

SECTION 9. JURISDICTIONAL ANNEXES

9.11 Village of Pleak

This section presents the jurisdictional annex for the Village of Pleak that provides resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions to reduce or eliminate damage to property and people that can be implemented prior to a disaster. Information presented includes a general overview of the municipality, the Village of Pleak representatives who participated in the planning process, an assessment of the Village of Pleak's risk and vulnerability, the different capabilities used in the Village of Pleak, and an action plan that will be implemented to achieve a more resilient community.

9.11.1 Hazard Mitigation Planning Team

The Village of Pleak identified primary and alternate points of contact and developed this 2023 Hazard Mitigation Plan (HMP) update over the course of several months with input from the Village of Pleak Secretary and Fire Chief. The City Secretary represented the community on the Fort Bend County HMP Planning Partnership and supported the local planning process requirements by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

The following table summarizes municipal officials that participated in the development of the annex and in what capacity. Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Volume 1, Section 2 (Planning Process) and Appendix C (Meeting Documentation).

Table 9.11-1. Hazard Mitigation Planning Team

Primary Point of Contact			Alternate Point of Contact	
Name/Title:	Erin Wa	alley, City Secretary	Name/Title:	Jordan Blegen, Fire Chief
Address:		M 2218 South	Address:	6621 FM 2218
71441 6551	Richmo	ond, TX 77469	Address.	Richmond, TX 77469
Phone Number:	(281) 2	39-8504	Phone Number:	(281) 342-3692
Email:	pleakvi	pleakvillage@yahoo.com Email: pleakvfd@yahoo.com		pleakvfd@yahoo.com
NFIP Floodplain Adr	NFIP Floodplain Administrator			
Name/Title:	Sean Eglinton/Assistant County Engineer*			
Address:	301 Jackson St, Richmond, Texas, 77469, United States			
Phone Number:	281-633-7513			
Email:	sean.eglinton@fortbendcountytx.gov			
Additional Contributors:				
Name/Title: Erin Walley/ City Secretary				
Method of Participation: Provided key information through		answering workshee	ets	

^{*}Information obtained from https://www.texasflood.org/flood-basics/fpa.html



9.11.2 Municipal Profile

The Village of Pleak is south of the center of Fort Bend County on Texas State Highway 36, south of Rosenberg. Pleak gets its name from real estate developer A.E. Pleak. A successful oilman, he donated land for a school in 1912, which resulted in the formation of a small community in the area that still bears his name (Fort Bend County n.d.). The Village of Pleak has a total area of 1.85 square miles: 1.82 square miles of land and 0.03 square miles of water.

According to the American Community Survey, the 2021 population for the Village of Pleak was 1,756, a 7 percent decrease from the 2010 Census. Data from the 2020 U.S. Census indicate that 1.9 percent of the population is 5 years of age or younger, and 12.4 percent is 65 years of age or older.

9.11.3 Jurisdictional Capability Assessment and Integration

The Village of Pleak performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume 1, Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment includes the following analyses:

- An assessment of legal and regulatory capabilities
- Development and permitting capabilities
- An assessment of administrative and technical capabilities
- An assessment of fiscal capabilities
- An assessment of education and outreach capabilities
- Classification under various community mitigation programs
- The community's adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of the hazard mitigation analysis, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. The updated mitigation strategy provided an opportunity for the Village of Pleak to identify opportunities for integration of mitigation concepts that can be incorporated into municipal procedures.

Planning, Legal, and Regulatory Capability and Integration

The table below summarizes the regulatory tools that are available to the Village of Pleak. The comment field provides information as to how the capability integrates hazard mitigation and risk reduction.

Table 9.11-2. Planning, Legal, and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible	
Codes, Ordinances, & Regulations					
Building Code	Yes	International Building Code	Local	Planning and Zoning	
How does this reduce risk? The Village of Pleak follows the International Building Code to protect development.					
Zoning/Land Use Code	Yes	Zoning Ordinance #16-80	Local	Planning and Zoning	
How does this reduce risk?					



Individual / Jurisdiction Code Citation and Date Department / Authority has this? (code chapter, name of plan, (local, county, Agency (Yes/No) date of plan) Responsible state, federal) This ordinance is adopted for the purpose of promoting and protecting the health, safety, morals, and general welfare of the residents, citizens, and inhabitants of the Village of Pleak. The provisions of this ordinance are the requirements necessary to accomplish these purposes as specifically delineated in this and other applicable ordinances. This ordinance is further adopted in order to regulate the use of land within the Village of Pleak so as to promote orderly and healthy development, good governmental policies, peace and order of the Village and the trade and commerce thereof, as may be necessary or proper to carry into effect the powers vested in the Village of Pleak by the Constitution and laws of the State of Texas. **Subdivision Ordinance** Yes **Subdivision Ordinance** Local Village Council How does this reduce risk? It is the purpose of this chapter to provide for the orderly, safe, and healthful development of the area within the Village and its extraterritorial jurisdiction and to promote the health, safety, morals, and welfare of the community. Site Plan Ordinance No How does this reduce risk? **Stormwater Management Ordinance** No How does this reduce risk? Post-Disaster Recovery/ Reconstruction No Ordinance How does this reduce risk? **Real Estate Disclosure** No How does this reduce risk? **Growth Management** No How does this reduce risk? **Environmental Protection Ordinance** No How does this reduce risk? **Flood Damage Prevention Ordinance** Flood Damage Ordinance -Yes Local Village Council NO. 08-16 How does this reduce risk? It is the purpose of this ordinance to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to: (1) Protect human life and health; (2) Minimize expenditure of public money for costly flood control projects: (3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; (4) Minimize prolonged business interruptions; (5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, and sewer lines, streets and bridges located in floodplains: (6) Help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas; and (7) Ensure that potential buyers are notified that property is in a flood area. Wellhead Protection No How does this reduce risk? **Emergency Management Ordinance** No

How does this reduce risk?



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible	
Climate Change Ordinance	No	-	-	-	
How does this reduce risk?					
Other	No	-	-	-	
Planning Documents					
Comprehensive/Master Plan	Yes	Village of Please Comprehensive Plan	Local	Planning and Zoning	
How does this reduce risk?					
The Plan lays out goals for development which in	1	s of flood areas.			
Capital Improvement Plan How does this reduce risk?	No	-	-	-	
The Village of Pleak relies on Fort Bend County for	or help with this				
Disaster Debris Management Plan	No	-	-	-	
How does this reduce risk?					
The Village of Pleak relies on Fort Bend County for	or help with this.				
Floodplain Management or Watershed Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County f	or help with this	i.			
Stormwater Management Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County for	or help with this.				
Open Space Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County for	or help with this				
Urban Water Management Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County for	or help with this				
Habitat Conservation Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County for	or help with this				
Economic Development Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County for help with this.					
Shoreline Management Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County for help with this.					
Community Wildfire Protection Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County for help with this.					
Community Forest Management Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County for	or help with this.				



				/	
	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible	
Transportation Plan	No	-	-	-	
How does this reduce risk?	'				
Agriculture Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County for	or help with this.				
Climate Action/ Resiliency/Sustainability Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County f	or help with this				
Tourism Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County f	or help with this				
Business/ Downtown Development Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County f	or help with this				
Other	No	-	-	-	
Response/Recovery Planning					
Comprehensive Emergency Management Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County f	or help with this				
Continuity of Operations Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County for help with this.					
Strategic Recovery Planning Report	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County f	or help with this				
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County for	or help with this.				
Post-Disaster Recovery Plan	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County for help with this.					
Public Health Plan	Yes	The Fort Bend County Health and Human Services Department (FBHHS) provides public health services for the Village. FBHHS has public health plans as part of Annex H of the Fort Bend County Emergency Operations Plan.	County	FBHHS	
How does this reduce risk?					



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible	
The Village of Pleak relies on Fort Bend County for help with this. FBHHS has plans in place to prevent public health issues through regular inspections of regulated facilities, as well as prepare for and respond to public health emergencies.					
Other	No	-	-	-	
How does this reduce risk? The Village of Pleak relies on Fort Bend County for help with this.					

Development and Permitting Capability

The table below summarizes the capabilities of the Village of Pleak to oversee and track development.

Table 9.11-3. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Yes/No	Comment:
Do you issue development permits? • If yes, what department is responsible?	No	Fort Bend County
If you do not issue development permits, what is your process for tracking new development?	No	Fort Bend County
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	Fort Bend County
Do you have a buildable land inventory? • If yes, please describe	No	Fort Bend County
Describe the level of build-out in your jurisdiction.	N/A	

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Pleak and their current responsibilities that contribute to hazard mitigation.

Table 9.11-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Administrative Capability		
Planning Board	Yes	Planning and Zoning Commission is responsible for maintaining zoning within the Village and reviewing subdivision plats, site plans, and granting easements for land uses.
Zoning Board of Adjustment	Yes	See Planning Board
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	No	-
Construction/Building/Code Enforcement Department	No	-
Emergency Management/Public Safety Department	Yes	Fire Department



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Warning Systems / Services		
(mass notification system, outdoor warning signals, etc.)	No	-
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	Yes	Have mutual aid agreement for emergency services and sheltering with Fort Bend County.
Human Resources Manual	No	-
Technical/Staffing Capability		
Planners or engineers with knowledge of land	Yes	City Engineer
development and land management practices		
Engineers or professionals trained in building or	No	-
infrastructure construction practices		
Planners or engineers with an understanding of natural	Yes	Village Engineer
hazards		
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage	No	-
assessments		
Personnel skilled or trained in GIS and/or Hazards	No	-
United States (HAZUS) – Multi-Hazards (MH)		
applications		
Environmental scientist familiar with natural hazards	No	-
Surveyor(s)	No	-
Emergency manager	Yes	Village Mayor
Grant writer(s)	No	-
Resilience officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	-	-

Fiscal Capability

The table below summarizes financial resources available to the Village of Pleak.

Table 9.11-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	No
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open space acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Village of Pleak.





Table 9.11-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment:
Public information officer or communications office	No	-
Personnel skilled or trained in website development	No	-
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	No	-
Natural disaster/safety programs in place for schools	No	-
Does the jurisdiction have any public outreach mechanisms / programs in place to inform citizens on natural hazards, risk, and ways to protect themselves during such events? • If yes, please describe.	No	-

Community Classifications

The table below summarizes classifications for community programs available to the Village of Pleak.

Table 9.11-7. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	7.9	1996
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
Other	No	-	-

Adaptive Capacity

Adaptive capacity is defined as "the ability of systems, institutions, humans, and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences" (IPCC 2014). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. The table below summarizes the adaptive capacity for each identified hazard of concern and the jurisdiction's capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement.



Table 9.11-8. Adaptive Capacity

Hazard	Adaptive Capacity – Strong/Moderate/Weak	
Dam/Levee Failure	Moderate	
Disease Outbreak	Moderate	
Drought	Moderate	
Extreme Temperature	Moderate	
Flood	Moderate	
Geologic Hazards	Moderate	
Hurricane/Tropical Storm	Moderate	
Severe Weather	Moderate	
Tornado	Moderate	
Wildfire	Moderate	
Winter Weather	Moderate	

9.11.4 National Flood Insurance Program (NFIP) Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the NFIP. The Floodplain Administrator is responsible for maintaining this information and is listed in the Hazard Mitigation Planning Team table at the beginning of this annex.

NFIP Summary

The following table summarizes the NFIP statistics for the Village of Pleak.

Table 9.11-9. NFIP Summary

Municipality	Policies in Force	Number of Paid Claims*	Amount of Paid Claims*	Number of NFIP RL Properties	Number of NFIP SRL Properties
Pleak (V)	N/A	0	0	0	0

Sources: a BureauNet 2022 (https://nfipservices.floodsmart.gov/reports-flood-insurance-data)

b 2018 Fort Bend County HMP

Notes: Due to a contractual agreement with FEMA, detailed information at the municipal level was not available to incorporate into the 2023 HMP Update. The information presented here was collected from data provided by the State of Texas and from FEMA's HUDEX Report.

RL Repetitive Loss
SRL Severe Repetitive Loss

Flood Vulnerability Summary

The following table provides a summary of the NFIP program in the Village of Pleak.

Table 9.11-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	No list maintained. Trinity Road, Trinity Drive, Saddle
 Do you maintain a list of properties that have been damaged by flooding? 	Drive, Kari Lane, and Coon Creek all flood.
 Do you maintain a list of property owners interested in flood mitigation? 	No
 How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)? 	N/A
Are any RiskMAP projects currently underway in your jurisdiction?	No
If so, state what projects are underway.	

^{*}Number of RL and SRL properties provided by the State of Texas

^{**}Total policies in force and paid claims collected from FEMA's OpenFEMA Dataset: FIMA NFIP Redacted Claims



NFIP Topic	Comments
 How do you make Substantial Damage determinations? How many were declared for recent flood events in your jurisdiction? 	Procedures need to be developed.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? • If there are mitigated properties, how were the projects funded?	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction?	Yes
If not, state why.	
NFIP Compliance	
What local department is responsible for floodplain management?	Fort Bend County
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	No
Does your floodplain management staff need any assistance or training to support its floodplain management program? • If so, what type of assistance/training is needed?	No
Provide an explanation of NFIP administration services you provide (e.g. permit review, GIS, education/outreach, inspections, engineering capability)	None
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Procedures need to be developed.
What are the barriers to running an effective NFIP program in the community, if any?	Funding
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? • If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	N/A
 What is the local law number or municipal code of your flood damage prevention ordinance? What is the date that your flood damage prevention ordinance was last amended? 	ORD. 08-16
Does your floodplain management program meet or exceed minimum requirements? • If exceeds, in what ways?	Meet
Are there other local ordinances, plans or programs (e.g. site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	No
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

9.11.5 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. The table below summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development.



Table 9.11-11. Number of Building Permits for New Construction

Type of Development	2018		2	019	2020		20	021	2022					
Number of Building	Permits	for New Co	nstructio	n Issued Si	nce the prev	rious HMP* (to	otal/within	regulatory fl	oodplain)					
		Within		Within		Within		Within		Within				
	Total	SFHA	Total	otal SFHA		SFHA	Total	SFHA	Total	SFHA				
Single-Family														
Multi-Family														
Other														
(commercial,					County co	ompletes pern	nitting							
mixed-use, etc.)														
Total Permits														
Issued														

SFHA Special Flood Hazard Area (1% annual chance flood event)

Table 9.11-12. Recent and Expected Future Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address and Parcel ID	Known Hazard Zone(s)	Description/Status of Development							
Recent Major Development from 2018 to Present												
None Identified												
Known or Anticipated Major Development in the Next Five (5) Years												
None Identified												

9.11.6 Jurisdictional Risk Assessment

The hazard profiles in Volume 1, Section 4 (Risk Assessment) provide detailed information regarding each plan participant's vulnerability to the identified hazards. Section 4.1 (Methodology and Tools) and Section 4.4 (Hazard Ranking) provide detailed summaries for the Village of Pleak's risk assessment results and data used to determine the hazard ranking discussed later in this section.

Hazard area extent and location maps provided below illustrate the probable areas impacted within the jurisdiction based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps were generated only for those hazards that can be identified clearly using mapping techniques and technologies and for which the Village of Pleak has significant exposure. The maps also show the location of potential new development, where available.

^{*} Only location-specific hazard zones or vulnerabilities identified.



Figure 9.11-1. Village of Pleak Hazard Area Extent and Location Map-Dam Inundation

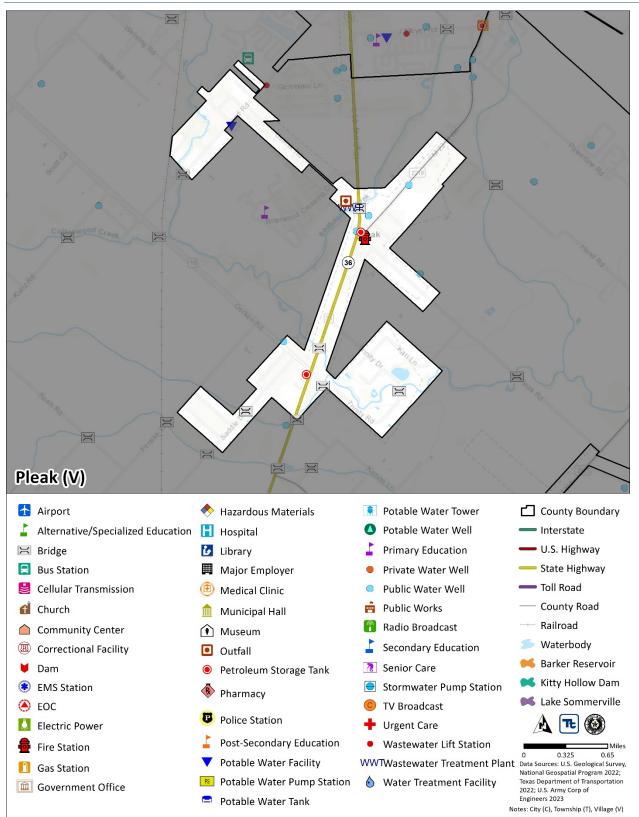




Figure 9.11-2. Village of Pleak Hazard Area Extent and Location Map-Expansive Soils

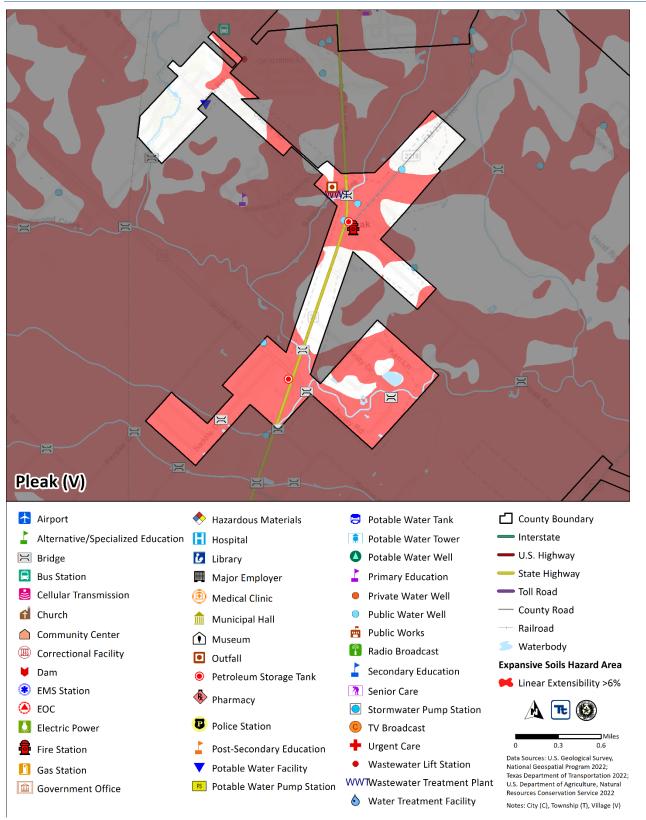




Figure 9.11-3. Village of Pleak Hazard Area Extent and Location Map-Flood

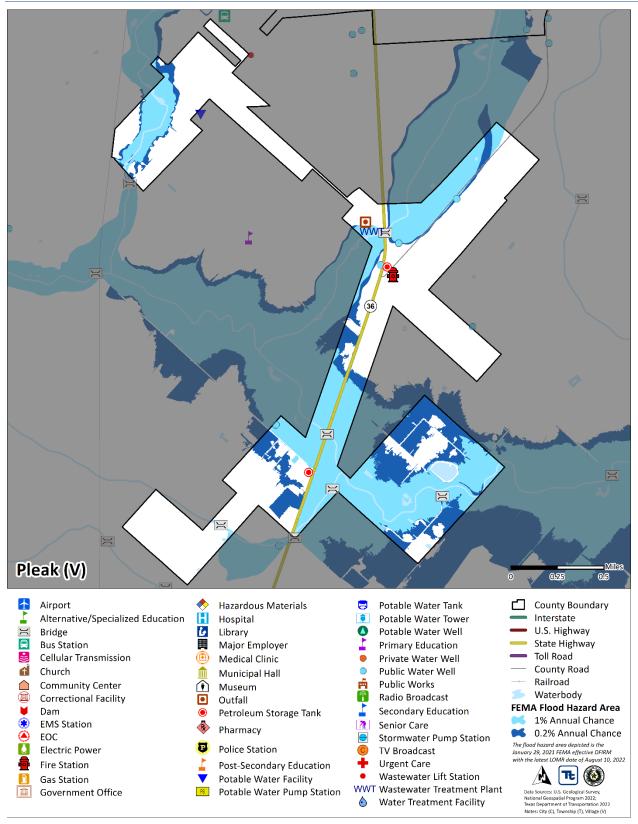




Figure 9.11-4. Village of Pleak Hazard Area Extent and Location Map-Inland Erosion

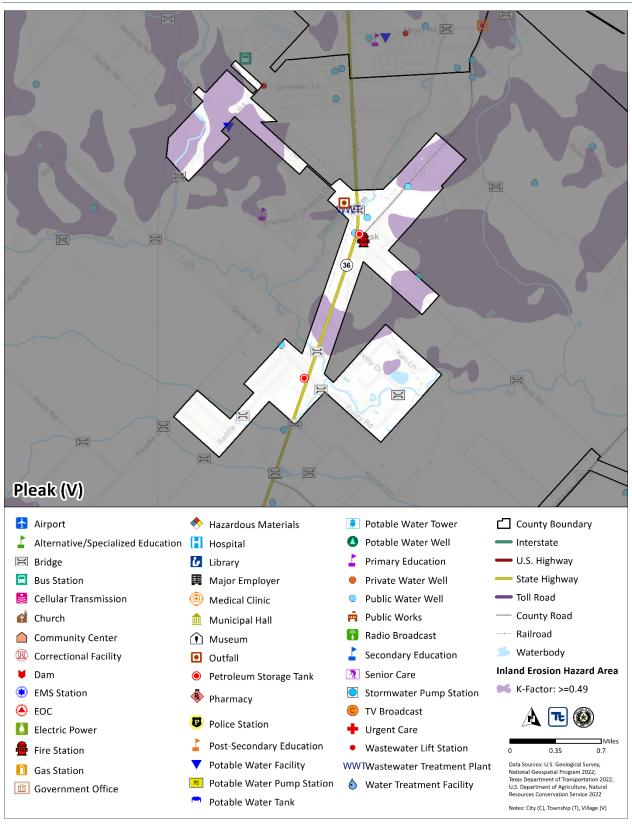
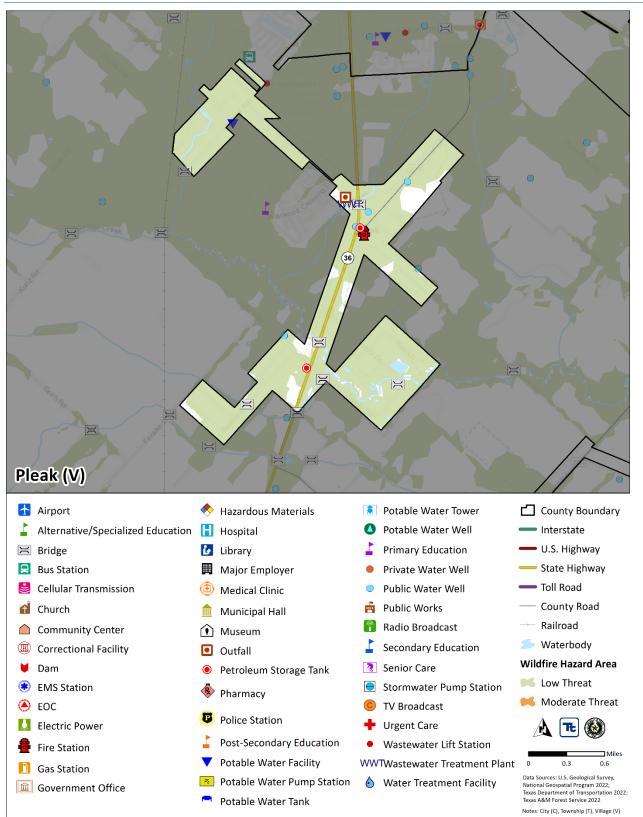




Figure 9.11-5. Village of Pleak Hazard Area Extent and Location Map-Wildfire





Hazard Event History

Fort Bend County has a history of natural and non-natural hazard events, as detailed in Volume I, Section 4 (Risk Assessment). A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities.

The Village of Pleak's history of federally declared (as presented by FEMA) and significant hazard events [as presented in NOAA-National Centers for Environmental Information (NCEI)] is consistent with that of the County. The table below provides details regarding municipal-specific loss and damages the Village of Pleak experienced during hazard events since the last HMP update. Information provided in the table below is based on reference material or local sources.

Table 9.11-13. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
January 20, 2020 – continuing	EM-3458 – Covid-19; DR- 4485 – Covid- 19 Pandemic	Yes	Covid-19 pandemic declared	Modular building with accessories to assist of prevent Covid transmission.
July 25-31, 2020	EM-3530 – Hurricane Hanna	Yes	Hurricane force winds resulted in a significant number of downed trees and utility lines.	Although the County was impacted, the Village did not report substantial damages.
August 23- 27, 2020	EM-3540 – Tropical Storms Marco and Laura	Yes	Hurricane Marco and Laura	Although the County was impacted, the Village did not report substantial damages.
February 11- 21, 2021	EM-3554 – Severe Winter Storm; DR- 4586 – Severe Winter Storms	Yes	Winter Storm Uri distributed a record amount of snow throughout Texas. Snow, ice, and ultra-low temperatures caused widespread road closures.	Increased Fire Dept. staffing to respond to public emergencies. \$6,500.00.
March 18 – November 13, 2022	Wildland Fire Disaster	Yes	Wildland Fire Disaster	Vehicle & Equipment damage to calls locally and regionally. \$8,541.02.

Source: FEMA 2023; NOAA 2023

Hazard Ranking and Vulnerabilities

The hazard profiles in Volume 1, Section 4 (Risk Assessment) have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Village of Pleak's risk assessment results and data used to determine the hazard ranking.

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts, and the results of the risk assessment as presented in Volume 1, Section 4 (Risk Assessment). The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; and community capabilities to address the hazard and changing future climate conditions. Mitigation action development uses the inputs from the evaluation to target those hazards with highest level of concern.



As discussed in Volume 1, Section 4.4 (Hazard Ranking), each participating jurisdiction has differing degrees of risk exposure and vulnerability compared with the County as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Village of Pleak. The Village of Pleak reviewed the County hazard risk/vulnerability risk ranking table and individual results to reflect the relative risk of the hazards of concern to the community.

Table 9.11-14. Hazard Ranking Input

Hazard	Rankings
Dam/Levee Failure	Low
Disease Outbreak	Low
Drought	Low
Extreme Temperature	Low
Flood	Low
Geologic Hazards	High
Hurricane/Tropical Storm	Medium
Severe Weather	High
Tornado	Medium
Wildfire	Low
Winter Weather	Low

Critical Facilities

The table below identifies the number of critical facilities and community lifelines in the community located in hazard areas. The community reviewed the list of facilities and lifelines to determine appropriate mitigation measures for the facilities, where appropriate. Refer to Section 4.3 (Hazard Profiles) for details on the risk assessment and the facilities and lifelines exposed to each hazard of concern.



Table 9.11-15. Potential Flood Losses to Critical Facilities

	1-Percent Annua Chance Flood Event Hazard Area		Wildfire Hazard		Inland Erosion (K-Factor: >= 0.49) Hazard Area			Expansive Soils (Linear Extensibility >6%) Hazard Area		Dam Inundation Hazard Area - Barker Reservoir Dam Inundation Area		ndation Hazard Area Sommerville Dam undation Area	Dam Inundation Hazard Area - Kitty Hollow Dam Inundation Area		
Jurisdiction	Critical		Critical		Critical	,	Critical Facilities		Critical Facilities		Critical Facilities		Critical Facilities	Lifelines	
Pleak (V)	7	7	0	0	1	1	14	14	0	0	0	0	0	0	

Source: Fort Bend County; Hazus v5.1; FEMA 2022; Fort Bend Drainage District 2023



Identified Issues

After review of the Village of Pleak's hazard event history, hazard rankings, jurisdiction specific vulnerabilities, hazard area extent and location, and current capabilities, the Village of Pleak identified the following vulnerabilities within their community:

- Additional public education is needed to increase the public's awareness and preparation for hazard events.*
- The City needs improved warning times for severe weather events to properly prepare residents, including the socially vulnerable population.*
- The Village does not have a current up-to-date evacuation plan to protect residents against extreme hazard events.*
- The Village lacks procedures to identify and address substantial damage from flood and other hazard events.
- During storms, the Village regularly loses power, internet, and phone services due to older, vulnerable infrastructure. Dispatch for emergency services is sometimes lost as well. Homes on private well water lose water when electricity is lost.
- The Village of Pleak is a traditional farming community. The stormwater infrastructure, other than subdivisions, is very limited. Creeks and ditches are often clogged or silted. With increased development, there is an increasing need for stormwater infrastructure. Several roadways are impassable during heavy rainfall events.
- The Fire Station/Village Hall lacks a permanent fixed-site generator. The facility is roughly 6,000 sq ft. Power loss limits the ability to provide critical services to the community.
- The Fire Department currently is located in an outdated and undersized facility that is shared with Village Hall.
- Water access to the community is limited. Most residents are on their own water wells, and the Village does not have fire hydrants right now. Homes on private well water lose water when electricity is lost.
- The Village has increasing wildland interface issues due to new development and subdivisions.
- The following critical facilities are located in the special flood hazard area:
 - Foss Creek
 - o Big Creek
 - o Seabourne Creek
 - o Ft. Bend MUD 5
 - o Public Water Well

9.11.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritizes actions to address over the next five years.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2018 HMP. Actions that are in progress are carried forward and combined with new actions as part of this plan update and

^{*}This issue was identified as a specific area of concern based on resident response to the Fort Bend County Hazard Mitigation public survey.



are included in the tables with prioritization. Previous actions that are now ongoing programs and capabilities are indicated as such and previously presented in the Capability Assessment earlier in this annex.



Table 9.11-16. Status of Previous Mitigation Actions

Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost, and who is implementing.	If you did not o	complete the action, should the (i.e., there is still a need, thi If Yes, please describe the original problem (i.e., hazard, location, historic losses)	e action be included in the 2023 HMP is is still a priority)? If Yes, identify the responsible department/person to implement the project.
Purchase and Installation of Commercial Water Filtration System	Pleak Village Hall	Complete	No	-	-
Promote Flood Insurance	Pleak Village Hall	No Progress	No		Mayor
Increase Public awareness of Hazard Mitigation	Pleak Village Hall	No Progress	No		Mayor
Evacuation Plans	Pleak Village Hall	No Progress	No		Mayor
Public Information Campaigns	Pleak Village Hall	No Progress	No		Mayor
Evaluate Excess Heat Risks	Pleak Village Hall	No Progress	No		Mayor
Expansive Soil Information and Construction Requirements	Pleak Village Hall	No Progress	No		Mayor
Weather Radio Installation at Public Facilities and Programming Class for Residents	Village Hall OEM, non-profit	No Progress	No		Mayor



Additional Mitigation Efforts

In addition to the mitigation initiatives completed in the table above, the Village of Pleak identified the following mitigation efforts completed since the last HMP:

None identified

Proposed Hazard Mitigation Initiatives for the HMP Update

Fort Bend County participated in a mitigation action workshop in March 2023 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards (January 2013) and FEMA Mitigation Assistance Resource Guide for Texas (2020).

The table below indicates the range of proposed mitigation action categories. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Table 9.11-17. Analysis of Mitigation Actions by Hazard and Category

		FE	MA		CRS							
Hazard	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES		
Dam/Levee Failure	Х	Х	-	Х	Х	Х	Х	-	١	Х		
Disease Outbreak	X	Х	-	Х	Х	Х	Х	-	ı	Х		
Drought	Х	Х	-	Х	Х	Х	Х	-	Х	Х		
Extreme Temperature	Х	Х	-	Х	Х	Х	Х	-	Х	Х		
Flood	X	Х	-	Х	Х	Х	Х	-	Х	Х		
Geologic Hazards	Х	Х	-	Х	Х	Х	Х	-	-	Х		
Hurricane/Tropical Storm	Х	Х	-	Х	Х	Х	Х	-	ı	Х		
Severe Weather	X	X	-	X	X	X	X	1	X	X		
Tornado	Х	Х	-	Х	Х	Х	Х	-	-	Х		
Wildfire	Х	Х	-	Х	Х	Х	Х	-	Х	Х		
Winter Weather	Х	Х	-	Х	Х	Х	Х	-	Х	Х		

Note: Mitigation categories are described below the Mitigation Initiatives.



The table below summarizes the specific mitigation initiatives the Village of Pleak would like to pursue in the future to reduce the effects of hazards. The initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities.

Table 9.11-18. Proposed Hazard Mitigation Initiatives

Project Number	Mitigation Initiative Name	Description of Problem and Solution	Hazard(s) to be Mitigated	Goals Met	Estimated Timeline	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Costs	Priority	Mitigation Category	CRS Category
2023- Village of Pleak- 001	Public Information Campaign	Problem: Additional public education is needed to increase the public's awareness and preparation for hazard events. Solution: The Village will conduct public information campaigns on various hazard topics including promoting flood insurance and encourage personal preparation and hazard mitigation of personal property regarding the hazards of concern.	Dam/Levee Failure, Disease Outbreak, Drought, Extreme Temperature, Flood, Geologic Hazards, Hurricane/Tropical Storm, Severe Weather, Tornado, Wildfire, Winter Weather	1	2 years	Mayor's Office, Village Hall	Village budget	Increased public awareness and preparation for hazard events	Low	High	EAP	PI
2023- Village of Pleak- 002	Weather Radio	Problem: The City needs improved warning times for severe weather events to properly prepare residents, including the socially vulnerable population. Solution: The Village will install weather radios at public facilities for hazard preparation.	Dam/Levee Failure, Disease Outbreak, Drought, Extreme Temperature, Flood, Geologic Hazards, Hurricane/Tropical Storm, Severe Weather, Tornado, Wildfire, Winter Weather	2	Less than 3 years	Village Hall	HMGP, FMA, BRIC, Village Budget	Increased warning time for hazard events	>\$100,000	High	EAP	ES
2023- Village of Pleak- 003	Evacuation Planning	Problem: The Village does not have a current up-to-date evacuation plan to protect residents against extreme hazard events.	Dam/Levee Failure, Disease Outbreak, Drought, Extreme Temperature, Flood, Geologic Hazards,	1, 2	1 Year	Planning Board	Village Budget	Residents will be able to evacuate in a timely manor	\$1,000	High	LPR	ES



Project Number	Mitigation Initiative Name	Description of Problem and Solution	Hazard(s) to be Mitigated	Goals Met	Estimated Timeline	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Costs	Priority	Mitigation Category	CRS Category
		Solution: The Village will create an evacuation plan and inform Village residents of implementation procedures.	Hurricane/Tropical Storm, Severe Weather, Tornado, Wildfire, Winter Weather									
2023- Village of Pleak- 004	Substantial Damage Planning	Problem: The Village lacks procedures to identify and address substantial damage from flood and other hazard events. Solution: The Village will develop official procedures for Substantial Damage Determinations and substantial improvements.	Dam/Levee Failure, Disease Outbreak, Drought, Extreme Temperature, Flood, Geologic Hazards, Hurricane/Tropical Storm, Severe Weather, Tornado, Wildfire, Winter Weather	5	2 years	Planning Board	HMGP, BRIC, FMA, Village Budget	Increased capabilities, meet NFIP standards	Low	High	LPR	ES, PR
2023- Village of Pleak- 005	Power Failure	Problem: During storms, the Village regularly loses power, internet, and phone services due to older, vulnerable infrastructure. Dispatch for emergency services is sometimes lost as well. Homes on private well water lose water when electricity is lost. Solution: The Village will conduct an engineering study to see where utility failure occurs and implement new and updated infrastructure to support new utility lines and services.	Severe Weather, Winter Weather, Extreme Temperature	2, 5	Less than 5 Years	Village Hall	HMGP, BRIC, Village Budget	Continuity of operations with emergency services	>\$200,000	High	SIP	SP
2023- Village of Pleak- 006	Stormwater Upgrades	Problem: The Village of Pleak is a traditional farming community. The stormwater infrastructure, other than subdivisions, is very limited. Creeks and ditches are often clogged or silted. With increased development, there is an increasing need for stormwater	Severe Weather, Flood	2, 3	Less than 5 Years	Village Hall	HMGP, BRIC, FMA, Village Budget	The Village will experience reduced flooding	\$5,000 for the study	High	SIP	SP



Project Number	Mitigation Initiative Name	Description of Problem and Solution	Hazard(s) to be Mitigated	Goals Met	Estimated Timeline	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Costs	Priority	Mitigation Category	CRS Category
		infrastructure. Several roadways are impassable during heavy rainfall events. Solution: The Village will perform an engineering study to see what kinds of stormwater infrastructure updates need to be complete in order to limit flooding issues. The Village will implement what the engineering study suggests is the best fit for each area.										
2023- Village of Pleak- 007	Critical Facility Backup Power	Problem: The Fire Station/Village Hall lacks a permanent fixed site generator. The facility is roughly 6,000 sq ft. Power loss limits the ability to provide critical services to the community. Solution: The Fire State/Village Hall will undergo a study to evaluate the size of a generator needed to provide critical services to the community and will purchase and install the suggested generator. The Village will keep up with maintenance on the generator.	Dam/Levee Failure, Disease Outbreak, Drought, Extreme Temperature, Flood, Geologic Hazards, Hurricane/Tropical Storm, Severe Weather, Tornado, Wildfire, Winter Weather	2	Less than 5 Years	Village Hall	HMGP, FMA, BRIC, Village Budget	Continuity of operations during hazard events	>\$100,000	High	SIP	ES
2023- Village of Pleak- 008	Fire Department	Problem: The Fire Department currently is located in an outdated and undersized facility that is shared with Village Hall. Solution: The Fire Department will construct a stand-alone facility with adequate space.	Dam/Levee Failure, Disease Outbreak, Drought, Extreme Temperature, Flood, Geologic Hazards, Hurricane/Tropical Storm, Severe Weather, Tornado, Wildfire, Winter Weather	2	5 Years	Village Hall, Fire Department	BRIC, HMGP, Village Budget	The Fire Department will be able to operate more efficiently	>\$500,000	High	SIP	PP, ES



Project Number	Mitigation Initiative Name	Description of Problem and Solution	Hazard(s) to be Mitigated	Goals Met	Estimated Timeline	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Costs	Priority	Mitigation Category	CRS Category
2023- Village of Pleak- 009	Water Sources	Problem: Water access to the community is limited. Most residents are on their own water wells and the Village does not have fire hydrants right now. Homes on private well water lose water when electricity is lost. Solution: The Village will work with the County and FEMA to create a secondary water source hookup that allows the Village access to water in the event of an outage and can also be used in the event of an intense drought or wildfire.	Drought, Wildfire	2	Less than 5 years	Village Hall, County	HMGP, Village Budget, County Budget	The Village will have a water supply during outages and will be better protected from wildfire and drought.	>\$100,000	High	SIP	SP, ES
2023- Village of Pleak- 010	Wildland Interface	Problem: The Village has increasing wildland interface issues due to new development and subdivisions. Solution: The Village will create a fire hazard map that shows where the wildland interface issues are located and will ensure that proper wildfire equipment is located in these areas in the event of a fire.	Wildfire	2	2 Years	Village Hall, County	Village Budget	The Village will be better protected from the wildland interface issues	\$25,000	High	LPR	ES
2023- Village of Pleak- 011	Critical Facilities Flood Protection	Problem: The following critical facilities are located in the special flood hazard area: • Foss Creek • Big Creek • Seabourne Creek • Ft. Bend MUD 5 • Public Water Well Solution: The Village will conduct a feasibility assessment to determine what additional floodproofing measures are needed at these facilities to protect each to the 500-year flood level. Options include: • Elevation of facility • Floodproofing of facility	Flood	2, 5	Less than 5 years	City Engineer	HMGP and PDM, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Village Budget	Ensures that facilities can carry out continuity of operations	TBD by feasibility assessment	High	SIP	SP



Project Number	Mitigation Initiative Name	Description of Problem and Solution	Hazard(s) to be Mitigated	Goals Met	Estimated Timeline	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Costs	Priority	Mitigation Category	CRS Category
		 Mobile flood barriers Once the most cost-effective option is identified, the Village will carry out the option. 										

^{*}Mitigation initiative is related to a critical facility and/or community lifeline

Notes: Not all acronyms and abbreviations defined below are included in the table.

Acronym	and Abbreviations:	FEMA HMA Funding Sources:	
CRS	Community Rating System	FMA	Flood Mitigation Assistance Grant Program
FEMA	Federal Emergency Management	HMGP	Hazard Mitigation Grant Program
Agency		BRIC	Building Resilient Infrastructure and Communities
HMA	Hazard Mitigation Assistance	Program	
N/A	Not applicable		
NFIP	National Flood Insurance Program		

Timeline:

The time required for completion of the project upon implementation.

Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Mitigation Category:

- Local Plans and Regulations (LPR)—These actions include government authorities, policies, or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This
 could apply to public or private structures, as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of
 hazards
- Natural Systems Protection (NSP)—These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them.

 These actions may also include participation in national programs, such as StormReady and Firewise Communities.

CRS Category:

- Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach
 projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- Natural Resource Protection (NR)—Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities.

The prioritization criteria provided in Volume 1, Section 6 (Mitigation Strategy) identify 14 evaluation/prioritization criteria to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with



prioritizing actions as High, Medium, or Low. The table below provides a summary of the prioritization of all proposed mitigation initiatives for the HMP update.

Table 9.11-19. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
2023-Village of Pleak-001	Public Information Campaign	1	1	1	1	1	1	1	1	1	1	1	1	1	0	13	High
2023-Village of Pleak-002	Weather Radio	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2023-Village of Pleak-003	Evacuation Planning	1	0	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2023-Village of Pleak-004	Substantial Damage Planning	1	1	1	1	1	1	1	1	1	1	1	1	1	0	13	High
2023-Village of Pleak-005	Power Failure	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2023-Village of Pleak-006	Stormwater Upgrades	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2023-Village of Pleak-007	Critical Facility Backup Power	1	1	1	1	1	1	0	0	1	1	1	1	1	1	12	High
2023-Village of Pleak-008	Fire Department	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2023-Village of Pleak-009	Water Sources	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2023-Village of Pleak-010	Wildland Interface	1	1	1	1	1	1	1	1	1	1	0	1	1	0	12	High
2023-Village of Pleak-011	Critical Facilities Flood Protection	1	1	1	1	1	1	0	1	1	1	0	0	1	1	11	High

Note: Volume 1, Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).