1.0.0 BACKGROUND

1.1.0 INTRODUCTION TO HAZARD MITIGATION AND THE PLAN

A Hazard Mitigation Plan (HMP) is a community-driven, federally recognized planning document that identifies potential natural and human-made hazards, assesses local vulnerabilities, and outlines strategies to reduce the long-term impacts of future disasters. The primary goal of hazard mitigation planning is to break the cycle of disaster damage, reconstruction, and repeated loss by implementing cost-effective and sustainable actions that lessen or eliminate risks to life, property, and the environment. Mitigation planning helps communities better prepare for, withstand, and recover from disasters by prioritizing efforts that reduce hazard exposure and build resilience over time. Local governments develop these plans in coordination with stakeholders and residents to ensure the strategies are grounded in local needs and capabilities. An approved HMP is also a prerequisite for certain types of federal funding from the Federal Emergency Management Agency (FEMA).

The City of St. George, Louisiana, incorporated in 2019, is undertaking its first Hazard Mitigation Plan (HMP) as a newly established jurisdiction. Previously part of East Baton Rouge Parish's mitigation planning efforts, St. George has developed an independent, FEMA-compliant plan tailored to its unique geography, population, infrastructure, and vulnerabilities. This plan represents a proactive step to identify risks, prioritize mitigation actions, and improve community resilience to future disasters. It follows FEMA's *Local Mitigation Planning Handbook and Policy Guide*, aiming to reduce long-term risk to people, property, and the environment through sustainable hazard mitigation.

1.2.0 LOCATION INFORMATION AND GEOGRAPHY

St. George is geographically situated in a low-lying region of southeastern Louisiana, bordered by the Mississippi River to the west, Bayou Manchac to the south, and the Amite River to the east. Its northern boundary borders portions of the City of Baton Rouge and other unincorporated areas of East Baton Rouge Parish. The terrain is primarily composed of flat floodplains interspersed with gently rolling uplands. This varied topography is influenced by regional geological features, most notably the Baton Rouge fault, an active growth fault that crosses portions of the city near Tiger Bend Road and Airline Highway. This fault has influenced both drainage patterns and land development decisions across the area.

St. George lies within a humid subtropical climate zone, with long, hot summers and short, mild winters. The city receives an average of 63 inches of precipitation annually, with rainfall peaking during the spring and late summer months. These climatic conditions contribute to recurring localized flooding, particularly in poorly drained or low-elevation areas. Additionally, the city's proximity to the Gulf of America increases its exposure to tropical storms and hurricanes, particularly during the Atlantic hurricane season from June through November. As such, St. George is highly vulnerable to hydrological and meteorological hazards, necessitating proactive mitigation strategies.

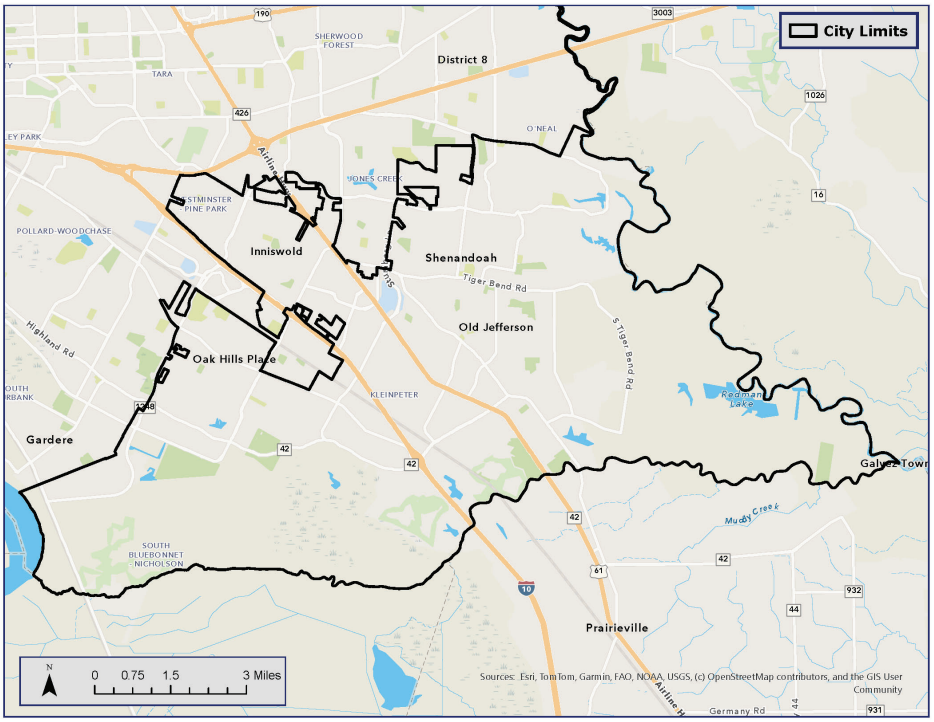

Figure 1: St. George City Limits Map

The city is divided into five municipal districts shown in the map below, each representing a geographic area within the city to ensure fair and balanced representation on the City Council. These districts were established based on population distribution, community characteristics, and natural boundaries such as major roads or waterways. While each district varies in size and land use, they collectively encompass residential neighborhoods, commercial corridors, schools, parks, and key infrastructure. The five districts allow for localized governance and planning, ensuring that the diverse needs and concerns of all areas within St. George are considered in city decisions, including those related to hazard mitigation, public safety, and infrastructure development.

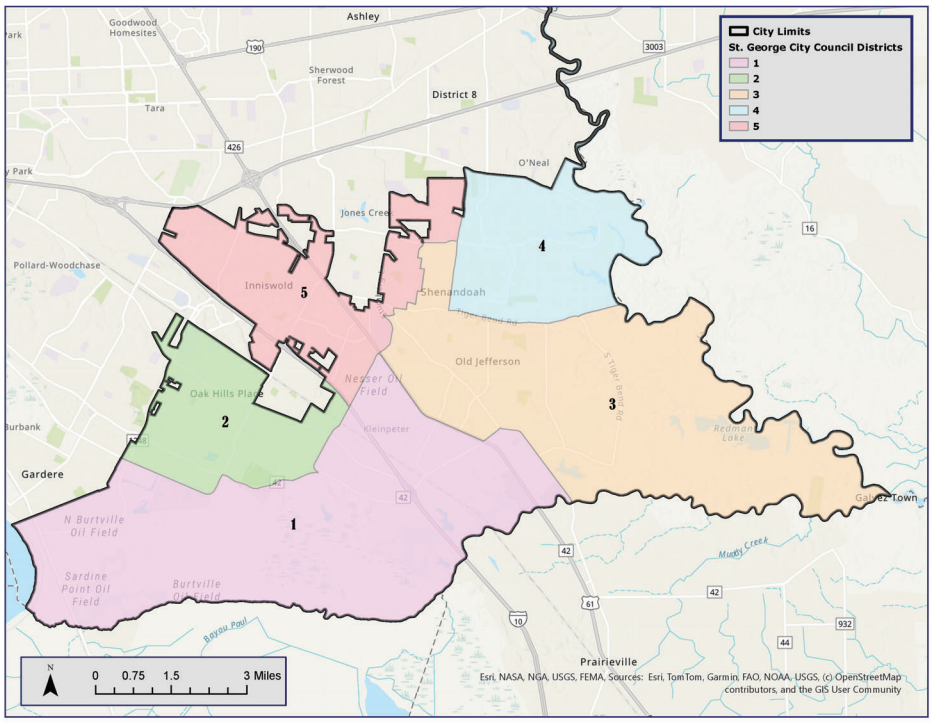

Figure 2: St. George City Council Districts

1.3.0 POPULATION

As of the most recent U.S. Census estimates, the City of St. George has a population of approximately 86,316 residents. This figure is based on aggregated population data from the U.S. Census Bureau's 2020 and American Community Survey (ACS) datasets for the census-designated places and tracts that now comprise the incorporated city.

St. George is currently working with federal and state agencies to be recognized as a Census Designated Place (CDP) in future decennial census updates and American Community Survey (ACS) products. This designation will allow for clearer demographic tracking and the publication of city-specific estimates for population, age distribution, race and ethnicity, disability status, and socioeconomic indicators.

The city is largely composed of established residential communities, and its population is reflective of middle- to upper-middle-income households with high educational attainment and strong labor force participation. The demographic profile is also notable for a large proportion of families with children, and older adult residents.

1.4.0 HOUSING

Housing in St. George is overwhelmingly single-family detached homes, which make up the majority of the city's housing stock. Scattered townhomes, duplexes, and condominiums exist but constitute a smaller portion of the overall housing landscape. The city's neighborhoods are largely suburban in nature, characterized by curvilinear streets, cul-de-sacs, and neighborhood associations.

According to the ACS conducted by the U.S Census Bureau, homeownership rates in St. George are above the state and national averages, reflecting the stability and investment in the community's housing market. Newer subdivisions and Planned Unit Developments (PUDs) have emerged particularly in Districts 3, 4, and 5, reflecting recent population growth and ongoing residential development. These areas often include stormwater detention features, modern drainage infrastructure, and updated building codes, making them relatively more resilient to flooding than older neighborhoods.

Despite this growth, some older neighborhoods may face challenges such as aging infrastructure, repetitive flood loss risks, or development patterns that predate modern floodplain management standards. Hazard mitigation efforts must prioritize identifying housing clusters with flood exposure, building in redundancy, and supporting elevation or retrofit programs where feasible.

1.5.0 LAND USE AND INFRASTRUCTURE

The city follows a suburban development pattern with low- to medium-density housing. Commercial corridors align with major transportation routes like Interstate 10 and Airline Highway. The city currently receives law enforcement support from the East Baton Rouge Sheriff's Office, while the Louisiana State Police provide coverage on state highways. The city has contracted with a third-party provider, On Scene Traffic Control, for traffic control services. This contract provides patrolling each day from 7AM to 7PM, handling lower priority traffic incidents such as flat tires, fender benders, or anything else where law enforcement expertise and certification are not necessary. Fire protection and emergency medical services are provided by the St. George Fire Protection District, a highly rated agency that operates several stations across the city, and the East Side Fire Protection District. The department is known for its proactive community education and engagement efforts, including programs that support fire prevention and disaster preparedness.

Transportation and stormwater infrastructure are ongoing priorities, especially to mitigate frequent urban flooding linked to inadequate drainage and aging systems. Transportation and stormwater infrastructure are ongoing priorities, especially to mitigate frequent urban flooding linked to inadequate drainage and aging systems.

1.5.0a Residential Development: Most districts feature established residential subdivisions with a strong emphasis on single-family housing. Planned Unit Developments (PUDs), townhomes, and condominiums are present, particularly in Districts 3 and 4, offering a variety of housing types to meet community needs. Master-planned communities with integrated amenities, such as parks, recreational facilities, and community centers, are common in Districts 4 and 5, reflecting a focus on cohesive neighborhood planning and high livability standards.

1.5.0b Commercial Activity: Commercial development in St. George is primarily concentrated along major arterial corridors, including Bluebonnet Boulevard, Jefferson Highway, Perkins Road, Highland Road, and Old Jefferson Highway. These corridors support retail centers, professional offices, dining establishments, and service-oriented businesses that serve both local residents and regional visitors. While commercial uses are limited in some districts, they are strategically located to ensure accessibility without disrupting the residential fabric.

1.5.0c Green Space and Natural Features: The city is interspersed with dedicated parks, community green spaces, golf courses, and scenic water bodies. These elements not only enhance the aesthetic and environmental value of the area but also provide recreational opportunities for residents. Several districts, particularly Districts 1, 2, and 5, include tracts of undeveloped land and natural features that contribute to the city's semi-rural and suburban character.

1.5.0d Zoning and Land Use Patterns: Zoning across St. George generally supports low- to medium-density development, with thoughtful integration of commercial nodes and recreational assets. The land use patterns reflect a balance between growth and preservation, prioritizing residential livability, access to amenities, and the protection of natural landscapes.

As illustrated in the *Land Use by District* chart, residential land use dominates across all five municipal districts, consistently making up the majority of land area. Commercial development is relatively uniform, comprising a smaller but strategic portion of each district, while green space and undeveloped land vary more widely. Districts 2 and 3 show slightly higher proportions of green space, suggesting opportunities for recreational development or conservation. District 5 features the most undeveloped land, indicating potential for future growth or targeted mitigation efforts. In sum, St. George's current land use profile showcases a predominantly residential community with well-placed commercial corridors, abundant green space, and a deliberate planning approach that emphasizes quality of life, connectivity, and long-term sustainability.

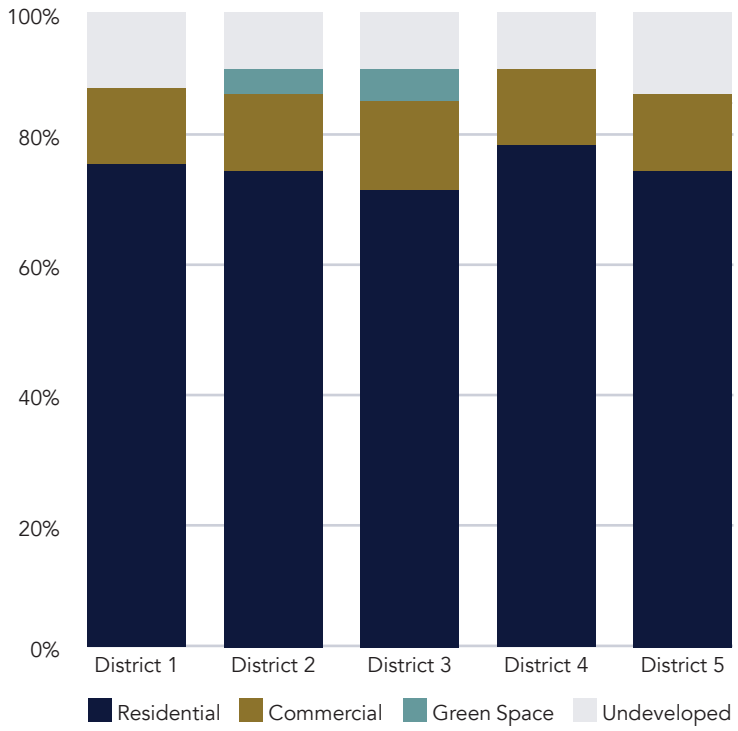

Figure 3: Land Use by District

1.6.0 COMMUNITY DEVELOPMENT AND DEVELOPMENT TRENDS

The City of St. George has experienced consistent residential and commercial development, driven in part by its desirable location within East Baton Rouge Parish and proximity to major transportation corridors. Much of the city's growth has occurred in formerly unincorporated suburban areas, where low-density subdivisions, retail centers, and institutional uses have expanded alongside infrastructure extensions. As population and development pressures increase, St. George continues to see demand for new housing, schools, and commercial amenities to serve both longtime residents and newcomers.

Large portions of undeveloped and semi-rural land remain within the city limits, offering opportunities for continued growth. However, the pattern and pace of this development must be carefully managed to avoid increasing community exposure to natural hazards, particularly flooding. Significant areas of the city fall within FEMA-designated Special Flood Hazard Areas (SFHAs), including regions near Bayou Manchac, Ward Creek, Amite River, Clay Cut Bayou, and associated tributaries. These flood-prone zones limit where new construction can safely occur without elevating long-term flood vulnerability or burdening the city's stormwater infrastructure.

By proactively aligning community development with hazard mitigation priorities, St. George can support sustainable expansion while reducing long-term risk, preserving quality of life, and positioning itself for future resilience funding opportunities.

1.7.0 HISTORIC, NATURAL/ENVIRONMENT AND CULTURAL RESOURCES

The City of St. George has experienced consistent residential and commercial development, driven in part by its desirable location within East Baton Rouge Parish and proximity to major transportation corridors. Much of the city's growth has occurred in formerly unincorporated suburban areas, where low-density subdivisions, retail centers, and institutional uses have expanded alongside infrastructure extensions. As population and development pressures increase, St. George continues to see demand for new housing, schools, and commercial amenities to serve both longtime residents and newcomers.

1.7.0a Natural Features Within City Limits: The city's southern boundary is defined by Bayou Manchac, a vital natural feature that functions as a drainage outlet and buffer against flood hazards. Along this corridor is Bayou Manchac Park, a Recreation and Park Commission for the Parish of East Baton Rouge (BREC) managed greenspace that provides passive recreational opportunities and contributes to stormwater retention and erosion control.

The Bayou Fountain blueway system, which connects to Bayou Manchac, offers managed waterway access within the city, supporting ecological connectivity and low-impact recreation such as paddling and birding.

St. George also benefits from a broad network of BREC-managed parks and greenways, including Highland Road Community Park, neighborhood parks, and wooded corridors that reduce surface runoff, protect watersheds, and expand the urban tree canopy. These spaces play an important role in climate adaptation, offering cooling benefits and air quality improvements, while also serving as community gathering places.

A key natural asset within the city is the Kendalwood Conservation Area, an 85-acre BREC preserve located along Bayou Manchac. This area features primitive hiking trails, wildlife habitat, and interpretive amenities that support nature-based education, biodiversity, and flood resilience. As one of the largest dedicated natural areas within St. George, Kendalwood enhances both ecological function and passive hazard mitigation.

Preserving and strategically enhancing these green infrastructure assets will be critical to minimizing hazard exposure, maintaining quality of life, and supporting the city's overall resilience goals.

1.7.0b Historic and Cultural Resources: According to the Louisiana State Historic Preservation Office (SHPO) St. George includes several sites of local and regional historical significance that reflect the area's settlement patterns, architectural history, and cultural evolution. Within the city limits, notable sites include: Ory House, Santa Maria Plantation, Old Hickory Lodge site. Each of these properties represents a different chapter in the region's heritage, from agricultural origins to early suburban development, and may offer future opportunities for historic preservation, education, or adaptive reuse that align with post-disaster recovery objectives.

The Jefferson Highway corridor, one of the first transcontinental highway routes in the U.S., passes through St. George and remains both a functioning roadway and cultural landmark. This corridor should be considered in transportation and evacuation planning, particularly as the city evaluates infrastructure improvements and hazard mitigation investments.

In addition to these named sites, several National Register-eligible and listed properties are located within the city's boundaries. These locations contribute to a layered cultural landscape and underscore the importance of integrating preservation goals into local planning and development review processes.

As the City of St. George updates its zoning ordinances, capital improvement plans, and hazard mitigation strategies, these resources will be prioritized as essential components of a resilient, adaptive community.

1.8.0 COMMERCE, INDUSTRY AND ACADEMIA

The City of St. George benefits economically from its proximity to Baton Rouge, which serves as the region's economic, educational, and governmental hub. While St. George is predominantly residential and suburban in character, its location near key institutions such as hospitals, universities, and state agencies contributes to a diversified and resilient local workforce.

The commercial landscape within the St. George city limits consists primarily of retail centers, small professional offices, medical clinics, and service-based businesses concentrated along corridors such as Highland Road, Airline Highway, and Old Jefferson Highway. These businesses provide essential services and local employment, and their continuity is vital during and after hazard events.

St. George's residents are heavily employed in the healthcare, education, construction, and professional services sectors. Although most large employers are located outside the city boundary, particularly in Baton Rouge, the workforce is highly mobile and regionally connected. Educational attainment and income levels in St. George exceed regional averages, reflecting a skilled and professional population that supports small business growth and economic stability.

There are no large industrial or manufacturing facilities within the city limits of St. George. Industrial activity and critical infrastructure, such as refineries, chemical processing facilities, rail terminals, and port operations are concentrated in the Baton Rouge industrial corridor.

1.8.0a Academic Institutions and Workforce Development: Although no four-year universities are located within the City of St. George, the area is home to several technical and vocational institutions that support local workforce development and resilience-building. These include:

- **ITI Technical College,** located on Airline Highway within the St. George area, offers hands-on training in technical fields such as HVAC, electrical technology, drafting, and information technology, supporting disaster recovery and infrastructure readiness.
- **Bethany College,** also located in the St. George area, provides postsecondary education focused on religious and community leadership, contributing to local capacity-building and social cohesion.

Just outside the city limits, the Baton Rouge metropolitan area offers additional academic resources that are integral to regional preparedness:

- **Louisiana State University (LSU) –** The state's flagship public research university, with programs in environmental science, engineering, disaster resilience, and public policy.
- **Southern University and A&M College –** A public university with strong offerings in STEM fields, education, and social work.
- **Baton Rouge Community College (BRCC) –** A major provider of workforce development and technical education, including programs in construction, public safety, and emergency response.
- **Franciscan Missionaries of Our Lady University (FMOLU) –** Specializing in health sciences, including nursing, medical imaging, and allied health professions.

While these institutions fall outside the formal municipal boundary, they serve as key partners in training the local workforce, advancing emergency planning research, and supporting disaster response efforts. Their facilities and personnel could potentially serve as mutual aid assets in a disaster, through use as shelters, training centers, or emergency coordination hubs.

St. George's resilience depends on protecting small business corridors, maintaining access to employment centers, and minimizing disruptions to critical services. Coordination with local institutions for job training, technical certification, and continuity planning will remain vital in strengthening community preparedness. Furthermore, collaboration with Baton Rouge's academic and economic networks is essential to ensuring that emergency response strategies are comprehensive and well-integrated across jurisdictional lines.

1.9.0 NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION & COMMUNITY RATING SYSTEM (CRS) PARTICIPATION

1.9.1 CURRENT NFIP STATUS: As of this plan's finalization, the City of St. George has submitted its application to join the National Flood Insurance Program (NFIP) and is awaiting formal approval from FEMA. While not yet an official NFIP participant, much of the city includes neighborhoods located within Special Flood Hazard Areas (SFHAs), as designated on FEMA's Flood Insurance Rate Maps (FIRMs). In anticipation of approval, the city has adopted compliant floodplain management regulations and designated a certified Floodplain Administrator.

1.9.2 PATH TOWARD NFIP PARTICIPATION: The hazard mitigation plan outlines the city's strategy for achieving NFIP eligibility and participation. Upon approval, residents and property owners will gain access to federally backed flood insurance, disaster recovery assistance, and mitigation grant opportunities. The city's adoption of local floodplain ordinances demonstrates full alignment with FEMA's minimum NFIP requirements and a commitment to managing flood risk through sound development practices.

1.9.3 EXPLORATION OF CRS PARTICIPATION: St. George is concurrently pursuing entry into FEMA's Community Rating System (CRS), leveraging its early mitigation planning and outreach efforts to qualify for premium discounts and enhanced flood risk management tools. The city has begun initiating several CRS-qualifying activities, including maintaining elevation certificates, delivering public outreach on flood risk and insurance, protecting open space in flood-prone areas, and working towards adopting regulations that exceed NFIP minimums.

1.9.4 INTEGRATION WITH BROADER PLANNING EFFORTS: Floodplain management strategies are being developed in concert with the city's comprehensive planning framework, including its stormwater master plan, zoning code, and capital improvement priorities. This integration ensures that flood mitigation is not isolated but embedded in the city's long-term vision for sustainable growth and infrastructure resilience.

1.9.5 COMMUNITY ENGAGEMENT AND PUBLIC EDUCATION: Public education is a cornerstone of both NFIP and CRS participation. The City of St. George has conducted early outreach through stakeholder meetings, community briefings, and informational materials to raise awareness about local flood risks and the benefits of NFIP enrollment. These efforts will continue and expand following program acceptance to ensure residents understand their responsibilities under the NFIP and how they can reduce premiums through mitigation.

1.9.6 DUAL APPLICATION STRATEGY AND TIMELINE: St. George is taking a proactive, dual-track approach by simultaneously pursuing both NFIP and CRS enrollment uncommon but forward-thinking strategy that demonstrates the city's leadership in floodplain management. Rather than waiting for NFIP acceptance before initiating CRS efforts, the city aligned its ordinance updates, documentation protocols, and outreach activities to meet the requirements for both programs.

With the recent issuance of a Community ID (#220134) and the completion of FEMA's Community Assistance Visit, the City of St. George has effectively met the requirements for NFIP participation and is awaiting formal confirmation, expected within the week. This milestone will open access to federally backed flood insurance and additional mitigation resources for residents and businesses. While CRS participation remains a goal, FEMA has indicated potential entry dates between October 2025 and April 2026, and the city's application is still under review. In the meantime, St. George will continue advancing floodplain management activities, public outreach, and regulatory enhancements to strengthen its standing for CRS approval. These coordinated efforts reflect the city's long-term commitment to reducing flood risk, improving insurance affordability, and building community resilience.

2.0.0 PLANNING PROCESS

PURPOSE, OVERVIEW AND BACKGROUND

- The 2025 City of St. George Hazard Mitigation Plan (HMP) was developed through a collaborative effort coordinated by the City of St. George, the St. George Fire Protection District, and the All-Hazard Mitigation Plan Planning Committee (Planning Committee). This process involved active collaboration with community stakeholders and the general public.
- The city's established planning committee conducted multiple meetings to oversee the development of the plan, ensuring it accurately reflected the needs and input of the entire community. The final plan was then submitted for local adoption.

2.1.0 BUILDING SUPPORT: COMMUNITY INVOLVEMENT, ROLES AND RESPONSIBILITIES

2.1.1 THE PLANNING TEAM, CONSULTANT AND LOCAL LEADERSHIP: The planning process officially launched in March 2025 and proceeded through five structured committee meetings, ending in July 2025 with public review and final plan refinement. Each phase of the process—risk assessment, strategy development, public input, and plan drafting—was scheduled to build upon the previous step, allowing the committee to make informed decisions grounded in local conditions and community priorities.

The planning timeline included the following key activities:

- Initial project scoping and kickoff
- Hazard identification and risk assessment using local data and GIS analysis
- Evaluation of existing capabilities and community assets
- Development and refinement of mitigation strategies
- Public outreach and stakeholder engagement (including surveys)
- Internal and public review of the draft plan
- Coordination for final plan adoption

The Planning Committee played a central role in shaping the HMP's content and priorities. Their participation included attending committee meetings, contributing data and local expertise, reviewing drafts, and engaging with the public. The Planning Committee is composed of the following members:

COMMITTEE MEMBER TITLE	JURISDICTION
Chief of Special Operations	St. George Fire District
Chief of Police	City of St. George
Chief of Operations	St. George Fire District
City Engineer	City of St. George
Building Official	City of St. George
Emergency Manager	St. George Fire District
Emergency Manager	St. George Fire District

Figure 4: Planning Committee Titles and Jurisdiction

Members of the Planning Committee were actively engaged throughout the planning process, contributing their expertise, facilitating coordination across departments, and ensuring the plan reflected local needs and priorities. Their participation encompassed the following responsibilities:

- Attending and participating in the planning committee meetings;
- Providing available data to support the plan;
- Reviewing and providing comments on the plan drafts;
- Collecting and providing other requested data (as available);
- Managing administrative details;
- Making decisions on plan process and content;
- Identifying mitigation actions for the plan;
- Reviewing and providing comments on plan drafts;
- Informing the public, local officials, and other interested parties about the planning process, and providing opportunity for them to comment on the plan;
- Coordinating, and participating in the public input process; and
- Coordinating the formal adoption of the plan by the governing boards.

PLANNING COMMITTE MEETINGS

The Planning Committee meetings followed a logical progression aligned with FEMA's planning process and provided a forum for collaboration, data sharing, and decision-making. Each session focused on a key component of the plan—from project initiation and risk assessment to strategy development and final review—ensuring a thorough, transparent, and inclusive planning process as described below.

PLANNING COMMITTEE MEETINGS	MEETING TOPIC	MEETING DATES
1	Project Kickoff and Planning Process	March 26, 2025
2	Risk Assessment Summary/Goals Development	May 7, 2025
3	Mitigation Strategy Development	May 21, 2025
4	Mitigation Action Workshop	June 4, 2025
5	Draft Plan Review	July 2, 2025

Figure 5: Planning Committee Meetings

PLANNING COMMITTEE MEETING #1 - Kickoff and Planning Process Meeting: The planning process for the City of St. George Hazard Mitigation Plan (HMP) officially commenced with a virtual kickoff meeting held on March 26, 2025. This meeting brought together key departments and stakeholders to initiate the development of the HMP. The purpose of the meeting was to introduce the scope and objectives of the mitigation planning process, outline the roles and responsibilities of Planning Committee members, and review the proposed project work plan and schedule.

Additional agenda items included identifying potential stakeholders, establishing a strategy for public involvement, and coordinating with relevant agencies and departments. The meeting concluded with an initial discussion on the process for identifying and assessing local hazards.

PLANNING COMMITTEE MEETING #2 - Risk Assessment: The second Planning Committee meeting for the City of St. George Hazard Mitigation Plan focused on advancing the hazard identification and risk assessment process. The discussion centered on leveraging GIS tools to enhance spatial analysis of local hazards, including flood-prone areas, stormwater conveyance limitations, and areas where traditional mapping may underrepresent risk.

Committee members reviewed potential data sources and mapping approaches to better capture hidden or emerging risks, particularly in flood zones not currently classified as high risk. The use of real-time data and dynamic mapping tools was discussed as a way to improve situational awareness and future planning capabilities.

Additional hazard considerations were raised, including the presence of wildfire risks in rural-urban interface areas, dam-related hazards just outside city boundaries, and facilities storing or transporting hazardous materials. The Fire District and other partners offered to support data sharing to strengthen the risk assessment.

Stakeholder engagement was also discussed, with plans to follow up on survey responses to ensure broad input into the hazard identification process.

PLANNING COMMITTEE MEETING #3 - Mitigation Strategy Development: The third Planning Committee meeting for the City of St. George Hazard Mitigation Plan focused on developing a comprehensive mitigation strategy based on the previously completed risk assessment. Committee members reviewed the finalized Capability Assessment, which evaluated the city's current policies, programs, and resources available to support hazard mitigation efforts.

Participants discussed how to integrate mitigation into daily operations such as land use planning, building permitting, and infrastructure investments. A series of sample mitigation actions were presented for various hazards, including flooding, tornadoes, tropical cyclones, and wildfires, to guide local strategy development. These examples provided a framework for identifying locally appropriate and feasible mitigation measures.

The group began drafting custom mitigation actions tailored to the City of St. George, emphasizing goals such as reducing repetitive loss properties, strengthening public facilities, and enhancing emergency warning systems. Discussion also included responsible parties, potential funding sources, and implementation timelines. Committee input gathered during this session would serve as the foundation for building the city's mitigation action plan.

PLANNING COMMITTEE MEETING #4 - Mitigation Action Workshop: The fourth Planning Committee meeting built upon the draft mitigation strategies by conducting a focused workshop to refine, prioritize, and finalize the City of St. George's mitigation actions. Committee members reviewed the proposed actions for each identified hazard, ensuring alignment with the city's goals, community vulnerabilities, and existing capabilities.

The workshop emphasized the importance of feasibility, cost-effectiveness, and long-term benefits in selecting actions. Members discussed opportunities to leverage partnerships with public works, utilities, emergency management, and local organizations to enhance implementation success.

The group also reviewed feedback from the public survey and previous stakeholder engagements to ensure community needs and perspectives were reflected in the final mitigation strategy. A timeline was established for integrating committee input into the draft plan, with a target of presenting the draft to the public during the upcoming July meetings. The committee concluded by outlining next steps for internal review and confirming the pathway for final plan adoption.

PLANNING COMMITTEE MEETING #5 - Draft Plan Review: The fifth and final Planning Committee meeting was held on July 2, 2025, to review the complete draft of the City of St. George Hazard Mitigation Plan prior to public release and adoption. The consultant team presented a summary of the full document, highlighting key findings from the risk assessment, priority mitigation actions, and community engagement results.

Committee members provided feedback on the structure, clarity, and accuracy of the plan's content, with particular attention to hazard-specific strategies, implementation timelines, and roles for city departments. The group also discussed how to present the plan to elected officials and the public, and finalized the schedule for public comment and formal adoption. This meeting marked the transition from plan development to implementation readiness and reinforced the city's commitment to long-term risk reduction and resilience.

2.1.2 THE ROLE OF THE CONSULTANT: METRIC CONSULTING, LLC: The city partnered with Metric Consulting, LLC, a disaster recovery and emergency management firm with over three decades of experience in FEMA-compliant planning and stakeholder engagement, to create the HMP. As the project's lead consultant, Metric facilitated the planning process by coordinating with city leadership, the Fire Protection District, and key departments to organize Planning Committee meetings, assist with the development and presentation of meeting materials, and structure the overall project timeline. Metric provided technical expertise in risk assessment, mitigation strategy development, and stakeholder coordination, and played a central role in designing and executing the city's public outreach campaign. This included working closely with the city's Public Information Officer to support inclusive, accessible community engagement across multiple platforms, ensuring public input was meaningfully integrated into the plan. Throughout the process, Metric provided logistical and strategic support, helping to build a transparent, participatory planning framework that will serve as the foundation for St. George's long-term resilience.

2.1.3 MULTI-JURISDICTIONAL PARTICIPATION: This Hazard Mitigation Plan is a single-jurisdiction plan developed solely for the City of St. George, Louisiana. While the planning process engaged various internal departments and local stakeholders, including the St. George Fire District and public safety officials, the plan does not include participation from other independent jurisdictions such as neighboring municipalities, parishes, or regional authorities.

As such, this is not a multi-jurisdictional plan under FEMA's definition. All risk assessments, capability evaluations, and mitigation actions are specific to the City of St. George. The city remains the sole entity responsible for adopting and implementing the plan, and will be the only jurisdiction eligible for FEMA mitigation funding based on this plan's approval and adoption.

However, although this plan is not multi-jurisdictional, the city actively coordinated with external entities throughout the planning process. The planning committee engaged both public and private sector partners, including local businesses, healthcare providers, and critical infrastructure stakeholders. These collaborations focused on: (1) sharing resources; (2) coordinating risk reduction efforts; (3) ensuring the continuity of essential services; and (4) promoting community resilience. This regional coordination strengthens the city's mitigation approach and supports broader efforts to reduce risk and enhance preparedness across jurisdictional boundaries.

2.1.4 STAKEHOLDER ENGAGEMENT: The plan development process requires input from a broad range of stakeholders, including community members, local government agencies, first responders, emergency management personnel, and other relevant groups. Effective engagement ensures that the plan is comprehensive, inclusive, and addresses the needs and concerns of all stakeholders.

The following stakeholder groups were engaged throughout the HMP development process to meet the requirements of 44 CFR Part 201.6(b)(2) Local Mitigation Plans:

TITLE	STAKEHOLDER GROUP
Mayor	City of St. George
Councilman	St. George City Council District 1
Councilman	St. George City Council District 2
Councilman	St. George City Council District 3
Councilwoman	St. George City Council District 4
Councilman	St. George City Council District 5
City Clerk	St. George City Council
Government Relations	Entergy
Public Affairs Manager	DEMCO
Operations Supervisor	ATMOS
Executive Director	Red Cross
District Representative	EBR School District 6
District Representative	EBR School District 7
District Representative	EBR School District 8
District Representative	EBR School District 9
Public Assistance Co	Louisiana GOHSEP
Executive Director	Amite River Basin Commission
Services Manager	Baton Rouge Water
Executive Manager	EBR Comms District
EPS Supervisor Region 1	Elderly Protective Services
EPS Supervisor Regions 2 & 3	Elderly Protective Services

Figure 6: Stakeholder Groups

METHOD OF ENGAGEMENT	DATE	RESPONSIBLE PARTIES	OUTCOMES
Stakeholder Identification	March 5, 2025	HMP Planning Committee	Identify and prioritize stakeholder groups
Stakeholder Kickoff Meeting	April 9, 2025	HMP Planning Committee	Launch engagement process, define roles
Stakeholder Survey	April 9, 2025 - May 21, 2025	Planning Committee, Consultant	Gather initial community input
Public Meetings	March 25, 2025 May 13, 2025 July 22, 2025	City of St. George, Planning Team	Open forums for feed back and suggestions
Final Draft Review and Feedback	July 14, 2025 - August 1, 2025	All Stakeholders	Circulate draft, gather final comments
Final HMP Submission to FEMA	Anticipated submission date - August 27, 2025	Planning Committee	Submission for FEMA review and approval

Figure 7: Method of Engagement Schedule

2.1.4a METHODS OF ENGAGEMENT

The development of the HMP involved active participation from a diverse group of stakeholders representing both local and regional interests. These stakeholders played a critical role in identifying hazards and vulnerabilities, assessing risks, and formulating mitigation strategies to enhance community resilience. The chart above details the method of engagement schedule.

To initiate the engagement process, a kickoff meeting was held to introduce stakeholders to the purpose, objectives, and timeline of the HMP, establishing a foundation for continued collaboration. Following this initial meeting, stakeholders remained actively engaged by participating in a series of public meetings designed to promote open dialogue among residents, community leaders, and other interested parties. These meetings served as a forum for sharing concerns, contributing local knowledge, and suggesting potential mitigation measures, helping to ensure the planning process was inclusive and responsive to community needs.

Stakeholder and public input were further gathered through online surveys, which were distributed via targeted emails, social media, the city's website, and in person to maximize outreach and engagement. The surveys provided an accessible platform for individuals to share their perspectives on community hazards and priorities, helping to ensure broad and inclusive participation.

To gain deeper insights, members of the planning committee also engaged in one-on-one and small group discussions with key stakeholders. These personalized interactions allowed for more detailed input and helped ensure that the unique needs and viewpoints of various community sectors were fully considered in the plan's development.

Overall, this comprehensive engagement strategy ensured that the St. George HMP was informed by a wide range of perspectives and rooted in the needs of the community it serves.

2.1.4b Non-Profit and Educational Partners

As part of the stakeholder engagement process, the Planning Committee collaborated with non-profit organizations and educational institutions to inform the development of a comprehensive and community-centered Hazard Mitigation Plan. Non-profit partners—including the Cajun Navy, Junior League of Greater Baton Rouge, Capital Area United Way, Healthy Blue, The Safety Place, and the Louisiana Firefighters Foundation—offered critical insight into community vulnerabilities, resource gaps, and response capabilities. These organizations play a vital role in supporting at-risk populations, mobilizing volunteers, delivering health services, and promoting safety and resilience at the grassroots level. Their contributions are especially valuable in planning for equitable recovery and in identifying mitigation actions that protect socially vulnerable groups.

Educational partners, including representatives from public school districts, private schools, and day care centers, were also engaged to ensure the safety and preparedness of children and educational facilities. These stakeholders provided important feedback on evacuation protocols, building safety, and continuity planning for academic operations during hazard events. Their involvement ensures that mitigation strategies account for the unique needs of school-aged children and support safe learning environments across the city. By working with both nonprofit and educational partners, the Planning Committee has ensured that the mitigation strategy reflects a broad, inclusive view of community needs and enhances the city's ability to reduce risk through coordinated, locally informed actions.

2.1.5 STAKEHOLDER SURVEY SUMMARY AND VULNERABILITY ANALYSIS: To inform the development of the HMP, a targeted Stakeholder Survey was conducted to gather professional insights into local hazard vulnerabilities, institutional capacity, mitigation barriers, and risk reduction priorities. Aligned with FEMA's Local Mitigation Planning Policy Guide, this effort engaged key representatives across emergency management, utilities, public health, education, public works, and city governance. Their contributions help shape technically feasible, community-supported actions for long-term resilience.

- Emergency Management & Fire Services (St. George Fire Department, GOHSEP)
- Law Enforcement and State Agencies (Louisiana State Police)
- Utilities and Infrastructure (Entergy Louisiana, DEMCO)
- Education (East Baton Rouge Parish School System)
- City Leadership and Planning (City Council, Floodplain Administrator, Chief Building Official)

The survey's 10 respondents represented a wide range of critical sectors and agencies, including:
As seen in the chart below, roles ranged from Council Members and Emergency Managers to Public Affairs and Community Relations officers, reflecting both operational and administrative viewpoints

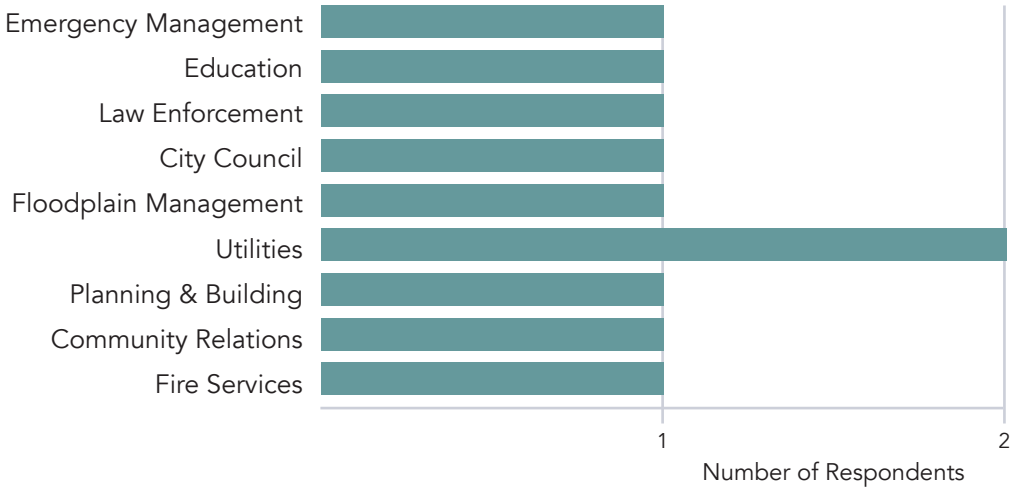

Figure 8: Stakeholder Role Representation

2.1.5a Hazard Perception and Vulnerability Scoring

Participants assessed key hazards based on their likelihood, potential impact, and the city's vulnerability. Each criterion was scored on a 1–5 scale. Composite vulnerability scores helped prioritize the city's most pressing risks.

As shown in the Hazard Vulnerability Score table to the right, flooding received the highest composite score (15), identifying it as the most severe threat. Tropical cyclones and tornadoes followed closely, emphasizing the importance of wind-related and water-related mitigation. Hazards with lower scores, such as drought or wildfires, while still important, may be addressed through long-term resilience planning.

HAZARD	LIKELIHOOD	IMPACT	VULNERABILITY	TOTAL SCORE
Flooding	5	5	5	15
Tropical Cyclones	4	4	4	12
Tornadoes	4	4	3	11
Sever Storms	4	3	3	10
Pandemic/Epidemic	3	3	3	9
Winter Weather	3	3	2	8
Extreme Heat	2	2	2	6
Levee Failure	1	3	2	6
Drought	2	2	1	5
Wildfires	1	2	1	4
Earthquakes	1	2	1	4

Figure 9: Hazard Vulnerability Score

The chart below displays the Hazard Vulnerability Scores for each hazard, based on three criteria: Likelihood, Impact, and Vulnerability (each scored from 1 to 5). The resulting totals and analysis below help prioritize hazards for mitigation planning in the city:

- Flooding is the highest-scoring hazard with a composite score of 15, indicating it is the most frequent, impactful, and the community is highly vulnerable to it.
- Tropical Cyclones and Tornadoes also score highly, with totals of 12 and 11, respectively, reflecting significant wind-related risks.
- Severe Storms, Pandemics, and Winter Weather follow closely, suggesting these are important to address in planning and outreach strategies.
- Hazards such as Wildfires, Levee Failure, and Earthquakes scored lower, reflecting either low historical occurrence or limited current exposure.

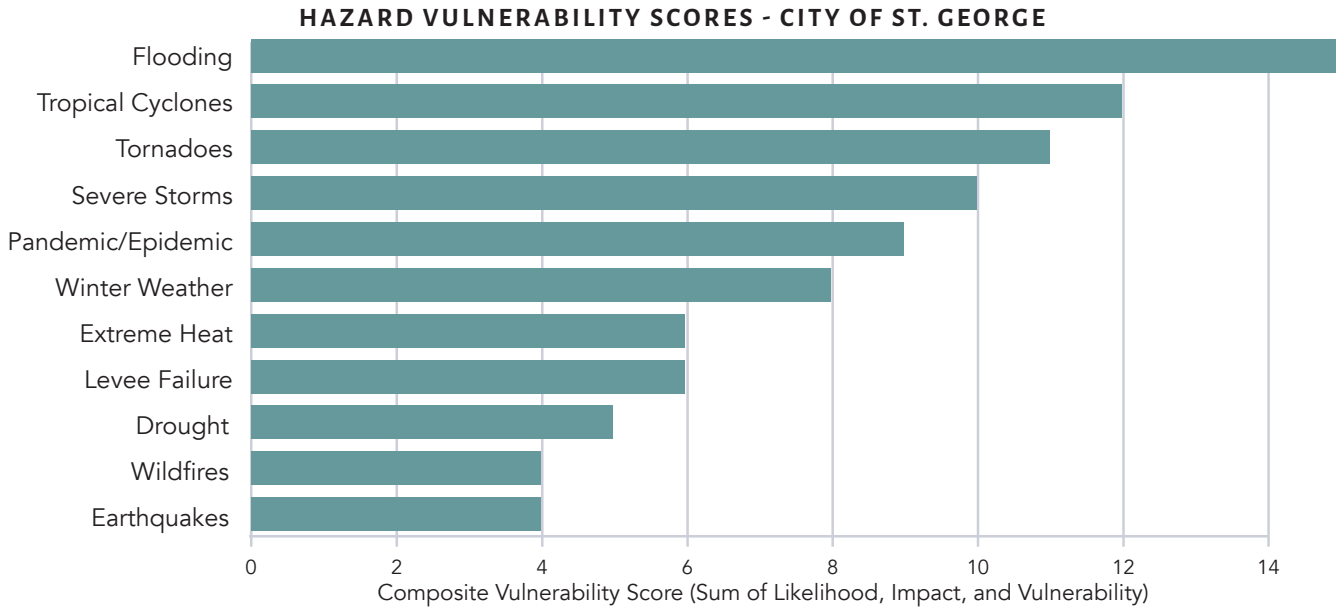

Figure 9: Hazard Vulnerability Scores for each Hazard

2.1.5b Emergency Preparedness Observations

Stakeholders rated preparedness between 3 and 4 out of 5, noting strengths in interagency coordination, integration of Incident Management Teams (IMTs), and proactive leadership. Gaps included staffing shortages, lack of continuity planning for elder care facilities, and the need for a full-time emergency management coordinator to unify citywide efforts.

2.1.5b Implementation Barriers

The top cited barriers included limited funding, insufficient staffing, fragmented departmental roles, and the absence of formalized emergency structures as a newly incorporated city. These constraints must be addressed to realize comprehensive mitigation.

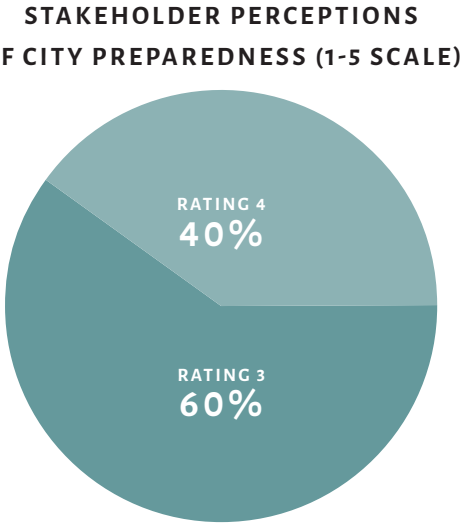

Figure 10: Stakeholder Perceptions of City Preparedness

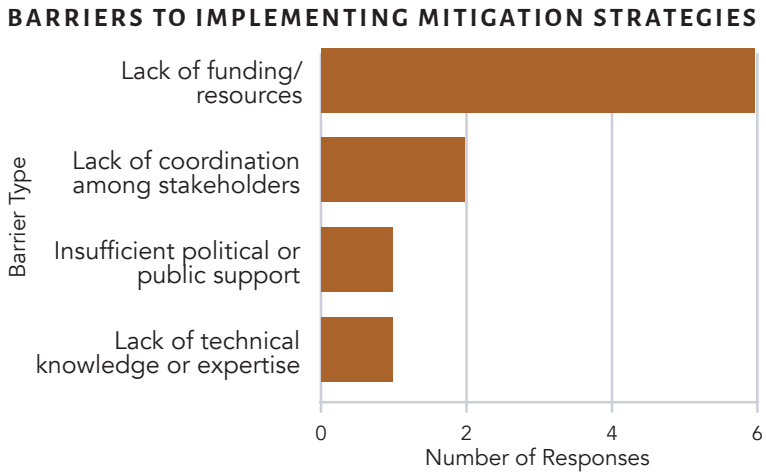

Figure 11: Barriers to Implementing Mitigation Strategies

2.1.5c Stakeholder Mitigation Strategy Recommendations

Through a collaborative planning process, stakeholders identified a wide range of strategies to strengthen the City of St. George's ability to withstand and recover from future hazards. These strategies reflect local priorities, align with the city's capabilities, and address both immediate vulnerabilities and long-term resilience. Recommendations are organized into four key focus areas:

Infrastructure and Flood Control

- Targeted drainage upgrades and localized flood mitigation projects
- Stormwater system retrofits and maintenance
- Road stabilization and resilient building retrofits

Emergency Services and Coordination

- Generator fuel contracts and backup systems for elder care and hospitals
- Expanded training, tabletop, and functional exercises
- Dedicated Emergency Management Coordinator role for oversight and documentation

Public Engagement and Equity

- Community preparedness mailers, magnets, and safety materials
- Town halls, workshops, and website/social media updates
- Partnerships with HOAs and volunteer task forces

Planning and Institutional Resilience

- Resilience planning across departments (economic, infrastructure, housing)
- Fire-safe housing design guidance in high-density neighborhoods
- Continuity plans for utility coordination and communication networks
- These strategies represent a comprehensive, community-driven approach to mitigation and resilience-building that will guide future actions and investments.

2.1.6 PUBLIC ENGAGEMENT: The public outreach strategy was designed to meaningfully engage residents, raise awareness of local hazards, and integrate community knowledge into the planning process. The overarching goals of this strategy were to inform the public about the purpose and development of the HMP, encourage participation in hazard identification, and solicit input for the formulation of locally appropriate mitigation strategies. Conducted between March 25, 2025 and July 22, 2025 the outreach process adhered to all relevant federal requirements established in 44 CFR §201.6(b) and §201.6(c)(1). These requirements emphasize the importance of public involvement in hazard mitigation planning, recognizing that a plan developed with active community participation is more likely to be effective, equitable, and broadly supported.

To meet these objectives, the Planning Committee conducted a comprehensive review of potential outreach methods at the beginning of the planning process. Based on this review, the Committee adopted a consensus-based public participation strategy that sought to maximize transparency, inclusivity, and accessibility. This strategy was executed with the support of the city's community outreach and communications team and coordinated through the city's Public Information Officer, who played a central role in crafting and disseminating consistent messaging to the public. The multifaceted approach included a combination of public meetings, online platforms, social media engagement, and targeted community initiatives to ensure that all residents, regardless of age, ability, socioeconomic status, or location had the opportunity to contribute to the development of the HMP.

2.1.6a Communication Strategies

A comprehensive communication strategy was implemented throughout the development of the HMP to promote transparency, foster public engagement, and ensure that stakeholders and community members remained informed and involved at every stage of the planning process.

To reach a broad and diverse audience, the Planning Committee employed multiple communication channels to disseminate information and encourage participation. Regular email updates were distributed to stakeholders and interested residents, providing timely information on meeting schedules, project milestones, and opportunities for public input.

COMMUNICATION STRATEGIES	OUTCOMES	DATES
Public Meeting #1 Kick-Off Meeting	Overview of mitigation planning and plan update process; introduction to hazards and risk assessment; mitigation goals and objects.	March 25, 2025 6:00 P.M. CST (The meeting was scheduled after the City Council meeting to attract a larger crowd)
Public Meeting #2 Midway Progress Meeting	Overview of draft plan; solicitation of feedback.	May 13, 2025 6:00 P.M. CST (The meeting was scheduled after the City Council meeting to attract a larger crowd)
Public Meeting #3 Final Review Meeting	Overview of draft plan; solicitation of feedback. Public review and comment on the draft plan.	July 22, 2025
Public Survey	Personal experience with hazard events; public perception of hazard significance; what mitigation measures should be pursued	Hard copies distributed at Public Meeting #1 and posted on March 20, 2025 via web and social media.
Website Notices	Notices of process, survey, public meetings, and public review of draft posted on the City of St. George website.	
Facebook posts	Notices of process, survey, public meetings, and public review of draft posted on the City of St. George Facebook page.	

2.1.6b Public Meetings

Public meetings served as the cornerstone of the outreach strategy, providing an open forum for residents to learn about the planning process, voice concerns, and contribute ideas. These meetings offered transparency in decision-making and helped build public trust by fostering direct communication between the planning team and the community. Over the course of the three public meetings, in-person attendance ranged from 10 to 30 participants per session, while virtual engagement surpassed 1,000 views across social media platforms.

The first public meeting, held on March 25, 2025 following a regularly scheduled City Council meeting, marked the official launch of the public engagement process. During this kickoff event, members of the Hazard Mitigation Planning Committee introduced the HMP, outlined the planning timeline, and explained how residents could participate in identifying hazards and shaping mitigation actions. The meeting also included an overview of the city's vulnerability to natural hazards and emphasized the importance of local knowledge in building a resilient St. George. Residents in attendance were invited to share their initial observations and concerns, which were documented and considered in subsequent stages of the planning process.

A second public meeting took place on May 13, 2025, strategically scheduled after the City Council meeting to encourage participation from the community. This meeting presented updates on the ongoing risk and vulnerability assessments and offered preliminary findings based on data analysis and resident feedback. The planning team facilitated small-group discussions and Q&A sessions to capture detailed community input on specific hazard concerns, such as flooding, severe storms, and fire risks. These conversations yielded valuable insights into local experiences with hazards and informed the development of realistic, community-supported mitigation actions.

The third and final public meeting, held on July 22, 2025 focused on reviewing the draft Hazard Mitigation Plan. This session provided a detailed presentation of proposed goals, objectives, and mitigation strategies. Residents were encouraged to provide feedback, ask questions, and suggest revisions. By offering a final opportunity for public input before plan submission, this meeting ensured that the HMP reflected a truly collaborative process and addressed the needs and priorities identified by the community throughout the engagement period.

2.1.6c Social Media and Digital Outreach

To ensure broad, equitable access to the planning process, the City of St. George prioritized digital engagement as a core component of its HMP outreach strategy. Recognizing that not all residents could attend in-person meetings, a robust digital approach enabled ongoing communication, remote participation, and inclusive public involvement.

Social media platforms, particularly Facebook, Instagram, and Nextdoor were actively leveraged to share timely updates, promote community engagement, and sustain momentum throughout the planning period. The city maintained a consistent posting schedule featuring meeting reminders, survey links, key milestones, and educational content on hazard risks and mitigation practices. To enhance public understanding, visual content such as infographics and explainer graphics were regularly shared, while community spotlight features highlighted local voices and ideas, fostering a sense of ownership and relevance.

To unify messaging and encourage interaction, outreach hashtags such as #StGeorgeSafe, #HazardMitigationSG, and #ResilientStGeorge were introduced and used consistently across platforms. These tags helped increase the visibility of posts and encouraged residents to follow, share, and engage with the content.

The city's official website served as a centralized repository for all materials, including meeting agendas, draft documents, survey tools, and public comment opportunities. For those unable to attend meetings in person, live-streamed sessions and interactive features, such as online polls and surveys, provided accessible avenues for public input and feedback.

In addition to social media and the website, the city distributed quarterly email newsletters via the St. George Fire Department's community mailing list. These updates offered summaries of meetings, announcements of upcoming events, highlights from stakeholder feedback, and simplified explanations of technical topics to support public comprehension.

To further extend reach, public notices were also published in local newspapers, ensuring that residents without regular internet access were aware of the planning process and could participate. Through this multi-platform strategy, the city of St. George maintained transparency, fostered engagement, and provided residents with multiple ways to stay informed and shape the development of the Hazard Mitigation Plan.

2.1.6d Community Engagement Initiatives

Beyond traditional and digital outreach, the City of St. George implemented targeted community engagement initiatives to reach underserved and high-risk populations. One such initiative was a fire safety workshop held at apartment complexes identified as having elevated fire risk based on past incident reports and structural vulnerability assessments. This workshop combined hands-on demonstrations with informational materials on fire prevention, emergency preparedness, and the broader context of the HMP's fire mitigation strategies.

Local business engagement was also prioritized as a critical component of the outreach plan. A meeting organized in conjunction with the SBA event before the Midway Progress Meeting provided an opportunity to connect with small business owners and operators. During this session, the planning team discussed the economic implications of hazard events and explored how local businesses could contribute to and benefit from mitigation planning. The heavy media coverage surrounding the event amplified public awareness and stakeholder engagement, and this dialogue helped build support for integrating business continuity and economic resilience into the overall mitigation strategy.

2.1.6e Public Survey Results

To support the development of the HMP, the city conducted a public survey to engage the community in the planning process. The survey aimed to identify residents' concerns regarding natural hazards, understand obstacles to preparedness, and collect input on the most effective strategies for reducing risk and improving resilience. A total of 99 residents completed the survey.

The demographic profile of the survey respondents reveals several important insights. As seen in Figure 12 below, over 40 percent of participants are over the age of 65, indicating a strong level of engagement from senior residents. Additionally, approximately 45 percent of respondents have lived in the region for more than 20 years, reflecting a population with deep roots and long-term exposure to the community's hazard landscape. This trend is illustrated in Figure 13, which provides a visual summary of the data. An overwhelming 99 percent of survey takers live in single-family homes, suggesting that household-level mitigation efforts could be especially impactful.

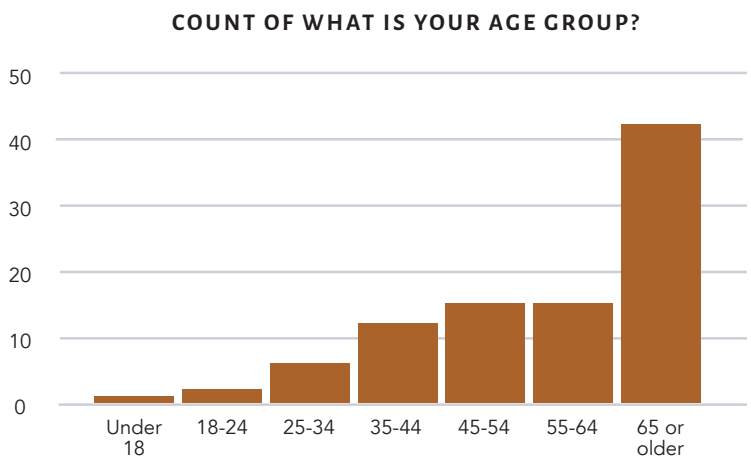

Figure 12: Age Groups

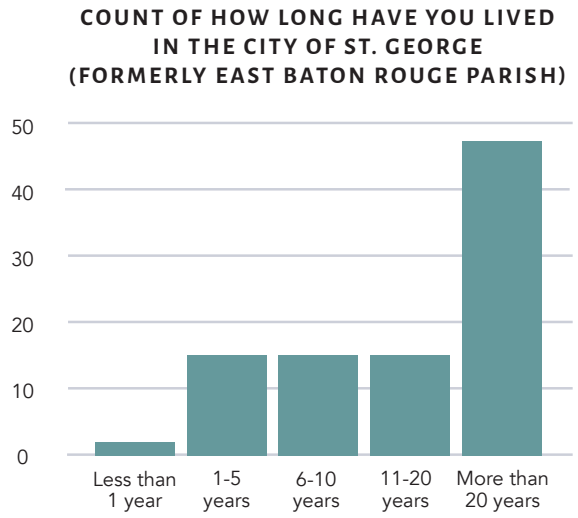

Figure 13: Length of Inhabitance

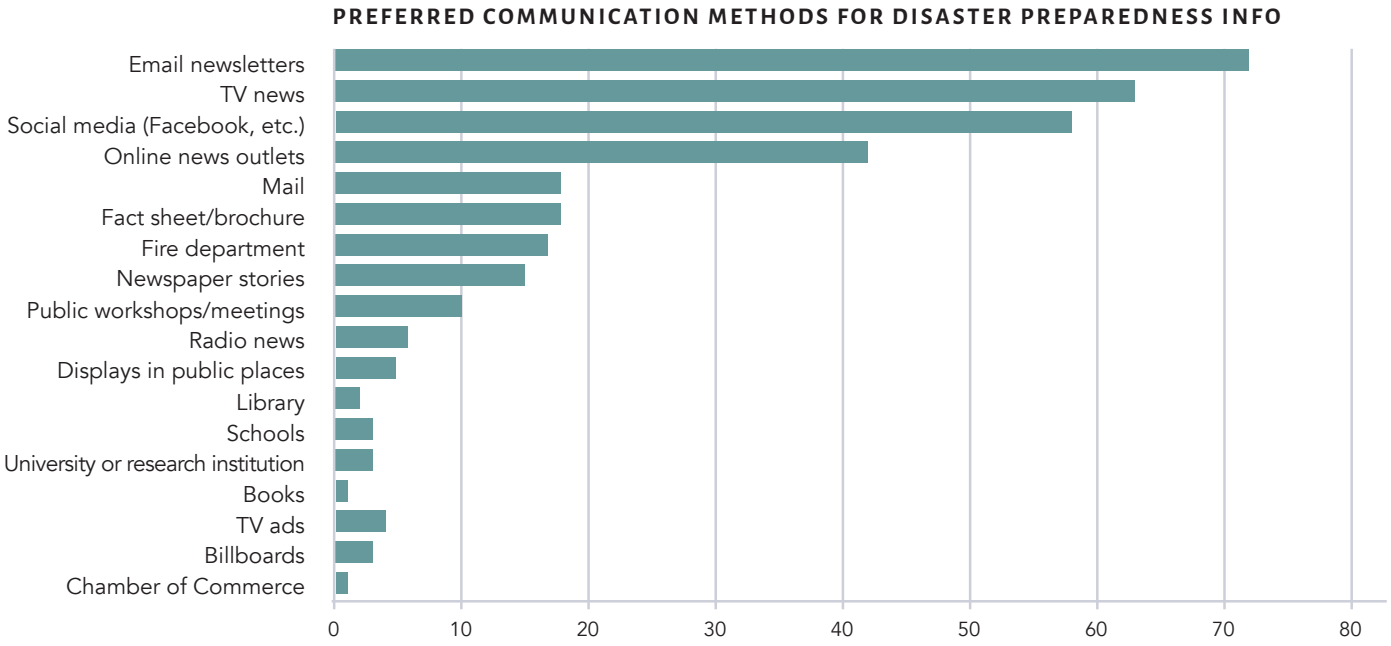

Figure 14: Preferred Communication Methods for Disaster Preparedness Info

In terms of hazard awareness, while 61 percent of respondents reported familiarity with various types of hazards, only 17 percent had previously heard of a hazard mitigation plan. Furthermore, 71 percent of participants indicated that they have personally experienced a natural disaster, reinforcing the relevance of hazard mitigation planning. Encouragingly, 72 percent of respondents agreed that involving the community in the HMP process is important, demonstrating strong support for transparent and inclusive planning.

When asked about their current sources of hazard preparedness information, residents cited traditional media, official channels, and personal networks. For future communication, they expressed a preference for more immediate and accessible channels such as social media, emergency alerts, electronic billboards, and sirens. Figure 14 highlights the preferred methods and offers a visual perspective on the data. These findings highlight the importance of a multi-platform communication approach to effectively disseminate information across the community.

Survey respondents identified tropical storms and hurricanes as their top hazard concern, followed closely by flooding, tornadoes, power outages, and infrastructure failure. Flooding was frequently associated with inadequate drainage and insufficient stormwater management systems. These findings provide a valuable foundation for prioritizing the hazards that have historically caused the greatest disruption in the region. A visual summary of these responses is provided in Figure 15: Frequency of hazard mentions.

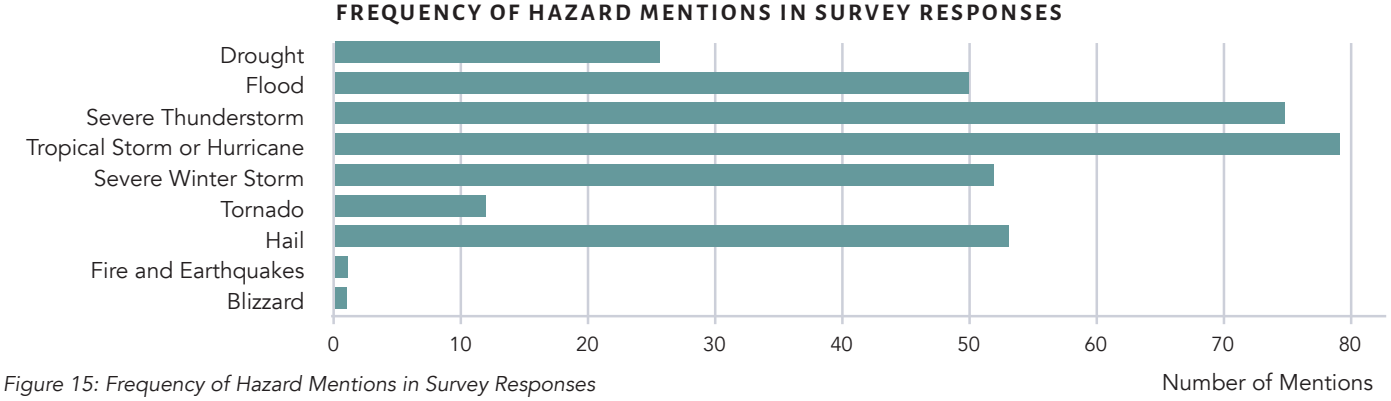

Figure 15: Frequency of Hazard Mentions in Survey Responses

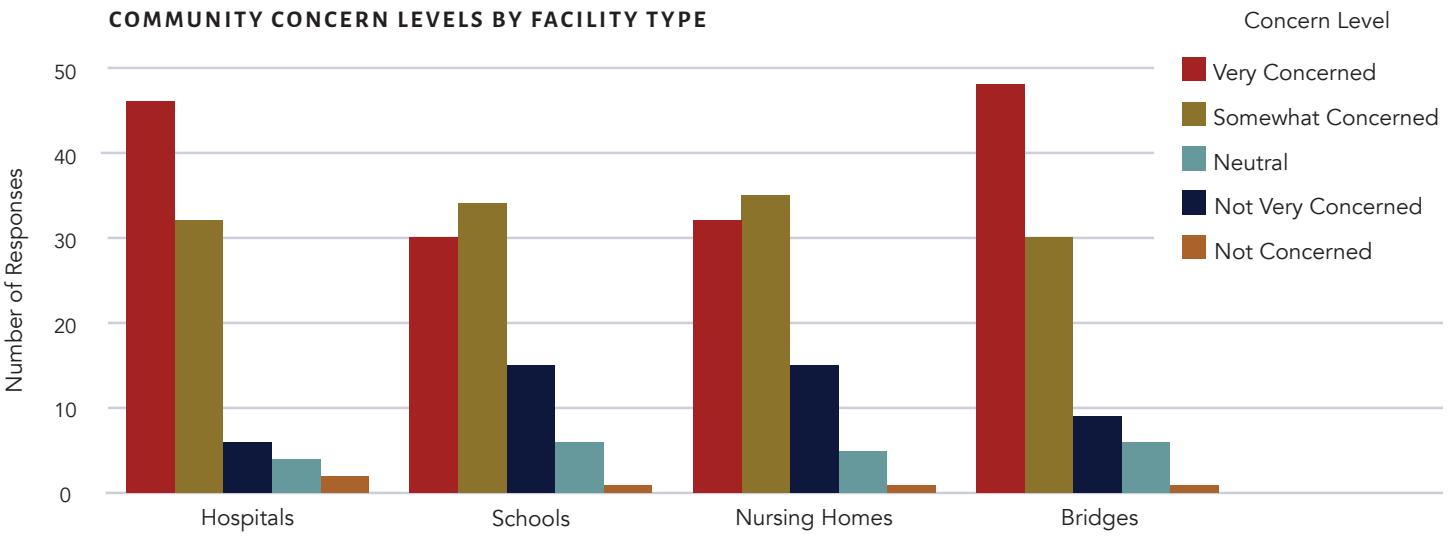

Figure 16: Community Concern Levels by Facility Type

Residents also shared their perceptions of risk and vulnerability. Many expressed concerns about overdevelopment in flood-prone areas, deteriorating drainage infrastructure, and a lack of clear evacuation plans. These concerns extended to the resilience of key community facilities, including schools, hospitals, nursing homes, and major bridges. As shown in Figure 12, respondents were most concerned about the vulnerability of hospitals and major bridges, with a majority indicating they were "Very Concerned" about these assets. Schools and nursing homes also received high concern ratings, reflecting community awareness of how disruptions to essential services could affect safety, access, and response capacity during a disaster. These insights help guide the prioritization of mitigation actions focused on protecting critical infrastructure and vulnerable populations.

The public offered a range of thoughtful and practical mitigation strategies, which have been grouped into five thematic areas: infrastructure, education, policy, emergency preparedness, and equity.

Residents emphasized the importance of improving stormwater infrastructure, including storm drains, canals, and pump stations. Regular maintenance of these systems, along with restrictions on overbuilding in flood-prone areas and halting construction in wetlands, were frequently suggested.

Education and communication were also major themes. Respondents advocated public education campaigns targeting children and seniors, the distribution of hazard preparedness kits, and clearer communication using digital tools and emergency alerts.

On the policy front, the community called for stronger enforcement of building codes and urban planning standards, a well-funded stormwater master plan, and better coordination with local organizations like the Cajun Navy. Simplifying access to financial assistance and ensuring all public messaging is accessible were also high priorities.

Emergency preparedness strategies proposed by participants included the development of designated emergency shelters and evacuation routes, the installation of tornado and weather alert systems, and the incorporation of backup power infrastructure. Collaborations with utility companies for tree trimming and powerline maintenance were also suggested.

In addition to identifying vulnerabilities, residents shared specific ideas for how the City of St. George can reduce the impact of future hazards. Their suggestions reinforce the five key themes of infrastructure, education, policy, emergency preparedness, and equity. As shown in Figure 13, the most frequently mentioned priority was improving flood control systems, including levees and floodwalls. Respondents also emphasized the need for early warning systems, stronger building codes, and designated emergency shelters. These responses reflect a broad-based understanding of risk and a desire for both structural and community-driven solutions to enhance local resilience.

Residents urged planners to prioritize the needs of elderly residents, low-income families, the disabled, and unhoused individuals. Calls to reduce bureaucratic barriers and increase community representation in planning processes further emphasized the desire for a more inclusive approach to hazard mitigation.

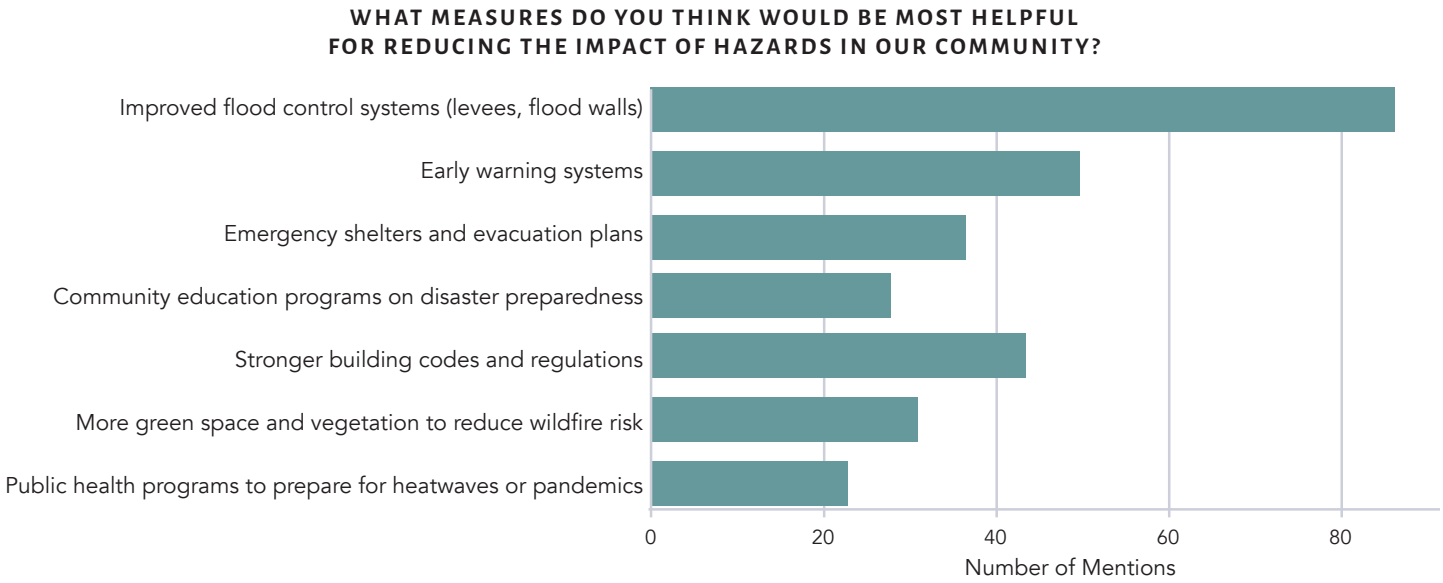

Figure 17: Ideas to Improve the Community's Resilience to Natural Hazards

As part of the public engagement process, residents of the City of St. George offered a wide range of suggestions to improve the community's resilience to natural hazards. These ideas reflect firsthand experience with local vulnerabilities and were grouped into the five key categories of Infrastructure and Drainage, Education and Communication, Policy and Planning, Emergency Preparedness; and Governance and Accessibility, as detailed below.

Infrastructure & Drainage (Most Frequently Mentioned) Residents consistently highlighted infrastructure improvements as the top priority for reducing hazard impacts. Suggestions included:

- Improving drainage systems, including storm drains, canals, ditches, and pump stations
- Developing and implementing a comprehensive stormwater management plan
- Preventing overdevelopment in flood-prone or poorly drained areas through stronger permitting oversight
- Ensuring regular maintenance of roads, culverts, and backwater canals to preserve drainage capacity
- Halting construction in floodplains and wetlands to reduce risk to both new developments and surrounding areas

Education & Communication Public outreach and real-time communication were viewed as critical tools for preparedness. Residents recommended:

- Public education campaigns, especially tailored to children and seniors
- Distributing hazard preparedness kits and household checklists
- Expanding the use of social media, electronic billboards, emergency alerts, and sirens to ensure timely information sharing
- Improving communication around evacuation routes and real-time updates during emergencies

Policy & Planning Community members stressed the need for stronger planning and policy enforcement to support resilience, including:

- Enforcing responsible urban planning and building codes
- Creating a fully funded stormwater master plan to guide long-term investments
- Coordinating with trusted local organizations, such as the Cajun Navy and faith-based groups, to build community-based preparedness
- Simplifying access to financial assistance for disaster recovery, especially for those unfamiliar with federal processes
- Prioritizing accessibility for elderly, disabled, and unhoused populations in both recovery efforts and public communications
- Establishing hotlines or "advice lines" to provide immediate disaster support and guidance

Emergency Preparedness Suggestions also focused on improving readiness before a disaster strikes. Common recommendations included:

- Designating emergency shelters and clearly marking evacuation routes
- Installing backup power systems and conducting regular tree trimming to prevent outages
- Adding tornado and weather sirens, as well as roadside signage during hazard-related closures
- Collaborating with utility providers to maintain and protect essential infrastructure

Governance & Accessibility Residents expressed a desire for a more inclusive and responsive planning process. Specific suggestions included:

- Reducing bureaucratic red tape that limits timely access to services and assistance
- Increasing local representation in hazard planning and decision-making, ensuring community voices are heard.
- Providing targeted support for vulnerable populations, including elderly residents, low-income families, and individuals who are disabled or unhoused.

The public survey for the HMP reveals a community that is deeply invested in its own safety and resilience. With strong support for inclusive planning, practical suggestions for mitigation, and a clear understanding of local hazards, residents have provided a roadmap for effective risk reduction. The insights gathered through this process have informed the city's plan while advancing the collective goal of a safer, more prepared community.

2.1.7 ENGAGEMENT FINDINGS SUMMARY AND INTEGRATION : Public feedback gathered through a separate community survey provided alignment with stakeholder insights. The majority of residents expressed concern about flooding, hurricanes, and tornadoes. Less than 20% had heard of a Hazard Mitigation Plan, suggesting a gap in public awareness. The survey also captured preferences for communication (e.g., text alerts, social media), and community priorities such as stormwater improvements, siren systems, and inclusive outreach.

The findings from both stakeholder and public surveys directly informed the mitigation goals and actions in this HMP. Results support FEMA requirements under 44 CFR § 201.6 and ensure that strategies address locally identified needs. Going forward, the City of St. George will continue to engage these partners in implementation, performance monitoring, and future plan updates.

MITIGATION STRATEGY CATEGORY	NUMBER OF MENTIONS	COMMON FEEDBACK
Flood Control	10	Emphasized need for improved drainage, levees, and pump station upgrades in flood-prone zones
Infrastructure Improvements	9	Called for road stabilization, retrofitting of buildings, and utility hardening
Emergency Services Enhancements	8	Included backup generators, EOC staffing, interagency drills, and continuity planning.
Public Awareness Campaigns	7	Requested outreach through mailers, social media, town halls, and school-based programs
Community Resilience Planning	6	Advocated for long-term recovery plans, economic resilience, and housing-focused mitigation
Zoning & Land Use Regulations	5	Recommended stricter permitting in floodplains and guidelines for safer development
Ecosystem-Based Solutions	4	Supported restoration of wetlands, tree planting, and green infrastructure for natural defense.

Figure 18: Mitigation Feedback

2.2.0 REVIEW OF PUBLIC AND STAKEHOLDER COMMENTS TO DRAFT PLAN AND INCORPORATION OF FEEDBACK

As part of the planning process and in accordance with FEMA guidelines, the city conducted a public and stakeholder review and comment period for the draft HMP, including its proposed mitigation strategies. This review period was intended to give residents, local businesses, community organizations, and key stakeholders an opportunity to evaluate the entire plan, particularly the goals, risk assessments, and mitigation actions, and provide comments, suggestions, or concerns prior to adoption.

The draft HMP was made available to the public beginning on July 18,2025, through the city's official website and social media accounts. A public and stakeholder comment period was held through August 1, 2025, during which comments could be submitted via email, an online form, or in writing. The city also hosted a public meeting on July 22, 2025, where planning staff presented key findings and proposed mitigation strategies and facilitated a discussion with attendees to gather direct feedback.

Both the complete HMP and the detailed list of proposed mitigation actions were open to comment during this period. This ensured that the community could weigh in not only on the overall plan framework, but also on the specific strategies being proposed to reduce risk and build resilience.

During the comment period, the city received eleven responses from residents. The Hazard Mitigation Planning Committee reviewed each submission carefully and evaluated all feedback in terms of its relevance to the scope of hazard mitigation, technical and legal feasibility, alignment with community vulnerabilities, goals, and capabilities, and potential impact on implementation, funding, and timelines.

Summary of Key Public Comment Themes

During the public review period, the city received comments that reflected a strong community interest in addressing localized flooding, improving drainage systems, and enhancing stormwater management infrastructure. Several residents emphasized the need for targeted drainage improvements in specific neighborhoods, while others expressed concerns about broader flood mitigation measures to protect vulnerable areas. Additional feedback focused on strengthening planning and regulatory tools, such as growth management ordinances, to reduce future hazard exposure. The role of transportation and evacuation planning was also highlighted, with comments suggesting the need to evaluate evacuation routes for all residents, including those without personal transportation.

Another key theme was the importance of considering and protecting vulnerable populations, including elderly, disabled, transportation-challenged, and unhoused residents, during hazard events. One comment also noted the value of leveraging technology, such as software tools and data systems, to improve hazard monitoring, planning, and response coordination. While some suggestions were outside the scope of the HMP, all comments were reviewed by the Hazard Mitigation Planning Committee and referred to appropriate city departments where applicable. Relevant feedback was incorporated into the plan's mitigation actions and strategies, ensuring that the final HMP reflects both technical priorities and the lived experiences of community members.

The City of St. George thanks all residents and partners who participated in the review process. Their input directly contributed to strengthening the plan's strategies and ensuring the final document reflects the priorities and risks facing the entire community.

2.3.0 DEVELOPING AND UPDATING THE MITIGATION STRATEGY

The city developed its mitigation strategy through a collaborative and data-driven process involving the Planning Committee, local departments, community input, and hazard risk assessments. The strategy is designed to be dynamic and adaptable, allowing for ongoing refinement based on new information, changing conditions, and lessons learned from past events. To ensure the continued relevance and effectiveness of the plan, the city has established a structured process for reviewing and updating both the strategy and the full Hazard Mitigation Plan.

2.3.1 IDENTIFICATION AND REVIEW OF GOALS, ACTIONS, PRIORITIES, CHANGES, PROGRESS: The initial set of mitigation goals and actions was informed by a combination of local hazard risk assessments, capability analyses, and community input gathered through surveys and public meetings. The Planning Committee reviewed sample mitigation actions across hazard types—such as flooding, tornadoes, and wildfires—and tailored them to the unique needs and vulnerabilities of St. George. Actions were prioritized based on feasibility, cost-effectiveness, potential for risk reduction, and alignment with community goals.

To track progress and ensure accountability, the Planning Committee will meet annually to:

- Evaluate the status of each mitigation action (e.g., completed, in progress, delayed, or not yet started)
- Assess the effectiveness of actions that have been implemented
- Identify new or emerging hazards or vulnerabilities
- Re-prioritize existing actions if necessary, based on funding availability, political support, or shifts in risk
- Document changes in capabilities, infrastructure, and local development that may affect risk or strategy

The Planning Committee, reconvened under the leadership of the Emergency Management Division, will be responsible for completing these annual reviews to culminate in brief progress reports and internal updates to maintain momentum and transparency. Every five years, in accordance with FEMA requirements, the city will conduct a comprehensive update of the full Hazard Mitigation Plan. This update will include a full reassessment of goals, actions, and priorities to ensure they reflect current data, conditions, and community needs.

2.3.2 REVIEW AND INCORPORATION OF STAKEHOLDER AND PUBLIC EXCHANGE: Stakeholder and public engagement is an essential component of both developing and updating the mitigation strategy. During the initial planning process, the city used community surveys, social media outreach, and stakeholder interviews to capture a broad range of perspectives and local knowledge. Public feedback was directly used to validate identified hazards and shape the selection and prioritivzation of mitigation actions.

Moving forward, the City of St. George will continue to engage the public and stakeholders in the annual review and five-year update processes. This will include:

- Sharing updates on plan progress through the city's website, newsletters, and public meetings
- Offering opportunities for residents, business owners, and community organizations to provide feedback on existing or proposed mitigation actions
- Partnering with local schools, emergency services, and neighborhood associations to raise awareness and gather input
- Coordinating with regional, parish, and state-level agencies to align local strategies with broader hazard mitigation and resilience efforts

All feedback received will be reviewed by the Planning Committee and documented in future updates. By maintaining an open line of communication with the public and stakeholders, St. George aims to ensure that its mitigation strategy remains community-centered, forward-looking, and effective.

3.0.0 BRINGING THE PLAN TO LIFE: IMPLEMENTATION AND MAINTENANCE

3.1.0 PLAN ADOPTION

The City of St. George will formally adopt the 2025 Hazard Mitigation Plan by resolution on September 9, 2025. This adoption by the St. George City Council fulfills the requirements of 44 CFR §201.6(c)(5) and affirms the city's commitment to implementing the mitigation strategies outlined in the plan. By adopting the plan, the city establishes it as an official guiding document for reducing local risk and enhancing community resilience over the next five years.

A copy of the signed resolution can be provided upon request.

3.2.0 PLAN IMPLEMENTATION AND INTEGRATION

With the plan now formally adopted, implementation will be carried out in coordination with the city's departments, the St. George Fire Protection District, and local stakeholders. The City of St. George will serve as the lead entity responsible for coordinating implementation across agencies. Core components of the implementation framework include:

- **Annual Progress Review:** Each action will be tracked using key performance indicators (KPIs), such as culverts improved or outreach sessions delivered.
- **Five-Year Plan Update:** The next full update will occur in 2030, in accordance with FEMA regulations.
- **Funding Alignment:** Projects will be aligned with grant programs such as HMGP, FMA, and CDBG-MIT.

3.2.1 RESPONSIBLE PARTIES AND AGENCY ROLES: Effective implementation of mitigation strategies depends on clearly defined responsibilities and strong interagency coordination. The City of St. George will lead most initiatives, supported by regional and state agencies where appropriate.

- **City of St. George** is the primary lead for the majority of actions, including stormwater assessments, ordinance development, floodplain management, emergency outreach, and infrastructure upgrades. These actions reflect the city's growing municipal capacity and commitment to localized hazard mitigation.
- **City of St. George & Amite River Basin Commission (ARBC)** will jointly oversee initiatives related to real-time flood data integration and regional watershed coordination. ARBC's modeling capabilities and shared jurisdiction over flood-prone areas make it a critical partner for flood forecasting and planning.
- **City of St. George & Louisiana Department of Transportation and Development (DOTD)** currently collaborates in the use of 6 predesignated evacuation routes, real time assessments and transportation infrastructure resilience. DOTD brings expertise in traffic modeling and route capacity evaluations that support regional evacuation planning.
- **City of St. George & Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP)** will coordinate on emergency power resilience, EOC staffing, and HAZUS modeling of dam-related hazards. GOHSEP provides technical assistance, training, and post-disaster funding guidance critical to long-term implementation.
- **City of St. George & St. George Fire District** will collaborate on emergency response planning, wildfire mitigation efforts, and integration of fire hazard data into local planning efforts. St. George Fire Protection District provides frontline response capabilities and will assist in identifying vulnerable areas, supporting public safety education, and coordinating with the city on multi-agency emergency operations. Their expertise in fire suppression, emergency medical response, and incident command support enhances the city's capacity for disaster response and hazard mitigation.

These collaborative frameworks ensure that each action is backed by the technical, regulatory, and operational resources necessary for success. The City of St. George and the St. George Fire Protection district have MOUs in place for incident management. Additional partnerships will be formalized through MOUs and grant agreements to clarify roles and streamline implementation.
Mitigation actions identified in the plan will be integrated into local planning mechanisms such as zoning ordinances, capital

improvement planning, drainage system upgrades, floodplain management, and emergency preparedness programming. Where feasible, actions will also be incorporated into updates to the city's comprehensive plan and infrastructure investment strategies.

The formal adoption of the plan provides the authority and policy support needed to embed mitigation goals across city operations, and signals to regional, state, and federal partners that the city is committed to resilient, sustainable growth.

3.2.2 PLAN UPDATE SCHEDULE AND PROCESS: The next full update of the City of St. George Hazard Mitigation Plan is scheduled to be completed no later than five years from the date of FEMA approval. The Planning Committee will oversee the update process, ensuring that it builds on this plan's foundation and incorporates stakeholder input, hazard data, capability assessments, and FEMA guidance available at the time. The city will maintain detailed records of implementation progress and engagement efforts throughout the five-year period to support an efficient and compliant update process.

To ensure continued progress and accountability, the Planning Committee will be responsible for tracking the implementation status of all mitigation actions identified in this plan. This will include an annual review process in coordination with the city's Emergency Manager to assess each action's status, timeline, and any changes in priority or feasibility. Results will be compiled into a Mitigation Action Progress Report and used to guide ongoing implementation.

To evaluate the plan's effectiveness, the Planning Committee will conduct a formal review at least once every two years, examining outcomes such as completed actions, reductions in vulnerability, integration into other city plans, and stakeholder feedback. These evaluations will help determine whether adjustments to the plan or its actions are needed to ensure continued relevance and impact.

3.3.0 CONTINUED PUBLIC INVOLVEMENT

Following the adoption of this plan the city remains committed to keeping the public engaged in mitigation efforts. The city will maintain communication through its website, public meetings, social media platforms, and neighborhood associations.

Public feedback will be encouraged throughout the plan maintenance period, particularly during the annual review and at the time of the next plan update. At least one public-facing meeting will be held annually to present implementation progress, solicit feedback on emerging risks, and involve residents in shaping future mitigation strategies.
The city recognizes that continued public participation is essential to sustaining a culture of preparedness and ensuring that mitigation actions reflect community values and needs.

3.4.0 INTEGRATION WITH LOCAL PLANS

The city is committed to integrating the goals, data, and mitigation strategies of this HMP into its broader planning, regulatory, and budgeting frameworks. This integration ensures that hazard mitigation principles are not treated as standalone initiatives but are embedded within the community's everyday decision-making processes. By aligning mitigation goals with land use, capital investments, and infrastructure improvements, the city can strengthen long-term resilience and reduce vulnerability across sectors.

3.4.1 INTEGRATION PROCESS: The process for integrating the mitigation strategy into other local planning mechanisms will be coordinated by the Emergency Management Division in collaboration with relevant city departments. The process will include the following steps:

- **Annual Review of Planning Mechanisms:** As part of the plan maintenance cycle, the Planning Committee will annually review the city's adopted and emerging planning documents—including updates to the Comprehensive Plan, Stormwater Master Plan, and Capital Improvement Program—to identify opportunities for alignment and integration.
- **Cross-Departmental Coordination:** The Emergency Management Division will work with city planning, public works, engineering, and finance staff to ensure that mitigation actions are considered during the development or revision of these plans. This coordination will be formalized through internal planning meetings and review checklists that flag relevant mitigation actions and hazard data.
- **Staff Training and Technical Support:** Department leads will be briefed on the HMP's objectives and priority actions. Where necessary, technical assistance will be provided to support the interpretation and application of hazard data in zoning, permitting, and infrastructure planning processes.
- **Tracking and Documentation:** All instances of integration—such as policy changes, project alignments, or planning references—will be documented by the Planning Committee in annual progress reports. This documentation will help measure the reach and effectiveness of the mitigation strategy.

3.4.2 TARGET PLANNING MECHANISMS : Mitigation actions and hazard data from this plan will be integrated into the following local planning mechanisms:

- **Comprehensive Land Use Plan:** Hazard zones, floodplain data, and prioritized mitigation actions will be considered during land use planning to discourage development in high-risk areas and promote safe, resilient growth.
- **Stormwater Master Plan:** Mitigation actions related to drainage improvements, green infrastructure, and flood prevention will be incorporated to reduce flood risk and improve long-term system performance.
- **Transportation Improvement Plan (TIP):** Transportation infrastructure projects will be reviewed for exposure to natural hazards. Mitigation actions involving road elevation, culvert upgrades, or evacuation route enhancements will be integrated into TIP priorities.
- **Capital Improvement Plan (CIP):** Funding for mitigation actions—such as shelter retrofits, critical facility hardening, or utility relocation—will be evaluated for inclusion in the city's annual and multi-year CIP.
- **Zoning and Development Regulations:** The Planning and Zoning Department will incorporate HMP recommendations into development review processes, including the application of building codes, setbacks, and subdivision regulations in hazard-prone areas.
- **Emergency Operations Plan (EOP):** Where appropriate, operational mitigation strategies—such as generator pre-positioning or public warning systems—will be synchronized with emergency response protocols in the EOP.

By pursuing integration through these mechanisms, the city will ensure that hazard mitigation is not an isolated effort but a continuous, citywide commitment supported by planning, policy, and investment decisions.

3.4.3 PARTNERSHIPS AND OTHER COMMUNITY AFFILIATIONS, PROGRAMS, RESOURCES: St. George benefits from a robust network of regional and state partnerships. These include relationships with East Baton Rouge, MOHSEP, the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP), Louisiana DOTD, FEMA Region 6, and regional chambers of commerce. These partnerships are crucial for technical assistance, access to funding opportunities, and coordinated hazard mitigation strategies.

4.0.0 RISK ASSESSMENT

4.1.0 DEFINING RISK AND METHODOLOGY

The City of St. George recognizes that an effective hazard mitigation strategy begins with a comprehensive understanding of local risk. As outlined in FEMA's *Local Mitigation Planning Handbook*, risk is defined as the potential for damage or loss resulting from the interaction of hazards with vulnerable community assets, including people, property, and infrastructure. This section presents the methodology used by the city to conduct its risk assessment, which serves as the analytical foundation for the entire hazard mitigation planning process.

The purpose of the risk assessment is to identify and profile hazards, inventory assets, and analyze how future hazard events could impact the community. By assessing these risks, St. George aims to prioritize mitigation actions that reduce or eliminate long-term vulnerabilities. This process is driven by data, guided by community input, and rooted in a framework that is both scientifically credible and locally relevant.

The risk assessment methodology followed FEMA's four-step process:

1. Identifying and describing hazards that pose threats to the city;
2. Inventorying community assets exposed to these hazards;
3. Analyzing the potential impacts to these assets; and
4. Summarizing vulnerabilities to highlight areas of highest concern.

Each of these steps is documented in this section and reflects a collaborative, transparent, and inclusive planning process that will inform the development of targeted, sustainable mitigation strategies for the City of St. George.
The primary source for historical data used throughout the risk assessment is the National Centers for Environmental Information (NCEI) Storm Events Database, which provides natural hazard event data from 1950 to the present. In staying consistent with climatological studies, the NCEI Storm Events Database was evaluated for the past 30 years (1993 – 2022) to determine the future probability and frequency of a hazard occurring when data was available.

4.1.0a Data Limitations

Throughout the development of this Hazard Mitigation Plan, every effort was made to utilize the most accurate, recent, and relevant data available. However, the planning process faced a number of data limitations, most notably due to the recent incorporation of the City of St. George. As a newly established municipality, St. George has not yet been assigned its own census tracts or other granular geographic designations that are typically used in demographic and socioeconomic analysis. As a result, data that is usually tied to census geography (e.g., population characteristics, housing density, income levels, and social vulnerability metrics) is currently limited or unavailable at the city scale.
To mitigate this challenge, the planning team relied on broader datasets from East Baton Rouge Parish—of which St. George was a part until its incorporation—for historical hazard data, asset inventories, and vulnerability modeling. Where possible, supplemental local knowledge and jurisdiction-specific inputs were integrated to reflect the unique risk profile of St. George.

Additional limitations stem from the nature of the hazard data itself. Much of the historical natural hazard occurrence information was sourced from the NCEI Storm Events Database. While this database is the most comprehensive source of federally reported hazard events, it is not without its shortcomings. For example:

- Hazard reporting prior to 1996 is inconsistent, with tornadoes being the only reliably recorded hazard between 1950 and 1954. Thunderstorm wind and hail events are recorded from 1955 onward, while the full suite of 48 hazard types identified in National Weather Service Directive 10-1605 are consistently documented only from 1996 to the present.
- Property and crop damage estimates in the NCEI database are based on available reports at the time of publication and should be considered approximate.
- Some hazard events—particularly smaller-scale or rural occurrences—may be underreported due to reliance on eyewitness accounts, creating potential biases in the data.

Moreover, all risk and vulnerability estimates included in this plan are derived from models and assumptions based on the best available data. As with any modeling effort, uncertainties are inherent due to limitations in scientific knowledge and simplifications necessary for broad-scale risk analysis. These estimates are intended to provide a comparative understanding of hazard impacts rather than precise forecasts of future damages.

As the City of St. George develops further as an incorporated entity, future planning efforts will benefit from improved data granularity, jurisdiction-specific hazard history, and expanded community input.

4.2.0 HAZARDS

4.2.1 HAZARD IDENTIFICATION: A variety of state and local emergency management and hazard mitigation documents were reviewed to develop a comprehensive list of hazards that could affect the City of St. George. These sources encompassed a broad spectrum of hazard types, including natural, technological, and human-caused events. The two primary references used to finalize the city's hazard list were the 2023 East Baton Rouge Parish Hazard Mitigation Plan and the State of Louisiana's 2024 Hazard Mitigation Plan.

The *Hazard Profile Summary* below provides a summary of the hazards profiled in the City of St. George Hazard Mitigation Plan and compares them with those addressed in the 2023 East Baton Rouge Parish and 2024 Louisiana State Hazard Mitigation Plans. The city's plan includes hazards identified at the state and parish levels that are relevant to the local context, ensuring consistency and comprehensive coverage. These hazards include flooding, tornadoes, tropical cyclones, thunderstorms (including hail, lightning, and wind), severe winter weather, levee failure, wildfires and dam failure. Notably, all hazards except tropical cyclones are addressed across all three plans, reflecting a shared understanding of regional risk, while tropical cyclones were omitted from the State Plan but remain highly relevant for the city and parish.

HAZARD PROFILE SUMMARY

HAZARD	PROFILED IN CITY PLAN	PROFILED IN EBR PLAN	PROFILED IN STATE PLAN
Flooding	■	■	■
Tornadoes	■	■	■
Tropical Cyclones	■	■	■
Thunderstorms (Hail, Lightning, Wind)	■	■	■
Severe Winter Weather	■	■	■
Levee Failure	■	■	■
Wildfires	■	■	■

Figure 19: Hazard Profile Summary

4.2.1a Hazards Excluded from Risk Assessment

While the HMP aims to be comprehensive, not all potential hazards were included in the final risk assessment. The planning team conducted a thorough review of hazards identified in both the 2023 East Baton Rouge Parish and 2024 Louisiana State Hazard Mitigation Plans, and evaluated each hazard's historical occurrence, probability, potential impacts, and relevance to the newly incorporated city. Based on this analysis, several hazards were determined to pose a low risk or have limited impact potential specific to St. George and were therefore excluded from detailed profiling.

Drought was one such hazard. Although it is included in the EBR and State plans due to its broader agricultural and regional economic implications, drought does not pose a significant risk to St. George's primarily suburban, non-agricultural landscape. The city is not heavily reliant on surface water for irrigation or large-scale farming operations, and its water supply is primarily managed through municipal systems that have historically remained stable during dry periods. Additionally, no major drought-related damages or public safety concerns have been recorded within the city's footprint.

Other hazards that were excluded for similar reasons include extreme heat, earthquakes, expansive soil, and sinkholes. These hazards either have an extremely low probability of occurrence in the area, lack a recorded history of impacts within the city's boundaries, or are already addressed through broader regional or state-level planning mechanisms.

Dam failure was also determined to pose a low risk specific to St. George and excluded from detailed profiling due to the lack of high risk dams in the city limits. Neighboring East Baton Rouge Parish has profiled the High Hazard Potential Dam and has identified mitigation goals to reduce long-term vulnerabilities. The three dams in the city limits, shown below, are rated as low hazard potential.

While excluded from this plan's detailed analysis, these hazards may be reconsidered in future updates if new data or conditions emerge that increase their relevance to St. George. The city remains committed to monitoring all hazard types and adjusting its mitigation priorities accordingly.

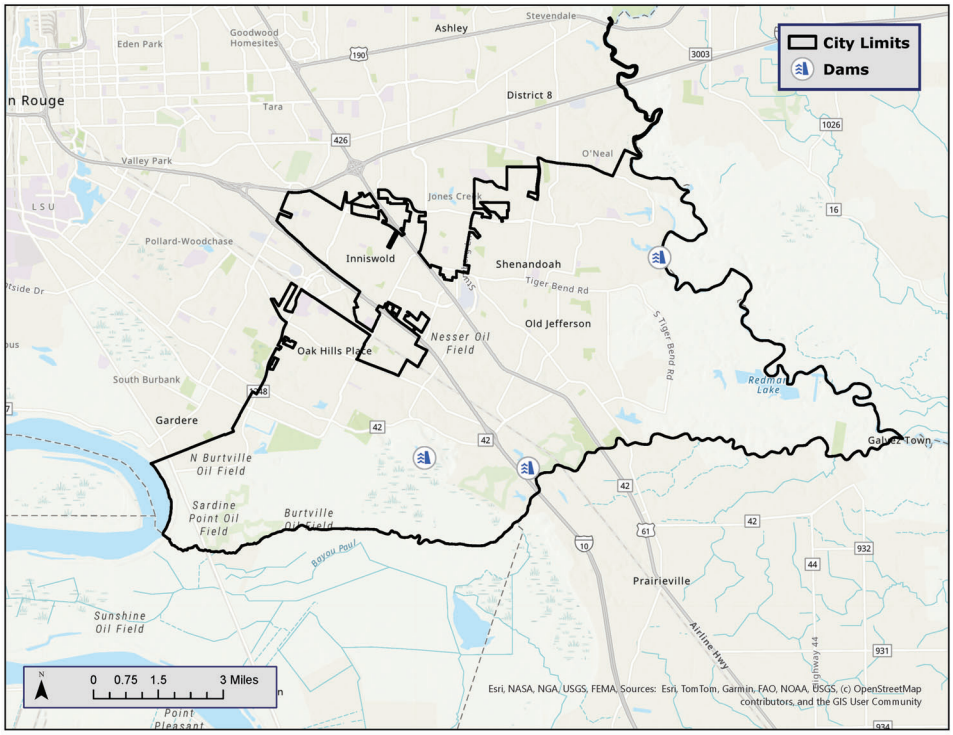

Figure 20: Map of low-risk dams in city limits

4.2.1b Hazards Profiles

While the HMP aims to be comprehensive, not all potential hazards were included in the final risk assessment. The planning team conducted a thorough review of hazards identified in both the 2023 East Baton Rouge Parish and 2024 Louisiana State Hazard Mitigation Plans, and evaluated each hazard's historical occurrence, probability, potential impacts, and relevance to the newly incorporated city. Based on this analysis, several hazards were determined to pose a low risk or have limited impact potential specific to St. George and were therefore excluded from detailed profiling.

FLOODING

Description

Flooding is the temporary overflow of water onto land that is normally dry. It can result from a variety of sources, including heavy rainfall, river overflow, flash floods, storm surge, and levee or drainage infrastructure failure (FEMA, 2023a). In Louisiana, flooding is often exacerbated by flat topography, high groundwater tables, and heavily urbanized areas with extensive impervious surfaces, which limit natural drainage (East Baton Rouge Parish, 2023). In St. George, urban and flash flooding are the most common types due to the city's developing suburban landscape, drainage patterns, and localized infrastructure challenges. Flooding affects both inland and urbanized zones due to rainfall, inadequate drainage, and waterway overflows.

Location

Much of the City of St. George lies within the southeastern portion of East Baton Rouge Parish, a region historically vulnerable to flooding due to low-lying terrain, dense bayou networks, and limited natural drainage (USGS, 2022). Two significant waterways—Ward Creek and Bayou Fountain—flow through or near the city and contribute to localized and regional flooding during periods of heavy rainfall (Amite River Basin Commission, 2024). These natural features, combined with rapid suburban development and large areas of impervious surface, have increased stormwater runoff and strained existing drainage infrastructure.

FEMA's Flood Insurance Rate Maps (FIRMs) delineate areas of flood risk into zones based on estimated flood frequency and severity. Understanding these zones helps the city identify its most vulnerable neighborhoods and prioritize mitigation actions. The Flood Hazard Zone Areas table below provides a summary of the primary flood zones in St. George, including their associated risk levels and affected areas:

FLOOD HAZARD ZONE AREAS IN ST. GEORGE

FLOOD ZONE	FLOOD RISK	AREAS AFFECTED IN ST. GEORGE
AE	High	Southern, central, and eastern portions including Gardere, Old Jefferson, and Redman neighborhoods. These areas lie withing the 100-year floodplain and have base flood elevations established by FEMA.
A	Moderate-High	Scattered pockets throughout mid-St. George. These are also within the 100-year floodplain but lack detailed elevation data, making them particularly challenging for precise risk analysis.
X	Minimal	Primarily in the northwestern sections such as Innisworld and Jefferson-Drusilla. These areas are located outside the 100-year floodplain and are considered to have a low-to-moderate risk of flooding under normal conditions.

Figure 21: Flood Hazard Zone Areas in St. George

These zones help shape the city's approach to flood risk management, particularly in terms of land use planning, building code enforcement, and infrastructure investments. Properties within Zones AE and A are subject to National Flood Insurance Program (NFIP) regulations, including elevation and floodproofing standards. However, areas in Zone X may still experience flash flooding or drainage issues, especially during extreme weather events, despite being classified as low-risk on FEMA maps.

FLOODING CONT.

Location cont.

The map below displays the FEMA-designated flood hazard zones, described above, and base flood elevation. These zones are critical for determining flood insurance requirements, development limitations, and infrastructure planning.

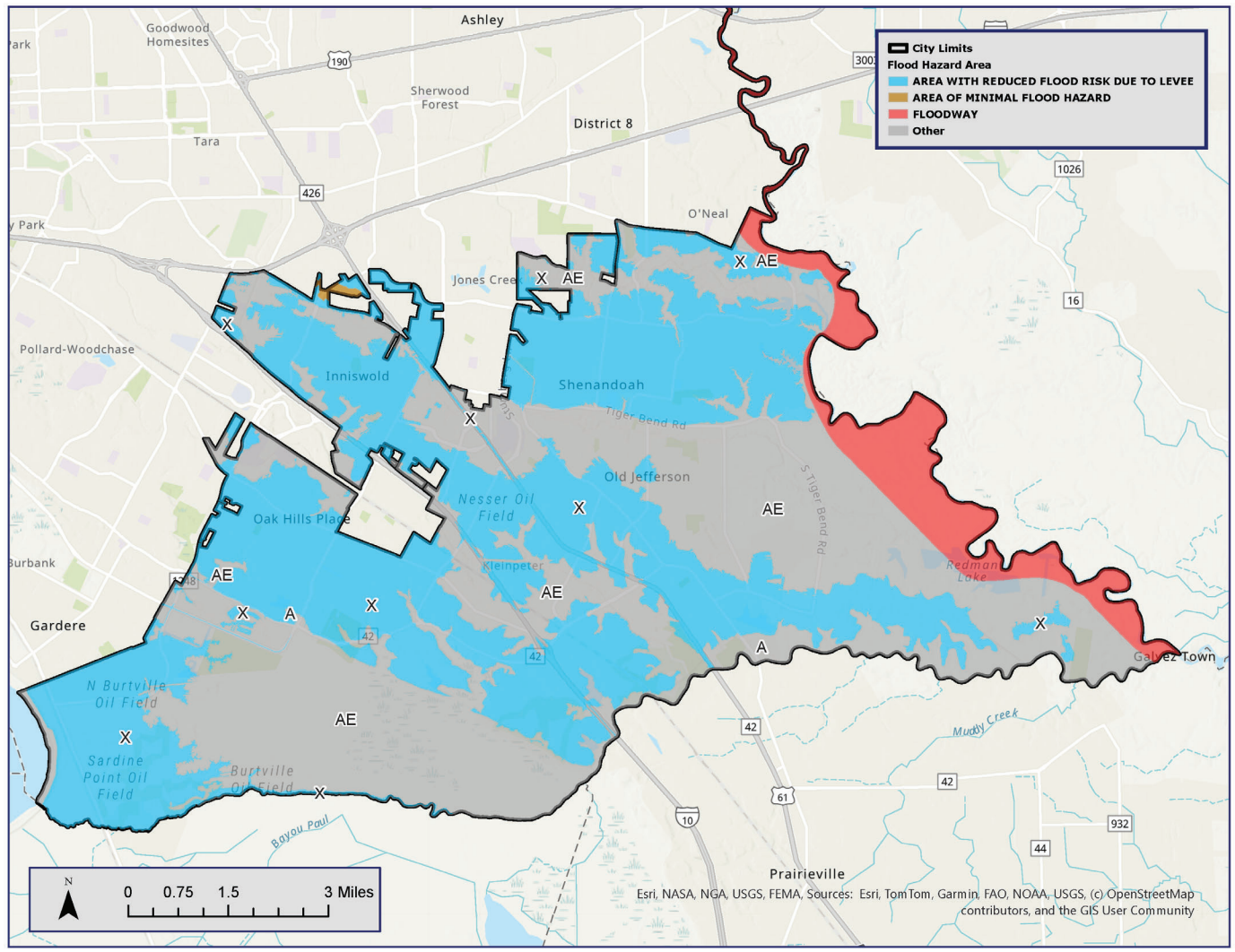

Figure 22: Flood Hazard Area map

Zone AE, represented by gray and red shading on FEMA maps, indicates areas with a 1% annual chance of flooding—commonly referred to as the "100-year floodplain." This is a high-risk zone where Base Flood Elevations (BFEs) have been established. Structures built in Zone AE must meet National Flood Insurance Program (NFIP) standards, which include elevating buildings to or above the BFE. Zone AE is prevalent throughout central, southern, and eastern St. George, including neighborhoods such as Gardere, Oak Hills Place, Old Jefferson, and Redman Place, as well as areas near South Tiger Bend Road and Jones Creek.

Zone A, shown in light blue on flood maps, also represents a high-risk floodplain but lacks detailed BFEs. These areas are often less studied or represent newly developing flood-prone zones. In St. George, Zone A appears in scattered bands, particularly along minor creeks and drainageways. Affected areas include parts of Shenandoah, Kleinpeter, and regions near Elliot Road, where flood modeling is less detailed but local topography suggests vulnerability.

FLOODING CONT.

Location cont.
Zone X, depicted as white areas with black Xs, indicates locations outside of the 500-year floodplain with minimal expected flood risk. However, these areas are still susceptible to localized urban flooding, particularly during intense rain events that overwhelm stormwater infrastructure. Large swaths of northwestern St. George, including Inniswold and parts of Jefferson-Drusilla, fall within Zone X and are not subject to the same NFIP building regulations as higher-risk zones.

Additionally, a section of Zone AE along the eastern border near Galvez Town appears in red shading, denoting areas with updated Digital Flood Insurance Rate Map (DFIRM) data. This area is influenced by the Amite River and its tributaries and features highly detailed elevation modeling. It represents one of the city's highest flood risk zones due to its proximity to riverine flood sources and its inclusion in recently refined flood mapping.

As St. George continues to grow, understanding and adapting to its floodplain geography will be essential to building long-term resilience and minimizing future flood losses.

Extent (magnitude)
The extent of flooding in St. George can range from minor ponding on roads and low-lying lots to severe flooding of homes and critical infrastructure. FEMA designates 100-year and 500-year floodplains based on statistical probability, and BFEs vary depending on location and proximity to mapped flood zones. During major events, flood depths in vulnerable areas can exceed several feet. Flash floods often occur with little warning and can overwhelm stormwater systems, especially in newly developed or rapidly urbanizing sections of the city.

In the map below, the city is outlined in yellow and spans a diverse elevation profile. All BFE values refer to the Base Flood Elevation in feet, representing the expected water level during a 1% annual chance (100-year) flood event.

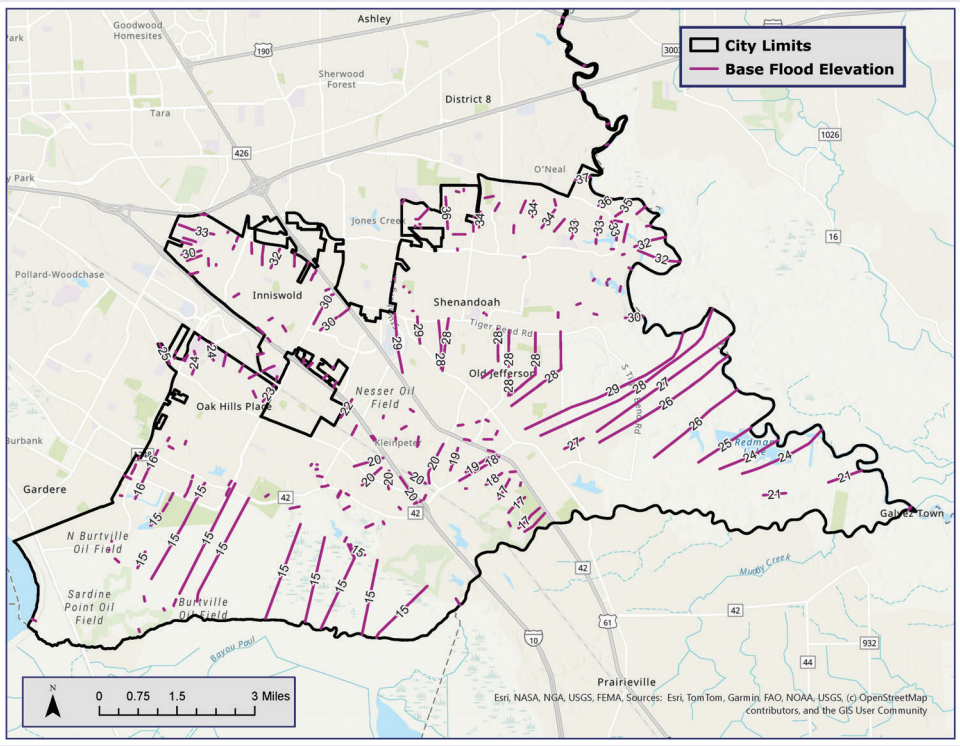

Figure 23: Base Flood Elevation map

In the southwestern section of the city, particularly in neighborhoods such as Gardere and areas near the North Burtville Oil Field, BFEs are approximately 15 feet. This area represents the lowest-lying portion of the city and lies adjacent to the broader Mississippi River floodplain, making it especially vulnerable to flooding. These zones are at higher risk for deep inundation during a base flood event.

FLOODING CONT.

Extent (magnitude) cont.
Moving into the central belt of the city—including neighborhoods like Kleinpeter, the Nesser Oil Field, and Oak Hills Place—BFEs rise to around 20 to 21 feet. These areas sit at a moderate elevation and are characterized by growing suburban development. While less flood-prone than the southwest, the combination of urbanization and aging or insufficient drainage infrastructure still presents a significant flood risk, especially during intense or prolonged rainfall.

In the northeastern and eastern sections of St. George, which include Old Jefferson, Shenandoah, Tiger Bend Road, and the Redman area, BFEs range from 24 to 29 feet, with some areas peaking at 32 feet in the far northeast. These higher elevations are often located near Jones Creek and its tributaries, and the variation in elevation across this region suggests the presence of subtle topographic ridges and drainage basins. These natural features play a key role in stormwater movement and accumulation, often directing runoff toward the lower-lying central and southwestern parts of the city.

Previous Occurrence, Disasters
Flooding has been a recurring and destructive hazard in the region encompassing the City of St. George, with both widespread disasters and localized flash flood events occurring regularly over the past several decades. The most devastating recent flood event was the August 2016 Flood (FEMA Disaster #4277), which submerged vast portions of unincorporated East Baton Rouge Parish, including many neighborhoods that now lie within the incorporated boundaries of St. George. This historic flood event was triggered by unprecedented rainfall, with some areas receiving over 20 inches in a short period, leading to catastrophic inland flooding, thousands of home evacuations, and long-term infrastructure damage.

More recently, on March 29, 2025, a Flash Flood Emergency was issued for East Baton Rouge Parish after a deluge of 3.5 to 4.5 inches of rain fell in a short timeframe, with an additional 1 to 2 inches forecasted. The event caused rapid urban flooding across the region, impacting roadways, disrupting daily activities, and straining emergency response resources. Similarly, Hurricane Francine, which made landfall on September 11, 2024, brought between 4 and 9 inches of rainfall to the region, resulting in widespread flooding, downed power lines, blocked roads, and multiple water rescues. The storm's impacts underscored the vulnerability of St. George to both direct tropical events and their inland hydrologic consequences.

Additional recent flood events include flash flooding on July 19, 2024, in the unincorporated areas near St. George after prolonged heavy rainfall, and a flash flood warning on December 9, 2024, issued due to excessive rainfall overwhelming the drainage system. Historical flood events also include Tropical Storm Allison in 2001, which brought widespread rainfall to the Gulf Coast, and the 2011 major flood event (FEMA Disaster #4015), which affected much of southern Louisiana. National Centers for Environmental Information (NCEI) data also indicate that multiple localized flash flood events occur annually, often concentrated during the spring and summer months when heavy thunderstorms are more frequent.

Collectively, these incidents demonstrate that St. George is highly susceptible to both large-scale flooding from tropical systems and localized flash flooding resulting from intense rainfall. These repeated events reinforce the need for proactive flood mitigation, resilient infrastructure planning, and community preparedness.

Probability of Future Events
Given its geographic location, drainage patterns, and history of past events, the City of St. George faces a consistently high risk of flooding. Although St. George is a newly incorporated municipality, it was formerly part of unincorporated East Baton Rouge Parish (EBRP), and thus the historical flood data from the Parish is highly relevant to the city's current risk profile.

FLOODING CONT.

Probability of Future Events cont.
According to the 2023 East Baton Rouge Parish Hazard Mitigation Plan, unincorporated areas of the parish, including what is now St. George, experience an average of 2.74 flood events per year, translating to a 100% annual probability of flooding. In practical terms, this means the city can expect two to three flood events annually, which may include localized flash floods, heavy rain events that exceed drainage system capacity, and broader inundation during tropical systems or prolonged storm periods.

This frequency is driven by several contributing factors, including intense seasonal rainfall, low topography, rapid urban development, and the city's proximity to waterways such as Ward Creek, Bayou Fountain, and Jones Creek. These conditions not only increase runoff and surface water accumulation but also reduce the natural absorption capacity of the land, further elevating flood risk.

The probability of future flooding in St. George is not only high based on historical trends, but likely to increase over time without continued investments in mitigation, drainage improvements, and resilient land use practices.

TORNADOES

Description

Tornadoes are violently rotating columns of air that descend from a thunderstorm and make contact with the ground, capable of producing extreme wind speeds, significant property destruction, and loss of life within minutes. They are among the most intense and unpredictable atmospheric hazards, often forming rapidly with little warning. Tornadoes can occur in any part of the United States, but their characteristics and seasonal patterns vary by region.

In Louisiana, tornadoes are most commonly associated with severe thunderstorms and tropical systems, such as hurricanes and tropical storms. The state is particularly vulnerable during the spring (March–May) and fall (October–November) months, although tornadoes can occur at any time of year (FEMA, 2023c). Because Louisiana lies near the Gulf of Mexico, the warm, moist air contributes to unstable atmospheric conditions that are conducive to tornadic activity. Additionally, hurricanes making landfall often generate tornadoes embedded in outer rainbands, compounding storm damage across wide areas.

Tornadoes are categorized using the Enhanced Fujita (EF) Scale, which ranks tornado intensity based on estimated wind speeds and the degree of damage observed to structures and vegetation. The scale ranges from EF0 to EF as shown in the table below (NOAA, 2023b).

ENHANCED FUJITA (EF) SCALE

EF RATING	WIND SPEED (MPH)	DAMAGE DESCRIPTION
EF0	65-85	Light damage (e.g. broken branches, minor roof damage)
EF1	86-110	Moderate damage (e.g. mobile homes overturned, roofs peeled off)
EF2	111-135	Considerable damage (e.g. roofs torn off well-constructedhomes, trees uprooted)
EF3	126-165	Severe damage (e.g. entire stories of well-constructed houses destroyed)
EF4	166-200	Devastating damage (e.g. houses leveled, cars thrown)
EF5	>200	Incredible damage (e.g. strong frame houses disintegrated, deformation of high-rises)

Figure 24: Enhanced Fujita (EF) Scale

While EF4 and EF5 tornadoes are rare in Louisiana, EF0 to EF2 tornadoes are relatively common and can still result in significant damages and injuries, especially in densely populated or poorly sheltered areas. According to NOAA data, Louisiana experiences an average of 35 to 40 tornadoes per year, with East Baton Rouge Parish consistently ranking among the top 10 parishes in terms of tornado occurrences. This frequency—combined with rapid urbanization in areas like the City of St. George—elevates the importance of community preparedness, warning systems, and structural resilience.

Location

Tornado risk is relatively uniform across the City of St. George, as tornadoes are not geographically constrained like riverine or coastal hazards (East Baton Rouge Parish, 2023). While the entire city is exposed to tornado risk, areas with higher population density and concentrations of residential structures—such as Shenandoah, Old Jefferson, and Oak Hills Place—may experience more severe impacts due to the potential for greater property damage and injuries. St. George's expansive suburban footprint also includes critical infrastructure, such as schools, medical facilities, and commercial centers, that could be affected during a tornado event.

Extent (magnitude)

Tornado intensity in the region has historically ranged from EF0 to EF3, with wind speeds between 65 and 165 mph. The most common tornadoes in Louisiana are of the EF0 and EF1 variety, which can still cause substantial damage to roofing, vehicles, trees, and powerlines. EF2 and higher events are less frequent but pose serious risks to life and

TORNADOES CONT.

Extent (magnitude) cont.
property, including structural damage to homes, overturning of vehicles, and significant disruption to utilities and emergency services. The compact yet highly destructive nature of tornadoes makes them particularly dangerous in densely populated areas (NOAA, 2023b).

Previous Occurrence, Disasters
Although tornadoes are less frequent than flooding in the region, their sudden onset, destructive potential, and localized impacts make them a significant hazard for the City of St. George. Historical tornado data for East Baton Rouge Parish—which includes the area now comprising St. George—indicates that tornadoes have been a recurring threat for decades. According to the National Centers for Environmental Information (NCEI) Storm Events Database, over 60 tornadoes have been recorded in East Baton Rouge Parish since 1950, with at least 18 tornadoes occurring between 2003 and 2025 alone (NCEI, 2025).

While no EF4 or EF5 tornadoes have been officially recorded within the immediate St. George area, several EF1 and EF2 events have caused measurable damage. In April 2015, an EF1 tornado touched down in the southern portion of the parish, uprooting trees and damaging residential structures. Another tornado in March 2022 caused widespread damage along the Jefferson Highway corridor, toppling fences, damaging vehicles, and interrupting utility services.

More recently, a significant outbreak of tornadoes occurred between May 14–17, 2024, affecting multiple areas within East Baton Rouge Parish, including parts near St. George. The outbreak brought winds exceeding 75 mph, resulting in substantial damage, widespread power outages affecting approximately 30,000 customers, road blockages, and school closures. On May 13, 2024, severe weather led to a tornado-related fatality in a mobile home, highlighting the extreme vulnerability of certain housing types. Just weeks earlier, on April 10, 2024, another tornado touched down near unincorporated EBR, again demonstrating the persistent risk to communities in and around St. George.

The map to the right shows tornado activity in St. George, Louisiana, and surrounding areas, including parts of Baton Rouge, Old Jefferson, Oak Hills Place, Gardere, and Denham Springs. The map uses color-coded tornado tracks to indicate tornado intensity: yellow represents EF1, orange indicates EF2, and red signifies EF3 events. Yellow circles mark individual tornado occurrences, with their size representing the magnitude. Additionally, shaded areas denote the annualized tornado frequency per county, ranging from light pink (0–0.2 events/year) to darker shades (up to 4.3 events/year).

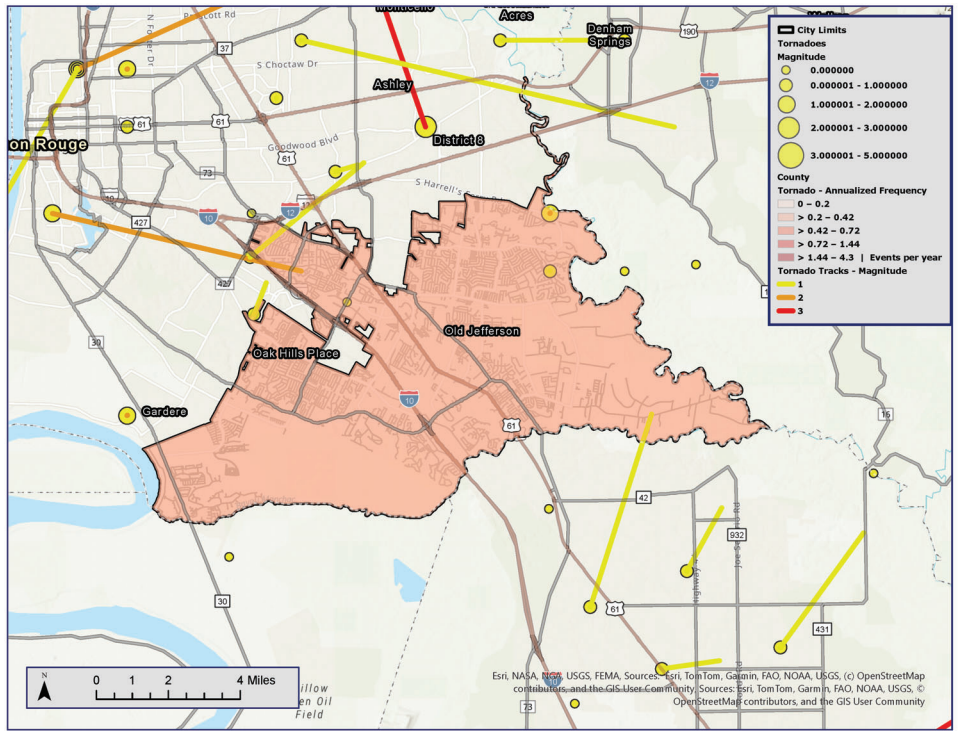

Figure 25: Tornado Magnitude, Frequency and Tracks

TORNADOES CONT.

In the St. George area (shaded in peach), moderate tornado activity is observed. Tornado tracks of EF1 and EF2 pass through or near the region, with an annualized tornado frequency primarily between 0.2 and 0.72 events per year. High activity zones appear to the northwest of St. George, especially in District 8, Ashley, and Acres, where a notable EF3 tornado track suggests the potential for severe damage. The areas of Gardere and Oak Hills Place also show multiple EF1 tornado events, reflecting increased vulnerability, particularly given their proximity to the Mississippi River floodplain.

In the surrounding regions, Old Jefferson displays some EF1 tornado activity and falls within the 0.42–1.44 events/year frequency range. Meanwhile, areas to the east and south of St. George, particularly near Highways 42 and 431, show dense clusters of EF1 events, with tornado frequency being notably higher in these rural-to-suburban transition zones.

The tornado risk summary, shown in the table below, emphasizes the need for robust early warning systems, public awareness campaigns, and building practices designed to withstand high winds. Even lower-intensity tornadoes can have serious consequences, especially when they intersect with densely populated neighborhoods or mobile home communities.

TORNADO RISK SUMMARY

AREA	TORNADO MAGNITUDE (OBSERVED)	ANNUALIZED FREQUENCY	RISK LEVEL
St. George	EF1, EF2	0.2 - 0.72 events/year	Moderate
District 8 (north)	EF1, EF3	0.42 - 1.44 events/yeear	High
Gardere	EF1	0.42 - 0.72 events/year	Moderate to High
East of St.George	EF1	0.72 - 1.44+ events/year	High

Figure 26: Tornado risk summary

Probability of Future Events

According to the National Risk Index by FEMA and NOAA storm data, East Baton Rouge Parish has experienced 38 tornado events over a 72-year period (1950–2021), resulting in the probability of a tornado affecting St. George in any given year is estimated at approximately 0.4 (or 40%), meaning a tornado could occur once every 2 to 3 years on average (FEMA, 2023c; NCEI, 2025). However, this does not account for near-misses or smaller-scale events that go unreported. The risk is amplified by the region's vulnerability during severe thunderstorm seasons and hurricane-related weather systems, which are increasingly producing tornadic activity.

Given the potential for rapid onset, concentrated damage, and limited warning time, tornadoes remain a high-consequence hazard for St. George, warranting continued investment in early warning systems, community outreach, safe room construction, and resilient building codes.

TROPICAL CYCLONES

Description

Tropical cyclones are rapidly rotating storm systems characterized by low-pressure centers, strong winds, and heavy rainfall. They include tropical depressions, tropical storms, and hurricanes, and often lead to flooding, downed power lines, structural damage, and loss of life. Hurricanes are categorized by the Saffir-Simpson Hurricane Wind Scale, ranging from Category 1 (74–95 mph) to Category 5 (≥157 mph) (NOAA, 2023c).

Impacts in St. George typically include:

- Strong sustained winds and gusts exceeding 74 mph during hurricane events.
- Heavy rainfall leading to flash flooding and overbanking of local waterways.
- Extended power outages and disruption of transportation and emergency services.

Location

The entirety of the City of St. George is exposed to tropical cyclone risk due to its location in southeastern Louisiana, just southeast of Baton Rouge. The city is situated within a region frequently affected by both coastal and inland tropical cyclone tracks (NHC, 2023).

The hurricane tracks and windstorm paths map to the right displays the paths of windstorms and hurricanes over a 50-year period (1975–2025) in and around the St. George, Louisiana area. It includes historic hurricane tracks, categorized by intensity; windstorm paths identified by hazard level (e.g., hurricane, storm, severe gale); and St. George's city limits outlined in black, offering a clear spatial reference.

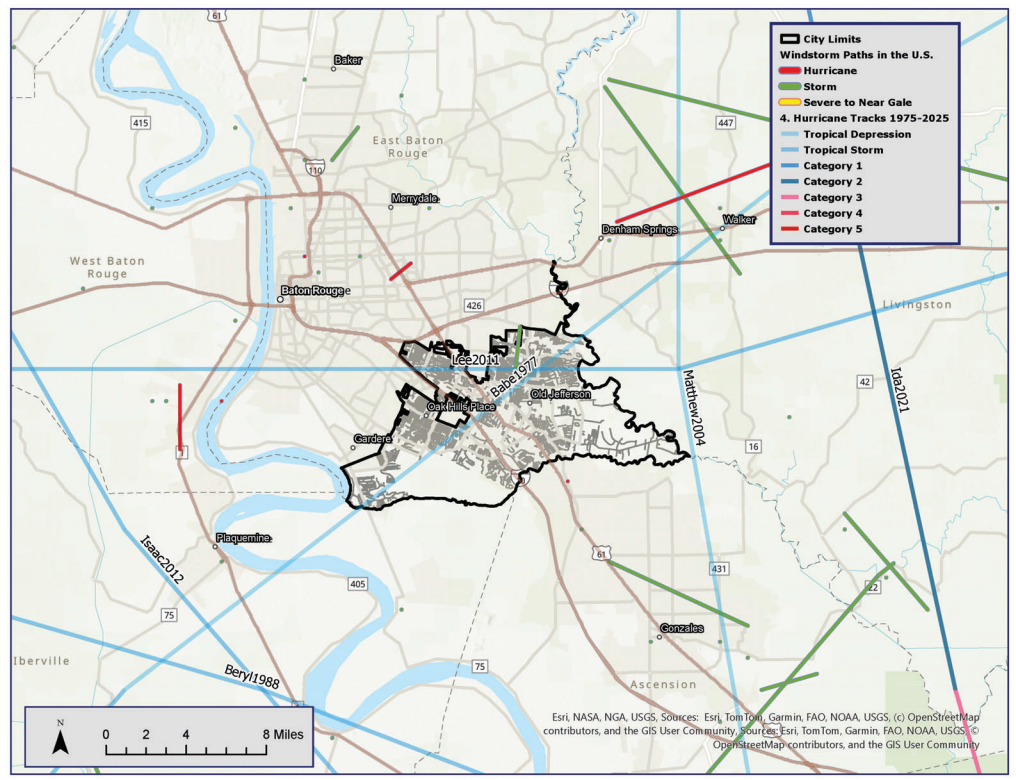

Figure 27: Windstorm Paths and Hurricane Tracks map

St. George lies within a high-risk windstorm zone. The area sits within a dense cluster of historical storm paths, indicating frequent exposure to tropical cyclones and severe wind events. Its location just south of Baton Rouge makes it especially vulnerable to both inland hurricane impacts and the remnants of storm surge from coastal systems.

TROPICAL CYCLONES CONT.

Location cont.
Multiple named hurricanes have tracked near or directly through St. George. The map identifies several significant storms, including Hurricane Isaac (2012), a Category 1 hurricane that passed just south of the city, and Hurricane Ida (2021), a major Category 4 hurricane that tracked just east of St. George, causing severe regional damage. Other notable storms include Matthew (2004) and Beryl (1988), which passed to the southeast and southwest respectively, bringing tropical storm to hurricane-level impacts. Lee (2011) and Babette (1977) are also shown with paths intersecting directly with the vicinity of St. George (FEMA, 2023a; NOAA, 2023d).

The windstorm paths on the Windstorm Paths and Hurricane Tracks map above highlight the severity potential of these events. Red lines (hurricanes) and orange lines (storms) cross directly over or near the area, indicating intense wind threats. These storms have likely caused repeated impacts, such as tree and utility line damage, roof and infrastructure failures, extended power outages, and significant roadway and drainage disruptions.

Importantly, the hazard is not limited to coastal zones. Although St. George is located inland, it remains highly exposed to the wind and rain bands of hurricanes that make landfall along Louisiana's coast. This reinforces the need for inland storm mitigation strategies such as reinforced roofing and power infrastructure, enhanced drainage capacity, and coordinated emergency response planning.

Finally, the cumulative risk is evident through the density of storm tracks across the map. With numerous tropical depressions, tropical storms, and hurricanes—some reaching Category 4—tracking through or near St. George, the map makes clear that the city has a long and continuous history of tropical storm activity. There is no portion of the city limits that has been consistently spared, underscoring the necessity for ongoing hazard mitigation and climate resilience efforts.

Extent (magnitude)
Tropical cyclone intensity is measured by wind speed and pressure. In the case of St. George:

- The area has experienced storms ranging from Tropical Storm to Category 2 Hurricane strength.
- Notably, Hurricane Isaac (2012) and Hurricane Ida (2021) brought Category 1–2 strength winds and widespread rainfall.
- Inland flooding, wind damage, and downed trees and utility poles are common effects during these events.

The *Annualized Frequency of Hurricanes* map to the right provides additional insight into the magnitude and recurrence of hurricane impacts in the region. St. George falls within a zone that experiences an annualized hurricane frequency of 0.129 to 0.217 events per year, placing it in one of the higher exposure categories in inland Louisiana. This translates to the likelihood of a significant tropical cyclone event approximately every 4 to 6 years, underscoring the regularity with which the area is affected by damaging storms.

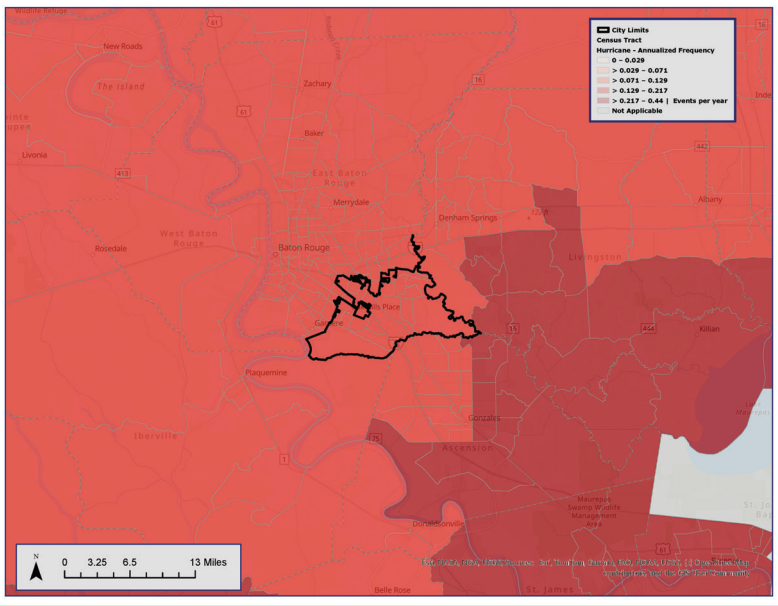

Figure 28: Annualized Frequency of Hurricanes map

TROPICAL CYCLONES CONT.

Extent (magnitude) cont.

The surrounding parishes—especially to the south and southeast, including areas like Gonzales, Houma, and New Orleans—fall within even higher frequency zones (>0.25 events/year), suggesting that St. George is situated along a key corridor for storm activity traveling inland from the Gulf Coast. This annualized frequency reinforces the region's vulnerability not only to high-wind events but also to the cumulative impact of recurrent storms, including wind damage, flooding, and infrastructure stress. The color gradient on the map illustrates that St. George is far from a low-risk area and instead experiences consistent tropical storm exposure, necessitating robust planning, infrastructure hardening, and community preparedness to manage future events (East Baton Rouge Parish, 2023; FEMA, 2023a).

Previous Occurrence, Disasters

Several significant tropical cyclones have affected St. George and its surrounding region over the past several decades:

- **Hurricane Katrina (2005)** – Though landfall occurred further east, outer bands affected Baton Rouge and the St. George area with strong winds and mass evacuations.
- **Hurricane Gustav (2008)** – Made landfall near Cocodrie, Louisiana; caused widespread wind damage and prolonged power outages in East Baton Rouge Parish.
- **Hurricane Isaac (2012)** – Tracked west of the city; brought heavy rains, tropical storm-force winds, and flooding.
- **Hurricane Ida (2021)** – A Category 4 hurricane that passed just east of St. George; caused power outages and infrastructure damage throughout the metro area.

These events were declared federal disasters by FEMA and triggered major emergency response and recovery operations (NHC, 2023; FEMA, 2023a). Inland areas have also been affected by tropical storm rainfall and wind from weaker systems such as Lee (2011) and Matthew (2004).

Probability of Future Events

The probability of future tropical cyclone events in St. George is high. Based on historical track data shown in the hurricane tracks and windstorm paths map and annualized hurricane frequency map, both shown above.

The city falls within a moderate-to-high hazard area, with 0.169–0.25 tropical cyclones per year, equating to a 25–40% chance each year. Even without a direct landfall, tropical systems can still deliver damaging winds and flooding in St. George due to its geographic exposure(FEMA, 2023c; NOAA, 2024).

THUNDERSTORMS (HAIL, LIGHTNING, WIND)

Description

Thunderstorms are frequent and hazardous weather events in southeastern Louisiana, often producing high winds, cloud-to-ground lightning, and hail. These events can cause structural damage, power outages, flash flooding, and pose serious threats to public safety. Thunderstorms in the region are typically short in duration but intense in severity. Common impacts include fallen trees, damaged rooftops, downed power lines, traffic disruption, and fire ignitions from lightning strikes (NOAA, 2023).

Location

The entire City of St. George lies within a high-risk area for thunderstorm activity. As illustrated in the map to the right, which maps thunderstorm hazards in the region, clusters of severe thunderstorm impacts—including hail, lightning, and wind—are recorded across all city neighborhoods.

- Central areas such as Shenandoah and Old Jefferson show concentrations of high wind events and hail damage.
- Western neighborhoods, including Inniswold and Oak Hills Place, show frequent thunderstorm wind events.
- Southern areas like Kleinpeter and near the Prairieville boundary also display high hazard exposure, particularly for lightning and wind events.

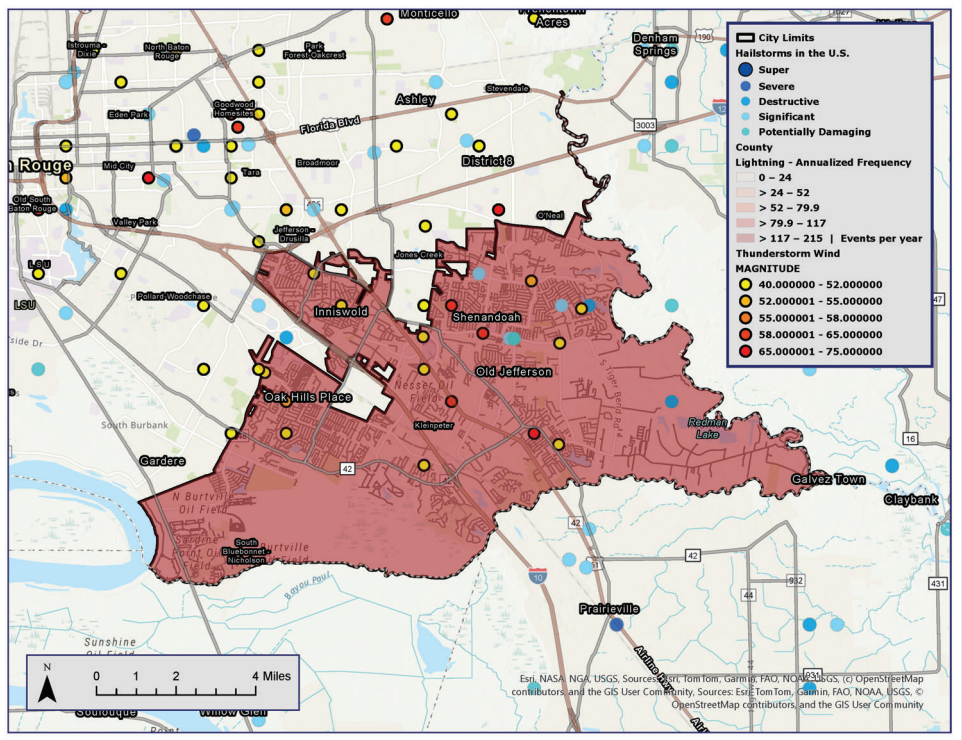

Figure 29: Hailstorms, Lightning and Thunderstorm Wind map

The NOAA Storm Events Database, combined with GIS mapping from the National Centers for Environmental Information (NCEI), indicates that lightning activity across St. George exceeds 117 events per year, placing it in one of the highest risk categories nationally (NOAA/NCEI, 2023).

Extent (magnitude)

The extent of thunderstorm hazards in St. George includes:

- Wind Speeds: Recorded thunderstorm wind events range from 40 to 75 mph. The most frequent damage-causing events fall in the 58–75 mph range, capable of downing trees, damaging infrastructure, and disrupting utilities (NOAA SPC, 2023).
- Hail Size and Severity: Hail events range in classification from "Potentially Damaging" to "Destructive," with hailstones recorded over 1 inch in diameter. Damage is typically seen in rooftops, vehicles, and landscaping (NOAA, 2023; Figure 1).
- Lightning Frequency: The city's annual lightning frequency falls within the 117–215 strikes/year range, highlighting the need for lightning-resistant infrastructure and enhanced emergency communication systems.