD has five districts located in Wilmington, NC; Charleston, SC; Savannah, GA; Jacksonville, FL; and Mobile, AL.</p> <p>The USACE SAD designs, builds, and operates dams, waterways, buildings, recreational, and other facilities throughout the region. The USACE SAD operates and maintains more than 6,000 miles of federal navigable channel and 29 major harbors in its region.</p>	<p>The USACE SAD can provide engineering- and dam-related support to other U.S. Army-owned and operated dams.</p> <p><b>Example:</b> During a heavy rainfall event in South Carolina in October 2015, USACE was mission assigned by Region IV RRCC to fly drone missions during which video of key sites, including Beaver Dam, Forest Lake Dam, Lake Katherine Dam, and Spring Lake Dam was obtained. (FEMA 2015a, Section 5.1.4.1).</p>	<p>U.S. Army Corps of Engineers, South Atlantic Division (USACE SAD)  Public Affairs: 404-562-5011  <a href="http://www.sad.usace.army.mil/">http://www.sad.usace.army.mil/</a>  National Inventory of Dams:  <a href="http://nid.usace.army.mil/cm_apex/f?p=838:12">http://nid.usace.army.mil/cm_apex/f?p=838:12</a>  <a href="http://www.usace.army.mil/Locations.aspx">http://www.usace.army.mil/Locations.aspx</a></p>

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U.S. Army Corps of Engineers Charleston District (USACE SAC)	The USACE SAC is one of the five districts in USACE SAD. Refer also to USACE SAD.	USACE SAC can identify flood hazards, provide floodplain information, improve public awareness, and integrate flood damage and flood hazard reduction programs across local, state, and federal agencies. Prior to an event, they can pre-position assessment teams, contractors, and other elements in advance to prepare for an emergency. Following a disaster, they can assess needs and damages, clear debris, and estimate the repairs to damaged streets, bridges, ports, waterways, airfields, and other facilities needed for emergency access. The emergency response mission includes providing potable water, ice, power, or temporary housing, as well as technical assistance, including inspection of private residential and commercial structures.	U.S. Army Corps of Engineers, Charleston District (USACE SAC) Headquarters: 843-329-8000 Public Affairs: 843-329-8123 <a href="http://www.sac.usace.army.mil/">http://www.sac.usace.army.mil/</a> <a href="http://www.sac.usace.army.mil/Locations/">http://www.sac.usace.army.mil/Locations/</a>
U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)	The USDA NRCS has assisted communities in South Carolina with the construction of over 100 dams since 1954.  NRCS also administers the Watershed Rehabilitation Program and the Emergency Watershed Protection Program.  NRCS publishes engineering handbooks and technical supplements, including dam safety guidance. NRCS also publishes EAP guidelines and a fillable form template for EAPs.	The 2014 Farm Bill allocated \$250 million for watershed rehabilitation and planning to help project sponsors rehabilitate aging dams that are reaching the end of their 50-year design lives.  USDA NRCS recently launched DamWatch, a new web-based application that provides real-time monitoring of rainfall, snowmelt, stream flow, and seismic events that could pose potential threats to dam safety.	<a href="https://www.nrcs.usda.gov/wps/portal/nrcs/detail/sc/contact/state/?cid=nrcs142p2_015663">https://www.nrcs.usda.gov/wps/portal/nrcs/detail/sc/contact/state/?cid=nrcs142p2_015663</a> <a href="https://www.nrcs.usda.gov/wps/portal/nrcs/main/sc/contact/local/">https://www.nrcs.usda.gov/wps/portal/nrcs/main/sc/contact/local/</a> <a href="https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/newsroom/releases/?cid=NRCSSEPRD366417">https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/newsroom/releases/?cid=NRCSSEPRD366417</a>  Area 1: <a href="https://www.nrcs.usda.gov/wps/portal/nrcs/detail/sc/contact/local/?cid=nrcseprd416079">https://www.nrcs.usda.gov/wps/portal/nrcs/detail/sc/contact/local/?cid=nrcseprd416079</a>  Area 2: <a href="https://www.nrcs.usda.gov/wps/portal/nrcs/detail/sc/contact/local/?cid=nrcseprd417611">https://www.nrcs.usda.gov/wps/portal/nrcs/detail/sc/contact/local/?cid=nrcseprd417611</a>  <a href="https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_064805.pdf">https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_064805.pdf</a> <a href="https://policy.nrcs.usda.gov/RollupViewer.aspx?hid=17092">https://policy.nrcs.usda.gov/RollupViewer.aspx?hid=17092</a> <a href="https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=21519">https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=21519</a> <a href="https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/landscape/wr/?cid=nrcs143_008448">https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/landscape/wr/?cid=nrcs143_008448</a> <a href="https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/ewpp/">https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/ewpp/</a>
USDA Farm Service Agency Emergency Conservation Program (USDA FSA ECP)	The USDA FSA ECP has no authority or responsibility specifically related to dams, but can help in recovery activities.	The FSA ECP can assist with repairs to damaged dams that support agriculture activities.  The USDA FSA ECP helps farmers and ranchers repair damage to farmlands caused by natural disasters and put in place methods for water conservation during severe drought by providing funding and assistance.	<a href="https://www.fsa.usda.gov/programs-and-services/conservation-programs/emergency-conservation/index">https://www.fsa.usda.gov/programs-and-services/conservation-programs/emergency-conservation/index</a>

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National or Federal Entity	Authority / Responsibility Relating to Dams	How Entity Can Help with Dam Incidents	Phone/Email / Website
U.S. Department of Homeland Security (DHS), Office of Infrastructure Protection (IP), Dams Sector-Specific Agency (SSA)	<p>The DHS authority and responsibility related to critical infrastructure is outlined within the National Infrastructure Protection Plan. The Dams Sector-Specific Plan provides the overall strategic direction for the Sector.</p> <p>The Dams SSA coordinates with other DHS/IP and DHS regional offices to determine and manage any response or recovery efforts.</p>	<p>The Dam SSA, under unique circumstances, has the capability to deploy dam subject matter experts to South Carolina during incidents. The Dams Sector has interdependencies with other sectors, including Communications, Energy, Food and Agriculture, Transportation Systems, and Water, and DHS is capable of coordinating among these Sectors as needed.</p> <p>The Dam SSA maintains the Homeland Security Information Network – Critical Infrastructure (HSIN-CI) Dams Portal, which is an information-sharing platform that provides situational awareness and allows Sector partners to access and disseminate sensitive, but unclassified, information among federal, state, and local agencies, as well as private sector entities.</p> <p><b>Example:</b> Representatives from the DHS/IP and the Dams SSA were present at the RRCC and the state EOC during the 2015 Historic Flooding Event and Hurricane Matthew.</p>	<p><a href="https://www.dhs.gov/dams-sector">https://www.dhs.gov/dams-sector</a></p> <p><a href="https://www.dhs.gov/hsin-dams-portal">https://www.dhs.gov/hsin-dams-portal</a></p> <p>e-mail: <a href="mailto:dams@hq.dhs.gov">dams@hq.dhs.gov</a></p>
U.S. Department of Housing and Urban Development (HUD)	<p>HUD has no authority or responsibility specifically related to dams, but can help in recovery activities.</p> <p>HUD's mission is to create strong, sustainable, and inclusive communities and quality affordable homes for all.</p>	<p>HUD's Community Development Block Grant - Disaster Recovery (CDBG-DR) Program can provide grants to support a wide variety of activities, including housing redevelopment, business assistance, and infrastructure repair.</p> <p>While this program is not specifically targeted at dams, it can be used to assist communities impacted by dam-related flooding to become more resilient to future, similar events. For more information, see the <i>Sources of Federal Grant Funds for Dams and Downstream Structures in South Carolina</i>, FEMA DR-4241-SC in the references section.</p>	<p>Fact Sheet: <a href="https://www.hudexchange.info/onecpd/assets/File/The-Community-Development-Block-Grant-Program-Fact-Sheet.pdf">https://www.hudexchange.info/onecpd/assets/File/The-Community-Development-Block-Grant-Program-Fact-Sheet.pdf</a></p> <p><a href="https://portal.hud.gov/hudportal/HUD?src=/states/south_carolina">https://portal.hud.gov/hudportal/HUD?src=/states/south_carolina</a></p>
U.S. Geological Survey (USGS) South Atlantic Water Science Center (SAWSC)	<p>USGS SAWSC has no authority or responsibility specifically related to dams, but provides information helpful for planning, responding, and recovering from dam incidents.</p> <p>USGS SAWSC coordinates with partners to provide information on streamflow, water quality, water-use, and groundwater data, and conduct hydrologic investigations and research projects.</p>	<p>The USGS provides support, real-time field measurements, and daily reporting of water heights in direct support of federal response operations</p> <p>Advance support provided by USGS can include the installation of water level and wave height sensors and barometric pressure transducers before a storm makes landfall.</p> <p>Post-landfall support can include retrieving transducers; collecting high water marks (HWMs) near transducers to verify and calibrate data; taking field measurements of flood water heights; flagging HWMs and collecting evidence of flooding for flood-impacted areas and communities; and locating and recording the latitude, longitude, and elevation of HWMs to FEMA and USGS standards.</p>	<p>South Atlantic Water Science Center – Columbia</p> <p>Phone: 803-750-6100</p> <p><a href="https://www.usgs.gov/centers/sa-water/">https://www.usgs.gov/centers/sa-water/</a></p> <p><a href="https://www.usgs.gov/connect/locations">https://www.usgs.gov/connect/locations</a></p>
U.S. Nuclear Regulatory Commission (NRC) Region II	<p>NRC does not own any dams. While the NRC's authority is limited to nuclear power plants and other civilian uses of nuclear material, dams play a role in what the NRC regulates. The NRC works with dam owners to protect nuclear plants from dam risks. The NRC participates in ICODS and works regularly with FERC to inspect water retention structures related to nuclear power plants.</p>	<p>NRC can participate in EAP and Emergency Operations Plan (EOP) planning, exercises, inspections, and repair of dams as they relate to nuclear power plants in South Carolina.</p>	<p><a href="https://www.nrc.gov/info-finder/region-state/scarolina.html">https://www.nrc.gov/info-finder/region-state/scarolina.html</a></p>

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 Corrections	<p>The South Carolina Department of Corrections has no authority or responsibility specifically related to dams, but has responsibilities related to disaster response.</p> <p>The South Carolina Department of Corrections develops and coordinates plans with local governments to relocate prisoners in the event of an evacuation order.</p>	<p>The South Carolina Department of Corrections can assist local governments with prisoner transport if a dam incident triggers evacuation at a correctional facility.</p>	<p><a href="http://www.doc.sc.gov/">http://www.doc.sc.gov/</a></p>

**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 Education	The South Carolina Department of Education has no authority or responsibility specifically related to dams, but has responsibilities related to disaster response, specifically that of providing sheltering and support for mass care.	In a disaster event, schools can be used as shelters.	<a href="http://ed.sc.gov/">http://ed.sc.gov/</a>
South Carolina Department of Health and Environmental Control (DHEC) -Bureau of Water, Dam Safety Program	DHEC administers the State Dam Safety Program and regulates dams under its regulatory purview.  DHEC regulations require that owners of high- and significant-hazard dams develop an EAP. It is recommended that this document be reviewed and updated annually.  DHEC is responsible for routine inspections and classification checks on dams, conducts statewide dam safety public education outreach and disseminates information, and issues permits to repair existing or erect new dams.	DHEC provides the following support related to dam incidents: <ul style="list-style-type: none"> <li>Monitors statewide dam-related activities, occurrences, losses, and cause factors</li> <li>Can send dam safety inspectors, if necessary</li> <li>Assesses damage and determines mitigation methods to improve dams</li> <li>Provides permits for repairing, altering, or removing existing dams</li> <li>Initiates directives, including emergency orders, non-emergency repair orders, and notices of violations, in accordance with DHEC dam safety regulations</li> <li>Coordinates as needed with other DHEC emergency management functions.</li> </ul>	<a href="http://www.scdhec.gov/environment/WaterQuality/DamsReservoirs/">http://www.scdhec.gov/environment/WaterQuality/DamsReservoirs/</a> <a href="http://www.scdhec.gov/HomeAndEnvironment/DHECLocations/">http://www.scdhec.gov/HomeAndEnvironment/DHECLocations/</a>
South Carolina Department of Natural Resources (SC DNR)	The SC DNR has no authority or responsibility specifically related to dams, but has responsibilities related to disaster response.  The SC DNR coordinates the clearance of waterways and boat landings, and prevents unauthorized waterway access to areas downstream (in the floodplain) and upstream from the dam or secure area.	The SC DNR patrols lakes and recreational areas to prevent access to areas downstream of dams.  During or after an event, the SC DNR can deploy DNR hydrologists to support the state Emergency Operation Center.  The SC DNR also coordinates with Emergency Support Function (ESF)-16 (Emergency Traffic Management) and ESF-13 (Law Enforcement) to develop plans to clear upstream areas and downstream waterways affected by the inundation area.	<a href="http://www.dnr.sc.gov/">http://www.dnr.sc.gov/</a>
South Carolina Department of Public Safety (SC DPS)	The SC DPS has no authority or responsibility specifically related to dams, but has responsibilities related to disaster response.  The SC DPS assists in general law enforcement and security operations, as needed.  The SC DPS may be involved with transportation, sheltering, health and medical needs, emergency traffic management, animal and agricultural emergency response, and military support.	During an incident at a dam, The SC DPS maintains communication with the dam owner and the state EOC during an incident and makes decisions about when to activate a county EOC, alert notifications, evacuations, road closures, rescues, and shelters.  The SC DPS coordinates with ESF-13 (South Carolina Law Enforcement Division [SLED]).	<a href="http://www.scdps.gov/schp/Troop_Contact_Information.asp">http://www.scdps.gov/schp/Troop_Contact_Information.asp</a>
South Carolina Department of Public Safety (SC DPS) Highway Patrol (SCHP)	The SCHP has no authority or responsibility specifically related to dams, but has responsibilities related to disaster response.	In the event of an emergency at a dam or evacuation, the SCHP coordinates with local law enforcement authorities to seal off inundation areas, ingress and egress points, and control access points based on evacuation and traffic management plans.  The SCHP also coordinates with SC DNR to develop plans to evacuate people from upstream lakes and downstream waterways in inundated areas, with Air Branch for aviation support for evacuation (including public address system, rescue, and security operations), and with ESF-16 (Emergency Traffic Management).	<a href="http://www.scdps.gov/schp/">http://www.scdps.gov/schp/</a>



**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)	<p>The SC DSS has no authority or responsibility specifically related to dams, but has responsibilities related to disaster response.</p> <p>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.</p>	<p>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.</p> <p>The SC DSS coordinates with the County and ESF-6 (Mass Care) partners to manage general population shelter operations.</p>	<p><a href="https://dss.sc.gov/">https://dss.sc.gov/</a></p>
South Carolina Department of Transportation (SCDOT)	<p>The SCDOT has no authority or responsibility specifically related to dams, but has responsibilities related to disaster response and recovery.</p> <p>The SCDOT coordinates transportation resources and provides for the assessment and reconstruction of the transportation infrastructure in South Carolina.</p>	<p>The SCDOT supports before, during, and after an event as follows:</p> <ul style="list-style-type: none"> <li>• Clears all debris from state-maintained roadways</li> <li>• Coordinates procedures to evaluate road structure integrity</li> <li>• Repairs roads, bridges, culverts, etc. when damaged</li> <li>• Maintains the SCDOT web page to show the latest update on road openings and closings</li> <li>• Assists with all evacuation plans when activated</li> </ul> <p>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.</p>	<p><a href="http://www.scdot.org/travel/travel-emergencyresponse.aspx">http://www.scdot.org/travel/travel-emergencyresponse.aspx</a></p> <p>To report an emergency: contact SCDOT Customer Service Center at 1-855-GO-SCDOT (1-855-467-2368) or a local office:</p> <p><a href="http://www.scdot.org/inside/countyOffices.aspx">http://www.scdot.org/inside/countyOffices.aspx</a></p>
South Carolina Emergency Management Division (SCEMD)	<p>The SCEMD is responsible for planning for the consequence management response to anticipated dam failures, breaches, and overtopping of dam structures.</p> <p>It coordinates the EAP notification rosters with state and local emergency management organizations.</p> <p>The SCEMD also monitors potentially threatening conditions affecting South Carolina that may cause deteriorating conditions to dams, and coordinates appropriate warning and response actions.</p>	<p>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.</p> <p>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.</p>	<p>2779 Fish Hatchery Road West Columbia, SC 29172 (803) 737-8500</p> <p>By County: <a href="http://www.scmd.org/who-we-are/county-agencies">http://www.scmd.org/who-we-are/county-agencies</a> <a href="mailto:WebAlert@emd.sc.gov">WebAlert@emd.sc.gov</a></p>
CodeRED Alerts	<p>Several South Carolina counties have systems to conduct automated telephonic notifications for CodeRED Alerts.</p>	<p>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).</p> <p>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.</p>	<p><a href="http://www.scmd.org/component/content/article/2-uncategorised/177-codered-alerts-from-scmd">http://www.scmd.org/component/content/article/2-uncategorised/177-codered-alerts-from-scmd</a></p>
Statewide Mutual Aid Agreement	<p>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.</p>	<p>Mutual aid agreements can be activated to support emergency and disaster response/recovery.</p>	<p><a href="http://www.scmd.org/?option=com_content&amp;view=article&amp;id=113&amp;catid=25">http://www.scmd.org/?option=com_content&amp;view=article&amp;id=113&amp;catid=25</a></p>
South Carolina Floodplain Mapping Program	<p>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.</p>	<p>The South Carolina Floodplain Mapping Program assists FEMA in developing dam inundation maps and scenario-specific inundation maps.</p>	<p><a href="http://www.dnr.sc.gov/water/flood/floodmaps.html">http://www.dnr.sc.gov/water/flood/floodmaps.html</a></p>

**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 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.	<a href="http://www.sled.sc.gov/">http://www.sled.sc.gov/</a>
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.	<a href="https://www.scguard.com/">https://www.scguard.com/</a> <a href="http://www.sg.sc.gov/">http://www.sg.sc.gov/</a>
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.	<a href="http://www.regulatorystaff.sc.gov/Pages/default.aspx">http://www.regulatorystaff.sc.gov/Pages/default.aspx</a>
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.	<a href="https://www.procurement.sc.gov/">https://www.procurement.sc.gov/</a>

**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"> <li>• Send personnel to the scene for an evaluation</li> <li>• Determine if an EOC should be activated</li> <li>• Determine whether or not roads should be closed</li> <li>• Perform swift water rescue</li> <li>• Enact evacuations to higher ground</li> <li>• Ensure that shelters or reception centers are available, if needed</li> </ul> <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>	

**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
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>	<a href="http://www.carolinasfirepage.com/members/sc_ctys.html">http://www.carolinasfirepage.com/members/sc_ctys.html</a>
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>	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.	
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>	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.	<a href="http://www.nws.noaa.gov/nwr/coverage/ccov.php?State=SC">http://www.nws.noaa.gov/nwr/coverage/ccov.php?State=SC</a> <a href="http://www.nws.noaa.gov/nwr/coverage/stations.php?State=SC">http://www.nws.noaa.gov/nwr/coverage/stations.php?State=SC</a>

**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)	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>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>	<a href="http://damsafety.org/south-carolina">http://damsafety.org/south-carolina</a>



**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.	<a href="#">Lowcountry SC</a>   North Charleston, SC   (843) 764-2323 <a href="#">Central SC</a>   Columbia, SC   803-540-1200 <a href="#">Northern SC</a>   Rock Hill, SC   803-329-6575 <a href="#">Eastern SC</a>   Myrtle Beach, SC   843-477-0020 <a href="#">Upstate SC</a>   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.	<a href="https://www.salvationarmycarolinas.org/">https://www.salvationarmycarolinas.org/</a>
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.	<a href="https://scapa.org/">https://scapa.org/</a>
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.	<a href="http://www.scahm.org/">http://www.scahm.org/</a>
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.	<a href="http://sections.asce.org/south-carolina/home">http://sections.asce.org/south-carolina/home</a>
State-Licensed Engineers (dam, structural, mechanical, geotechnical, hydrology, and hydraulics)	Not applicable.	Engineers licensed in South Carolina can provide engineering services.	<a href="https://verify.llronline.com/LicLookup/Engineers/Engineer.aspx?div=50">https://verify.llronline.com/LicLookup/Engineers/Engineer.aspx?div=50</a>
State-Licensed Surveyors	Not applicable.	Surveyors licensed in South Carolina can provide surveying services.	<a href="https://verify.llronline.com/LicLookup/Engineers/Engineer.aspx?div=51">https://verify.llronline.com/LicLookup/Engineers/Engineer.aspx?div=51</a>
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.	<a href="http://www.scwgcap.org/">http://www.scwgcap.org/</a>
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.	<a href="https://www.fema.gov/community-emergency-response-teams">https://www.fema.gov/community-emergency-response-teams</a>

## 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>.