



Desha County Multi- Jurisdictional Hazard Mitigation

Reviewing Old and Creating
New Mitigation Actions
April 20, 2022

Status of Previously Identified Mitigation Actions

- ▶ What is the Status of Previously Identified Mitigation Actions?
 - ▶ Do any previous actions address current problems?
 - ▶ If an action hasn't been completed, why not? What were the barriers, and are they still applicable?
 - ▶ What actions are not longer applicable to the new planning process and can be removed?

Refer to the Word Document from March 23rd “2017 Desha County Hazard Mitigation Actions”

If you are unable to locate the document, email me and I will send you one.

Dam Failure

- ▶ Conduct inspections, maintenance and enforcement programs on dams to ensure structural integrity. (NFIP consideration; CRS 330 Outreach, CRS 350 Flood Protection Information)
- ▶ Adopting Ordinances that limit development in areas that could be affected by flooding caused by a dam failure.
- ▶ Conduct flood inundation study for dams that could impact individuals; study will be used to develop mitigation measures such as facilitate acquisition projects, new zoning requirements, or elevation projects. Acquire reliable and current information relating to existing and new buildings and infrastructure, especially critical facilities located in or developed in the path of flooding from dam failure.
- ▶ *What new mitigation actions would address natural disasters in your jurisdiction?*

Drought

- ▶ Develop a Countywide drought communication plan and early warning system to facilitate timely communication of relevant information to officials, decision makers, school administration, emergency manager and the general public on how to conserve water and other pertinent information.
- ▶ Pass a County ordinance to prioritize or control water use, particularly for emergency situations in order to make more water available for firefighting.
- ▶ Establish and or maintain Memorandums of Understanding with adjacent communities designed to source additional sources of water or response to incidents affecting the county.

What new mitigation actions would address drought events in your jurisdiction?

Drought

- ▶ Develop a Countywide drought communication plan and early warning system to facilitate timely communication of relevant information to officials, decision makers, school administration, emergency manager and the general public on how to conserve water and other pertinent information
- ▶ Pass a County ordinance to prioritize or control water use, particularly for emergency situations in order to make more water available for firefighting
- ▶ Establish and or maintain Memorandums of Understanding with adjacent communities designed to source additional sources of water or response to incidents affecting the county.
- ▶ *What new mitigation actions would address drought events in your jurisdiction?*

Earthquake

- ▶ Create a seismic safety committee to provide policy recommendations evaluate and recommend changes in seismic safety standards and give an annual assessment of local and statewide implementation of seismic safety improvements
 - ▶ Establish school survey procedures and guidance documents to inventory structural and non-structural hazards in and around school buildings.
 - ▶
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- ▶ *What new mitigation actions would address possible earthquake events in your jurisdiction?*



Desha County has had 15 Flash Flood Events between 01/2017-01/2022

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	250.00K	0.00K
DUMAS	DESHA CO.	AR	08/31/2017	12:15	CST-6	Flash Flood		0	0	0.00K	0.00K
HALLEY	DESHA CO.	AR	04/13/2019	20:00	CST-6	Flash Flood		0	0	0.00K	0.00K
MC GEHEE	DESHA CO.	AR	09/23/2020	06:30	CST-6	Flash Flood		0	0	0.00K	0.00K
MC GEHEE	DESHA CO.	AR	09/23/2020	07:30	CST-6	Flash Flood		0	0	0.00K	0.00K
MC GEHEE	DESHA CO.	AR	06/08/2021	05:46	CST-6	Flash Flood		0	0	0.00K	0.00K
DUMAS	DESHA CO.	AR	06/08/2021	10:30	CST-6	Flash Flood		0	0	100.00K	0.00K
KELSO	DESHA CO.	AR	06/08/2021	10:35	CST-6	Flash Flood		0	0	0.00K	0.00K
DUMAS MAYER AVN ARPT	DESHA CO.	AR	06/08/2021	14:30	CST-6	Flash Flood		0	0	0.00K	0.00K
DUMAS	DESHA CO.	AR	06/08/2021	14:30	CST-6	Flash Flood		0	0	100.00K	0.00K
PICKENS	DESHA CO.	AR	06/09/2021	06:00	CST-6	Flash Flood		0	0	50.00K	0.00K
DUMAS	DESHA CO.	AR	06/10/2021	08:00	CST-6	Flash Flood		0	0	0.00K	0.00K
MC GEHEE	DESHA CO.	AR	06/10/2021	08:25	CST-6	Flash Flood		0	0	0.00K	0.00K
HALLEY	DESHA CO.	AR	06/10/2021	08:46	CST-6	Flash Flood		0	0	0.00K	0.00K
PICKENS	DESHA CO.	AR	06/10/2021	13:00	CST-6	Flash Flood		0	0	0.00K	0.00K
ROHWER	DESHA CO.	AR	07/17/2021	09:45	CST-6	Flash Flood		0	0	0.00K	0.00K
Totals:								0	0	250.00K	0.00K

▶ 10-4-2016-

▶ There were 19 properties that are considered Repetitive Loss Properties; three (3) are in Desha County, four in the City of Dumas, and 12 in the City of McGehee.

▶ ➤ Of all the properties on the Repetitive list 17 were residential structures and one (1) commercial, and one (1) apartment/multi-family dwelling.

▶ April 13, 2019

▶ Highway 159 was blocked by high water between the towns of Halley and McGehee.

▶ September 23, 2020

▶ One to two feet of water was over Ash and Oak Streets in McGehee

▶ June 8, 2021

▶ The Desha County Sheriff's Office reported water over roads around McGehee. Additionally, several county roads were inundated by water.

▶ ➤ Widespread flash flooding across the city was reported with water in several homes and numerous streets flooded in Dumas. The Dumas police chief reported all streets in Dumas had standing water on them. Some buildings were inundated.

▶ ➤ A section of Highway 1 was closed due to high water in Kelso.

▶ ➤ Flash flooding occurred at Mitchellville on McCarrel Street off U.S. 65. This was confirmed by a picture on social media and relayed by KARK.

Flooding continued

- ▶ June 8, 2021-
- ▶ Dumas experienced Property Damages of \$200,000.00
- ▶ June 9, 2021
- ▶ Track ballast was completely washed away beneath railroad tracks in several locations near U.S. Hwy 65.
- ▶ ▶Project Damage \$50,000.00
- ▶ June 10, 2021
- ▶ Widespread flash flooding was noted over northern portions of Desha County. Runoff from northern and central portions of the county inundated farms that usual do not flood over southern portions of the county.
- ▶ Water inundated farms toward Halley in the south.
- ▶ At 2pm, an irrigation canal east of Pickens was breached and adjacent farmland became a lake. The canal was patched by evening.

▶ July 17, 2021-

- ▶ Late on the 16th and into the 17th, downpours developed and remained over the southeast for several hours. By 800 am to 900 am CST on the 17th, the observer at Kelso (Desha County) reported 6.49 inches of precipitation, and Rohwer(Desha County) had 6.55 inches. Near the latter location, Highway 1 was inundated with water and became impassible.
- ▶ It was the wettest July day at Rohwer(Desha County), and the fourth wettest day all-time locally. It was already the wettest climatological summer (June through August) with more than a month left to go in the season (27.86 inches of rain so far which crushed the previous record of 25.47 inches in 1989).
- ▶ From an historic perspective, Rohwer (Desha County) received 9.25inches of rain in the twenty-four-hour period ending at 700 am CDT on the 8th. This was the most rain in one day at the site, and the fourth largest one day total across the state in June, 19.22 inches on the 8th/9thwas the second biggest two-day amount in Arkansas. Relentless cloudbursts continued to start the 9th in eastern Arkansas.
- ▶ ▶The focus shifted back to the southeast early on the 10th. Rain plus run off from the soaking on the 8th/9th in northern and central Desha County inundated farms toward Halley (Desha County) in the south. At 200 pm CDT, an irrigation canal east of Pickens (Desha County) was breached and adjacent farmland became a lake. The canal was patched by evening

Flood/Flash Flooding Mitigation Actions from current plan

- ▶ Pass Ordinance requiring all critical facilities to meet requirements of Executive Order 11988 and be built 1 foot above the 500-year flood elevation.
- ▶ Acquire properties that are located in flood zones that have been deemed Repetitive or Severe Repetitive Loss Properties through grant funding
- ▶ County and Local Road Departments implement retrofit construction plans to increase drainage or absorption capacities with detention and relief drains, extra culverts, and bridge modification where susceptible to flooding
- ▶ Conduct countywide community NFIP workshops and for newly elected officials and public the National Flood Insurance Program Summary of Coverage FEMA F-679/November 2012.
- ▶ *What new mitigation actions would prevent the loss of life and property in your jurisdiction?*

Mitigation Plans and the NFIP

- ▶ For each jurisdiction adopting the plan, describe their participation in the NFIP.
- ▶ Describe how will they remain in good standing with the program.
 - Enforcing floodplain regulations?
 - Community assistance and monitoring?
 - Identifying and mapping floodplains?
 - Risk MAP projects?

Community Rating System (CRS)

- ▶ The NFIP's CRS credits communities that put in efforts beyond the minimum standard.
 - ▶ 1. Reduce flood damage to insurable property.
 - ▶ 2. Strengthen and support the insurance aspects of the NFIP.
 - ▶ 3. Encourage a comprehensive approach to floodplain management.
- ▶ One key benefit is that flood insurance premiums for property owners can be reduced, depending on the class. These can range from 5% to 45%, depending on the CRS class of community, which is determined by how many credits they have earned through participating in certain activities.
- ▶ Flood insurance premium rates are discounted to reward community actions that meet the three goals of the CRS, shown above.



Desha County has had 12 Thunderstorm Wind events between 01/2017-01/2022

Location	County/Zone	St.	Date	Time	I.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	50.00K	0.00K
MC GEHEE	DESHA CO.	AR	04/02/2017	15:53	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
HALLEY	DESHA CO.	AR	06/19/2019	21:05	CST-6	Thunderstorm Wind	70 kts. EG	0	0	0.00K	0.00K
ROHWER	DESHA CO.	AR	06/19/2019	21:10	CST-6	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
WATSON	DESHA CO.	AR	06/19/2019	21:15	CST-6	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
TRIPPE JUNCTION	DESHA CO.	AR	09/09/2019	18:50	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
WATSON	DESHA CO.	AR	01/11/2020	03:31	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
ROHWER	DESHA CO.	AR	04/12/2020	19:45	CST-6	Thunderstorm Wind	70 kts. EG	0	0	50.00K	0.00K
KELSO	DESHA CO.	AR	04/12/2020	19:55	CST-6	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
PENDLETON	DESHA CO.	AR	03/27/2021	20:15	CST-6	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
DUMAS	DESHA CO.	AR	04/09/2021	15:53	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
MC GEHEE	DESHA CO.	AR	04/09/2021	15:57	CST-6	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
ARKANSAS CITY	DESHA CO.	AR	05/04/2021	11:37	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
Totals:								0	0	50.00K	0.00K

Lightning/Thunderstorm Mitigation Action from current Plan

- ▶ Install surge protection, lightning protection devices on all communications infrastructure and critical facilities.

What new mitigation actions would address natural disasters in your jurisdiction?

Desha County has had 7 Hail events between 01/2017-01/2022

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	0.00K	0.00K
WATSON	DESHA CO.	AR	02/27/2017	16:30	CST-6	Hail	1.25 in.	0	0	0.00K	0.00K
ARKANSAS CITY	DESHA CO.	AR	06/16/2017	17:54	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
ROHWER	DESHA CO.	AR	03/05/2018	16:09	CST-6	Hail	1.75 in.	0	0	0.00K	0.00K
KELSO	DESHA CO.	AR	03/05/2018	16:09	CST-6	Hail	1.50 in.	0	0	0.00K	0.00K
MC GEHEE	DESHA CO.	AR	03/10/2018	19:59	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
MC GEHEE	DESHA CO.	AR	03/10/2018	21:15	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
WATSON	DESHA CO.	AR	12/01/2018	06:37	CST-6	Hail	1.50 in.	0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Desha County has had 5 Winter Weather events between 01/2017-01/2022

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	0.00K	0.00K
DESHA (ZONE)	DESHA (ZONE)	AR	01/06/2017	16:00	CST-6	Winter Weather		0	0	0.00K	0.00K
DESHA (ZONE)	DESHA (ZONE)	AR	01/12/2018	01:00	CST-6	Winter Weather		0	0	0.00K	0.00K
DESHA (ZONE)	DESHA (ZONE)	AR	11/14/2018	03:00	CST-6	Winter Weather		0	0	0.00K	0.00K
DESHA (ZONE)	DESHA (ZONE)	AR	12/10/2019	08:30	CST-6	Winter Weather		0	0	0.00K	0.00K
DESHA (ZONE)	DESHA (ZONE)	AR	01/10/2021	18:06	CST-6	Winter Weather		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Desha County has had 4 Heavy Rain events between 01/2017-01/2022

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	0.00K	0.00K
WATSON	DESHA CO.	AR	09/23/2020	09:22	CST-6	Heavy Rain		0	0	0.00K	0.00K
KELSO	DESHA CO.	AR	06/09/2021	08:00	CST-6	Heavy Rain		0	0	0.00K	0.00K
KELSO	DESHA CO.	AR	07/17/2021	08:00	CST-6	Heavy Rain		0	0	0.00K	0.00K
ROHWER	DESHA CO.	AR	07/17/2021	08:45	CST-6	Heavy Rain		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Desha County has had 2 Heavy Snow events between 01/2017-01/2022

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	0.00K	0.00K
DESHA (ZONE)	DESHA (ZONE)	AR	02/15/2021	01:48	CST-6	Heavy Snow		0	0	0.00K	0.00K
DESHA (ZONE)	DESHA (ZONE)	AR	02/17/2021	08:35	CST-6	Heavy Snow		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Desha County has had 2 Flood Events between 01/2017-01/2022

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	1.000M	500.00K
DUMAS	DESHA CO.	AR	02/22/2018	05:52	CST-6	Flood		0	0	0.00K	0.00K
PENDLETON	DESHA CO.	AR	05/28/2019	19:30	CST-6	Flood		0	0	1.000M	500.00K
Totals:								0	0	1.000M	500.00K

Disaster Declarations for the flood events above are: DR 4441-AR and EM 3414-AR

Desha County has had 1 Winter Storm event between 01/2017-01/2022

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	0.00K	0.00K
DESHA (ZONE)	DESHA (ZONE)	AR	01/16/2018	00:00	CST-6	Winter Storm		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Desha County has had 1 Tropical Storm event between 01/2017-01/2022 resulting in a Disaster Declaration EM-3541-AR on 08/26/2020: Hurricane Laura

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	0.00K	0.00K
DESHA (ZONE)	DESHA (ZONE)	AR	08/27/2020	10:44	CST-6	Tropical Storm		0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Desha County has had 1 Tornado event between 01/2017-01/22

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	0.00K	0.00K
MC GEHEE MUNI ARPT	DESHA CO.	AR	03/17/2021	15:37	CST-6	Tornado	EF0	0	0	0.00K	0.00K
Totals:								0	0	0.00K	0.00K

Wildland Fire Mitigation Actions

- ▶ Mitigate future losses by regulating development in wildfire hazard areas through land use planning and address density and quantity of development, as well as emergency access, landscaping and water supply.
- ▶ Implement a fuels management team using prescribed burning techniques to reduce hazardous vegetative fuels that threaten public safety and property on public lands and working with landowners on private land, and near essential infrastructure.

What new mitigation actions would address wildfire events in your jurisdiction?

Thunderstorm/Hail, and Tornado

- ▶ Construct safe rooms within new and existing public buildings, such as schools, libraries, and community centers.
 - ▶
 - ▶ Install hail resistant roofing and window coverings, shutters laminated glass in windowpanes with a focus on critical infrastructure.
-
- ▶ *What new mitigation actions would address natural disasters in your jurisdiction?*

Winter Storms/Ice Storms, Thunderstorm Winds, and Tornado

- ▶ Protect exceptionally vulnerable populations from the impacts of severe weather events through identifying specific at-risk populations in the event of long-term power outages by establishing accessible heating and cooling centers.
- ▶ Use designed failure mode for power line design to allow line to fall or fail in small sections rather than as a complete system to enable faster repairs.
- ▶ *What new mitigation actions would address natural disasters in your jurisdiction?*

Dam Failure, Drought, Earthquake, Extreme Heat, Flooding, Thunderstorms, Tornado, Wildland Fire, Winter Storms

- ▶ Purchase of all-hazard NOAA weather radios in all schools, city halls, churches, assisted living facilities, hospitals, nursing homes, day care facilities, churches, businesses, industries where large numbers of people congregate; provide information to public on importance of having and how to acquire.
- ▶ Implement Weather Warning early telephone warning system designed to automatically deliver targeted weather notifications for the immediate threats of severe thunderstorm warnings, flash flood warnings and tornado warnings within moments of being issued by the National Weather Service (NWS) throughout the County.
- ▶ Provide emergency preparedness and mitigation information and resource for extreme weather conditions through an active education outreach program with specific plans and procedures for at risk populations

What new mitigation actions would address natural disasters in your jurisdiction?

Flooding, Tornado, Thunderstorm Winds, and Earthquakes

- ▶ Brace equipment (such as mechanical equipment, chillers, and emergency generators) whose failure may disrupt the operation of a critical facility, such as hospitals and schools.

Earthquake, Thunderstorm Winds, Tornadoes

- ▶ Apply window film to windows in public schools and public buildings as able to prevent shattering.

Drought, Extreme Heat, Winter/Ice Storms

- ▶ Create a data base within each fire district to track those individuals at high risk of death, such as the small children, elderly, shut-ins, homeless, and those requiring medical attention or medical equipment that require transportation to heating or cooling centers.

Earthquake, Flood Flash/Flood and Wildland Fires

- ▶ Use GIS to map hazard areas, at-risk structures and associated hazards to assess high risk area.

Examples of Flood Flash/Flood Mitigation Actions

- ▶ Develop a county-wide storm water management plan for the county and listed cities. This plan will research the areas of reported backup during major storms and address each location with new storm drains, culverts, bridges, and landscaping
- ▶ Elevate low water crossings with bridges to prevent flooding
- ▶ Elevate properties that are located in areas vulnerable to flooding.
- ▶ Provide training to flood plain administrators to increase knowledge of good floodplain management practices
- ▶ Provide public education to include mitigation ideas in school curriculums
- ▶ Seek funding for drainage projects in areas susceptible to flooding.
- ▶ Increase community participation in NFIP, Firewise and CRS Programs.
- ▶ Install Detention and Retention Ponds to reduce/eliminate flooding

Reviewing Old and Creating
New Mitigation Actions
ZOOM

April 20, 2022

email, call, or fax all inquires to:

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