

SC Hazard Consequence Analysis, 2025 Update

(hazards are listed in rough order of consequence and probability of occurrence based on risk matrix in SC Emergency Operations Plan)

	Public	Responders	Continuity of Government	Property, Facilities, and Infrastructure	Environment	Economic Condition of the Jurisdiction	Public Confidence in Jurisdiction’s Governance
Tropical Cyclones	The state recognizes that the public may face extreme consequences from tropical cyclones and coastal storms, which is reflected in preparedness, public risk awareness, mitigation, capacity building, and other efforts. Tropical cyclones and coastal storms have the potential to injure and kill people, destroy residences and businesses, and interrupt water, power, and sewer services necessary to return to a normal way of life. Whether residents have insurance or receive assistance, the recovery process from a tropical cyclone or coastal storm is costly and can take years or decades. Long-term recovery groups are still active and working recovery efforts for past hurricanes and other events.	Debris removal and emergency response costs following Hurricane Florence in 2018 exceeded \$61 million statewide. For Hurricane Dorian (2019), these costs were greater than \$27 million. Emergency work, including response costs and debris removal, from Hurricane Helene (2024) will total more than \$350 million. Responders may face extreme conditions when responding to a tropical cyclone or coastal storm event. These systems can down trees and power lines, destroy critical infrastructure such as local EOCs, fire stations, and hospitals, and damage bridges, roadways, and government buildings critical for response and recovery operations. Responders may have to rescue individuals isolated without resources. Responders should be aware of their risks at all times.	In an extreme event, such as a major hurricane, the State EOC or other key operating facilities could be impacted. If the State EOC is damaged or the delivery of utilities is interrupted, it may be necessary to move to the Alternate EOC location or function from another location to maintain operations during the event. See COG/COOP plan for additional information.	Tropical cyclones and coastal storms have the potential to cause significant consequences to infrastructure. Property along the coast and in storm surge areas may be severely impacted or destroyed. Critical infrastructure such as utilities, roadways, bridges, hospitals, EOCs, Police/Fire/EMS stations may be damaged or destroyed in these storms. South Carolina has experienced many hurricanes causing significant damage to infrastructure, including Hurricane Matthew in 2016 (\$70m), Hurricane Irma in 2017 (\$12m), Hurricane Florence in 2018 (\$31m), Hurricane Dorian in 2019 (\$9m), Hurricane Ian in 2022 (\$3m); Tropical Storm Debby in August 2024 (\$17m)*; and Hurricane Helene in September 2024 (\$850m)* Hurricane Helene caused significant and costly damage to electric utility infrastructure. *As of 1 April 2025.	Consequences to the environment include erosion of critical dunes, impacts to sensitive coastal ecosystems, downed trees and vegetation, and polluted waterways from the runoff of debris and hazardous materials. Debris piles can pose public health and safety risks and must be managed in accordance with state and local ordinances. The SC Department of Environmental Services (DES) takes the lead on monitoring and cleanup of adverse environmental impacts. The SC Forestry Commission has plans to deal with tree debris and timber harvesting.	Hurricane Hugo (1989) had \$7 billion in impacts on the State. It was the largest, most costly disaster at that time. If Hugo hit today, it would cost more than \$13 billion. Hurricane Helene (2024) may exceed that economic tally; costs are still being compiled. The economic impacts of a tropical cyclone and coastal storm to affected jurisdictions could be significant. In any tropical cyclone or coastal storm event, the impact to tourism is millions of dollars a day. It may take several years to recoup the economic costs of a singular hurricane event. Federal grants can aid in recovery efforts and alleviate the overall economic impact of a tropical cyclone/coastal storm.	To ensure the public is prepared for tropical cyclone, the state has completed the following: 1) Annual Hurricane Guide distributed in local newspapers and available on the website. 2) Created Hurricane.sc 3) An updated Hurricane Evacuation Study was completed in 2024 including transportation analysis, shelter analysis, behavioral analysis, vulnerability analysis, and adjustments to evacuation zones to simplify evacuation zones and communication regarding evacuations 4) The state prepares for hurricane season with a statewide media campaign led by SCEMD. 5) In the event of a hurricane, the PIO section has premade materials for use in the state's comprehensive public information and communication program. These programs are in place to foster public confidence in government and its recommendations in times of emergency.

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Flood	The 2015 floods in South Carolina had a FEMA estimated \$202.2 million Individual Assistance impact on the State. The public may face extreme consequences from flooding and/or flash floods. Floods have the potential to injure and kill people, especially those who drive through flooded roadways. The quick onset of flash flooding reduces the time for warning and protective measures, creating increased risk of human health and safety impacts. Areas may be isolated because of flooded or washed out roadways, which can impede emergency response should residents need assistance. Floods can destroy residences and businesses and interrupt water, power, and sewer services. Whether residents have flood insurance or receive assistance, the recovery process from a flood may be costly and take weeks, months, or years.	Debris removal and emergency response costs as a result of the 2015 floods were in excess of \$58 million statewide. Responders may face extreme difficulties when responding to a flood event. Floods can destroy homes, businesses, and critical infrastructure such as local EOCs, fire stations, and hospitals. Floods can wash out bridges and roadways, as well as destroy government buildings critical for response and recovery operations. Responders may have to perform swift water rescues of individuals trapped in flooded areas. Responders should be aware of their risk at all times. Floodwaters may isolate areas because of flooded or damaged roadways, which can make surface emergency transport lengthier and potentially dangerous.	The State EOC is not located in a flood zone; however, many access roads may be impacted by flooding. In an extreme flood event, there may be an instance when the State EOC is inaccessible due to flooded roads. If the State EOC is isolated or the delivery of utilities is interrupted, it may be necessary to move to the Alternate EOC location or function from another location to maintain operations during the event. Utilizing the Virtual EOC concept may also be an option. See COG/COOP plan for additional information.	The 2015 floods in South Carolina resulted in more than \$60 million in damage to public infrastructure. Property in the floodplain or other low-lying areas may be severely impacted or destroyed. State facilities within or near floodplains have been identified in this plan and mitigation ideas have been created. Critical infrastructure such as utilities, roadways, bridges, and Police/Fire/EMS stations may be damaged or destroyed or be inaccessible in a flood event. Public Assistance grants are available to restore critical infrastructure to pre-disaster function capacity, and design. Mitigation grants can reduce their overall risk and hazard consequences. Flooding along the Edisto River in November 2024 caused an estimated \$12.6 million in infrastructure damage.	Environmental consequences of flooding are vast. Flooding may erode riverbeds, causing sediments to enter the waterways, clogging our water management systems and waterways downstream. Floods can bring hazardous materials or pollution into waterways via runoff. Riparian ecosystems are negatively impacted with the introduction of sediments, pollutants and nutrients. SC DES will monitor the waterways and riparian areas for any adverse impacts.	As a result of the 2015 floods, FEMA provided more than \$90 million in assistance to disaster survivors, and more than \$115 million in Public Assistance grants for response and recovery. The additional impact of flooding on transportation, agriculture, business continuity, and government services is substantial. Mitigation practices can reduce the impact of flooding on our economy. It is also important that residents and businesses purchase flood insurance so they can be operational in a short amount of time. Federal grants can aid in recovery efforts and alleviate the overall economic impact of a hurricane	Education and awareness are key components to maintaining public confidence in government during a disaster. In conjunction with FEMA, NOAA, USACE, SC Department of Natural Resources (SCDNR), and the Department of Insurance, the State provides information on floods and flood insurance to the public. The SC Flood Impact website, hosted by SCDNR, provides storm-specific flood forecasting maps for portions of the state to the public. During the NFIP mapping process, residents are invited to participate and learn about flood risks. Some members of the public have NOAA weather radios to alert them of potential flooding. SCEMD has premade media products for social media and other communications in the event of flooding.

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Infectious Disease	Consequences to the public from public health emergencies (influenza, plague, food contamination, etc.) are vast. The public may experience temporary illness, long-term illness, or even death. Hospitals and doctor's offices may become crowded, patients may experience long lines, and pharmaceuticals may be limited. The COVID-19 pandemic demonstrated the potential magnitude of the impact on the public in a significant way.	Responders may also feel the consequences of public health emergencies. They may be exposed to the risk and become ill. Responders may have to wear protective gear and receive vaccinations to mitigate their risk. For extended duration events, responder fatigue may be present. For more information on infectious disease response, see Appendix 14 of the EOP.	As demonstrated by COVID-19, a widespread public health emergency has the potential to impact the SEOC. To prevent the spread of infectious disease, the SEOC may move to virtual operations, or to the AEOC for a non-airborne disease by which the SEOC is contaminated. For more information, see the SC COOP Plan.	It is unlikely that the consequences of a public health emergency would physically impact property, facilities, or infrastructure; however, a pandemic would impact personnel, potentially impacting the ability to properly service and maintain property, facilities, and infrastructure. The COVID-19 lockdown led to a decrease in travel. Cascading impacts included decreased revenue from gas taxes or road tolls which provide income to reinvest in local road infrastructure. This impact also occurred in the airlines sector.	Consequences to the environment from a public health emergency are unlikely. Unless the event is terrorism or hazmat related, there will be no direct impact. See hazmat below for more information	The economic condition may be significantly impacted by a widespread public health emergency. If a significant percentage of the population becomes ill, they will not be able to go to work or spend money. Outbreak-related movement restrictions also have the potential to significantly impact the economy. With vaccinations and early detection of pandemics and other public health issues, the impacts can be partially mitigated.	Public confidence in governance may be minimally impacted by a public health emergency that is short term in nature. In South Carolina, DPH tracks potential influenza and other contagious viruses/bacteria, and provides education and outreach on health. SC DPH advertises their 15 Public Health Preparedness Capabilities online to show transparency to the public. SC DPH also runs hospital preparedness programs and hosts healthcare coalitions and partnerships. However, as demonstrated by the COVID-19 pandemic, long-term public health impacts and the inability of government to immediately eliminate them may erode public trust in government significantly.

SC Hazard Consequence Analysis, 2025 Update

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Earthquake	Consequences to the public from a significant earthquake are numerous. Life safety will be an issue and there is the potential for many casualties. Homes and businesses will be destroyed, roadways and bridges may fail, power, water, and sewer services may take months to restore. The historic 1886 Summerville earthquake (7.3) claimed 83 lives and an estimated \$23 million in damage. If an earthquake of similar intensity were to happen today, models indicate up to 45,000 people could be injured and 200,000 people displaced from their homes. Despite causing no damage, a swarm of small earthquakes in Kershaw County beginning in December 2021 raised public attention and initially public concern about earthquake risk in the state.	Responders face unique consequences from an earthquake event. Earthquakes can damage bridges and roadways, cause land to liquefy, spark fires, and damage hazardous material tanks. Responders may have limited communication services available, no power, water, or sewer services, and may not be able to get through to the areas most affected. Blocked or damaged roads will likely increase response times.	In an extreme event, such as a major earthquake, there may be an instance when the State EOC is impacted. If the State EOC is damaged or the delivery of utilities is interrupted, it may be necessary to move to the Alternate EOC location or function from another location to maintain operations during the event. Utilizing the Virtual EOC concept may also be an option. See COG/COOP plan for additional information.	If the historic 1886 earthquake were to occur again today, damage to infrastructure would be expected to exceed \$7 billion in costs. Damage to state facilities alone would cost \$77 million, impacting more than 2,500 facilities.	Environmental consequences from earthquakes are numerous. The ground motion and soil type may cause the ground to liquefy, causing underground storage tanks to surface or fail. Hazardous materials spills are common during earthquakes. In high magnitude earthquakes, trees will fall, underground pipes will break, and fires may spark. Significant debris is also expected following a major earthquake.	The state economy would be severely impacted by a major earthquake. Impacts to infrastructure would create significant challenges for companies doing business in South Carolina, and those outside the state that rely on our port and highway systems. Loss of tourism would be a challenge for South Carolina.	Public confidence in government may suffer in the event of an earthquake. It may take several days or weeks to access the hardest hit areas. Debris may block roadways for months. Families may have to stay in public shelters if their homes are destroyed. The state has prepared for situations like this. The State Earthquake Plan is available on SCEMD's webpage. SCEMD has published an earthquake guide describing the risks to the public. Earthquake.sc contains earthquake preparedness actions for the public. In the event of an earthquake, PIOs/ESF 15 has premade materials for use in the comprehensive social media program. These programs are in place to instill and maintain public confidence in state government, even in times of a disaster.
Nuclear Facilities/ Radiological Release	In a major event (such as a radiological release, explosion, or terrorist attack), residents may be displaced from their homes until the impacted area is deemed safe to return. Depending on the severity of the incident, this displacement may be temporary or long term. In extreme cases, this displacement may be indefinite.	Responders are at significant risk during response to a nuclear release. The state’s plans detail procedures for mitigating this risk. For more information, see the SC COOP Plan, SCORERP, and SC DPH Contingency Plan.	Although extremely unlikely, a radiological release may impact the SEOC’s ability to function if the plume were to far exceed the 10-mile exposure pathway zone (EPZ). If the State EOC is damaged or the delivery of services is interrupted, it may be necessary to move to the Alternate EOC location or function from another location to maintain operations during the event. For more information, see the SC COOP Plan, SCORERP, and SC DPH Contingency Plan.	An event at a nuclear facility would have significant impact on South Carolina infrastructure. Primarily, nuclear facilities are a major source of electricity, and the loss of one of the state’s four generating plants could create a significant impact. Depending on the location of the event, road closures (short or long term) may be necessary.	A release from a nuclear facility would have significant impacts on the environment. Radiation has the potential to contaminate land, plants, groundwater, and animals. Some of these impacts may not be able to be mitigated and may persist for decades in the most severe circumstances.	The economy of South Carolina could be impacted by a nuclear facility release. Infrastructure impacts could impede travel and commerce for the duration of response and recovery. Contamination of large areas could create the need to abandon infrastructure, homes, and businesses in the impacted area indefinitely.	Public confidence in governance would likely be impacted by a nuclear facility incident as these events may be viewed by the public as preventable. Nuclear facilities provide educational materials to residents in the EPZs annually. FNFs also have sirens to alert the public of an incident, and many facilities are updating to utilize IPAWS to alert as well. Exercises are completed on a regular basis per federal standards. For more information, see the SCORERP or SCEMD’s website.

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Tornadoes	All of South Carolina is at risk from tornadoes, and the public could face serious consequences. Tornadoes can be deadly. On April 13, 2020, 28 tornadoes impacted South Carolina, causing nine fatalities and numerous injuries. Common consequences of tornadoes to the public are damage to homes and businesses, interruption of utility services, and devastation to the local economy.	Responders will face significant difficulties responding to a tornado. Search and rescue operations may be required. Communication systems may be destroyed. Road signs and landmarks may be missing when trying to reach survivors in need. Power lines, debris, and trees may block roadways and access points. Responders should exercise extreme caution.	The state does not anticipate any issues maintaining operations and the delivery of services in the event of a tornado in the state. If the SEOC is directly affected by a tornado, it may be necessary to move to the Alternate EOC or function from another location to maintain operations during the event. See COG/COOP plan for additional information.	All property in South Carolina is at risk to tornadoes. The consequences to property, facilities, and infrastructure from a tornado may be catastrophic. Depending on the scale of the tornado, damage can be minimal or cataclysmic. While historically, South Carolina's greatest magnitude tornado was an EF4, an EF5 is possible in the state. An EF4 or ESF 5 can cause devastating damage, level well-constructed homes and buildings, overturn trains, and throw heavy vehicles. Public infrastructure and utilities would be demolished.	Because of the vast range of wind speeds associated with tornadoes, consequences to the environment vary greatly. Even an EF0 (65-85mph) can uproot trees and vegetation. In stronger tornadoes, debris may be tossed miles away from the source, potentially entering our waterways. Hazardous materials may escape if vehicles are damaged, or storage tanks are compromised. SC DES would monitor the environment for adverse impacts.	Tornadoes are typically a local disaster, but as with all hazards, direct impacts to key economic drivers in the state may have compounding effects on the economy. The average annualized losses from tornadoes in South Carolina from 2015 to 2020 was \$20,490,994, significantly higher than the long term (1960-2020) annualized average of \$7,416,415. The larger the outbreak, the greater the economic effect. When a small community is hit by a severe tornado, the entire community and local economy are negatively impacted, as was the case with a January 2024 tornado in Bamberg, SC. Local assistance through VOADs and Small Business Administration loans are key sources of support.	Public confidence in government will not likely be impacted by a tornado event. If there is a statewide tornado outbreak, SCEMD has premade media products for distribution on the agency webpage (www.scmd.org) and via traditional media and social media (@scemd) to support individuals, households, and businesses in taking protective action and finding resources after the event. NOAA weather radios and cell phone applications will send alerts and important weather updates to the public. Some local communities have tornado sirens and community safe rooms to protect residents.

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Winter Weather	Winter weather has the potential to impact the public by damaging infrastructure and private property and interrupting the delivery of utility services. Power outages are common during winter weather, which affect public health and safety, as do the hazardous driving conditions winter weather creates.	Debris removal and emergency response costs from the 2014 ice storm totaled more than \$239 million statewide. Debris in roadways poses the greatest hurdle for response operations during an once storm. Responders face many consequences from winter weather. They must navigate dangerous roadways and work in freezing conditions. Ice and snow may bring down trees and power lines, causing widespread power outages.	It is expected that program operations will continue during a winter weather event. If there is a power outage, SCEMD has redundant power, IT, and communication systems in place to maintain operations. SCEMD will continue to coordinate statewide response throughout the entire winter weather event. If the State EOC is damaged, it may be necessary to move to the Alternate EOC location or function from another location to maintain operations during the event. Utilizing the Virtual EOC concept may also be an option. See COG/COOP plan for additional information.	The 2014 ice storm resulted in more than \$22 million in damage to public infrastructure. Property, facilities, and infrastructure may be impacted by winter weather. Collapsed roofs, downed power lines, vegetative debris in roadways, and damage to water/wastewater facilities may take weeks or months to fix.	Consequences to the environment from winter weather include downed trees/branches, localized flooding from snow melt, and below freezing temperatures. These low temperatures can significantly impact livestock and the growth of vegetation and crops in the State.	The 2014 ice storm had a total impact of more than \$269 million statewide. The economic condition of the state may be impacted by a widespread winter weather event. Ice and snow are dangerous and can cause structural damage as well as service and business interruptions. Many residents will not venture out of their homes to purchase food or goods.	Public confidence in government will likely not be impacted by a winter weather event, unless there are significant errors in forecasts and/or delays in protective action decision-making (e.g., closures and releases) that result in increased danger or harm. Winter weather is common in SC. During statewide winter weather events, SCEMD has premade media products for distribution on the webpage (www.scemd.org) and via traditional and social media (@scemd) so individuals, households, and businesses are informed of protective action recommendations, incident status, and assistance resources. NOAA weather radios and cell phone applications send important information to the public. SCEMD has also published a Winter Weather Guide with information for the public.
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Hazardous Material Release	The public could be immediately impacted by the consequences of a hazardous materials (hazmat) release, spill, or explosion. Hazmat releases can occur via many sources and in many locations including fixed facilities, roadway, and rail. The public may be impacted on roadways, at school, in homes, through the food supply, or in public venues (large stadiums, athletic events, movie theaters, etc.). The consequences of hazardous materials may be illness, injury, or death. In a major event (such as an explosion or chlorine spill), residents may be displaced from their homes until the site is cleaned.	Responders face the immediate consequences of hazmat incidents. They must determine the type of material released or spilled and the appropriate response and cleanup of the material. The state has a variety of response teams to include hazmat, RMAT, National Guard CST, and EOD (Bomb Squad). These responders are specially trained to deal with these incidences and they are provided protective gear to reduce their vulnerability to the hazardous materials.	In the event of a hazmat release, spill, or Terrorist act, there may be an instance when the State EOC is impacted. If the State EOC is damaged or the delivery of services is interrupted, it may be necessary to move to our Alternate EOC location or function from another location to maintain operations during the event. For more information, see the SC COOP Plan.	Property, facilities, and infrastructure will be significantly impacted by a hazmat incident. Especially in the event of an explosion, homes, businesses, industries, and infrastructure may be damaged or destroyed. In addition, most mobile hazmat releases are caused by traffic accidents, which can destroy vehicles, roadways, and signage	The environment is likely to experience significant consequences from a hazmat incident. Sensitive ecosystems could be destroyed or significantly disturbed. Hazardous materials can be quickly spread through water, air, or the food supply. Once hazardous materials are in our environmental systems, it may take days, weeks, months, or years to clean up.	Depending on the size of the incident, the state's economy could experience enormous consequences. As reported by the Huffington Post, the BP oil spill in 2011 has cost approximately \$40 billion to clean up. This would be a worst-case scenario. More common incidents such as hazmat spills on highways or releases at chemical facilities impact the economy if an industry or transportation routes are shut down.	Public confidence in governance may be impacted by a hazmat incident. In small, localized events, the state does not anticipate an impact on public confidence. These events happen on a regular basis. In a major chemical release, radiological release, or terrorist incident, the public may be inclined to lose confidence in governance. In these instances, the state has premade media products for distribution on our webpage (www.scmd.org) or on social media outlets (@scemd) to provide clear and actionable information to the public regarding incident status and protective measures. For more information, see SCEMD's website.
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Terrorism and Mass Violence	The public is at risk of health and safety impacts from mass violence and active shooter events. Terror attacks are less common but are designed to instill fear in the populace or make a political or social statement; as a result, the public is often the focus of the attack.	Responders are at risk during an active shooter/hostile action event and may be directly targeted. The state has a variety of teams that are trained and equipped to respond to these events.	The state does not anticipate any issues maintaining operations and the delivery of services during an active shooter event in the state. If an active shooter event impacts key operational components, including the State EOC, the State's COOP Plan could be activated and implemented. See COG/COOP plan for additional information.	Property, facilities, and infrastructure may be at risk. Critical facilities and infrastructure may be a purposeful target. Managing the aftermath of an attack on critical infrastructure, even if there is no physical damage, can render that infrastructure unusable for days to weeks.	It is unlikely that an active shooter/hostile action event will impact the environment.	The economic condition of the jurisdiction is unlikely to be impacted by an active shooter/hostile action event, unless the target of the event is a business or event that is a large contributor to the state economy.	Public confidence in governance may be impacted by an active shooter or hostile action event. The response to the hostile action may impact public confidence.
	A cyber attack affecting critical infrastructure and/or key resources would result in significant impact to the population. Outages of utility services would result in degraded medical, emergency, and governmental services. Of particular concern are interruptions to life-sustaining services for at-risk populations.	While first responders are unlikely to be directly physically affected by a cyber attack, many of the IT and dispatch systems that both responders and the public rely on to facilitate emergency response could be impacted.	A cyber attack directed at state government institutions could degrade the ability of the state and local governments to operate due to IT system dependencies. However, a framework is in place for the government to be able to reconstitute its services. See COG/COOP plan for additional information.	Cyber attacks would have to be directed at large interconnected systems such as the Bulk Electric System (BES) to create significant impact on property, facilities, and infrastructure. Cyber attacks against individual residences and small to medium private businesses is not likely to create the adversaries desired effect.	A cyber attack directed at industrial infrastructure that contains hazmat could cause environmental damage. However, since individual companies' industrial processes do not tend to be interconnected, the ability to create widespread environmental damage in SC through cyber space is limited.	The economic impact of an intentional cyber attack can range from minimal to catastrophic. Attacks directed at public health, transportation, pipelines, communications, and the electric grid, depending upon duration, could have devastating economic effects on SC.	A cyber attack that impacts not only the ability of government to provide services to its population but also effects the ability of the private sector to provide life-line sector services will put people at risk and have a significant negative impact on the population's confidence in their government's ability to provide basic services.
	Acts of mass violence have significant physical consequences for the group of people directly impacted, including responders, as well as psychological impacts for those directly impacted as well as others. While a low probability event for the state, a terrorist attack in SC would be expected to have direct physical and practical consequences as well as psychological impacts for the public.	Responders face considerable risk when responding to a terrorist attack. In addition to the possibility of directly engaging the terrorist threat, many terrorist organizations have advocated for their followers to conduct secondary or follow-on attacks that are directed at first responders.	Often, the purpose of the terrorist attack is to show weakness in the government's ability to protect the public. If the SEOC were the target of a terrorist attack, potential facility damage and injuries to key personnel could necessitate the movement of operations to the AEOC. See COG/COOP plan for additional information.	Terrorists may be most likely to target critical infrastructure that is of functional or political significance. Private property, facilities, and infrastructure may become collateral damage in a terrorist attack even if the key target is infrastructure or public facilities.	At sufficient scale, a terrorist attack could have significant impact on the environment. For example, South Carolina has four nuclear generating plants, damage to which could result in significant environmental and agriculture damage that could last decades.	Typically, one of the primary desired outcomes for terrorists is to create widespread systemic effects within the target's economic system. A successful terrorist attack within SC would result in long-term and widespread damage to the state's economy.	A successful terrorist attack within SC would have the potential to erode public confidence in the government's ability to protect the public. Effects on an unprepared jurisdiction would be further degradation of confidence because of mishandling of response and recovery. The state's plans, procedures, training, exercises, and resource logistics are intended to protect against these consequences.

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Coastal Hazards	Sea level rise threatens private property, beaches, and infrastructure. The public may face significant long-term consequences due to the loss of these resources. Because of the low probability of a tsunami occurring in South Carolina it is unlikely that the public will be impacted. However, if there is a tsunami the populations living on the coast are at risk. If there is significant warning time less of the public will be impacted than if the tsunami occurs with little warning.	Sea level rise may increase the frequency of coastal flooding, which would increase the workload of (and danger faced by) responders. Other coastal hazards (erosion, saltwater intrusion, land subsidence) are not likely to affect responders.	Based on the state capital’s inland location, most state offices, including SCEMD, do not anticipate impacts that hinder maintaining operations and the delivery of services in the event of coastal hazard.	Property, facilities, and infrastructure along the coast are at risk if coastal hazards impact the state. It is unlikely that there will be a tsunami large enough to impact significant numbers of properties, but coastal flooding and long-term sea-level rise have the potential to do so.	There are several consequences to the environment from coastal hazards. Protective dunes on the shore may be reduced or washed away. Beaches could be significantly damaged.	If there is a large coastal hazard event, the economy may be impacted. The additional impacts of flooding on transportation, agriculture, business continuity, and government services are substantial. However, if there is a minor tsunami it is unlikely that economic conditions of the state will be impacted, though local jurisdictions may be.	Public confidence in governance is unlikely to be impacted by a tsunami. The National Tsunami Warning Center will issue a tsunami warning if there is an earthquake off the coast that may generate a tsunami and SCEMD will share this warning. Sea level rise and related coastal impacts could negatively impact public trust in the state’s governance if there are impacts or preventive measures that the public perceives the state should have addressed but did not. .
Drought	Consequences of drought on the public are not always direct. Farmers will be the most directly impacted by drought. If they do not produce crops, the public's food supply is impacted. If water restrictions are implemented by government, residential lawns and gardens will be impacted in addition to agricultural interests. In exceptionally severe drought, drinking water resources may be limited, especially for residents using well water.	Responders generally will not be directly impacted by drought. Possible reductions of water for firefighting purposes in extreme instances when supplemental water sources are not available could create operational stress and risk for firefighters. Drought can set the stage for increased wildfire danger.	The state does not expect to experience issues continuing operations and delivering services during drought. See COG/COOP plan for additional information.	Persistent drought can directly impact the water/wastewater, energy, and food/agriculture sectors within South Carolina. Furthermore, all sectors of critical infrastructure may be impacted by cross-sector dependencies and cascading impacts from the loss of water, agricultural, and energy services	Environmental consequences of drought are significant. Drought reduces the availability of water, reduces crop yields, and impacts local ecosystems. In addition, indirect consequences include increased chances for wildfire and enhanced conditions for infestations such as a southern pine beetle outbreak following a 1998 - 2002 drought .	Drought has the potential to significantly impact the State's economy. Agriculture represents one of the largest industries in South Carolina. Loss of agriculture crops would significantly hurt the economy, especially in rural farming communities	Public confidence in government will likely not be impacted by a drought event. Droughts are common in South Carolina. Insurance and assistance programs are widely available to farmers. The Department of Agriculture and SCDNR run drought programs to promote education and techniques for farming in drought conditions. SCDNR also runs the State Drought Response Committee which meets monthly to discuss drought matters.

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Wildfire	The public will feel the direct consequences of a wildfire if their home or place of employment is in the wildfire impact area. Homes and businesses may be destroyed in a fire, utility service could be interrupted, and access to roadways may be limited. The public may also be impacted by air pollution from the wildfires. While the 2016 Pinnacle Mountain wildfire had a more than \$4 million impact on the state, it fortunately did not destroy homes.	Responders will be directly impacted by a wildfire. Wildfires may change directions quickly as the wind and environmental elements change. Wildfires are often difficult to control and may take numerous resources to do so. Inhalation of fumes may pose a health risk to firefighters. Response costs for the 2016 Pinnacle Mountain wildfire exceeded \$4 million. March 2025 wildfires in multiple locations required extended response operations by firefighting personnel, resources, and support teams.	The state does not anticipate any issues maintaining operations and the delivery of services during a wildfire. In an event that directly impacts the SEOC, the State has a COOP Plan in place that could be Activated and implemented at any time. See COG/COOP plan for additional information	Property, facilities, and infrastructure in the Wildland Urban Interface will be significantly impacted. Homes and businesses may be destroyed in a fire, utility service could be interrupted, and access to roadways may be limited. Communications infrastructure and equipment placed outdoors, especially in mountainous areas, can be destroyed or damaged by fire.	Although wildfires are a natural process, the environment may be negatively impacted. Not only are trees impacted by these fires, so are the native species of plants and animals. Habitat loss may occur. Decreased vegetation cover after a fire significantly increases the risk of landslides and debris flow. The smoke and ash from the fires can pollute waterways and our air. The SC Forestry Commission and SC DES will monitor the air and water quality in an event.	Wildfires are typically a local disaster and the State's economy should not be impacted. If a large fire does occur and cannot be controlled quickly, there could be greater economic effects. If a small community is impacted by a wildfire, the local economy could suffer. Local assistance through VOADs and recovery assistance programs may be needed.	Public confidence in government will likely not be impacted by a wildfire event absent lack of adequate communication or evacuation decisionmaking or delays in response. If a large wildfire occurs that cannot be quickly controlled, SCEMD has premade media products for distribution on the agency webpage (www.scmd.org) and via traditional media and social media (@scemd). IPAWS can also be used to send important information to the public.
Wind	In extreme wind events (including macrobursts, microbursts, derechos, and straight-line winds), wind has the potential to damage personal property, trees, and residences. Certain types of structures (including manufactured homes and structures without gable roofs) are more susceptible to wind damage. Because people with lower incomes are more likely to reside in this type of structure, they may be more susceptible to this type of damage.	Direct consequences of wind to responders are minimal. Resulting damage, such as downed power lines and blocked roadways, can create safety risks for responders. Responders should exercise caution when driving or operating in significant winds. Restoration of utilities may be delayed as some equipment cannot operate in heavy winds. Debris from high wind events can set the stage for increased wildfire danger, as was the case in the SC upstate based on Hurricane Helene debris that served as fuel for March 2025 wildfires.	The state does not anticipate any issues continuing operations and delivering services during wind events. See COG/COOP plan for additional information.	Wind has the potential to damage property, facilities, and infrastructure. In South Carolina, the annual estimated damage from wind since 1950 is \$9.9 million.	Consequences to the environment from wind are minimal. Wind can down trees and damage vegetation.	Consequences to the economic condition of the State will be minimal to non-existent. Most of the damage resulting from wind is covered under homeowners’ insurance and so does not impact the state or local economy.	Public confidence in government is not typically impacted by a wind event; However, high wind events can be difficult to predict with changing weather patterns. Lack of warning regarding high wind events can result in public frustration with weather forecasting and notification processes.

SC Hazard Consequence Analysis, 2025 Update
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	Public	Responders	Continuity of Government	Property, Facilities, and Infrastructure	Environment	Economic Condition of the Jurisdiction	Public Confidence in Jurisdiction’s Governance
Extreme Cold	Extreme cold can create risks to human health and safety and cause frostbite and other injuries. There is an increased risk to unhoused populations and those with lack of access to heating.	In extreme cold, caution should be exercised for first responders. Responders will need to limit prolonged periods of time outside.	The state does not anticipate any issues continuing operations and delivering services during extreme cold unless there are extended electric utility outages because of the increased electric demand due to extreme temperatures. See COG/COOP plan for additional information.	Extreme cold can place intense strain on the electrical grid and may cause or contribute to outages or blackouts, which can have cascading effects on all areas of critical infrastructure. Extreme cold can cause pipes to crack and break, resulting in water system leakages, water utility outages, and lack of fire suppression capabilities.	Extreme cold events are not expected to have significant impacts on the environment without accompanying winter precipitation.	Extreme cold can cause major damage to crops, impacting the agricultural industry that is critical to the state’s economy. Loss of agriculture crops would significantly hurt the economy, especially in rural farming communities	Public confidence in government will likely not be impacted by an extreme cold event.
Extreme Heat	Extreme heat can create risks to human health and safety, and cause heat exhaustion and heat stroke. Extreme heat events can be particularly risky for the elderly, outdoor laborers, and residents without air conditioning. Impacts of extreme heat can create stress on social service and medical providers.	High temperatures can cause increased risk to responders based on physical exertion, protective gear, and the need for increased hydration. In extreme heat, caution should be exercised for first responders.	The state does not anticipate issues impacting continuing operations and delivering services during extreme heat unless there are extended electric utility outages because of the increased electric demand because of extreme temperatures. See COG/COOP plan for additional information.	Extreme heat places intense strain on the electrical grid and may cause or contribute to outages or blackouts, which can have cascading effects on all areas of critical infrastructure.	Extreme heat can damage crops, injure or kill livestock, and increase the risk of wildfires and droughts.	Extreme heat early in the year can cause major damage to crops, impacting the agricultural industry that is critical to South Carolina’s economy. Loss of agriculture crops would significantly hurt the economy, especially in rural farming communities	Public confidence in government will likely not be impacted by an extreme heat event.

SC Hazard Consequence Analysis, 2025 Update
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Severe Thunderstorms	The public may face localized consequences from a severe thunderstorm. Thunderstorms have the potential to injure and/or kill people, damage residences and businesses, and interrupt electric service. These impacts are generally minimal compared to hurricanes, floods, and earthquakes. Recovery from a severe thunderstorm may take several weeks.	Responders may face some difficulties when responding to a thunderstorm event. Trees may be down, blocking critical roadways and access points. Power lines may also be down in roadways or on private property creating a dangerous situation. Localized flooding may require swift water rescues. During a thunderstorm, responders should be diligent to protect themselves from lightning by limiting time outside when thunder is heard.	The state does not anticipate any issues maintaining operations and the delivery of services following a severe thunderstorm. In a catastrophic event, the state has a COOP Plan in place that could be activated and implemented at any time. See COG/COOP plan for additional information.	Consequences to property, facilities, and infrastructure from severe thunderstorms are minimal. Downed trees and power lines are typical consequences from thunderstorms. Roofs, siding, and windows of homes and businesses may be damaged. Electric service to residences and critical facilities may be impacted in the short term.	Severe thunderstorms in South Carolina have historically had few consequences to the environment. Storms can down trees and vegetation, cause hail damage, and cause localized flooding. Please see "Flood". While major consequences to the environment are not expected, high winds and hail from severe thunderstorms can create large amounts of construction debris that can clog and foul waterways.	Consequences to the economic condition of the state will be minimal. The state has hundreds of thunderstorms each year. While the annual cost of damage to property and infrastructure may be great, individual events are usually minimal. Individual events cost an average of \$13,700.	Public confidence in government is not expected to be impacted by most severe thunderstorm events. The state assumes that the availability of weather alerts from PIOs as well as commercial sources mean much of the public is accustomed to receiving notifications and has a realistic level of confidence in them. The state shares information on an ongoing basis to explain the meaning of weather alerts. In the case of a catastrophic storm, SCEMD has premade media products for distribution on its webpage (www.scemd.org) and via traditional media and social media (@scemd). NOAA weather radios and cell phone applications send notifications to the public so they can inform themselves and find resources.
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SC Hazard Consequence Analysis, 2025 Update
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Lightning	Consequences of lightning to the public include possible injuries and, in rare cases, death; from 1950 to 2024, 22 lightning-related fatalities and 124 lightning-related injuries were reported in South Carolina. Lightning may strike homes and businesses, potentially sparking a fire or damaging electrical systems.	Consequences of lightning to responders are minimal. Lightning may spark building and house fires, requiring immediate response. When possible, responders should remain inside if there is lightning.	The state does not anticipate issues continuing operations and delivering services during lightning events. In the event of a lightning strike to the building, SCEMD has a backup power generator, redundant communication systems, and has an IT failover system in place. The SEOC and State Warning Point have backup UPS systems for their computers. See COG/COOP plan for additional information.	Lightning has the potential to damage property, facilities, and infrastructure. Lightning can spark fires and destroy electrical systems. In South Carolina, the annual estimated damage from lightning since 1950 is \$1.4 million.	Consequences to the environment from lightning are minimal. The greatest impact is lightning-generated fires.	Consequences to the economic condition of the State will be minimal to non-existent. Most damage resulting from lightning strikes is covered under homeowners’ insurance and therefore does not impact the state or local economy.	Public confidence in government is not likely to be impacted by a lightning event.
Hail	Consequences of hail to the public include possible injuries and, in rare cases, death. Hail may damage homes and businesses. A hail incident in York County/Rock Hill in April 2024 caused significant residential damage and was a reminder of the impacts hail can have on the public.	Consequences of hail to responders is minimal. Hail is typically a brief event because of the atmospheric conditions needed to create hail. Responders should remain inside during hailstorms.	The state does not anticipate impacts on continuity of operations and delivery of services from a hail event. See COG/COOP plan for additional information.	Hail has the potential to damage property, facilities, and infrastructure. Large hail can puncture roof tops, windshields, vehicles, windows, and other outdoor structures. An April 2024 hail incident in York County/Rock Hill caused significant residential and some business damage.	Hail may impact vegetation and crops in the state.	Consequences to the economic condition of the State will be minimal. The state has several hail events each year. The annual cost of damage to property and infrastructure is approximately \$2,884,442. Most damage from hail is covered under homeowners’ insurance and so does not have broad impact on the state or local economy. An April 2024 hail incident in York County/Rock Hill showed that hail can cause economic hardship in impacted communities.	Public confidence in government is not likely to be impacted by a hail event.

SC Hazard Consequence Analysis, 2025 Update
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Landslide and Mass Wasting	Due to the low probability of a landslide occurring in the state it is unlikely that the public will be impacted. Landslides can put the public at risk of serious injury or death. Homes and businesses can be damaged or destroyed.	Responders are at low risk of harm during a landslide, though a secondary landslide could occur during the response time. Landslides can damage response equipment.	SCEMD will not have any issues continuing operations and delivering services during landslide events. See COG/COOP plan for additional information.	Landslides may cause damage to properties or roadways. A landslide may cover a roadway with debris that will take time to remove. A large landslide may cause permanent damage to the roadway. In addition, large landslides could affect overhead utilities that run along roadways.	A landslide will impact the environment. This is more likely to occur on a slope that has already been damaged by wildfire or torrential rain. A landslide can damage an entire slope. SCDNR predicts increased landslide risk for 2 to 5 years in areas affected by the March 2025 Table Rock wildfires.	There is little chance that a landslide will have an impact on the economic conditions of the state.	A landslide could have an impact on the public confidence in the jurisdiction's governance, particularly if increased risk from a prior hazard event as not been addressed or messaged.
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