

**GUBERNATORIAL DECLARATIONS HISTORY CHART (1996-Present \*\*)**  
**(Updated as of 03/05/24)**

<b>DATE DECLARED</b>	<b>FINANCIAL ASSISTANCE PROGRAMS *</b>	<b>INCIDENT TYPE</b>	<b>COUNTIES WITH GUBERNATORIAL DECLARATION</b>
January 20, 1996; amended January 23 and January 25, 1996	IA, PA, HMGP (DR-1097)	January 1996 flooding and flash flooding	Adams, Belmont, Clermont, Columbiana, Gallia, Hamilton, Lawrence, Meigs, Monroe, Jefferson, Scioto and Washington (list may not be complete)
May 7, 1996; amended May 16, June 4, June 24, July 8	PA, HMGP (DR-1122)	May/July 1996 flooding and flash flooding	Adams, Belmont, Brown, Butler, Clermont, Columbiana, Defiance, Gallia, Hamilton, Jefferson, Lawrence, Meigs, Ottawa, Paulding Scioto and Williams
March 3, 1997; amended March 4, April 7	IA, PA, HMGP (DR-1164)	March 1997 Ohio River flooding	Adams, Athens, Brown, Clermont, Gallia, Hamilton, Highland, Hocking, Jackson, Lawrence, Meigs, Monroe, Morgan, Pike, Ross, Scioto, Vinton and Washington
June 29, 1998; amended June 30, July 1, July 2, July 6	IA, PA, HMGP (DR-1227)	June 1998 tornadoes, flooding and severe storms	Athens, Belmont, Coshocton, Delaware, Franklin, Guernsey, Harrison, Holmes, Jackson, Jefferson, Knox, Licking, Marion, Meigs, Monroe, Morgan, Morrow, Muskingum, Noble, Ottawa, Perry, Pickaway, Richland, Sandusky, Tuscarawas and Washington
August 2, 2000	IA, HMGP (DR-1339)	July 2000 flooding	Lucas
September 20, 2000	IA, PA, HMGP (DR-1343)	September 20, 2000 tornado	Greene
July 19, 2001; amended August 14	State IA, SBA, PA, HMGP (DR-1390)	July 2001 severe storms and flooding	Brown, Butler, Clermont and Hamilton
February 25, 2003; amended March 5, March 27	IA, PA, HMGP (DR-1453)	February 2003 record snow fall, severe winter storm	Adams, Athens, Belmont, Darke, Delaware, Fayette, Franklin, Gallia, Greene, Guernsey, Harrison, Hocking, Jackson, Lawrence, Licking, Madison, Meigs, Miami, Monroe, Montgomery, Morgan, Muskingum, Noble, Perry, Pike, Preble, Ross, Scioto, Union, Vinton and Washington
July 31, 2003; amended August 5, August 25, September 10	IA, PA, HMGP (DR-1484)	July 2003 flooding, severe storms	Adams, Columbiana, Carroll, Cuyahoga, Franklin, Jefferson, Mahoning, Medina, Monroe, Portage, Richland, Stark, Summit, Trumbull and Vinton

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January 9, 2004; amended January 22	IA, PA, HMGP (DR-1507)	January 2004 flooding and severe storms	Athens, Belmont, Butler, Fairfield, Franklin, Guernsey, Harrison, Jefferson, Licking, Monroe, Morgan, Noble, Perry, Ross, Tuscarawas, Warren and Washington
June 3, 2004; amended June 25	IA, PA, HMGP (DR-1519)	May/June 2004 severe storms and flooding	Athens, Carroll, Columbiana, Crawford, Cuyahoga, Delaware, Geauga, Guernsey, Harrison, Holmes, Jefferson, Licking, Logan, Lorain, Medina, Noble, Perry, Richland, Stark, Summit and Tuscarawas
September 16, 2004; amended September 22, October 5, October 25	IA, PA, HMGP (DR-1556)	September 2004 flooding, severe storms and remnants of hurricanes	Athens, Belmont, Carroll, Columbiana, Gallia, Guernsey, Harrison, Jefferson, Lawrence, Mahoning, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Stark, Trumbull, Tuscarawas, Vinton and Washington
September 16, 2004	None	September 2004 Hurricane Ivan	Waiver of regulations relating to motor carriers and drivers providing support for emergency work
December 28, 2004; amended January 13, January 31, April 21	IA, PA, HMPG (EM-3250 and DR-1580)	December 22, 2004 – February 15, 2005 severe winter storm, ice, flooding, record snowfall	Adams, Allen, Ashland, Athens, Auglaize, Belmont, Brown, Butler, Carroll, Champaign, Clark, Clermont, Clinton, Columbiana, Coshocton, Crawford, Darke, Delaware, Erie, Fairfield, Fayette, Franklin, Greene, Guernsey, Hamilton, Hancock, Hardin, Harrison, Henry, Highland, Hocking, Holmes, Huron, Jefferson, Knox, Licking, Logan, Lorain, Madison, Marion, Medina, Meigs, Mercer, Miami, Monroe, Montgomery, Morgan, Morrow, Muskingum, Noble, Paulding, Perry, Pickaway, Pike, Preble, Putnam, Richland, Ross, Sandusky, Scioto, Seneca, Shelby, Stark, Tuscarawas, Union, Van Wert, Warren, Washington, Wayne and Wyandot
June 27, 2006	IA, HMGP (DR-1651) and SDRP	June 21, 2006 flooding and severe storms	Cuyahoga, Erie, Huron, Lucas and Stark
July 18, 2006; amended August 1	None	July 10, 2006 severe storms	Ashland County – state assets to assist with response
August 1, 2006	IA, PA, HMGP (DR-1656)	July 22, 2006 flooding and severe storms	Ashtabula, Geauga and Lake
August 22, 2007	IA, PA, HMGP (DR-1720)	August 20, 2007 flooding and severe storms	Allen, Crawford, Hancock, Hardin, Putnam, Richland, Seneca, Van Wert, Wyandot
August 25, 2007	None	August 20, 2007 flooding and severe storms	Waiver of economic requirements for states assisting with emergency relief

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August 25, 2007	None	August 20, 2007 flooding and severe storms	Suspension of procurement and contracting requirements
July 24, 2008	None	July 22, 2008 severe storms	Perry
August 29, 2008	None	August 29, 2009 Hurricane Gustav	No Ohio counties declared. Declaration enabled Ohio National Guard to provide assistance to the State of Louisiana through the Emergency Management Assistance Compact (EMAC)
September 15, 2008	PA, HMGP (DR-1805)	September 14, 2008 Dry Ike	Declaration activated Ohio National Guard and other state agencies and waived economic requirements
January 28, 2009	None	January 27-28 2009 ice storm	Waiver of economic requirements for assistance with restoration of utility services
February 2, 2009	None	January 27-28 2009 ice storm	Hocking and Scioto
February 12, 2009	None	February 11-12, 2009 severe winter storm	Waiver of economic requirements for assistance with restoration of utility services
April 28, 2009	None	H1N1 – Swine Flu	Authorized state agencies and personnel to assist with the receipt, transportation and storage of medicine and supplies associated with the Swine Flu virus
October 7, 2009	None	H1N1 – Swine Flu	Permitted EMTs-Intermediate and EMTs-Paramedic to assist local health departments by performing immunizations and administering drugs or dangerous drugs under the appropriate medical direction and with the appropriate training
February 11, 2010	None	February 5, 2010 snow storm	Jefferson – Enabled assistance from Ohio Department of Transportation with snow removal
June 6 and 7, 2010	State IA, SDRP, SBA	June 5, 2010 tornadoes	Fulton, Ottawa and Wood
June 6, 2011	PA, HMGP (DR-4002)	April/May 2011 heavy rains and flooding	Adams, Athens, Belmont, Brown, Clermont, Gallia, Guernsey, Hamilton, Hocking, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Noble, Pike, Ross, Scioto, Vinton and Washington <i>Note: this declaration was made in order for the Ohio Department of Transportation (ODOT) to request a Federal Highway Administration (FHWA) declaration. However, the incident was the same.</i>

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June 6, 2011	State IA and SBA	May 10 and 11 2011 flash flooding	Gallia, Jackson, Lawrence, Pike, Ross, Scioto and Vinton
August 25, 2011	None	August 24, 2011 Hurricane Irene	No Ohio counties declared. Declaration enabled Ohio National Guard to provide assistance to the State of Vermont through the Emergency Management Assistance Compact (EMAC)
March 3, 2012	State IA, SDRP and SBA	March 2 tornadoes	Clermont County
June 30, 2012	Direct Federal Assistance (EM-3346) and PA, HMGP (DR-4077)	June 29 2012 severe storms, high winds	All 88 counties – Enabled use of state assets for response (ODOT, Ohio National Guard, etc.). Not all 88 counties were included in the resulting federal disaster declaration because not all counties met the declaration criteria
November 2, 2012	None	October 29, 2012 Hurricane Sandy	No Ohio counties declared. Declaration enabled Ohio National Guard to provide assistance to the City of New York, New York through the Emergency Management Assistance Compact (EMAC)
January 18, 2014	None	Energy emergency	Waiver of regulations relating to motor carriers and drivers transporting propane and heating oil for all 88 counties
June 13, 2014	None	June 11, 2014 high winds, severe storms	Columbiana – Enabled assistance from Ohio Department of Transportation with debris removal
August 2, 2014	None	August 2, 2014 water advisory in Toledo Ohio	Fulton, Lucas and Wood
June 30, 2015 (amended August 10, 2015 and September 21, 2015)	FHWA	Spring/summer 2015 heavy rains, flooding	Adams, Athens, Belmont, Brown, Carroll, Columbiana, Gallia, Harrison, Highland, Hocking, Holmes, Jackson, Jefferson, Lawrence, Monroe, Noble, Pike, Tuscarawas, Scioto, Vinton and Washington
April 5, 2016	EMAC	Republic National Convention	Cleveland Ohio (Cuyahoga County)
February 24, 2018	PA	February 14-25, 2018 Flooding, Severe Storms, Tornadoes and Landslides	Adams, Athens, Belmont, Brown, Clermont, Columbiana, Gallia, Hamilton, Hocking, Jackson, Jefferson, Lawrence, Meigs, Monroe, Muskingum, Noble, Pike, Scioto, Vinton and Washington
March 18, 2018	FHWA	February 2018 Significant Weather Events	Adams, Athens, Belmont, Brown, Butler, Carrol, Clermont, Clinton, Columbiana, Defiance, Franklin, Fulton, Gallia, Greene, Guernsey, Hamilton,



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			Harrison, Highland, Hocking, Holmes, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Ottawa, Pike, Preble, Ross, Sandusky, Scioto, Tuscarawas, Vinton, Warren, Washington and Williams
May 28, 2019	IA, PA, HMGP	Memorial Day tornadoes and northeast Ohio flooding	Greene, Mercer, Montgomery, Hocking, Village of Roseville (Perry) – The Governor’s proclamation listed Greene, Mercer and Montgomery and any other counties that declared locally
March 9, 2020	None	COVID	Entire state
July 13, 2022	None	Thunderstorms, high winds, tornados	Brown and Clermont

\* Financial Assistance Programs: IA – FEMA Individual Assistance Program; PA – FEMA Public Assistance Program; HMGP – FEMA Hazard Mitigation Grant Program; State IA – State Individual Assistance Program; SDRP – State Disaster Relief Program. Note: These are programs administered by Ohio EMA; may not be inclusive of all assistance provided following the declaration.

**\*\* This list created with records available at Ohio EMA, may not be inclusive of all gubernatorial emergency declarations since 1996 particularly those declared for FHWA.**

**STATE OF OHIO DISASTER HISTORY (1964 - 2018) (Presidential major and Emergency Disaster Declarations)**  
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DISASTER DECLARATION NUMBER	DATE DECLARED	FEDERAL DISASTER PROGRAMS	INCIDENT TYPE	COUNTIES DECLARED	FUNDS PROVIDED
DR- 167	March 24, 1964	PA	Heavy rains and flooding	Adams, Athens, Auglaize Belmont, Brown, Butler, Carroll, Clermont, Clinton, Columbiana, Coshocton, Cuyahoga, Delaware, Fairfield, Franklin, Gallia, Geauga, Guernsey, Greene, Hamilton, Harrison, Hocking, Jackson, Jefferson, Lake, Lawrence, Licking, Medina, Meigs, Miami, Monroe, Morgan, Muskingum, Noble, Perry, Pickaway, Pike, Preble, Richland, Ross, Scioto, Summit, Trumbull, Tuscarawas, Vinton, Warren, Washington,	\$571,482 (P)
DR- 191	April 14, 1965	PA	Tornadoes and high winds	Allen, Cuyahoga, Delaware, Hancock, Harrison, Highland, Lorain, Lucas, Medina, Mercer, Morrow, Pickaway, Seneca, Shelby, Van Wert	\$275,248 (P)
DR- 238	May 4, 1968	PA	Tornadoes	Brown, Clermont, Gallia, Licking, Scioto	\$270,000 (P)
DR- 243	June 5, 1968	PA	Heavy rains and flooding	Adams, Athens, Brown, Butler, Clermont, Clinton, Fairfield, Franklin, Fayette, Gallia, Greene, Guernsey, Hamilton, Hocking, Jackson, Lawrence, Licking, Meigs, Monroe, Montgomery, Morgan, Noble, Perry, Pickaway, Pike, Ross, Scioto, Vinton, Warren, Washington	\$600,000 (P)
DR- 266	July 15, 1969	PA	Heavy storms and floods	Ashland, Ashtabula, Coshocton, Cuyahoga, Erie, Harrison, Holmes, Huron, Lake, Lorain, Lucas, Medina, Morgan, Muskingum, Ottawa, Richland, Sandusky, Seneca, Stark, Trumbull, Tuscarawas, Wayne, Wood	\$1,000,000 (P)
DR- 345	July 19, 1972	PA	Storms and flooding	Ashtabula, Belmont, Cuyahoga, Jefferson, Lake, Lorain, Monroe	\$1,328,098 (P)
DR- 362	November 24, 1972	PA	Storms and flooding	Erie, Lake, Lorain, Lucas, Ottawa	\$615,863 (P)
DR- 377	April 27, 1973	PA	Storms and flooding	Ashtabula, Cuyahoga, Erie, Lake, Lorain, Lucas,	\$1,417,975 (P)

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DR- 390	June 4, 1973	PA	Mudslides	Ottawa, Sandusky Hamilton, Washington	\$1,434,684 (P)
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DR- 421	April 4, 1974	PA/IFG	Tornadoes and high winds	Adams, Butler, Clark, Delaware, Fayette, Franklin, Greene, Hamilton, Madison, Paulding, Pickaway, Putnam, Summit, Warren,	\$10,250,454 (P) \$1,945,833 (I)
DR- 436	May 31, 1974	PA	Heavy rains and flooding	Lucas, Ottawa, Sandusky	\$858,824 (P)
DR- 445	July 11, 1974	PA	Heavy rains and flooding	Warren	\$507,364 (P)
DR- 480	September 11, 1975	PA	Floods	Belmont, Cuyahoga, Jefferson, Lake,	\$3,320,493 (P)
DR- 3055-EM	January 26, 1978	PA	Severe blizzard conditions	All 88 counties	\$3,546,669 (P)
DR- 630	August 23, 1980	PA/IFG	Heavy rains and flooding	Belmont, Columbiana, Guernsey, Jefferson, Monroe, Muskingum, Noble	\$1,653,327 (P) \$669,820 (I)
DR- 642	June 16, 1981	PA/IFG	Tornado, high winds and flooding	Hancock, Morrow, Putnam, Wyandot (IA) Morrow (PA)	\$346,950 (P) \$47,382 (SCB)** \$515,593 (I)
DR- 653	March 26, 1982	PA/IFG	Flood	Defiance, Fulton, Henry, City of Toledo (Lucas), Paulding, Wood County (IA) Defiance, Paulding, Village of Grand Rapids (Wood only) (PA)	\$157,390 (P) \$268,187 (I)
DR- 738	June 3, 1985	PA/IFG	Tornadoes	Ashtabula, Columbiana, Coshocton, Licking, Portage, Trumbull (IA) Trumbull (PA)	\$1,556,950 (P) \$419,751 (SCB)** \$424,893 (I)
DR-796	1987	IFG	Floods	Crawford, Marion, Morrow, Richland	\$1,066,258 (I) \$266,564 (SCB)**
DR- 831	June 10, 1989	IFG	Severe storms and flooding	Butler, Coshocton, Cuyahoga, Franklin, Geauga, Greene, Lake, Licking, Lorain, Mercer, Montgomery, Preble, Warren	\$2,363,868 (I) \$590,967 (SCB)**

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DISASTER DECLARATION NUMBER	DATE DECLARED	FEDERAL DISASTER PROGRAMS	INCIDENT TYPE	COUNTIES DECLARED	FUNDS PROVIDED
DR- 870	June 6, 1990	PA/IFG/HMGP *	Severe storm, tornadoes, and flooding	Athens, Belmont, Butler, Columbiana, Fairfield, Hamilton, Harrison, Hocking, Jackson, Jefferson, Lawrence, Licking, Monroe, Muskingum, Perry, Pike, Richland, Vinton (PA/IA) Clermont, Franklin, Mahoning, Morrow, Madison, Ross, Trumbull (IA only)	\$10,847,075 (P) \$4,331,497 (I) \$3,849,783 (SCB)** \$630,000 (M) \$630,000 (S)
DR- 951	August 4, 1992 (IA) August 14, 1992 (PA/HMGP)	PA/IFG/HMGP *	Severe storms, tornadoes, flooding	Cuyahoga, Franklin, Logan, Mahoning, Medina, Mercer, Ross, Shelby, Summit, Trumbull, Van Wert (PA/IA) Auglaize, Belmont, Columbiana, Erie, Fairfield, Fulton, Geauga, Jefferson, Lorain, Lucas, Ottawa, Portage, Wood (PA only)	\$8,308,334 (P) \$2,081,117 (I) \$2,474,083 (SCB)** \$250,000 (M) \$350,000 (CDBG)+
DR-1065	August 25, 1995	IFG/HMGP	Severe storms and flooding	Champaign, Erie, Logan, Lorain, Licking, Marion, Mercer, Miami, Scioto, Shelby, Washington	\$3,493,319 (I) \$81,731 (SCB)** \$721,500 (M)
DR-1097	January 27, 1996	PA/IFG/HMGP	Ohio River flooding	Adams, Belmont, Columbiana, Gallia, Jefferson, Lawrence, Meigs, Monroe, Scioto, Washington (PA/IA) Brown, Clermont, Hamilton (IA)	\$4,335,000 (P) \$1,822,056 (I) \$1,617,991 (SCB)** \$1,721,655 (M)
DR-1122	June 24, 1996	PA/HMGP	Severe storms and flooding	Adams, Belmont, Brown, Butler, Clermont, Gallia, Hamilton, Hocking, Jefferson, Lawrence, Meigs, Monroe, Paulding, Scioto, Vinton, Williams	\$10,811,838 (P) \$2,702,960 (S) \$1,137,951 (M)
DR-1164	March 4, 1997	IA/PA/HMGP	Flash flooding on inland rivers/streams and Ohio River flooding	Adams, Athens, Brown, Clermont, Gallia, Hamilton, Highland, Hocking, Jackson, Lawrence, Meigs, Monroe, Pike, Ross, Scioto, Vinton, Washington (IA/PA/HMGP) and Morgan (PA/HMGP)	\$29,666,825 (P) \$22,196,350 (I) \$9,821,524 (M) \$9,821,524 (S) \$9,740,294 (NRCS)*+

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DR-1227	June 30, 1998	IA/PA/MIT	Flash flooding, flooding, high winds and tornadoes.	Athens, Belmont, Coshocton, Guernsey, Harrison, Jackson, Jefferson, Knox, Meigs, Monroe, Morgan, Morrow, Muskingum, Noble, Ottawa, Perry, Pickaway, Richland, Tuscarawas, Washington; (IA only) Franklin, Sandusky (PA only) Holmes	\$21,803,771 (P) \$14,312,348 (I) \$9,000,000 (M) \$9,000,000 (S) \$10,410,817 (NRCS)*+
DR-1321	March 7, 2000	IA/MIT	Flash flooding, flooding	Adams, Gallia, Jackson, Lawrence, Meigs, Pike and Scioto	\$1,914,189 (I) \$297,310 (M) \$297,310 (S)
DR-1339	August 25, 2000	IA/MIT	Flooding	Lucas	\$7,898,840 (I) \$1,132,279 (M) \$1,132,279 (S)
DR-1343	September 26, 2000	IA/PA/MIT	High winds and tornadoes	Greene	\$189,051 (I) \$3,430,810 (P) \$558,025 (M) \$558,025 (S)
DR-1390	August 8, 2001	PA/MIT	Flooding	Brown, Butler, Clermont and Hamilton	\$ 7,712,456 (P) \$ 876,439 (M) \$ 876,439 (S)
DR-1444	November 18, 2002	IA/MIT	Tornados, Severe Storms	Ashland, Auglaize, Coshocton, Cuyahoga, Franklin, Hancock, Henry, Huron, Lorain, Medina, Ottawa, Paulding, Putnam, Sandusky, Seneca, Summit, Union, Van Wert, Wayne and Wood	\$ 11,668,849 (I) \$ 139,068 (M) – \$ 48,409 (S) \$ 2,297,222 (SDRP)
DR-1453*	March 24, 2003	IA/PA/MIT	Ice/Snow Storm	Adams, Gallia, Jackson, Lawrence, Meigs, Pike and Scioto (IA/PA); Athens, Belmont, Darke, Delaware, Fayette, Franklin, Greene, Guernsey, Harrison, Hocking, Licking, Madison, Miami, Monroe, Morgan, Montgomery, Muskingum, Noble, Perry, Preble, Ross, Union, Vinton and Washington (PA)	\$ 16,689,841 (I) \$ 39,621,605 (P) * \$ 2,415,899 (M) \$ 2,415,899 (S) -
DR-1478*	July 15, 2003	IA/MIT	Severe Storms, flooding	Auglaize, Columbiana, Crawford, Darke, Logan, Mahoning, Mercer, Pike, Shelby and Van Wert (IA/MIT); Adams, Auglaize, Darke, Logan, Mercer, Pike, Shelby and Van Wert (SDRP)	\$ 6,451,793 (I) \$ 145,762 (M)* \$ 13,721 (S) \$ 2,976,949 (SDRP)
DR-1484*	August 1, 2003	IA/PA/MIT	Severe storms,	Carroll, Columbiana, Cuyahoga, Franklin, Jefferson,	\$ 135,723,395 (I)

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			tornadoes and flooding	Mahoning, Medina, Portage, Richland, Stark, Summit and Trumbull (IA/MIT); Adams, Columbiana, Carroll, Jefferson, Mahoning, Medina, Monroe, Portage, Stark, Summit, Trumbull and Vinton (PA)	\$ 13,160,834 (P)* \$ 6,016,488 (M) \$ 162,790 (S) -
EM-3187*	August 23, 2003	PA Only	Power Outage	Ashland, Ashtabula, Cuyahoga, Erie, Geauga, Huron, Knox, Lake, Lorain, Lucas, Portage, Summit and Trumbull	\$ 2,067,222 (P)*
DR-1507*	January 26, 2004	IA/PA/MIT	Landslide, severe storms and landslides	Belmont, Jefferson, Morgan, Ross, Tuscarawas and Washington (IA/PA/MIT); Franklin, Licking (IA/MIT); Athens, Guernsey, Harrison, Monroe, Noble and Perry (PA/MIT)	\$ 3,408,934 (I) \$ 14,811,923(P*) \$ 875,265 (M)* \$ 164,804 (S) -
DR-1519*	June 3, 2004	IA/PA/MIT	Severe storms and flooding	Athens, Carroll, Columbiana, Cuyahoga, Delaware, Guernsey, Harrison, Hocking, Holmes, Medina, Noble, Perry, Portage, Summit and Tuscarawas (IA/PA/MIT); Crawford, Geauga, Licking, Logan, Lorain, Mahoning, Richland and Stark (IA/MIT) and Knox and Jefferson (PA/MIT)	\$ 30,238,921 (I)* \$ 14,060,750 (P) * \$ 2,305,560 (M) \$ 748,426 (S) -
DR-1556*	September 19, 2004	IA/PA/Mit	Severe storms and flooding	Athens, Belmont, Carroll, Columbiana, Gallia, Guernsey, Harrison, Jefferson, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Tuscarawas, Vinton and Washington (IA/PA/MIT); Lawrence, Mahoning, Stark and Trumbull (IA/MIT)	\$ 47,455,690 (I) \$ 35,597,480 (P)* \$ 3,948,349 (M)* \$ 2,300,000 (S)
EM-3198*	January 11, 2005	PA Only	Snow Removal and Response	Butler, Champaign, Clark, Crawford, Darke, Delaware, Erie, Franklin, Greene, Hamilton, Hardin, Huron, Logan, Madison, Marion, Miami, Montgomery, Morrow, Preble, Richland, Sandusky, Seneca, Shelby, Union, Warren and Wyandot	\$ 11,116,398 (P)*
DR-1580*	February 15, 2005	IA/PA/MIT	Severe winter storms, ice and mudslides	Clark, Sandusky, Warren and Miami (IA/MIT); Ashland, Auglaize, Athens, Belmont, Coshocton, Crawford, Delaware, Fairfield, Franklin, Guernsey, Henry, Hocking, Holmes, Huron, Jefferson, Licking, Logan, Morgan, Muskingum, Pickaway, Pike, Richland, Ross, Scioto, Stark, Tuscarawas, Washington and	\$ 13,823,757 (I)* \$123,935,836 (P)* \$7,534,746 (M)* \$1,500,000 (S) -

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				Wyandot (IA/PA/MIT); Adams, Allen, Brown, Carroll, Champaign, Clermont, Columbiana, Darke, Fayette, Hancock, Hardin, Harrison, Highland, Knox, Lorain, Marion, Medina, Meigs, Mercer, Monroe, Montgomery, Morrow, Noble, Paulding, Perry, Putnam, Seneca, Shelby, Union, Van Wert and Wayne (PA/MIT)	
EM-3250	September 13, 2005	PA	Hurricane Katrina Emergency Shelter Operations	All 88 Counties were included in the federal declaration	\$2,499,103 (P)*
DR-1651*	July 2, 2006	IA/MIT	Severe storms and flooding	Cuyahoga, Erie, Huron, Lucas, Sandusky and Stark	\$25,001,761 (I)* \$1,798,019 (M) \$593,090 (S)
DR-1656*	August 1, 2006	IA/PA/MIT	Severe storms and flooding	Ashtabula, Geauga and Lake	\$25,895,531 (I)* \$9,282,843 (P)* \$3,411,736 (M) \$1,137,245 (S)
DR-1720	August 28, 2007	IA/PA/MIT	Severe storms and flooding	Allen, Crawford, Hancock, Hardin, Putnam, Richland, Wyandot (IA/PA/MIT); Seneca (IA/MIT)	\$45,452,363 (I) \$12,688,139 (P) \$6,630,799 (M) \$1,984,493 (S)
EM-3286	April 24, 2008	PA	Snow	Ashtabula, Brown, Clermont, Clinton, Crawford, Delaware, Fairfield, Franklin, Geauga, Greene, Hardin, Huron, Lake, Morrow, Richland, Union and Wyandot	\$9,481,809 (P) est.
DR-1805	October 24, 2008	PA/MIT	Wind Event	Ashland, Brown, Butler, Carroll, Champaign, Clark, Clermont, Clinton, Coshocton, Delaware, Fairfield, Franklin, Greene, Guernsey, Hamilton, Harrison, Highland, Hocking, Holmes, Knox, Licking, Madison, Miami, Montgomery, Morrow, Perry, Pickaway, Preble, Shelby, Summit, Tuscarawas, Union, and Warren	\$47,968,724 (P) \$6,507,249 (M)
DR-4002	July 13, 2011	PA/MIT	Severe storms, landslides	Adams, Athens, Belmont, Brown, Clermont, Gallia, Guernsey, Hamilton, Hocking, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Noble, Pike, Ross,	\$45.8 Million (P) \$5,046,137 (M)



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				Scioto, Vinton, Washington	
EM-3346	June 30, 2012	PA (for Direct Assistance only)	Severe storms, straight-line winds (derecho)	All 88 counties	PA was for Direct Assistance only, no financial assistance
DR-4077	August 20, 2012	PA/MIT		Adams, Allen, Athens, Auglaize, Belmont, Champaign, Clark, Coshocton, Fairfield, Franklin, Gallia, Guernsey, Hancock, Hardin, Harrison, Highland, Hocking, Jackson, Knox, Lawrence, Licking, Logan, Meigs, Miami, Monroe, Morgan, Morrow, Muskingum, Noble, Paulding, Perry, Pickaway, Pike, Putnam, Shelby, Van Wert, Vinton, Washington, Wyandot	Initial Estimates of: \$22,018,335 (P) \$3.4 Million (M) est.
DR-4098	January 3, 2013	PA/MIT	Severe storms, flooding	Ashtabula, Cuyahoga	Initial Estimates of: \$23,355,813 (P) \$2.7 Million (M) est.
DR-4360	April 17, 2018	PA/MIT	Severe storms, flooding, landslides	Adams, Athens, Belmont, Brown, Columbiana, Coshocton, Gallia, Hamilton, Harrison, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Scioto, Vinton, Washington	Initial Estimates of: \$120 Million (P) est. \$9.75 Million (M) est.
DR-4424	April 8, 2019	PA/MIT	Severe storms, flooding, landslides	Adams, Athens, Belmont, Brown, Gallia, Guernsey, Hocking, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Scioto, Vinton, Washington	Initial estimates of: \$80 Million (P) est. \$12.2 Million (M) est.
DR-4447	June 18, 2019	IA/PA/MIT	Severe storms, tornados, straight-line winds, flooding, landslides	Greene, Mercer, Montgomery (IA/PA/MIT); Auglaize, Darke, Hocking, Mahoning, Miami, Muskingum, Perry, Pickaway (IA/MIT); Columbiana (PA/MIT)	Initial estimates of: \$27 Million (I) \$17.8 Million (P) est. \$4.1 Million (M) est.
DR-4507	March 31, 2020	PA (IA - FEMA Crisis Counsel Program)	COVID-19	All 88 counties	Initial estimates of: \$220 Million (P) est.

- HMGP first available with disaster declared after 1987.
- (P) – Public Assistance (S) – State Match to Federal Hazard Mitigation funds (M) – Hazard Mitigation Grant
- (SCB)\*\* - State Controlling Board funds; (SDRP)\*\*State Disaster Relief Program

**STATE OF OHIO DISASTER HISTORY (1964 - 2018) (Presidential major and Emergency Disaster Declarations)**  
**(Updated as of 03/05/24)**

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- (CDBG)+ - Community Development Block Grant funds provided by the OH Department of Development
- (I) Individual Assistance includes FEMA Disaster Housing, SBA loans for homes, personal property and businesses and FEMA/State Other Needs Assistance grants for families and individuals
- (NRCS)\*+ - Natural Resources Conservation Service
- EM 3187 is an Emergency Declaration for Public Assistance
- \* Indicates the disaster is not officially closed.

Program	Date	Type	Counties	Total Approved	Total Federal Share	Total State Share	Total Local Share	% State Share
DR-870	June, 1990	Flooding (Shadyside)	207 applicants in Athens, Belmont, Butler, Columbiana, Fairfield, Hamilton, Harrison, Hocking, Jackson, Jefferson, Lawrence, Licking, Monroe, Muskingum, Perry, Pike, Richland, Vinton (18 counties)	\$11,010,761.00	\$8,258,071.00	\$1,130,092.00	\$1,622,598.00	12.5%
DR-951	August, 1992	Flooding	239 applicants in Auglaize, Belmont, Columbiana, Cuyahoga, Erie, Fairfield, Franklin, Fulton, Geauga, Jefferson, Logan, Lorain, Lucas, Mahoning, Medina, Mercer, Ottawa, Portage, Ross, Shelby, Summit, Trumbull, Van Wert, Wood (24 counties)	\$8,207,717.00	\$6,155,788.00	\$821,726.00	\$1,230,203.00	12.5%
DR-1097	January, 1996	Flooding	131 applicants in Adams, Belmont, Columbiana, Gallia, Jefferson, Lawrence, Meigs, Monroe, Scioto, Washington (10 counties)	\$5,515,887.00	\$4,136,915.00	\$579,568.00	\$799,404.00	12.5%
DR-1122	May/June, 1996	Flooding	176 applicants in Adams, Belmont, Brown, Butler, Clermont, Gallia, Hamilton, Hocking, Jefferson, Lawrence, Meigs, Monroe, Paulding, Scioto, Vinton, Williams	\$10,636,155.00	\$7,977,116.00	\$1,354,052.00	\$1,304,987.00	12.5% plus offered Supplemental State Funding
DR-1164	March, 1997	Flooding	369 applicants in Adams, Athens, Brown, Clermont, Gallia, Hamilton, Highland, Hocking, Jackson, Lawrence, Meigs, Monroe, Morgan, Pike, Ross, Scioto, Vinton, Washington	\$38,072,167.00	\$28,554,125.00	\$6,995,533.00	\$2,522,509.00	25%
DR-1227	July, 1998	Flooding	373 applicants in Athens, Belmont, Coshocton, Guernsey, Harrison, Holmes, Jackson, Jefferson, Knox, Meigs, Monroe, Morgan, Morrow, Muskingum, Noble, Ottawa, Perry, Pickaway, Richland, Tuscarawas, Washington	\$27,962,521.00	\$20,971,891.00	\$4,799,344.00	\$2,191,286.00	25% plus offered Supplemental State Funding
DR-1343	August, 1999	Tornado	22 applicants in Greene	\$4,308,723.00	\$3,231,542.00	\$1,029,933.00	\$47,248.00	12.5%
DR-1390	August, 2001	Flooding	54 applicants in Brown, Butler, Clermont, Hamilton	\$7,671,258.00	\$5,753,444.00	\$916,006.00	\$1,001,808.00	12.5%
DR-1453	February, 2003	Record Snowfall/Winter Storm/Flooding	743 applicants in Adams, Athens, Belmont, Darke, Delaware, Fayette, Franklin, Gallia, Greene, Guernsey, Harrison, Hocking, Jackson, Lawrence, Licking, Madison, Meigs, Miami, Monroe, Montgomery, Morgan, Muskingum, Noble, Perry, Pike, Preble, Ross, Scioto, Union, Vinton, Washington,	\$41,445,868.00	\$31,084,284.00	\$2,471,115.00	\$7,890,469.00	12.5%
DR-1484	July, 2003	Flooding	224 applicants in Adams, Carroll, Columbiana, Jefferson, Mahoning, Medina, Monroe, Portage, Stark, Summit, Trumbull, Vinton	\$14,035,483.00	\$10,526,651.00	\$1,692,719.00	\$1,816,113.00	12.5%
EM-3187	August, 2003	Power Outage	108 applicants in Ashtabula, Cuyahoga, Erie, Geauga, Huron, Lake, Lorain, Lucas, Portage, Summit	\$2,055,025.00	\$1,541,269.00	\$208,326.00	\$305,430.00	12.5%
DR-1507	January, 2004	Flooding	191 applicants in Athens, Belmont, Guernsey, Harrison, Jefferson, Monroe, Morgan, Noble, Perry, Ross, Tuscarawas, Washington	\$15,105,036.00	\$11,328,777.00	\$1,843,458.00	\$1,932,801.00	12.5%
DR-1519	May/June, 2004	Flooding	207 applicants in Athens, Carroll, Columbiana, Cuyahoga, Delaware, Guernsey, Harrison, Hocking, Holmes, Jefferson, Knox, Medina, Noble, Perry, Portage, Summit, Tuscarawas	\$13,750,127.00	\$10,312,653.00	\$1,608,842.00	\$1,828,632.00	12.5%
DR-1556	September, 2004	Flooding (Hurricane Ivan)	366 applicants in Athens, Belmont, Carroll, Columbiana, Gallia, Guernsey, Harrison, Jefferson, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Tuscarawas, Vinton, Washington	\$33,380,869.00	\$25,035,652.00	\$3,583,170.00	\$4,762,047.00	12.5%

EM-3198	December, 2004	Record Snowfall	609 applicants in Butler, Champaign, Clark, Crawford, Darke, Delaware, Erie, Franklin, Greene, Hamilton, Hardin, Huron, Logan, Madison, Marion, Miami, Montgomery, Morrow, Preble, Richland, Sandusky, Seneca, Shelby, Union, Warren, Wyandot	\$11,116,398.00	\$8,337,299.00	\$1,111,454.00	\$1,667,645.00	12.5%
DR-1580	December, 2004/January, 2005	Severe Winter Storm/Flooding	928 applicants in Allen, Ashland, Athens, Auglaize, Belmont, Brown, Carroll, Champaign, Clermont, Columbiana, Coshocton, Crawford, Darke, Delaware, Fairfield, Fayette, Franklin, Guernsey, Hancock, Hardin, Harrison, Henry, Highland, Hocking, Holmes, Huron, Jefferson, Knox, Licking, Logan, Lorain, Marion, Medina, Meigs, Mercer, Monroe, Montgomery, Morgan, Morrow, Muskingum, Noble, Paulding, Perry, Pickaway, Pike, Putnam, Richland, Ross, Scioto, Seneca, Shelby, Stark, Tuscarawas, Union, Van Wert, Washington, Wayne, Wyandot	\$127,724,645.00	\$95,793,484.00	\$6,109,811.00	\$25,821,350.00	12.5%
EM-3250	August, 2005	Katrina Evacuees	13 applicants in Clark, Cuyahoga, Franklin, Hamilton, Lawrence, Montgomery, Shelby	\$2,492,583.00	\$2,492,583.00	\$0.00	\$0.00	12.5%
DR-1656	July, 2006	Flooding (Northeast Ohio)	50 applicants in Ashtabula, Geauga, Lake	\$9,626,082.00	\$7,171,089.00	\$1,150,856.00	\$1,304,137.00	12.5%
DR-1720	August, 2007	Flooding (Findlay/Ottawa)	104 applicants in Allen, Crawford, Hancock, Hardin, Putnam, Richland, Wyandot	\$13,932,202.00	\$10,324,436.00	\$1,608,884.00	\$1,998,882.00	12.5%
EM-3286	March, 2008	Record Snowfall	480 applicants in Ashtabula, Brown, Clermont, Clinton, Crawford, Delaware, Fairfield, Franklin, Geauga, Greene, Hardin, Huron, Lake, Licking, Madison, Marion, Morrow, Richland, Union, Wyandot	\$9,481,809.00	\$7,122,204.00	\$0.00	\$2,359,605.00	0.0%
DR-1805	September, 2008	High Winds (Ike)	744 applicants in Ashland, Brown, Butler, Carroll, Champaign, Clark, Clermont, Clinton, Coshocton, Delaware, Fairfield, Franklin, Greene, Guernsey, Hamilton, Harrison, Highland, Hocking, Holmes, Knox, Licking, Madison, Miami, Montgomery, Morrow, Perry, Pickaway, Preble, Shelby, Summit, Tuscarawas, Union, Warren	\$51,666,861.59	\$38,787,982.62	\$0.00	\$12,878,878.97	0.0%
DR-4002	April/May 2011	Flooding	227 applicants in Adams, Athens, Belmont, Brown, Clermont, Gallia, Guernsey, Hamilton, Hocking, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Noble, Pike, Ross, Scioto, Vinton, Washington	\$44,020,356.00	\$32,328,038.00	\$5,174,768.00	\$5,272,516.00	12.5%
DR-4077	June/July 2012	High Winds, Severe Storms	579 applicants in Allen, Athens, Auglaize, Belmont, Champaign, Clark, Coshocton, Fairfield, Franklin, Gallia, Guernsey, Hancock, Hardin, Harrison, Highland, Hocking, Jackson, Knox, Lawrence, Licking, Logan, Meigs, Miami, Monroe, Morgan, Morrow, Muskingum, Noble, Paulding, Perry, Pickaway, Pike, Putnam, Shelby, Van Wert, Vinton, Washington, Wyandot	\$22,006,986.00	\$16,140,674.00	\$1,423,084.00	\$3,902,446.00	12.5%
DR-4098	October, 2012	Remnants Hurricane Sandy	60 applicants in Ashtabula, Cuyahoga	\$23,355,813.15	\$17,603,230.69	\$2,876,291.65	\$2,876,290.81	12.5%
DR-4360 *	February, 2018	Flooding, Severe Storms and TORNADOS	251 applicant in Adams, Athens, Belmont, Brown, Columbiana, Coshocton, Gallia, Hamilton, Harrison, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Scioto, Vinton and Washington	\$84,401,035.55	\$63,675,946.00	\$20,187,520.72	\$0.00	25.0%

DR-4424 *	February, 2019	Flooding and Severe Storms	184 applicants in Adams, Athens, Belmont, Brown, Gallia, Guernsey, Hocking, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Scioto, Vinton and Washington	\$73,144,208.62	\$55,645,936.29	\$17,133,816.08	\$0.00	25.0%
DR-4447 *	May, 2019	Tornadoes, Flooding	43 applicants in Columbiana, Greene, Mercer and Montgomery	\$15,428,359.68	\$11,959,960.88	\$1,481,654.89	\$1,986,743.91	12.5%
DR-4507 *	Mar-23	COVID-19	All 88 counties	\$435,903,352.69	\$435,889,693.55	\$0.00	\$13,659.14	0.0%
<b>Sub totals - 28 Federal PA declarations</b>				<b>\$1,157,458,289.28</b>	<b>\$978,140,735.03</b>	<b>\$87,292,024.34</b>	<b>\$87,337,285.78</b>	

\* Disaster Still Open (fed/state share estimated based on current approved amount)

Program	Date	Event Type/Date	Entities Effected	Total	State Share	Local Share
SDRP	May, 1985	Tornado	Trumbull	\$49,000.00	\$42,875	\$14,292
SDRP	July, 1987	Flood	Richland, Morrow, Marion and Crawford	\$1,211,727.00	\$602,143	\$200,714
SDRP	May, 1989	Flood	Mercer and Preble	\$205,239.00	\$179,584	\$59,861
SDRP	August, 1990	Flood	Pike	\$144,600.00	\$126,525	\$42,175
SDRP	March, 1991	Tornado	Williams	\$42,596.00	\$37,271	\$12,424
SDRP	November, 1992	Tornado	Darke	\$201,934.00	\$176,692	\$58,897
SDRP	March, 1993	Blizzard	Athens, Ashtabula, Belmont, Columbiana, Coshocton, Cuyahoga, Fairfield, Gallia, Geauga, Guernsey, Harrison, Hocking, Holmes, Huron, Jackson, Jefferson, Knox, Licking, Mahoning, Medina, Meigs, Monroe, Portage, Noble, Perry, Pike, Ross, Scioto, Summit, Trumbull, Tuscarawas, Washington, Adams, Carroll, Lawrence, Lorain, Morgan, Stark	\$3,603,216.00	\$1,843,321	\$614,440
SDRP	June, 1993	Windstorm	Clermont	\$2,722.00	\$2,042	\$681
SDRP	June, 1993	Flood	Summit and Mahoning	\$356,596.00	\$267,448	\$89,149
SDRP	July, 1993	Flood	Auglaize and Mercer	\$34,248.00	\$25,685	\$8,562
SDRP	July, 1993	Windstorm	Cuyahoga	\$2,592,086.00	\$1,944,064	\$648,021
SDRP	January, 1994	Blizzard	Adams, Athens, Belmont, Brown, Gallia, Guernsey, Harrison, Hocking, Jackson, Jefferson, Meigs, Monroe, Pike, Scioto, Vinton, Washington, Lawrence, Jefferson	\$3,068,533.00	\$1,774,904	\$591,635
SDRP	January, 1994	Flood	Jefferson	\$3,678.00	\$2,759	\$920
SDRP	May, 1995	Flood	Preble, Gallia, Meigs, Ross	\$685,941.00	\$514,456	\$171,485
SDRP	May, 1995	Tornado	Geauga	\$12,010.00	\$9,008	\$3,003
SDRP	June, 1995	Flood	Jefferson and Monroe	\$166,504.00	\$124,878	\$41,626
SDRP	July, 1995	Windstorm	Knox	\$41,961.00	\$31,471	\$10,490
SDRP	July, 1995	High winds	Portage	\$24,288.00	\$18,216	\$6,072
SDRP	August, 1995	Flood	Champaign, Washington, Licking, Scioto, Shelby, Miami, Mercer, Darke, Preble and Belmont	\$1,382,243.00	\$1,036,682	\$345,561
SDRP	January, 1996	Winter storm	Darke, Preble and Belmont	\$403,803.00	\$302,852	\$100,951
SDRP	May, 1996	Flood	Defiance	\$5,494.00	\$3,001	\$1,000
SDRP	July/August, 1996	Flood	Monroe	\$24,258.00	\$18,194	\$6,065
SDRP	November, 1996	Winter storm	Ashtabula, Geauga, Lake	\$876,851.00	\$438,426	\$146,142

SDRP	March, 1997	Flood	Pike (Waverly 1164, costs not covered by PA Program)	\$180,477.00	\$135,358	\$45,119
			Belmont, Butler, Hancock, Paulding, Union, Fairfield, Licking,			
SDRP	May/June, 1997	Flood	Hocking and Pike	\$420,953.00	\$315,715	\$105,238
SDRP	July, 1997	Flood	Fairfield and Licking	\$224,552.00	\$168,414	\$56,138
SDRP	August, 1997	Flood	Hocking and Perry	\$152,961.00	\$114,721	\$38,240
SDRP	April, 1998	Flooding	Ottawa	\$302,227.00	\$226,670	\$75,557
SDRP	June, 1998	Flooding	Brown	\$51,869.00	\$38,902	\$12,967
SDRP	July, 1998	Flooding	Erie	\$142,007.00	\$106,505	\$35,502
SDRP	August, 1998	Windstorm	Guernsey	\$899.00	\$674	\$225
SDRP	August, 1998	Flooding	Mercer	\$546.67	\$410	\$137
SDRP	January, 1999	Flooding	Preble	\$275,261.00	\$206,446	\$68,815
SDRP	April, 1999	Tornado	Hamilton	\$759,383.00	\$554,825	\$184,942
SDRP	July, 1999	High winds/tornado	Medina	\$314,387.00	\$235,790	\$78,597
SDRP	March, 2000	Flooding	Meigs, Scioto, Gallia, Adams (associated with IA DR-1321)	\$1,542,144.00	\$1,156,608	\$385,536
SDRP	April, 2001	Riots	City of Cincinnati, Hamilton	\$2,151,708.00	\$1,613,782	\$537,927
SDRP	May, 2001	Flooding	Gallia, Lawrence, Meigs, Ross, Scioto, Vinton	\$2,192,156.00	\$1,676,314	\$558,771
SDRP	March, 2002	Flooding	Gallia, Lawrence, Meigs, Ross, Scioto, Vinton	\$547,260.00	\$410,447	\$136,816
SDRP	April 21, 2002	Flooding	Gallia, Lawrence	\$90,217.00	\$67,663	\$22,554
SDRP	April 28, 2002	Flooding	Gallia	\$174,858.00	\$131,143	\$43,714
SDRP	May 7, 2002	Flooding	Ross County, Scioto Township	\$29,997.00	\$22,497	\$7,499
SDRP	June 4, 2002	Flooding	Holmes	\$32,133.00	\$24,099	\$8,033
SDRP	July 9, 2002	Flooding	Hocking	\$154,301.00	\$115,726	\$38,575
SDRP	August 14, 2002	High Winds	Portage County/City of Ravenna	\$403,771.00	\$302,828	\$100,943
			Seneca, Ashland, Cuyahoga, Ottawa, Paulding, Van Wert, Summit			
SDRP	November, 2002	Tornado	(associated with IA DR-1444)	\$1,114,800.00	\$836,102	\$278,701
SDRP	May, 2003	Flooding	Jefferson, Hocking, Richland	\$173,080.00	\$129,810	\$43,270
SDRP	June, 2003	Flooding	Defiance, Preble, Meigs	\$875,731.00	\$656,799	\$218,933
			Pike, Van Wert, Darke, Logan, Mercer, Auglaize (associated with IA			
SDRP	July, 2003	Severe Storms	DR-1478)	\$2,515,351.00	\$1,886,515	\$628,836
SDRP	January, 2004	Flooding	Butler, Fairfield (Counties who did not meet per/cap for PA DR-1507)	\$365,732.00	\$274,298	\$91,433
SDRP	April, 2004	Flooding	Ohio Township, Gallia County	\$71,650.00	\$53,738	\$17,913
SDRP	May, 2004	Flooding	Licking (county who did not meet per/cap for PA DR-1519)	\$9,049.00	\$6,787	\$2,262
SDRP	July, 2004	Fire	Village of West Union, Adams County	\$7,420.00	\$5,565	\$1,855
			Ashland, Ashtabula, Cuyahoga, Erie, Huron, Knox, Sandusky, Stark			
SDRP	June/July, 2006	Severe Storms	(same incident as IA DR-1651)	\$4,523,900.00	\$3,368,523	\$1,155,377
SDRP	October, 2006	Flooding	Pike, Ross (associated with State IA declaration)	\$291,621.00	\$218,716	\$72,905
SDRP	August 7, 2007	Flood	Cuyahoga County (associated with State IA declaration)	\$364,128.00	\$273,096	\$91,032
SDRP	August 20, 2007	Flood	Seneca County (county who did not meet per/cap for PA DR-1720)	\$42,328.00	\$31,746	\$10,582
SDRP	March 4-5, 2008	Ice Event	Ashtabula County	\$602,569.00	\$451,927	\$150,642
SDRP	March 18-19, 2008	Flooding (including Karst)	Belmont, Erie, Huron, Sandusky and Tuscarawasb (A/B only)	\$835,765.00	\$626,824	\$208,941
SDRP	June 5-6, 2010	Tornado	Fulton, Ottawa, Wood (A/B only)	\$450,389.33	\$337,792	\$112,597
SDRP	March 1, 2012	Tornado	Clermont - total of 15 applicants	\$690,973.33	\$518,230	\$172,743

SDRP	June/July 2013	Flooding, severe storms	Ashtabula, Auglaize, Erie, Cuyahoga, Lake, Seneca, Portage, Perry, Summit (31 applicants)	\$3,787,165.57	\$2,840,374	\$946,791
SDRP	November 15, 2013	Tornado	Cloverdale, Putnam County - total of 1 applicant	\$48,277.33	\$36,208	\$12,069
SDRP	December 2013	Flooding	Marion (LaRue), Shelby (Sidney) - total of 2 applicants	\$131,596.33	\$98,697	\$32,899
SDRP	May 12-13, 2014	Flooding, severe storms	Cuyahoga, Medina, Lorain, Summit - total of 14 applicants	\$3,387,406.00	\$2,540,555	\$846,852
SDRP	May 22-23, 2014	Flooding, severe storms	Clark, Miami - total of 3 applicants	\$106,800.72	\$80,101	\$26,700
SDRP	May 29 & June 2, 2014	Flooding and water main break	Gallia - total of 1 applicant	\$252,571.26	\$189,428	\$63,143
SDRP	June 2014	High winds	Columbiana - total of 1 applicant	\$19,184.50	\$14,388	\$4,796
SDRP	June/July 2015	Flooding and severe storms	Adams, Brown, Gallia, Jackson, Lawrence, Logan, Mercer, Meigs, Van Wert, Wood - total of 44 applicants	\$4,977,679.00	\$3,733,259	\$1,244,420
SDRP	June 2016	Flooding	Meigs County - 7 applicants	\$360,506.35	\$265,141	\$95,365
SDRP	Feb/March 2017	Flooding, tornados	Athens, Hocking, Meigs, Perry and Pike - total of 26 applicants	\$1,551,034.24	\$1,108,062	\$442,972
SDRP	July 7-15, 2001	Severe storms	Fairfield, Hocking, Perry - total 27 applicants	\$1,526,405.00	\$1,088,215	\$438,189
SDRP	July 21-24 2017	Flash flooding	Brown and Perry - total 7 applicants	\$312,812.58	\$234,294	\$78,518
SDRP	November 2017	Tornado	Mercer - total 4 applicants	\$418,936.10	\$307,435	\$111,500
SDRP	February 14-25, 2018	Flooding, severe storms, tornado	Clermont, Hocking - total 17 applicants	\$1,170,329.00	\$876,199	\$294,130
SDRP	April 2018	Flooding	Ottawa - total 6 applicants	\$714,079.00	\$535,559	\$178,520
SDRP	June 20-22, 2018	Flooding	Hocking - total 5 applicants	\$131,353.00	\$93,402	\$37,950
SDRP	June 24-28, 2018	Flooding	Athens - total 5 applicants	\$1,062,962.00	\$768,967	\$293,995
SDRP	April 2019	Flooding, severe storms	Mercer - total 2 applicants	\$274,433.18	\$199,290.31	\$75,142.87
SDRP	May 2019	Flooding, severe storms	Logan - total 9 applicants	\$546,274.48	\$380,427.52	\$165,846.96
SDRP	June 2019	Flooding, severe storms	Belmont, Carroll, Jefferson, Logan - total 24 applicants	\$1,674,754.20	\$1,206,264.30	\$468,489.90
SDRP	July 2019 *	Flooding, severe storms	Belmont, Trumbull - total 6 applicants	\$3,610,914.96	\$2,683,980.79	\$926,934.17
SDRP	March 20-22 2020 *	Flooding, severe storms	Athens, Belmont, Licking, Monroe - total 13 applicants	\$8,213,304.42	\$6,074,413.40	\$2,138,891.02
SDRP	May 18-23 2020 *	Flooding, severe storms	Athens, Meigs, Morgan - total 7 applicants	\$1,842,849.10	\$1,380,661.41	\$462,187.69
SDRP	June 3-10, 2020 *	Flooding, severe storms	Athens, Vinton - total 7 applicants	\$1,017,059.84	\$755,259.67	\$261,800.17
SDRP	February 11-15 2021 *	Ice Event	Gallia, Lawrence - total 20 applicants	\$10,824,687.27	\$8,129,177.69	\$2,695,509.58
SDRP	February 2-5 2022 *	Ice Event	Athens, Hocking, Monroe, Noble, Perry, Pike - total 29 applicants	\$4,971,622.17	\$3,727,522.37	\$1,244,099.80
SDRP	February 17-18 2022 *	Flooding	Gallia, Harrison, Jefferson - total 13 applicants	\$281,387.08	\$209,387.27	\$71,999.81
SDRP	May 2022 *	Flooding	Monroe, Muskingum - total 6 applicants	\$659,214.98	\$492,240.82	\$166,974.16
			Ashland, Coshocton, Guernsey, Hocking, Holmes, Jackson, Knox, Logan, Meigs, Monroe, Morrow, Noble, Richland, Tuscarawas, Vinton, Washington, Wayne - total 23 applicants	\$6,155,300.97	\$4,587,981.66	\$1,567,319.31
SDRP	June 2022 *	Derecho, flooding				
SDRP	July 2022 *	Tornado	Clermont - total 6 applicants	\$461,678.13	\$346,258.60	\$115,419.53
			<b>TOTALS - 91 SDRP events</b>	<b>\$98,710,661</b>	<b>\$71,807,652</b>	<b>\$24,483,458</b>

\* SDRP event is still open

	<b>Total all</b>	<b>Total Federal</b>	<b>Total State</b>	<b>Total Local</b>
<b>All Totals - 119 events</b>	<b>\$1,256,168,950.37</b>	<b>\$978,140,735.03</b>	<b>\$159,099,675.87</b>	<b>\$111,820,743.66</b>

**National Flood Insurance Program**  
**Repetitive Loss (RL) and Severe Repetitive Loss (SRL) Summary <sup>1</sup>**  
**Revised November 2023**

Community Name	Community Number	Total Losses	RL Structures	SRL Structures	Total RL/SRL Structures	Total Payment
<b>Adams County</b>		<b>19</b>	<b>6</b>	<b>1</b>	<b>7</b>	<b>\$ 263,561.26</b>
Adams County (Unincorp.)	390001	18	5	1	6	\$ 243,707.72
Manchester, Village Of	390002	1	1	0	1	\$ 19,853.54
<b>Allen County</b>		<b>86</b>	<b>21</b>	<b>5</b>	<b>26</b>	<b>\$ 1,953,214.24</b>
Allen County (Unincorp.)	390758	41	9	2	11	\$ 1,283,233.75
Bluffton, Village Of	390004	32	6	3	9	\$ 477,854.93
Delphos, City Of	390005	6	3	0	3	\$ 18,094.45
Elida, Village Of	390656	5	2	0	2	\$ 122,050.68
Lima, City Of	390006	2	1	0	1	\$ 51,980.43
<b>Ashland County</b>		<b>14</b>	<b>6</b>	<b>0</b>	<b>6</b>	<b>\$ 289,951.67</b>
Ashland County (Unincorp.)	390759	8	3	0	3	\$ 114,164.68
Ashland, City Of	390007	4	2	0	2	\$ 11,775.94
Loudonville, Village Of	390009	2	1	0	1	\$ 164,011.05
<b>Ashtabula County</b>		<b>47</b>	<b>12</b>	<b>2</b>	<b>14</b>	<b>\$ 819,243.13</b>
Ashtabula County (Unincorp.)	390010	39	9	2	11	\$ 654,966.46
Conneaut, City Of	390012	2	1	0	1	\$ 23,967.12
Geneva, City Of	390013	2	1	0	1	\$ 9,990.64
Jefferson, Village Of	390014	4	1	0	1	\$ 130,318.91
<b>Athens County</b>		<b>151</b>	<b>45</b>	<b>5</b>	<b>50</b>	<b>\$ 2,166,791.99</b>
Amesville, Village Of	390015	4	2	0	2	\$ 66,100.00
Athens County (Unincorp.)	390760	64	12	3	15	\$ 1,184,591.27
Buchtel, Village Of	390728	2	1	0	1	\$ 8,813.10
Chauncey, Village Of	390017	27	8	1	9	\$ 223,147.92
Glouster, Village Of	390018	15	6	1	7	\$ 166,424.50
Jacksonville, Village Of	390019	4	2	0	2	\$ 61,910.38
Nelsonville, City Of	390020	6	2	0	2	\$ 21,674.44
Trimble, Village Of	390021	29	12	0	12	\$ 434,130.38
<b>Auglaize County</b>		<b>34</b>	<b>9</b>	<b>2</b>	<b>11</b>	<b>\$ 553,597.73</b>
Auglaize County (Unincorp.)	390761	7	3	0	3	\$ 156,187.58
St. Marys, City Of	390022	13	3	1	4	\$ 177,305.88
Wapakoneta, City Of	390023	14	3	1	4	\$ 220,104.27
<b>Belmont County</b>		<b>161</b>	<b>63</b>	<b>2</b>	<b>65</b>	<b>\$ 2,914,188.51</b>
Bellaire, City Of	390025	9	4	0	4	\$ 131,142.69
Belmont County (Unincorp.)	390762	67	26	2	28	\$ 712,246.21
Bridgeport, Village Of	390026	5	2	0	2	\$ 41,254.16
Brookside, Village Of	390027	27	9	0	9	\$ 472,850.65
Jefferson County (Unincorp.)	390294	2	1	0	1	\$ 10,032.72
Martins Ferry, City Of	390029	14	4	0	4	\$ 852,080.12
Powhatan Point, Village Of	390030	35	16	0	16	\$ 668,867.04
Yorkville, Village Of	390033	2	1	0	1	\$ 25,714.92
<b>Brown County</b>		<b>10</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>\$ 89,470.50</b>
Brown County (Unincorp.)	390034	8	3	0	3	\$ 80,273.16
Ripley, Village Of	390036	2	1	0	1	\$ 9,197.34
<b>Butler County</b>		<b>100</b>	<b>39</b>	<b>1</b>	<b>40</b>	<b>\$ 1,281,785.58</b>
Butler County (Unincorp.)	390037	23	9	0	9	\$ 399,015.98
Fairfield, City Of	390038	54	20	1	21	\$ 504,804.49
Hamilton, City Of	390039	7	3	0	3	\$ 111,052.16
Middletown, City Of	390040	5	2	0	2	\$ 35,842.47
Millville, Village Of	390041	5	2	0	2	\$ 55,594.35
Seven Mile, Village Of	390045	2	1	0	1	\$ 151,650.26
Somerville, Village Of	390046	4	2	0	2	\$ 23,825.87
<b>Carroll County</b>		<b>6</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>\$ 17,222.30</b>
Carroll County (Unincorp.)	390763	4	1	0	1	\$ 13,093.06
Malvern, Village Of	390052	2	1	0	1	\$ 4,129.24

1. Figures do not include properties that have been mitigated



<b>Champaign County</b>		<b>4</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>\$</b>	<b>71,664.99</b>
Urbana, City Of	390060	4	0	1	1	\$	71,664.99
<b>Clark County</b>		<b>33</b>	<b>10</b>	<b>1</b>	<b>11</b>	<b>\$</b>	<b>413,498.66</b>
Clark County (Unincorp.)	390732	22	6	1	7	\$	338,174.74
Ottawa County (Unincorp.)	390432	3	1	0	1	\$	40,233.68
Springfield, City Of	390063	8	3	0	3	\$	35,090.24
<b>Clermont County</b>		<b>77</b>	<b>22</b>	<b>5</b>	<b>27</b>	<b>\$</b>	<b>2,123,484.67</b>
Batavia, Village Of	390066	6	2	0	2	\$	12,598.00
Clermont County (Unincorp.)	390065	35	10	2	12	\$	837,977.79
Milford, City Of	390227	2	1	0	1	\$	5,678.63
Moscow, Village Of	390070	2	1	0	1	\$	36,013.06
New Richmond, Village Of	390071	29	7	3	10	\$	547,538.43
Williamsburg, Village Of	390072	3	1	0	1	\$	683,678.76
<b>Clinton County</b>		<b>4</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>\$</b>	<b>52,931.11</b>
Sabina, Village Of	390627	4	2	0	2	\$	52,931.11
<b>Columbiana County</b>		<b>31</b>	<b>11</b>	<b>1</b>	<b>12</b>	<b>\$</b>	<b>381,239.62</b>
Columbiana County (Unincorp.)	390076	9	4	0	4	\$	142,663.72
East Palestine, City Of	390079	2	1	0	1	\$	12,355.41
Hanoverton, Village Of	390082	7	2	0	2	\$	43,694.01
Lisbon, Village Of	390085	2	1	0	1	\$	6,948.50
Lower Salem, Village Of	390570	3	0	1	1	\$	65,801.39
Washington County (Unincorp.)	390566	2	1	0	1	\$	92,021.68
Wellsville, City Of	390088	6	2	0	2	\$	17,754.91
<b>Coshocton County</b>		<b>9</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>\$</b>	<b>55,841.73</b>
Coshocton County (Unincorp.)	390765	9	4	0	4	\$	55,841.73
<b>Crawford County</b>		<b>52</b>	<b>15</b>	<b>2</b>	<b>17</b>	<b>\$</b>	<b>1,310,371.56</b>
Bucyrus, City Of	390090	21	5	1	6	\$	473,344.79
Crawford County (Unincorp.)	390811	2	1	0	1	\$	23,395.86
Crestline, City Of	390091	9	3	0	3	\$	182,961.15
Galion, City Of	390092	20	6	1	7	\$	630,669.76
<b>Cuyahoga County</b>		<b>470</b>	<b>112</b>	<b>25</b>	<b>137</b>	<b>\$</b>	<b>21,647,739.63</b>
Bay Village, City Of	390093	3	1	0	1	\$	32,036.02
Bedford Heights, City Of	390096	26	2	1	3	\$	705,808.28
Bedford, City Of	390095	5	2	0	2	\$	17,245.80
Bentleyville, Village Of	390682	3	1	0	1	\$	12,026.24
Berea, City Of	390097	2	1	0	1	\$	4,870.83
Brecksville, City Of	390098	13	5	0	5	\$	536,443.78
Broadview Heights, City Of	390099	8	4	0	4	\$	78,380.28
Brook Park, City Of	390102	2	1	0	1	\$	344,172.06
Brooklyn, City Of	390100	3	1	0	1	\$	125,887.95
Brownhelm, Township Of	395371	2	1	0	1	\$	2,250.80
Cleveland Heights, City Of	390105	2	1	0	1	\$	23,391.72
Cleveland, City Of	390104	20	7	1	8	\$	883,793.12
Cuyahoga County (Unincorp.)	390766	10	3	0	3	\$	93,671.26
Defiance, City Of	390144	2	1	0	1	\$	48,455.90
Euclid, City Of	390107	2	1	0	1	\$	10,289.08
Garfield Heights, City Of	390109	15	4	1	5	\$	398,846.70
Gates Mills, Village Of	390593	4	2	0	2	\$	38,691.07
Independence, City Of	390111	130	8	13	21	\$	14,020,812.69
Lakewood, City Of	390112	12	1	2	3	\$	210,043.37
Mayfield, Village Of	390116	11	2	1	3	\$	977,405.73
Middleburg Heights, City Of	390117	16	4	2	6	\$	349,002.40
North Olmsted, City Of	390120	13	6	0	6	\$	101,263.89
North Royalton, City Of	390121	15	5	0	5	\$	116,625.34
Oakwood, Village Of	390122	2	1	0	1	\$	14,519.38
Parma, City Of	390123	10	5	0	5	\$	67,745.52
Pepper Pike, City Of	390125	10	4	0	4	\$	120,310.73
Richmond Heights, City Of	390126	4	1	0	1	\$	41,556.41
Rocky River, City Of	395372	5	1	0	1	\$	33,451.64
Seven Hills, City Of	390128	3	1	0	1	\$	40,597.16
Solon, City Of	390130	2	1	0	1	\$	195,347.40

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Springdale, City Of	390877	2	1	0	1	\$	61,664.29
Strongsville, City Of	390132	16	7	0	7	\$	249,685.27
Valley View, Village Of	390134	88	22	4	26	\$	1,308,860.71
Vermilion, City Of	395374	2	1	0	1	\$	7,784.58
Walton Hills, Village Of	390636	2	1	0	1	\$	26,940.55
Westlake, City Of	390136	5	2	0	2	\$	347,861.68
<b>Darke County</b>		<b>7</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>\$</b>	<b>76,233.83</b>
Darke County (Unincorp.)	390137	2	1	0	1	\$	12,193.65
Greenville, City Of	390139	5	0	1	1	\$	64,040.18
<b>Defiance County</b>		<b>58</b>	<b>21</b>	<b>1</b>	<b>22</b>	<b>\$</b>	<b>700,033.55</b>
Defiance County (Unincorp.)	390143	4	2	0	2	\$	15,874.37
Defiance, City Of	390144	54	19	1	20	\$	684,159.18
<b>Delaware County</b>		<b>26</b>	<b>6</b>	<b>1</b>	<b>7</b>	<b>\$</b>	<b>331,823.81</b>
Delaware County (Unincorp.)	390146	26	6	1	7	\$	331,823.81
<b>Erie County</b>		<b>322</b>	<b>76</b>	<b>16</b>	<b>92</b>	<b>\$</b>	<b>3,446,452.25</b>
Brownhelm, Township Of	395371	2	1	0	1	\$	5,502.07
Erie County (Unincorp.)	390153	55	22	1	23	\$	774,611.83
Huron, City Of	390154	60	10	5	15	\$	672,384.35
Sandusky, City Of	390156	73	21	3	24	\$	602,500.76
Vermilion, City Of	395374	132	22	7	29	\$	1,391,453.24
<b>Fairfield County</b>		<b>46</b>	<b>18</b>	<b>2</b>	<b>20</b>	<b>\$</b>	<b>1,023,510.80</b>
Buckeye Lake, Village Of	390882	2	1	0	1	\$	12,200.10
Columbus, City Of	390170	4	2	0	2	\$	364,565.44
Fairfield County (Unincorp.)	390158	15	5	1	6	\$	196,038.90
Lancaster, City Of	390161	23	9	1	10	\$	447,167.91
Pickerington, City Of	390162	2	1	0	1	\$	3,538.45
<b>Fayette County</b>		<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>\$</b>	<b>9,659.60</b>
Marietta, City Of	390572	2	1	0	1	\$	9,659.60
<b>Franklin County</b>		<b>273</b>	<b>99</b>	<b>5</b>	<b>104</b>	<b>\$</b>	<b>3,727,765.50</b>
Bexley, City Of	390168	4	2	0	2	\$	10,051.65
Columbus, City Of	390170	101	44	0	44	\$	1,535,033.72
Delaware County (Unincorp.)	390146	2	1	0	1	\$	6,091.06
Dublin, City Of	390673	2	1	0	1	\$	16,262.14
Franklin County (Unincorp.)	390167	50	17	1	18	\$	829,141.85
Gahanna, City Of	390171	8	3	0	3	\$	40,859.71
Grove City, City Of	390173	8	4	0	4	\$	66,703.76
Middleport, Village Of	390388	2	1	0	1	\$	2,945.80
Morgan County (Unincorp.)	390420	2	1	0	1	\$	11,236.60
Reynoldsburg, City Of	390177	58	14	2	16	\$	719,178.39
Upper Arlington, City Of	390178	7	3	0	3	\$	73,354.18
Westerville, City Of	390179	4	2	0	2	\$	14,797.67
Whitehall, City Of	390180	10	2	1	3	\$	121,839.27
Worthington, City Of	390181	15	4	1	5	\$	280,269.70
<b>Fulton County</b>		<b>7</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>\$</b>	<b>77,452.21</b>
Fulton County (Unincorp.)	390182	5	2	0	2	\$	57,874.07
Lucas County (Unincorp.)	390359	2	1	0	1	\$	19,578.14
<b>Gallia County</b>		<b>54</b>	<b>11</b>	<b>5</b>	<b>16</b>	<b>\$</b>	<b>711,917.25</b>
Gallia County (Unincorp.)	390185	48	10	4	14	\$	609,320.50
Gallipolis, City Of	390188	2	1	0	1	\$	10,172.26
Vinton, Village Of	390189	4	0	1	1	\$	92,424.49
<b>Geauga County</b>		<b>22</b>	<b>8</b>	<b>1</b>	<b>9</b>	<b>\$</b>	<b>676,818.66</b>
Belmont County (Unincorp.)	390762	2	1	0	1	\$	10,282.82
Geauga County (Unincorp.)	390190	11	3	1	4	\$	199,690.75
Middlefield, Village Of	390192	4	2	0	2	\$	352,220.17
South Russell, Village Of	390740	5	2	0	2	\$	114,624.92
<b>Greene County</b>		<b>29</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>\$</b>	<b>939,438.24</b>
Beavercreek, City Of	390876	7	3	0	3	\$	653,149.57
Bellbrook, City Of	390194	2	1	0	1	\$	9,049.76
Fairborn, City Of	390195	6	1	0	1	\$	69,332.02
Greene County (Unincorp.)	390193	8	3	0	3	\$	41,815.32
Xenia, City Of	390197	6	2	0	2	\$	166,091.57

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<b>Guernsey County</b>		<b>112</b>	<b>44</b>	<b>4</b>	<b>48</b>	<b>\$</b>	<b>3,176,172.62</b>
Byesville, Village Of	390199	34	13	3	16	\$	1,021,792.39
Cambridge, City Of	390200	33	15	0	15	\$	481,235.12
Guernsey County (Unincorp.)	390198	29	11	0	11	\$	1,533,656.94
Lore City, Village Of	390202	3	1	0	1	\$	7,005.92
Pleasant City, Village Of	390203	2	1	0	1	\$	9,098.43
Quaker City, Village Of	390853	11	3	1	4	\$	123,383.82
<b>Hamilton County</b>		<b>489</b>	<b>129</b>	<b>25</b>	<b>154</b>	<b>\$</b>	<b>16,721,206.78</b>
Addyston, Village Of	390205	3	1	0	1	\$	68,214.85
Amberley, Village Of	390206	12	3	0	3	\$	109,362.42
Cincinnati, City Of	390210	198	48	12	60	\$	10,110,024.63
Cleves, Village Of	390211	4	1	0	1	\$	38,486.25
Evendale, Village Of	390214	15	1	2	3	\$	802,191.08
Fairfax, Village Of	390215	21	7	1	8	\$	466,988.45
Glendale, Village Of	390217	2	1	0	1	\$	7,115.50
Greenhills, Village Of	390219	11	3	0	3	\$	58,312.43
Hamilton County (Unincorp.)	390204	157	38	9	47	\$	2,696,403.47
Indian Hill, City Of The Village Of	390221	3	1	0	1	\$	52,328.58
Loveland, City Of	390068	8	3	0	3	\$	57,848.16
Montgomery, City Of	390228	2	1	0	1	\$	10,845.61
Newtown, Village Of	390230	5	2	0	2	\$	72,750.16
North College Hill, City Of	390232	6	3	0	3	\$	19,000.93
Reading, City Of	390234	5	2	0	2	\$	50,611.64
Sharonville, City Of	390236	26	9	1	10	\$	1,941,575.01
Springdale, City Of	390877	2	1	0	1	\$	32,585.40
Terrace Park, Village Of	390633	4	2	0	2	\$	37,453.42
Woodlawn, Village Of	390239	3	1	0	1	\$	65,927.44
Wyoming, City Of	390240	2	1	0	1	\$	23,181.35
<b>Hancock County</b>		<b>550</b>	<b>161</b>	<b>25</b>	<b>186</b>	<b>\$</b>	<b>11,832,474.94</b>
Findlay, City Of	390244	505	145	23	168	\$	11,053,618.40
Hancock County (Unincorp.)	390767	45	16	2	18	\$	778,856.54
<b>Harrison County</b>		<b>21</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>\$</b>	<b>243,213.57</b>
Adena, Village Of	390295	2	1	0	1	\$	18,674.01
Bowerston, Village Of	390257	14	1	2	3	\$	154,695.50
Jewett, Village Of	390259	5	0	1	1	\$	69,844.06
<b>Henry County</b>		<b>91</b>	<b>24</b>	<b>3</b>	<b>27</b>	<b>\$</b>	<b>1,008,337.14</b>
Henry County (Unincorp.)	390776	48	11	2	13	\$	577,316.97
Holgate, Village Of	390265	16	5	0	5	\$	249,647.06
Liberty Center, Village Of	390619	12	2	1	3	\$	69,857.73
Napoleon, City Of	390266	15	6	0	6	\$	111,515.38
<b>Highland County</b>		<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>\$</b>	<b>11,992.37</b>
Hillsboro, City Of	390269	2	1	0	1	\$	11,992.37
<b>Hocking County</b>		<b>46</b>	<b>15</b>	<b>1</b>	<b>16</b>	<b>\$</b>	<b>452,229.10</b>
Hocking County (Unincorp.)	390272	28	9	0	9	\$	318,364.00
Murray City, Village Of	390275	16	5	1	6	\$	129,080.80
Nelsonville, City Of	390020	2	1	0	1	\$	4,784.30
<b>Holmes County</b>		<b>22</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>\$</b>	<b>168,574.57</b>
Glenmont, Village Of	390277	2	1	0	1	\$	10,138.41
Holmes County (Unincorp.)	390276	4	2	0	2	\$	65,645.48
Killbuck, Village Of	390279	13	6	0	6	\$	63,293.13
Millersburg, Village Of	390280	3	1	0	1	\$	29,497.55
<b>Huron County</b>		<b>24</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>\$</b>	<b>600,982.79</b>
Bellevue, City Of	390487	10	4	0	4	\$	272,201.57
Monroeville, Village Of	390283	2	1	0	1	\$	8,255.38
Norwalk, City Of	390286	12	5	0	5	\$	320,525.84
<b>Jackson County</b>		<b>69</b>	<b>20</b>	<b>3</b>	<b>23</b>	<b>\$</b>	<b>1,239,091.48</b>
Coalton, Village Of	390291	13	3	1	4	\$	184,897.34
Jackson County (Unincorp.)	390290	15	3	2	5	\$	483,073.28
Jackson, City Of	390292	34	13	0	13	\$	503,781.26
Wellston, City Of	390293	7	1	0	1	\$	67,339.60

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<b>Jefferson County</b>		<b>57</b>	<b>24</b>	<b>1</b>	<b>25</b>	<b>\$</b>	<b>1,022,903.48</b>
Adena, Village Of	390295	2	1	0	1	\$	10,989.09
Dillonvale, Village Of	390298	13	6	0	6	\$	136,983.93
Irondale, Village Of	390741	2	1	0	1	\$	26,807.33
Jefferson County (Unincorp.)	390294	30	12	0	12	\$	497,771.50
Rayland, Village Of	390301	4	2	0	2	\$	15,202.32
Toronto, City Of	390304	4	1	1	2	\$	324,410.38
Wintersville, Village Of	390305	2	1	0	1	\$	10,738.93
<b>Knox County</b>		<b>17</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>\$</b>	<b>113,144.25</b>
Fredericktown, Village Of	390309	2	1	0	1	\$	8,640.46
Knox County (Unincorp.)	390306	10	4	0	4	\$	83,217.03
Mount Vernon, City Of	390311	5	2	0	2	\$	21,286.76
<b>Lake County</b>		<b>245</b>	<b>76</b>	<b>7</b>	<b>83</b>	<b>\$</b>	<b>3,926,915.81</b>
Eastlake, City Of	390313	118	40	1	41	\$	1,074,250.71
Fairport Harbor, Village Of	390314	20	0	1	1	\$	222,563.50
Grand River, Village Of	390315	9	2	0	2	\$	221,361.96
Lake County (Unincorp.)	390771	28	11	0	11	\$	465,299.74
Madison, Village Of	390316	5	2	0	2	\$	122,409.65
Mentor, City Of	390317	4	2	0	2	\$	73,699.20
Mentor-On-The-Lake, City Of	390318	2	1	0	1	\$	217,330.68
Painesville, City Of	390319	9	5	0	5	\$	518,041.80
Willoughby Hills, City Of	390323	34	8	4	12	\$	716,919.67
Willoughby, City Of	390322	9	2	1	3	\$	103,174.70
Willowick, City Of	390324	5	2	0	2	\$	138,651.80
Youngstown, City Of	390373	2	1	0	1	\$	53,212.40
<b>Lawrence County</b>		<b>131</b>	<b>36</b>	<b>7</b>	<b>43</b>	<b>\$</b>	<b>1,664,408.60</b>
Chesapeake, Village Of	390608	2	1	0	1	\$	8,194.20
Hanging Rock, Village Of	390699	3	1	0	1	\$	37,624.89
Lawrence County (Unincorp.)	390325	115	30	7	37	\$	1,423,193.79
South Point, Village Of	390630	11	4	0	4	\$	195,395.72
<b>Licking County</b>		<b>70</b>	<b>20</b>	<b>5</b>	<b>25</b>	<b>\$</b>	<b>1,064,544.52</b>
Alexandria, Village Of	390329	2	1	0	1	\$	3,879.92
Buckeye Lake, Village Of	390882	2	1	0	1	\$	22,984.12
Heath, City Of	390332	7	1	1	2	\$	149,589.91
Hebron, Village Of	390333	29	5	3	8	\$	434,306.81
Licking County (Unincorp.)	390328	20	7	1	8	\$	341,807.27
Newark, City Of	390335	6	3	0	3	\$	19,853.65
Pataskala, City Of	390336	4	2	0	2	\$	92,122.84
<b>Logan County</b>		<b>43</b>	<b>12</b>	<b>3</b>	<b>15</b>	<b>\$</b>	<b>596,079.75</b>
Bellefontaine, City Of	390340	2	1	0	1	\$	6,998.71
Lakeview, Village Of	390341	17	5	1	6	\$	255,453.69
Logan County (Unincorp.)	390772	8	3	1	4	\$	96,886.52
Russells Point, Village Of	390342	16	3	1	4	\$	236,740.83
<b>Lorain County</b>		<b>166</b>	<b>54</b>	<b>6</b>	<b>60</b>	<b>\$</b>	<b>3,417,320.08</b>
Avon Lake, City Of	390602	4	2	0	2	\$	29,908.98
Avon, City Of	390348	13	6	0	6	\$	173,278.67
Brownhelm, Township Of	395371	4	2	0	2	\$	16,881.83
Lorain County (Unincorp.)	390346	55	12	4	16	\$	1,009,251.42
Lorain, City Of	390351	16	7	0	7	\$	817,601.51
North Ridgeville, City Of	390352	41	17	0	17	\$	818,919.29
Sheffield, Village Of	390354	2	1	0	1	\$	11,588.95
South Amherst, Village Of	390356	6	1	1	2	\$	178,491.91
Vermilion, City Of	395374	25	6	1	7	\$	361,397.52
<b>Lucas County</b>		<b>239</b>	<b>76</b>	<b>8</b>	<b>84</b>	<b>\$</b>	<b>2,975,499.14</b>
Jerusalem, Township Of	390597	3	1	0	1	\$	32,543.78
Lucas County (Unincorp.)	390359	31	10	1	11	\$	408,114.00
Oregon, City Of	390361	31	12	0	12	\$	424,349.80
Ottawa County (Unincorp.)	390432	8	3	0	3	\$	55,925.99
Toledo, City Of	395373	151	47	6	53	\$	1,919,363.64
Waterville, Village Of	390637	15	3	1	4	\$	135,201.93

1. Figures do not include properties that have been mitigated

<b>Madison County</b>		<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>\$</b>	<b>15,663.85</b>
London, City Of	390366	2	1	0	1	\$	15,663.85
<b>Mahoning County</b>		<b>62</b>	<b>20</b>	<b>2</b>	<b>22</b>	<b>\$</b>	<b>1,096,311.20</b>
Canfield, City Of	390369	3	1	0	1	\$	49,990.51
Mahoning County (Unincorp.)	390367	45	16	1	17	\$	500,708.46
Youngstown, City Of	390373	14	3	1	4	\$	545,612.23
<b>Marion County</b>		<b>90</b>	<b>34</b>	<b>3</b>	<b>37</b>	<b>\$</b>	<b>2,094,693.93</b>
Green Camp, Village Of	390374	8	2	1	3	\$	64,929.86
La Rue, Village Of	390375	45	20	0	20	\$	1,622,347.73
Marion County (Unincorp.)	390774	20	8	1	9	\$	291,502.03
Prospect, Village Of	390377	17	4	1	5	\$	115,914.31
<b>Medina County</b>		<b>58</b>	<b>15</b>	<b>4</b>	<b>19</b>	<b>\$</b>	<b>1,598,335.62</b>
Briarwood Beach, Village Of	390379	2	1	0	1	\$	8,865.61
Brunswick, City Of	390380	4	2	0	2	\$	31,504.22
Gloria Glens Park, Village Of	390381	12	2	1	3	\$	102,546.21
Medina County (Unincorp.)	390378	33	7	3	10	\$	1,370,702.43
Medina, City Of	390383	5	2	0	2	\$	22,709.40
Wadsworth, City Of	390386	2	1	0	1	\$	62,007.75
<b>Meigs County</b>		<b>98</b>	<b>26</b>	<b>9</b>	<b>35</b>	<b>\$</b>	<b>1,511,794.18</b>
Meigs County (Unincorp.)	390387	35	9	3	12	\$	787,676.93
Pomeroy, Village Of	390389	38	10	3	13	\$	364,589.98
Rutland, Village Of	390670	23	6	3	9	\$	342,591.99
Syracuse, Village Of	390391	2	1	0	1	\$	16,935.28
<b>Mercer County</b>		<b>36</b>	<b>11</b>	<b>1</b>	<b>12</b>	<b>\$</b>	<b>674,611.56</b>
Fort Recovery, Village Of	390395	2	1	0	1	\$	22,422.12
Mercer County (Unincorp.)	390392	34	10	1	11	\$	652,189.44
<b>Miami County</b>		<b>40</b>	<b>16</b>	<b>1</b>	<b>17</b>	<b>\$</b>	<b>791,334.17</b>
Miami County (Unincorp.)	390398	29	11	1	12	\$	611,462.34
New Carlisle, City Of	390062	2	1	0	1	\$	3,945.14
Troy, City Of	390402	9	4	0	4	\$	175,926.69
<b>Monroe County</b>		<b>19</b>	<b>8</b>	<b>1</b>	<b>9</b>	<b>\$</b>	<b>248,843.21</b>
Clarington, Village Of	390405	4	2	0	2	\$	44,542.86
Monroe County (Unincorp.)	390404	13	5	1	6	\$	183,004.41
Powhatan Point, Village Of	390030	2	1	0	1	\$	21,295.94
<b>Montgomery County</b>		<b>51</b>	<b>18</b>	<b>2</b>	<b>20</b>	<b>\$</b>	<b>565,276.33</b>
Athens, City Of	390016	2	1	0	1	\$	4,670.00
Brookville, City Of	390407	2	1	0	1	\$	4,707.41
Clayton, City Of	390821	4	0	1	1	\$	34,410.90
Dayton, City Of	390409	6	1	1	2	\$	104,984.46
Huber Heights, City Of	390884	3	1	0	1	\$	21,763.78
Kettering, City Of	390412	5	2	0	2	\$	24,288.52
Montgomery County (Unincorp.)	390775	24	10	0	10	\$	343,646.16
Ottawa County (Unincorp.)	390432	3	1	0	1	\$	19,434.29
Trotwood, City Of	390417	2	1	0	1	\$	7,370.81
<b>Morgan County</b>		<b>54</b>	<b>22</b>	<b>1</b>	<b>23</b>	<b>\$</b>	<b>752,911.77</b>
Malta, Village Of	390421	2	1	0	1	\$	3,414.00
Mcconnellsville, Village Of	390422	11	4	0	4	\$	215,197.69
Morgan County (Unincorp.)	390420	37	15	1	16	\$	498,091.07
Washington County (Unincorp.)	390566	2	1	0	1	\$	11,902.91
Zanesville, City Of	390427	2	1	0	1	\$	24,306.10
<b>Muskingum County</b>		<b>58</b>	<b>19</b>	<b>2</b>	<b>21</b>	<b>\$</b>	<b>1,334,301.41</b>
Muskingum County (Unincorp.)	390425	51	17	2	19	\$	1,270,098.84
Zanesville, City Of	390427	7	2	0	2	\$	64,202.57
<b>Noble County</b>		<b>41</b>	<b>19</b>	<b>0</b>	<b>19</b>	<b>\$</b>	<b>734,576.74</b>
Belle Valley, Village Of	390429	20	9	0	9	\$	378,465.30
Caldwell, Village Of	390430	6	3	0	3	\$	42,698.64
Guernsey County (Unincorp.)	390198	2	1	0	1	\$	4,813.95
Lowell, Village Of	390569	2	1	0	1	\$	14,681.48
Noble County (Unincorp.)	390428	9	4	0	4	\$	263,265.58
Washington County (Unincorp.)	390566	2	1	0	1	\$	30,651.79

1. Figures do not include properties that have been mitigated

<b>Ottawa County</b>		<b>403</b>	<b>130</b>	<b>4</b>	<b>134</b>	<b>\$</b>	<b>4,023,889.67</b>
Catawba Island, Township Of	390601	2	1	0	1	\$	9,604.03
Heath, City Of	390332	2	1	0	1	\$	3,209.21
Middleburg Heights, City Of	390117	3	1	0	1	\$	23,926.39
Oak Harbor, Village Of	390433	11	5	0	5	\$	57,759.07
Oregon, City Of	390361	2	1	0	1	\$	18,807.64
Ottawa County (Unincorp.)	390432	334	107	2	109	\$	3,325,429.17
Port Clinton, City Of	390434	49	14	2	16	\$	585,154.16
<b>Paulding County</b>		<b>12</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>\$</b>	<b>187,230.73</b>
Paulding County (Unincorp.)	390777	10	4	0	4	\$	158,536.46
Paulding, Village Of	390438	2	1	0	1	\$	28,694.27
<b>Perry County</b>		<b>19</b>	<b>7</b>	<b>1</b>	<b>8</b>	<b>\$</b>	<b>373,234.28</b>
Corning, Village Of	390440	9	2	1	3	\$	275,136.53
Glenford, Village Of	390442	2	1	0	1	\$	24,983.64
Morgan County (Unincorp.)	390420	4	2	0	2	\$	13,778.88
New Lexington, Village Of	390443	2	1	0	1	\$	44,435.76
Perry County (Unincorp.)	390778	2	1	0	1	\$	14,899.47
<b>Pickaway County</b>		<b>17</b>	<b>6</b>	<b>1</b>	<b>7</b>	<b>\$</b>	<b>333,245.90</b>
Circleville, City Of	390447	3	1	0	1	\$	38,904.33
Pickaway County (Unincorp.)	390445	14	5	1	6	\$	294,341.57
<b>Pike County</b>		<b>34</b>	<b>13</b>	<b>2</b>	<b>15</b>	<b>\$</b>	<b>946,930.65</b>
Pike County (Unincorp.)	390450	27	10	2	12	\$	528,042.98
Scioto County (Unincorp.)	390496	3	1	0	1	\$	10,394.56
Waverly, City Of	390452	4	2	0	2	\$	408,493.11
<b>Portage County</b>		<b>18</b>	<b>9</b>	<b>0</b>	<b>9</b>	<b>\$</b>	<b>290,570.65</b>
Aurora, City Of	390454	4	2	0	2	\$	8,731.34
Portage County (Unincorp.)	390453	14	7	0	7	\$	281,839.31
<b>Preble County</b>		<b>4</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>\$</b>	<b>51,689.56</b>
Preble County (Unincorp.)	390460	4	2	0	2	\$	51,689.56
<b>Putnam County</b>		<b>83</b>	<b>21</b>	<b>4</b>	<b>25</b>	<b>\$</b>	<b>1,625,178.62</b>
Ottawa County (Unincorp.)	390432	2	1	0	1	\$	49,374.00
Ottawa, Village Of	390472	70	16	4	20	\$	1,475,472.13
Pandora, Village Of	390474	2	1	0	1	\$	15,393.43
Putnam County (Unincorp.)	390465	9	3	0	3	\$	84,939.06
<b>Richland County</b>		<b>79</b>	<b>31</b>	<b>2</b>	<b>33</b>	<b>\$</b>	<b>3,268,580.59</b>
Bellville, Village Of	390604	27	7	2	9	\$	584,275.16
Butler, Village Of	390605	2	1	0	1	\$	5,527.56
Mansfield, City Of	390477	25	11	0	11	\$	2,046,684.57
Richland County (Unincorp.)	390476	9	4	0	4	\$	368,377.82
Shelby, City Of	390479	16	8	0	8	\$	263,715.48
<b>Ross County</b>		<b>31</b>	<b>11</b>	<b>1</b>	<b>12</b>	<b>\$</b>	<b>372,933.46</b>
Chillicothe, City Of	390482	4	1	1	2	\$	34,260.98
Frankfort, Village Of	390484	2	1	0	1	\$	21,608.22
Ross County (Unincorp.)	390480	25	9	0	9	\$	317,064.26
<b>Sandusky County</b>		<b>36</b>	<b>14</b>	<b>0</b>	<b>14</b>	<b>\$</b>	<b>276,068.74</b>
Clyde, City Of	390489	3	1	0	1	\$	8,605.00
Fremont, City Of	390490	3	1	0	1	\$	10,802.60
Ottawa County (Unincorp.)	390432	2	1	0	1	\$	14,485.85
Sandusky County (Unincorp.)	390486	22	9	0	9	\$	211,096.18
Woodville, Village Of	390495	6	2	0	2	\$	31,079.11
<b>Scioto County</b>		<b>59</b>	<b>24</b>	<b>2</b>	<b>26</b>	<b>\$</b>	<b>660,274.67</b>
New Boston, Village Of	390497	2	1	0	1	\$	4,411.91
Portsmouth, City Of	390498	6	3	0	3	\$	51,115.03
Scioto County (Unincorp.)	390496	51	20	2	22	\$	604,747.73
<b>Seneca County</b>		<b>34</b>	<b>13</b>	<b>1</b>	<b>14</b>	<b>\$</b>	<b>901,803.35</b>
Seneca County (Unincorp.)	390779	15	5	1	6	\$	167,646.98
Tiffin, City Of	390502	19	8	0	8	\$	734,156.37
<b>Shelby County</b>		<b>24</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>\$</b>	<b>175,659.32</b>
Shelby County (Unincorp.)	390503	12	5	0	5	\$	71,490.80
Sidney, City Of	390507	12	5	0	5	\$	104,168.52

1. Figures do not include properties that have been mitigated

<b>Stark County</b>		<b>123</b>	<b>35</b>	<b>5</b>	<b>40</b>	<b>\$</b>	<b>3,093,038.60</b>
Canal Fulton, City Of	390511	5	2	0	2	\$	21,923.38
Canton, City Of	390512	6	2	0	2	\$	31,912.06
East Canton, Village Of	390513	2	1	0	1	\$	15,098.21
Louisville, City Of	390516	23	5	2	7	\$	2,197,148.31
Massillon, City Of	390517	6	1	0	1	\$	26,595.80
Minerva, Village Of	390518	2	1	0	1	\$	39,712.24
North Canton, City Of	390521	12	5	0	5	\$	98,746.29
Stark County (Unincorp.)	390780	67	18	3	21	\$	661,902.31
<b>Summit County</b>		<b>242</b>	<b>83</b>	<b>10</b>	<b>93</b>	<b>\$</b>	<b>6,019,187.69</b>
Akron, City Of	390523	49	22	0	22	\$	586,109.53
Barberton, City Of	390524	98	33	3	36	\$	1,292,780.59
Fairlawn, City Of	390657	2	1	0	1	\$	4,342.16
Hudson, City Of	390660	2	1	0	1	\$	51,313.98
Munroe Falls, City Of	390843	9	0	2	2	\$	210,668.34
Norton, City Of	390529	9	4	0	4	\$	2,288,981.55
Peninsula, Village Of	390530	2	1	0	1	\$	65,642.74
Reminderville, Village Of	390855	5	2	0	2	\$	25,915.77
Stow, City Of	390532	7	3	0	3	\$	44,938.37
Summit County (Unincorp.)	390781	57	15	5	20	\$	1,346,789.83
Tallmadge, City Of	390533	2	1	0	1	\$	101,704.83
<b>Trumbull County</b>		<b>125</b>	<b>40</b>	<b>4</b>	<b>44</b>	<b>\$</b>	<b>2,181,164.46</b>
Hubbard, City Of	390537	3	1	0	1	\$	24,684.51
Mcdonald, Village Of	390538	5	1	0	1	\$	29,684.67
Peninsula, Village Of	390530	2	1	0	1	\$	57,036.09
Trumbull County (Unincorp.)	390535	94	29	4	33	\$	1,849,582.34
Warren, City Of	390541	19	7	0	7	\$	208,222.18
Youngstown, City Of	390373	2	1	0	1	\$	11,954.67
<b>Tuscarawas County</b>		<b>49</b>	<b>19</b>	<b>0</b>	<b>19</b>	<b>\$</b>	<b>393,932.61</b>
Dennison, Village Of	390542	5	2	0	2	\$	20,016.11
Dover, City Of	390543	2	1	0	1	\$	44,943.39
New Philadelphia, City Of	390545	15	5	0	5	\$	135,824.61
Roswell, Village Of	390813	3	1	0	1	\$	41,609.88
Tuscarawas County (Unincorp.)	390782	16	6	0	6	\$	115,844.06
Uhrichsville, City Of	390547	8	4	0	4	\$	35,694.56
<b>Union County</b>		<b>19</b>	<b>6</b>	<b>0</b>	<b>6</b>	<b>\$</b>	<b>125,967.29</b>
Marysville, City Of	390548	6	1	0	1	\$	19,889.57
Richwood, Village Of	390549	5	1	0	1	\$	22,714.44
Union County (Unincorp.)	390808	8	4	0	4	\$	83,363.28
<b>Van Wert County</b>		<b>10</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>\$</b>	<b>70,834.77</b>
Delphos, City Of	390005	8	3	0	3	\$	67,963.73
Van Wert, City Of	390552	2	1	0	1	\$	2,871.04
<b>Warren County</b>		<b>55</b>	<b>18</b>	<b>3</b>	<b>21</b>	<b>\$</b>	<b>957,325.37</b>
Lebanon, City Of	390557	6	3	0	3	\$	43,025.14
Loveland, City Of	390068	4	2	0	2	\$	12,640.13
Mason, City Of	390559	3	1	0	1	\$	34,572.18
Monroe, City Of	390042	5	0	1	1	\$	243,366.16
Morrow, Village Of	390561	6	3	0	3	\$	42,246.27
South Lebanon, City Of	390563	20	4	2	6	\$	392,326.76
Springboro, City Of	390564	2	1	0	1	\$	12,579.05
Warren County (Unincorp.)	390757	9	4	0	4	\$	176,569.68
<b>Washington County</b>		<b>513</b>	<b>174</b>	<b>24</b>	<b>198</b>	<b>\$</b>	<b>12,069,519.87</b>
Belpre, City Of	390567	42	13	2	15	\$	733,047.22
Beverly, Village Of	390568	4	2	0	2	\$	82,189.84
Lowell, Village Of	390569	4	2	0	2	\$	35,407.43
Lower Salem, Village Of	390570	6	2	0	2	\$	173,957.27
Macksburg, Village Of	390571	5	2	0	2	\$	60,717.07
Marietta, City Of	390572	306	109	12	121	\$	8,228,525.72
Morgan County (Unincorp.)	390420	3	1	0	1	\$	57,891.26
Washington County (Unincorp.)	390566	143	43	10	53	\$	2,697,784.06

1. Figures do not include properties that have been mitigated



<b>Wayne County</b>		<b>21</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>\$</b>	<b>1,492,788.68</b>
Apple Creek, Village Of	390642	4	2	0	2	\$	105,984.69
Rittman, City Of	390578	2	1	0	1	\$	8,352.55
Wayne County (Unincorp.)	390574	11	5	0	5	\$	104,236.67
Wooster, City Of	390579	4	2	0	2	\$	1,274,214.77
<b>Williams County</b>		<b>7</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>\$</b>	<b>606,755.73</b>
Bryan, City Of	390580	4	2	0	2	\$	577,656.54
Williams County (Unincorp.)	390785	3	1	0	1	\$	29,099.19
<b>Wood County</b>		<b>64</b>	<b>24</b>	<b>1</b>	<b>25</b>	<b>\$</b>	<b>710,072.09</b>
Grand Rapids, Village Of	390585	21	9	0	9	\$	296,987.32
Henry County (Unincorp.)	390776	2	1	0	1	\$	18,225.51
Millbury, Village Of	390586	2	1	0	1	\$	17,273.64
Pemberville, Village Of	390624	19	6	1	7	\$	261,196.29
Toledo, City Of	395373	4	1	0	1	\$	30,139.29
Wood County (Unincorp.)	390809	16	6	0	6	\$	86,250.04
<b>Wyandot County</b>		<b>45</b>	<b>14</b>	<b>3</b>	<b>17</b>	<b>\$</b>	<b>1,489,757.98</b>
Carey, Village Of	390590	41	12	3	15	\$	1,405,216.44
Wyandot County (Unincorp.)	390787	4	2	0	2	\$	84,541.54
<b>STATEWIDE TOTAL <sup>1</sup></b>		<b>7283</b>	<b>2293</b>	<b>280</b>	<b>2573</b>	<b>\$</b>	<b>152,478,284.87</b>

1. Figures do not include properties that have been mitigated



COUNTY	# of Facilities	Replacement Cost of All Facilities	# of Critical Facilities	Replacement Cost of Critical Facilities
<b>01 - ADAMS</b>	<b>39</b>	<b>\$14,377,905.63</b>	<b>30</b>	<b>\$12,672,305.63</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	10	\$3,229,292.41	10	\$3,229,292.41
DEPARTMENT OF NATURAL RESOURCES	8	\$1,697,600.00		
DEPARTMENT OF PUBLIC SAFETY	1	\$31,354.14	1	\$31,354.14
DEPARTMENT OF TRANSPORTATION	19	\$9,411,659.08	19	\$9,411,659.08
OHIO HISTORY CONNECTION	1	\$8,000.00		
<b>02 - ALLEN</b>	<b>111</b>	<b>\$176,595,214.24</b>	<b>99</b>	<b>\$148,535,104.17</b>
ADJUTANT GENERAL	5	\$3,758,428.00	5	\$3,758,428.00
BUREAU OF WORKERS COMPENSATION	1	\$888,552.08		
DEPARTMENT OF ADMINISTRATIVE SERVICES	4	\$1,211,000.00	4	\$1,211,000.00
DEPARTMENT OF JOB AND FAMILY SERVICES	1	\$2,870,285.00		
DEPARTMENT OF NATURAL RESOURCES	1	\$681,000.00		
DEPARTMENT OF PUBLIC SAFETY	3	\$949,298.04	3	\$949,298.04
DEPARTMENT OF REHABILITATION AND CORRECTION	51	\$114,292,556.44	51	\$114,292,556.44
DEPARTMENT OF TRANSPORTATION	41	\$29,177,502.00	35	\$28,188,541.00
INDUSTRIAL COMMISSION	1	\$135,280.69	1	\$135,280.69
OHIO HISTORY CONNECTION	3	\$22,631,312.00		
<b>03 - ASHLAND</b>	<b>146</b>	<b>\$103,558,863.29</b>	<b>145</b>	<b>\$103,491,090.89</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	7	\$1,846,200.88	7	\$1,846,200.88
DEPARTMENT OF NATURAL RESOURCES	115	\$51,193,549.58	114	\$51,125,777.19
DEPARTMENT OF PUBLIC SAFETY	2	\$655,923.14	2	\$655,923.14
DEPARTMENT OF TRANSPORTATION	22	\$49,863,189.69	22	\$49,863,189.69
<b>04 - ASHTABULA</b>	<b>233</b>	<b>\$44,610,507.80</b>	<b>72</b>	<b>\$25,195,274.92</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	9	\$2,918,843.17	9	\$2,918,843.17
DEPARTMENT OF NATURAL RESOURCES	154	\$18,587,562.70		
DEPARTMENT OF PUBLIC SAFETY	6	\$1,494,601.63	6	\$1,494,601.63
DEPARTMENT OF TRANSPORTATION	64	\$21,609,500.31	57	\$20,781,830.13
<b>05 - ATHENS</b>	<b>73</b>	<b>\$60,203,940.94</b>	<b>35</b>	<b>\$53,251,614.79</b>
BROADCAST EDUCATIONAL MEDIA COMMISSION	1	\$76,159.45	1	\$76,159.45
DEPARTMENT OF ADMINISTRATIVE SERVICES	7	\$2,514,989.94	7	\$2,514,989.94
DEPARTMENT OF MENTAL HEALTH AND ADDICTION SERVICES	10	\$40,515,100.00	10	\$40,515,100.00
DEPARTMENT OF NATURAL RESOURCES	29	\$5,653,002.75		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,672,743.42	2	\$1,672,743.42
DEPARTMENT OF TRANSPORTATION	21	\$9,345,200.00	14	\$8,359,300.00

LOTTERY COMMISSION	1	\$198,032.42		
OFFICE OF THE ATTORNEY GENERAL	1	\$113,321.99	1	\$113,321.99
PUBLIC DEFENDER COMMISSION	1	\$115,390.98		
<b>06 - AUGLAIZE</b>	<b>101</b>	<b>\$24,057,189.12</b>	<b>18</b>	<b>\$6,542,812.90</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	1	\$322,500.00	1	\$322,500.00
DEPARTMENT OF NATURAL RESOURCES	58	\$10,054,367.50		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,391,520.40	2	\$1,391,520.40
DEPARTMENT OF TRANSPORTATION	34	\$7,124,562.50	15	\$4,828,792.50
OHIO HISTORY CONNECTION	6	\$5,164,238.73		
<b>07 - BELMONT</b>	<b>114</b>	<b>\$158,196,524.96</b>	<b>70</b>	<b>\$153,564,290.83</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	6	\$2,674,322.50	6	\$2,674,322.50
DEPARTMENT OF NATURAL RESOURCES	34	\$3,479,441.75		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,062,100.58	2	\$1,062,100.58
DEPARTMENT OF REHABILITATION AND CORRECTION	23	\$139,528,378.75	23	\$139,528,378.75
DEPARTMENT OF TRANSPORTATION	49	\$11,452,281.38	39	\$10,299,489.00
<b>08 - BROWN</b>	<b>43</b>	<b>\$37,980,934.18</b>	<b>31</b>	<b>\$35,387,446.18</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	8	\$3,161,136.64	8	\$3,161,136.64
DEPARTMENT OF HEALTH	1	\$53,051.25	1	\$53,051.25
DEPARTMENT OF NATURAL RESOURCES	3	\$660,000.00		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,831,083.29	2	\$1,831,083.29
DEPARTMENT OF TRANSPORTATION	21	\$7,966,375.00	17	\$7,507,575.00
DEPARTMENT OF VETERANS SERVICES	3	\$22,834,600.00	3	\$22,834,600.00
OHIO HISTORY CONNECTION	5	\$1,474,688.00		
<b>09 - BUTLER</b>	<b>49</b>	<b>\$22,772,578.43</b>	<b>29</b>	<b>\$17,200,278.43</b>
ADJUTANT GENERAL	4	\$7,608,203.00	4	\$7,608,203.00
DEPARTMENT OF ADMINISTRATIVE SERVICES	4	\$641,885.95	4	\$641,885.95
DEPARTMENT OF NATURAL RESOURCES	16	\$2,721,100.00		
DEPARTMENT OF PUBLIC SAFETY	4	\$1,222,589.48	4	\$1,222,589.48
DEPARTMENT OF TRANSPORTATION	21	\$10,578,800.00	17	\$7,727,600.00
<b>10 - CARROLL</b>	<b>19</b>	<b>\$6,125,581.27</b>	<b>18</b>	<b>\$5,220,360.06</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	3	\$1,408,948.13	3	\$1,408,948.13
DEPARTMENT OF PUBLIC SAFETY	1	\$25,401.68	1	\$25,401.68
DEPARTMENT OF TRANSPORTATION	14	\$3,786,010.25	14	\$3,786,010.25
OHIO HISTORY CONNECTION	1	\$905,221.22		
<b>11 - CHAMPAIGN</b>	<b>62</b>	<b>\$13,683,511.17</b>	<b>21</b>	<b>\$9,246,093.17</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$503,600.00	2	\$503,600.00
DEPARTMENT OF NATURAL RESOURCES	39	\$3,131,300.00		
DEPARTMENT OF PUBLIC SAFETY	1	\$36,093.17	1	\$36,093.17
DEPARTMENT OF TRANSPORTATION	18	\$8,706,400.00	18	\$8,706,400.00
OHIO HISTORY CONNECTION	2	\$1,306,118.00		

<b>12 - CLARK</b>	<b>89</b>	<b>\$19,907,821.13</b>	<b>27</b>	<b>\$9,650,921.13</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$803,493.75	2	\$803,493.75
DEPARTMENT OF NATURAL RESOURCES	62	\$10,256,900.00		
DEPARTMENT OF PUBLIC SAFETY	3	\$1,730,960.80	3	\$1,730,960.80
DEPARTMENT OF TRANSPORTATION	21	\$6,849,500.00	21	\$6,849,500.00
OFFICE OF THE ATTORNEY GENERAL	1	\$266,966.58	1	\$266,966.58
<b>13 - CLERMONT</b>	<b>109</b>	<b>\$42,632,117.65</b>	<b>51</b>	<b>\$32,967,767.65</b>
DEPARTMENT OF DEVELOPMENTAL DISABILITIES	20	\$22,478,300.00	20	\$22,478,300.00
DEPARTMENT OF NATURAL RESOURCES	54	\$9,177,400.00		
DEPARTMENT OF PUBLIC SAFETY	5	\$999,280.15	5	\$999,280.15
DEPARTMENT OF TRANSPORTATION	27	\$9,531,687.50	26	\$9,490,187.50
OHIO HISTORY CONNECTION	3	\$445,450.00		
<b>14 - CLINTON</b>	<b>95</b>	<b>\$21,714,415.28</b>	<b>31</b>	<b>\$13,450,515.28</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	6	\$1,849,682.40	6	\$1,849,682.40
DEPARTMENT OF NATURAL RESOURCES	63	\$8,055,900.00		
DEPARTMENT OF PUBLIC SAFETY	4	\$4,527,395.39	4	\$4,527,395.39
DEPARTMENT OF TRANSPORTATION	22	\$7,281,437.50	21	\$7,073,437.50
<b>15 - COLUMBIANA</b>	<b>88</b>	<b>\$27,522,238.44</b>	<b>36</b>	<b>\$14,981,755.63</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	6	\$2,261,658.62	6	\$2,261,658.62
DEPARTMENT OF NATURAL RESOURCES	50	\$9,142,456.19		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,909,945.38	2	\$1,909,945.38
DEPARTMENT OF TRANSPORTATION	28	\$10,810,151.63	28	\$10,810,151.63
OHIO HISTORY CONNECTION	2	\$3,398,026.63		
<b>16 - COSHOCTON</b>	<b>34</b>	<b>\$18,718,378.21</b>	<b>21</b>	<b>\$16,813,037.46</b>
ADJUTANT GENERAL	1	\$3,691,040.77	1	\$3,691,040.77
DEPARTMENT OF ADMINISTRATIVE SERVICES	9	\$3,635,809.24	9	\$3,635,809.24
DEPARTMENT OF NATURAL RESOURCES	13	\$1,905,340.75		
DEPARTMENT OF PUBLIC SAFETY	1	\$23,236.57	1	\$23,236.57
DEPARTMENT OF TRANSPORTATION	10	\$9,462,950.88	10	\$9,462,950.88
<b>17 - CRAWFORD</b>	<b>12</b>	<b>\$11,520,704.19</b>	<b>12</b>	<b>\$11,520,704.19</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$519,095.63	2	\$519,095.63
DEPARTMENT OF PUBLIC SAFETY	3	\$995,527.37	3	\$995,527.37
DEPARTMENT OF TRANSPORTATION	7	\$10,006,081.19	7	\$10,006,081.19
<b>18 - CUYAHOGA</b>	<b>123</b>	<b>\$405,493,715.30</b>	<b>106</b>	<b>\$389,621,908.36</b>
ADJUTANT GENERAL	5	\$15,281,851.97	5	\$15,281,851.97
AUDITOR OF STATE	1	\$338,625.00		
BROADCAST EDUCATIONAL MEDIA COMMISSION	1	\$53,935.71	1	\$53,935.71
BUREAU OF WORKERS COMPENSATION	1	\$1,952,418.52		
CIVIL RIGHTS COMMISSION	1	\$58,480.54		
DEPARTMENT OF ADMINISTRATIVE SERVICES	13	\$164,614,402.97	12	\$164,575,704.91

DEPARTMENT OF DEVELOPMENTAL DISABILITIES	15	\$48,848,365.50	15	\$48,848,365.50
DEPARTMENT OF HEALTH	2	\$106,102.50	2	\$106,102.50
DEPARTMENT OF JOB AND FAMILY SERVICES	1	\$917,786.63		
DEPARTMENT OF NATURAL RESOURCES	2	\$1,948,862.13		
DEPARTMENT OF PUBLIC SAFETY	6	\$11,864,008.66	6	\$11,864,008.66
DEPARTMENT OF REHABILITATION AND CORRECTION	14	\$20,936,742.79	14	\$20,936,742.79
DEPARTMENT OF TRANSPORTATION	47	\$80,036,857.24	47	\$80,036,857.24
DEPARTMENT OF YOUTH SERVICES	4	\$47,507,247.21	3	\$47,448,248.57
INDUSTRIAL COMMISSION	1	\$470,090.51	1	\$470,090.51
LOTTERY COMMISSION	5	\$8,399,952.07		
OFFICE OF THE ATTORNEY GENERAL	1	\$1,011,156.83		
OHIO HISTORY CONNECTION	2	\$1,063,983.94		
OPPORTUNITIES FOR OHIOANS WITH DISABILITIES AGENCY	1	\$82,844.61		
<b>19 - DARKE</b>	<b>29</b>	<b>\$18,041,002.01</b>	<b>27</b>	<b>\$17,992,949.51</b>
ADJUTANT GENERAL	4	\$3,001,174.57	4	\$3,001,174.57
DEPARTMENT OF ADMINISTRATIVE SERVICES	8	\$2,165,854.66	8	\$2,165,854.66
DEPARTMENT OF PUBLIC SAFETY	1	\$21,595.28	1	\$21,595.28
DEPARTMENT OF TRANSPORTATION	14	\$12,804,325.00	14	\$12,804,325.00
OHIO HISTORY CONNECTION	2	\$48,052.50		
<b>20 - DEFIANCE</b>	<b>26</b>	<b>\$13,611,631.48</b>	<b>15</b>	<b>\$12,622,416.48</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$771,250.00	2	\$771,250.00
DEPARTMENT OF NATURAL RESOURCES	11	\$989,215.00		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,621,251.48	2	\$1,621,251.48
DEPARTMENT OF TRANSPORTATION	11	\$10,229,915.00	11	\$10,229,915.00
<b>21 - DELAWARE</b>	<b>117</b>	<b>\$92,971,857.31</b>	<b>33</b>	<b>\$61,002,573.14</b>
ADJUTANT GENERAL	1	\$16,126,449.53	1	\$16,126,449.53
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$555,368.97	2	\$555,368.97
DEPARTMENT OF NATURAL RESOURCES	76	\$30,565,315.36		
DEPARTMENT OF PUBLIC SAFETY	3	\$1,017,992.29	3	\$1,017,992.29
DEPARTMENT OF TRANSPORTATION	35	\$44,706,731.16	27	\$43,302,762.34
<b>22 - ERIE</b>	<b>98</b>	<b>\$171,945,122.67</b>	<b>55</b>	<b>\$150,149,608.21</b>
ADJUTANT GENERAL	1	\$2,358,174.88	1	\$2,358,174.88
DEPARTMENT OF ADMINISTRATIVE SERVICES	3	\$898,191.59	3	\$898,191.59
DEPARTMENT OF NATURAL RESOURCES	43	\$21,795,514.46		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,368,645.32	2	\$1,368,645.32
DEPARTMENT OF TRANSPORTATION	15	\$4,817,857.29	15	\$4,817,857.29
DEPARTMENT OF VETERANS SERVICES	34	\$140,706,739.13	34	\$140,706,739.13
<b>23 - FAIRFIELD</b>	<b>79</b>	<b>\$96,444,985.33</b>	<b>67</b>	<b>\$94,557,543.33</b>
ADJUTANT GENERAL	1	\$2,100,633.69	1	\$2,100,633.69
DEPARTMENT OF ADMINISTRATIVE SERVICES	5	\$2,018,406.19	5	\$2,018,406.19

DEPARTMENT OF NATURAL RESOURCES	12	\$1,887,442.00		
DEPARTMENT OF PUBLIC SAFETY	3	\$1,402,958.17	3	\$1,402,958.17
DEPARTMENT OF REHABILITATION AND CORRECTION	44	\$84,428,017.83	44	\$84,428,017.83
DEPARTMENT OF TRANSPORTATION	14	\$4,607,527.45	14	\$4,607,527.45
<b>24 - FAYETTE</b>	<b>25</b>	<b>\$12,145,009.92</b>	<b>23</b>	<b>\$11,052,409.92</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	3	\$833,289.05	3	\$833,289.05
DEPARTMENT OF NATURAL RESOURCES	2	\$1,092,600.00		
DEPARTMENT OF PUBLIC SAFETY	1	\$25,613.24	1	\$25,613.24
DEPARTMENT OF TRANSPORTATION	19	\$10,193,507.63	19	\$10,193,507.63
<b>25 - FRANKLIN</b>	<b>408</b>	<b>\$3,130,227,269.43</b>	<b>190</b>	<b>\$2,336,963,044.97</b>
ACCOUNTANCY BOARD OF OHIO	1	\$11,287.50		
ADJUTANT GENERAL	5	\$32,287,632.47	5	\$32,287,632.47
AIR QUALITY DEVELOPMENT AUTHORITY	1	\$96,947.21		
BOARD OF CAREER COLLEGES AND SCHOOLS	1	\$1,135.52		
BOARD OF CHIROPRACTIC EXAMINERS	1	\$18,853.51		
BOARD OF EMBALMERS AND FUNERAL DIRECTORS	1	\$117,447.57		
BOARD OF EXAMINERS OF ARCHITECTS	1	\$17,742.82		
BOARD OF NURSING	2	\$2,150,000.00		
BOARD OF PHARMACY	1	\$846,562.50		
BOARD OF PSYCHOLOGY	1	\$39,966.78		
BOARD OF TAX APPEALS	1	\$149,197.05		
BROADCAST EDUCATIONAL MEDIA COMMISSION	3	\$6,116,171.06	3	\$6,116,171.06
BUREAU OF WORKERS COMPENSATION	4	\$246,696,543.41	1	\$220,589,313.61
CAPITOL SQUARE REVIEW BOARD	3	\$193,924,447.63	2	\$193,363,555.63
CHEMICAL DEPENDENCY PROFESSIONALS BOARD	1	\$7,779.35		
CIVIL RIGHTS COMMISSION	1	\$131,233.85		
COMMISSION ON MINORITY HEALTH	2	\$226,011.87		
COMMISSION ON SERVICE & VOLUNTEERISM	1	\$11,590.01		
COUNSELORS & SOCIAL WORKERS BOARD	1	\$97,046.54		
DENTAL BOARD	1	\$37,578.35		
DEPARTMENT OF ADMINISTRATIVE SERVICES	42	\$1,088,735,678.15	24	\$875,173,485.37
DEPARTMENT OF AGING	1	\$792,721.13		
DEPARTMENT OF COMMERCE	1	\$6,392,840.42	1	\$6,392,840.42
DEPARTMENT OF DEVELOPMENT	1	\$2,302,564.58		
DEPARTMENT OF DEVELOPMENTAL DISABILITIES	19	\$44,666,197.86	17	\$43,921,076.13
DEPARTMENT OF EDUCATION	1	\$3,514,515.51		
DEPARTMENT OF HEALTH	5	\$65,243,945.42	3	\$25,095,610.50
DEPARTMENT OF HIGHER EDUCATION	1	\$56,155.31		
DEPARTMENT OF INSURANCE	1	\$7,685,613.60		
DEPARTMENT OF JOB AND FAMILY SERVICES	3	\$14,878,938.69		

DEPARTMENT OF MENTAL HEALTH AND ADDICTION SERVICES	8	\$97,787,952.09	7	\$95,483,687.98
DEPARTMENT OF NATURAL RESOURCES	26	\$70,228,519.13		
DEPARTMENT OF PUBLIC SAFETY	12	\$255,542,567.26	12	\$255,542,567.26
DEPARTMENT OF REHABILITATION AND CORRECTION	14	\$95,672,003.01	14	\$95,672,003.01
DEPARTMENT OF TAXATION	2	\$13,781,930.23		
DEPARTMENT OF TRANSPORTATION	59	\$183,496,818.57	59	\$183,496,818.57
DEPARTMENT OF VETERANS SERVICES	1	\$262,479.53		
DEPARTMENT OF YOUTH SERVICES	1	\$385,567.46		
EMPLOYMENT RELATIONS BOARD	1	\$617,838.24		
ENGINEERS & SURVEYORS BOARD	1	\$8,978.08		
ENVIRONMENTAL BOARD OF REVIEW	1	\$29,587.92		
ETHICS COMMISSION	1	\$287,290.58		
INDUSTRIAL COMMISSION	24	\$4,904,430.04		
INSPECTOR GENERAL	1	\$374,266.41		
JUDICIAL SUPREME COURT	2	\$198,561,683.19	1	\$198,201,558.19
LEGISLATIVE SERVICE COMMISSION	3	\$5,790,585.70		
LIQUOR CONTROL COMMISSION	1	\$67,659.09		
LOTTERY COMMISSION	1	\$426,123.44		
MEDICAL BOARD	1	\$244,938.75		
MOTOR VEHICLE COLLISION REPAIR BOARD	1	\$15,006.73		
OCCUPATIONAL AND PHYSICAL THERAPY BOARD	1	\$138,142.07		
OFFICE OF BUDGET AND MANAGEMENT	2	\$560,460.28		
OFFICE OF THE ATTORNEY GENERAL	3	\$9,165,493.00	2	\$3,791,241.09
OFFICE OF THE CONSUMERS' COUNSEL	1	\$1,119,585.68		
OHIO COMMISSION ON HISPANIC/LATINO AFFAIRS	1	\$11,736.74		
OHIO ELECTIONS COMMISSION	2	\$3,414.47		
OHIO EXPOSITIONS COMMISSION	40	\$224,909,159.19		
OHIO FACILITIES CONSTRUCTION COMMISSION	1	\$5,325,724.69		
OHIO HISTORY CONNECTION	26	\$119,875,143.23		
OHIO HOUSE OF REPRESENTATIVES	1	\$2,755,869.09		
OHIO HOUSING FINANCE AGENCY	1	\$2,672,486.95		
OHIO SCHOOL FOR THE BLIND	16	\$46,784,349.38	16	\$46,784,349.38
OHIO SCHOOL FOR THE DEAF	23	\$55,051,134.31	23	\$55,051,134.31
OHIO SECRETARY OF STATE	3	\$3,667,067.91		
OHIO SPEECH AND HEARING PROFESSIONALS BOARD	1	\$56,677.92		
OHIO TREASURER OF STATE	3	\$6,317,594.56		
OHIO VISION PROFESSIONALS BOARD	1	\$12,992.68		
OPPORTUNITIES FOR OHIOANS WITH DISABILITIES AGENCY	4	\$825,141.51		
PUBLIC DEFENDER COMMISSION	1	\$1,893,591.00		
RACING COMMISSION	1	\$97,165.06		

STATE COSMETOLOGY AND BARBER BOARD	1	\$1,099,706.13		
STATE LIBRARY OF OHIO	1	\$29,196.25		
THE OHIO ARTS COUNCIL	2	\$184,503.84		
THE OHIO SENATE	1	\$1,246,758.56		
TUITION TRUST AUTHORITY	1	\$643,675.47		
VETERINARY MEDICAL BOARD	1	\$39,928.40		
<b>26 - FULTON</b>	<b>59</b>	<b>\$15,120,842.22</b>	<b>12</b>	<b>\$9,821,963.53</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	4	\$1,145,459.39	4	\$1,145,459.39
DEPARTMENT OF NATURAL RESOURCES	46	\$5,268,601.31		
DEPARTMENT OF PUBLIC SAFETY	1	\$31,364.89	1	\$31,364.89
DEPARTMENT OF TRANSPORTATION	8	\$8,675,416.63	7	\$8,645,139.25
<b>27 - GALLIA</b>	<b>72</b>	<b>\$51,657,606.06</b>	<b>61</b>	<b>\$49,786,218.06</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	8	\$3,103,350.00	8	\$3,103,350.00
DEPARTMENT OF DEVELOPMENTAL DISABILITIES	39	\$39,723,933.27	39	\$39,723,933.27
DEPARTMENT OF PUBLIC SAFETY	3	\$1,873,275.16	3	\$1,873,275.16
DEPARTMENT OF TRANSPORTATION	20	\$6,213,259.63	11	\$5,085,659.63
OHIO HISTORY CONNECTION	2	\$743,788.00		
<b>28 - GEAUGA</b>	<b>92</b>	<b>\$35,544,708.45</b>	<b>27</b>	<b>\$12,064,727.60</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	5	\$2,203,191.68	5	\$2,203,191.68
DEPARTMENT OF NATURAL RESOURCES	65	\$23,479,980.85		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,002,577.66	2	\$1,002,577.66
DEPARTMENT OF TRANSPORTATION	20	\$8,858,958.27	20	\$8,858,958.27
<b>29 - GREENE</b>	<b>55</b>	<b>\$39,432,526.05</b>	<b>21</b>	<b>\$17,560,306.67</b>
ADJUTANT GENERAL	2	\$1,579,390.00	2	\$1,579,390.00
DEPARTMENT OF ADMINISTRATIVE SERVICES	8	\$2,969,690.08	8	\$2,969,690.08
DEPARTMENT OF NATURAL RESOURCES	32	\$10,525,701.88		
DEPARTMENT OF PUBLIC SAFETY	3	\$963,268.37	3	\$963,268.37
DEPARTMENT OF TRANSPORTATION	7	\$11,821,237.50	7	\$11,821,237.50
INDUSTRIAL COMMISSION	1	\$226,720.73	1	\$226,720.73
OHIO HISTORY CONNECTION	2	\$11,346,517.50		
<b>30 - GUERNSEY</b>	<b>203</b>	<b>\$142,953,189.08</b>	<b>50</b>	<b>\$58,733,741.13</b>
BUREAU OF WORKERS COMPENSATION	1	\$523,302.14		
DEPARTMENT OF ADMINISTRATIVE SERVICES	4	\$1,521,301.86	4	\$1,521,301.86
DEPARTMENT OF DEVELOPMENTAL DISABILITIES	15	\$42,725,633.13	15	\$42,725,633.13
DEPARTMENT OF JOB AND FAMILY SERVICES	1	\$223,153.88		
DEPARTMENT OF NATURAL RESOURCES	137	\$78,937,155.75		
DEPARTMENT OF PUBLIC SAFETY	6	\$5,888,965.01	6	\$5,888,965.01
DEPARTMENT OF TRANSPORTATION	38	\$12,978,632.22	24	\$8,442,796.03
INDUSTRIAL COMMISSION	1	\$155,045.10	1	\$155,045.10
<b>31 - HAMILTON</b>	<b>46</b>	<b>\$199,948,907.95</b>	<b>41</b>	<b>\$113,316,789.95</b>



ADJUTANT GENERAL	3	\$17,349,071.00	3	\$17,349,071.00
BROADCAST EDUCATIONAL MEDIA COMMISSION	1	\$76,331.45	1	\$76,331.45
BUREAU OF WORKERS COMPENSATION	1	\$1,414,723.82		
DEPARTMENT OF ADMINISTRATIVE SERVICES	1	\$84,119,700.00		
DEPARTMENT OF MENTAL HEALTH AND ADDICTION SERVICES	4	\$79,450,700.00	4	\$79,450,700.00
DEPARTMENT OF PUBLIC SAFETY	4	\$189,856.75	4	\$189,856.75
DEPARTMENT OF TRANSPORTATION	27	\$14,939,300.00	26	\$14,864,500.00
INDUSTRIAL COMMISSION	1	\$304,265.85	1	\$304,265.85
LOTTERY COMMISSION	1	\$287,094.18		
OFFICE OF THE ATTORNEY GENERAL	2	\$1,082,064.90	2	\$1,082,064.90
OHIO HISTORY CONNECTION	1	\$735,800.00		
<b>32 - HANCOCK</b>	<b>49</b>	<b>\$22,615,955.09</b>	<b>20</b>	<b>\$12,221,846.87</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$850,489.72	2	\$850,489.72
DEPARTMENT OF NATURAL RESOURCES	16	\$5,158,436.82		
DEPARTMENT OF PUBLIC SAFETY	4	\$4,821,251.27	4	\$4,821,251.27
DEPARTMENT OF TRANSPORTATION	27	\$11,785,777.28	14	\$6,550,105.88
<b>33 - HARDIN</b>	<b>20</b>	<b>\$7,121,725.85</b>	<b>18</b>	<b>\$6,825,757.85</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$896,000.00	2	\$896,000.00
DEPARTMENT OF NATURAL RESOURCES	2	\$295,968.00		
DEPARTMENT OF PUBLIC SAFETY	1	\$38,474.85	1	\$38,474.85
DEPARTMENT OF TRANSPORTATION	15	\$5,891,283.00	15	\$5,891,283.00
<b>34 - HARRISON</b>	<b>40</b>	<b>\$12,130,563.00</b>	<b>24</b>	<b>\$9,202,402.97</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	6	\$2,137,203.40	6	\$2,137,203.40
DEPARTMENT OF NATURAL RESOURCES	5	\$2,599,363.44		
DEPARTMENT OF PUBLIC SAFETY	1	\$25,962.51	1	\$25,962.51
DEPARTMENT OF TRANSPORTATION	24	\$7,325,506.66	17	\$7,039,237.06
OHIO HISTORY CONNECTION	4	\$42,527.00		
<b>35 - HENRY</b>	<b>40</b>	<b>\$17,950,511.43</b>	<b>16</b>	<b>\$4,250,243.81</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$585,529.00	2	\$585,529.00
DEPARTMENT OF NATURAL RESOURCES	24	\$13,700,267.63		
DEPARTMENT OF PUBLIC SAFETY	1	\$24,049.93	1	\$24,049.93
DEPARTMENT OF TRANSPORTATION	13	\$3,640,664.88	13	\$3,640,664.88
<b>36 - HIGHLAND</b>	<b>71</b>	<b>\$15,015,632.35</b>	<b>11</b>	<b>\$6,701,555.19</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$966,600.00	2	\$966,600.00
DEPARTMENT OF NATURAL RESOURCES	58	\$7,911,977.16		
DEPARTMENT OF PUBLIC SAFETY	1	\$35,055.19	1	\$35,055.19
DEPARTMENT OF TRANSPORTATION	8	\$5,699,900.00	8	\$5,699,900.00
OHIO HISTORY CONNECTION	2	\$402,100.00		
<b>37 - HOCKING</b>	<b>178</b>	<b>\$52,274,553.58</b>	<b>27</b>	<b>\$7,590,231.08</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	10	\$3,390,090.84	10	\$3,390,090.84



DEPARTMENT OF NATURAL RESOURCES	145	\$43,975,122.50		
DEPARTMENT OF PUBLIC SAFETY	1	\$35,055.19	1	\$35,055.19
DEPARTMENT OF REHABILITATION AND CORRECTION	2	\$390,460.00	2	\$390,460.00
DEPARTMENT OF TRANSPORTATION	19	\$4,300,200.00	13	\$3,591,000.00
INDUSTRIAL COMMISSION	1	\$183,625.05	1	\$183,625.05
<b>38 - HOLMES</b>	<b>31</b>	<b>\$9,274,758.16</b>	<b>29</b>	<b>\$9,188,432.97</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	4	\$1,463,134.25	4	\$1,463,134.25
DEPARTMENT OF PUBLIC SAFETY	1	\$41,620.66	1	\$41,620.66
DEPARTMENT OF TRANSPORTATION	26	\$7,770,003.25	24	\$7,683,678.06
<b>39 - HURON</b>	<b>25</b>	<b>\$11,074,233.72</b>	<b>22</b>	<b>\$10,837,346.72</b>
ADJUTANT GENERAL	3	\$2,475,862.82	3	\$2,475,862.82
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$785,188.63	2	\$785,188.63
DEPARTMENT OF NATURAL RESOURCES	1	\$170,785.25		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,406,709.03	2	\$1,406,709.03
DEPARTMENT OF TRANSPORTATION	17	\$6,235,688.00	15	\$6,169,586.25
<b>40 - JACKSON</b>	<b>47</b>	<b>\$15,550,708.04</b>	<b>21</b>	<b>\$10,211,085.04</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	6	\$2,143,566.95	6	\$2,143,566.95
DEPARTMENT OF NATURAL RESOURCES	21	\$3,005,195.00		
DEPARTMENT OF PUBLIC SAFETY	4	\$4,184,216.09	4	\$4,184,216.09
DEPARTMENT OF TRANSPORTATION	16	\$6,217,730.00	11	\$3,883,302.00
<b>41 - JEFFERSON</b>	<b>63</b>	<b>\$18,695,726.93</b>	<b>34</b>	<b>\$14,685,897.65</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	4	\$1,295,680.05	4	\$1,295,680.05
DEPARTMENT OF NATURAL RESOURCES	22	\$2,247,502.50		
DEPARTMENT OF PUBLIC SAFETY	3	\$1,378,960.41	3	\$1,378,960.41
DEPARTMENT OF TRANSPORTATION	32	\$12,683,245.06	27	\$12,011,257.19
OHIO HISTORY CONNECTION	2	\$1,090,338.91		
<b>42 - KNOX</b>	<b>44</b>	<b>\$76,788,712.82</b>	<b>41</b>	<b>\$76,691,481.86</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	6	\$2,398,638.50	6	\$2,398,638.50
DEPARTMENT OF DEVELOPMENTAL DISABILITIES	23	\$69,342,794.38	23	\$69,342,794.38
DEPARTMENT OF NATURAL RESOURCES	3	\$97,230.96		
DEPARTMENT OF PUBLIC SAFETY	1	\$29,499.86	1	\$29,499.86
DEPARTMENT OF TRANSPORTATION	11	\$4,920,549.13	11	\$4,920,549.13
<b>43 - LAKE</b>	<b>52</b>	<b>\$18,824,775.03</b>	<b>21</b>	<b>\$12,988,101.23</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$1,018,837.50	2	\$1,018,837.50
DEPARTMENT OF NATURAL RESOURCES	20	\$4,311,392.31		
DEPARTMENT OF PUBLIC SAFETY	2	\$95,146.01	2	\$95,146.01
DEPARTMENT OF TRANSPORTATION	28	\$13,399,399.21	17	\$11,874,117.72
<b>44 - LAWRENCE</b>	<b>33</b>	<b>\$9,873,738.93</b>	<b>26</b>	<b>\$9,167,438.93</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	6	\$2,632,200.00	6	\$2,632,200.00
DEPARTMENT OF NATURAL RESOURCES	7	\$706,300.00		

DEPARTMENT OF PUBLIC SAFETY	2	\$1,789,310.68	2	\$1,789,310.68
DEPARTMENT OF TRANSPORTATION	18	\$4,745,928.25	18	\$4,745,928.25
<b>45 - LICKING</b>	<b>106</b>	<b>\$202,938,656.86</b>	<b>67</b>	<b>\$186,741,452.61</b>
ADJUTANT GENERAL	2	\$4,085,534.65	2	\$4,085,534.65
DEPARTMENT OF ADMINISTRATIVE SERVICES	12	\$4,698,751.34	11	\$4,687,491.85
DEPARTMENT OF AGRICULTURE	11	\$87,406,699.47	8	\$86,554,116.97
DEPARTMENT OF COMMERCE	10	\$52,523,973.25	10	\$52,523,973.25
DEPARTMENT OF NATURAL RESOURCES	21	\$6,498,762.00		
DEPARTMENT OF PUBLIC SAFETY	3	\$1,087,402.15	3	\$1,087,402.15
DEPARTMENT OF TRANSPORTATION	39	\$41,934,502.74	33	\$37,802,933.74
ENVIRONMENTAL PROTECTION AGENCY	1	\$3,626,432.20		
OHIO HISTORY CONNECTION	7	\$1,076,599.06		
<b>46 - LOGAN</b>	<b>82</b>	<b>\$25,047,926.38</b>	<b>21</b>	<b>\$9,389,922.51</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$550,025.00	2	\$550,025.00
DEPARTMENT OF NATURAL RESOURCES	55	\$14,549,356.38		
DEPARTMENT OF PUBLIC SAFETY	1	\$23,715.01	1	\$23,715.01
DEPARTMENT OF TRANSPORTATION	24	\$9,924,830.00	18	\$8,816,182.50
<b>47 - LORAIN</b>	<b>118</b>	<b>\$217,354,441.14</b>	<b>83</b>	<b>\$212,390,581.50</b>
ADJUTANT GENERAL	1	\$2,112,577.80	1	\$2,112,577.80
DEPARTMENT OF ADMINISTRATIVE SERVICES	3	\$1,191,806.38	3	\$1,191,806.38
DEPARTMENT OF JOB AND FAMILY SERVICES	1	\$623,070.00		
DEPARTMENT OF NATURAL RESOURCES	26	\$3,173,991.25		
DEPARTMENT OF PUBLIC SAFETY	3	\$1,596,763.03	3	\$1,596,763.03
DEPARTMENT OF REHABILITATION AND CORRECTION	56	\$197,235,630.11	56	\$197,235,630.11
DEPARTMENT OF TRANSPORTATION	27	\$11,233,515.65	20	\$10,253,804.19
LOTTERY COMMISSION	1	\$187,086.93		
<b>48 - LUCAS</b>	<b>134</b>	<b>\$331,076,997.05</b>	<b>52</b>	<b>\$274,497,738.07</b>
BROADCAST EDUCATIONAL MEDIA COMMISSION	1	\$80,490.03	1	\$80,490.03
CIVIL RIGHTS COMMISSION	1	\$101,587.50		
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$448,275.00	1	\$352,600.00
DEPARTMENT OF DEVELOPMENTAL DISABILITIES	21	\$30,343,398.25	21	\$30,343,398.25
DEPARTMENT OF HEALTH	2	\$378,372.80	1	\$25,961.25
DEPARTMENT OF JOB AND FAMILY SERVICES	1	\$917,786.63		
DEPARTMENT OF MENTAL HEALTH AND ADDICTION SERVICES	5	\$73,564,581.84	5	\$73,564,581.84
DEPARTMENT OF NATURAL RESOURCES	75	\$54,633,604.61		
DEPARTMENT OF PUBLIC SAFETY	4	\$125,170.32	4	\$125,170.32
DEPARTMENT OF REHABILITATION AND CORRECTION	9	\$162,462,937.93	9	\$162,462,937.93
DEPARTMENT OF TRANSPORTATION	8	\$6,959,369.94	8	\$6,959,369.94
DEPARTMENT OF YOUTH SERVICES	1	\$56,317.85		
INDUSTRIAL COMMISSION	1	\$252,444.94	1	\$252,444.94

LOTTERY COMMISSION	1	\$303,625.85		
OFFICE OF THE ATTORNEY GENERAL	1	\$330,783.57	1	\$330,783.57
OPPORTUNITIES FOR OHIOANS WITH DISABILITIES AGENCY	1	\$118,250.00		
<b>49 - MADISON</b>	<b>134</b>	<b>\$403,894,872.31</b>	<b>104</b>	<b>\$398,511,572.31</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$656,558.22	2	\$656,558.22
DEPARTMENT OF NATURAL RESOURCES	25	\$4,688,000.00		
DEPARTMENT OF PUBLIC SAFETY	3	\$1,554,667.09	3	\$1,554,667.09
DEPARTMENT OF REHABILITATION AND CORRECTION	61	\$322,214,947.00	61	\$322,214,947.00
DEPARTMENT OF TRANSPORTATION	24	\$10,350,000.00	19	\$9,654,700.00
OFFICE OF THE ATTORNEY GENERAL	19	\$64,430,700.00	19	\$64,430,700.00
<b>50 - MAHONING</b>	<b>83</b>	<b>\$126,976,227.35</b>	<b>58</b>	<b>\$109,678,166.97</b>
ADJUTANT GENERAL	2	\$5,788,466.39	2	\$5,788,466.39
BUREAU OF WORKERS COMPENSATION	2	\$1,501,707.23		
DEPARTMENT OF ADMINISTRATIVE SERVICES	1	\$492,641.47	1	\$492,641.47
DEPARTMENT OF JOB AND FAMILY SERVICES	2	\$4,711,359.50		
DEPARTMENT OF NATURAL RESOURCES	19	\$2,479,183.81		
DEPARTMENT OF PUBLIC SAFETY	3	\$1,151,286.45	3	\$1,151,286.45
DEPARTMENT OF REHABILITATION AND CORRECTION	11	\$88,093,356.80	11	\$88,093,356.80
DEPARTMENT OF TRANSPORTATION	40	\$13,829,187.00	40	\$13,829,187.00
INDUSTRIAL COMMISSION	1	\$323,228.85	1	\$323,228.85
LOTTERY COMMISSION	1	\$307,065.15		
OHIO HISTORY CONNECTION	1	\$8,298,744.69		
<b>51 - MARION</b>	<b>71</b>	<b>\$250,819,651.29</b>	<b>59</b>	<b>\$237,054,144.61</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	1	\$516,310.59	1	\$516,310.59
DEPARTMENT OF NATURAL RESOURCES	2	\$1,408,569.81		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,208,210.70	2	\$1,208,210.70
DEPARTMENT OF REHABILITATION AND CORRECTION	47	\$230,110,001.13	47	\$230,110,001.13
DEPARTMENT OF TRANSPORTATION	15	\$5,606,348.06	9	\$5,219,622.19
OHIO HISTORY CONNECTION	4	\$11,970,211.00		
<b>52 - MEDINA</b>	<b>27</b>	<b>\$17,421,262.69</b>	<b>17</b>	<b>\$16,239,797.37</b>
ADJUTANT GENERAL	1	\$7,618,116.12	1	\$7,618,116.12
DEPARTMENT OF ADMINISTRATIVE SERVICES	3	\$1,725,538.75	3	\$1,725,538.75
DEPARTMENT OF NATURAL RESOURCES	3	\$383,756.19		
DEPARTMENT OF PUBLIC SAFETY	5	\$1,695,555.88	5	\$1,695,555.88
DEPARTMENT OF TRANSPORTATION	15	\$5,998,295.75	8	\$5,200,586.63
<b>53 - MEIGS</b>	<b>62</b>	<b>\$11,250,426.64</b>	<b>24</b>	<b>\$9,369,001.46</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	10	\$4,075,800.00	10	\$4,075,800.00
DEPARTMENT OF NATURAL RESOURCES	27	\$1,586,792.19		
DEPARTMENT OF PUBLIC SAFETY	1	\$22,731.46	1	\$22,731.46
DEPARTMENT OF TRANSPORTATION	24	\$5,565,103.00	13	\$5,270,470.00

<b>54 - MERCER</b>	<b>35</b>	<b>\$9,839,504.78</b>	<b>27</b>	<b>\$9,141,077.28</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	3	\$1,430,285.00	3	\$1,430,285.00
DEPARTMENT OF NATURAL RESOURCES	8	\$698,427.50		
DEPARTMENT OF PUBLIC SAFETY	1	\$29,594.78	1	\$29,594.78
DEPARTMENT OF TRANSPORTATION	23	\$7,681,197.50	23	\$7,681,197.50
<b>55 - MIAMI</b>	<b>49</b>	<b>\$26,951,520.58</b>	<b>30</b>	<b>\$20,994,659.60</b>
ADJUTANT GENERAL	3	\$3,941,497.77	3	\$3,941,497.77
DEPARTMENT OF ADMINISTRATIVE SERVICES	8	\$3,429,914.69	8	\$3,429,914.69
DEPARTMENT OF PUBLIC SAFETY	4	\$2,979,887.14	4	\$2,979,887.14
DEPARTMENT OF TRANSPORTATION	23	\$11,848,005.00	15	\$10,643,360.00
OHIO HISTORY CONNECTION	11	\$4,752,215.98		
<b>56 - MONROE</b>	<b>16</b>	<b>\$4,039,997.62</b>	<b>12</b>	<b>\$3,933,795.68</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	8	\$3,102,087.50	8	\$3,102,087.50
DEPARTMENT OF PUBLIC SAFETY	1	\$22,243.93	1	\$22,243.93
DEPARTMENT OF TRANSPORTATION	7	\$915,666.19	3	\$809,464.25
<b>57 - MONTGOMERY</b>	<b>87</b>	<b>\$196,246,858.31</b>	<b>72</b>	<b>\$187,896,794.01</b>
ADJUTANT GENERAL	3	\$5,894,693.70	3	\$5,894,693.70
BROADCAST EDUCATIONAL MEDIA COMMISSION	1	\$200,140.28	1	\$200,140.28
BUREAU OF WORKERS COMPENSATION	1	\$650,882.21		
DEPARTMENT OF ADMINISTRATIVE SERVICES	14	\$20,531,792.32	14	\$20,531,792.32
DEPARTMENT OF HEALTH	2	\$51,922.50	2	\$51,922.50
DEPARTMENT OF JOB AND FAMILY SERVICES	1	\$959,663.25		
DEPARTMENT OF NATURAL RESOURCES	5	\$1,433,297.50		
DEPARTMENT OF PUBLIC SAFETY	7	\$4,025,984.37	7	\$4,025,984.37
DEPARTMENT OF REHABILITATION AND CORRECTION	21	\$131,094,852.50	21	\$131,094,852.50
DEPARTMENT OF TRANSPORTATION	24	\$26,097,408.35	24	\$26,097,408.35
LOTTERY COMMISSION	1	\$363,747.59		
OHIO HISTORY CONNECTION	7	\$4,942,473.75		
<b>58 - MORGAN</b>	<b>123</b>	<b>\$34,433,864.41</b>	<b>15</b>	<b>\$7,945,304.71</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	5	\$1,758,916.92	5	\$1,758,916.92
DEPARTMENT OF NATURAL RESOURCES	108	\$26,488,559.70		
DEPARTMENT OF PUBLIC SAFETY	1	\$6,852.42	1	\$6,852.42
DEPARTMENT OF TRANSPORTATION	9	\$6,179,535.38	9	\$6,179,535.38
<b>59 - MORROW</b>	<b>31</b>	<b>\$14,222,961.28</b>	<b>19</b>	<b>\$12,996,574.41</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	3	\$1,244,090.78	3	\$1,244,090.78
DEPARTMENT OF NATURAL RESOURCES	12	\$1,226,386.88		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,311,218.25	2	\$1,311,218.25
DEPARTMENT OF TRANSPORTATION	14	\$10,441,265.38	14	\$10,441,265.38
<b>60 - MUSKINGUM</b>	<b>133</b>	<b>\$38,260,781.05</b>	<b>36</b>	<b>\$14,169,869.80</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	8	\$2,763,758.55	8	\$2,763,758.55

DEPARTMENT OF NATURAL RESOURCES	92	\$20,323,149.13		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,057,191.06	2	\$1,057,191.06
DEPARTMENT OF TRANSPORTATION	29	\$11,487,243.06	26	\$10,348,920.19
OHIO HISTORY CONNECTION	2	\$2,629,439.25		
<b>61 - NOBLE</b>	<b>58</b>	<b>\$73,351,997.56</b>	<b>32</b>	<b>\$65,273,141.00</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$952,695.75	2	\$952,695.75
DEPARTMENT OF NATURAL RESOURCES	24	\$1,486,977.63		
DEPARTMENT OF PUBLIC SAFETY	1	\$20,642.50	1	\$20,642.50
DEPARTMENT OF REHABILITATION AND CORRECTION	14	\$55,759,519.00	14	\$55,759,519.00
DEPARTMENT OF TRANSPORTATION	15	\$8,540,283.75	15	\$8,540,283.75
STATE LIBRARY OF OHIO	2	\$6,591,878.93		
<b>62 - OTTAWA</b>	<b>151</b>	<b>\$74,137,997.04</b>	<b>52</b>	<b>\$42,237,936.63</b>
ADJUTANT GENERAL	36	\$34,797,640.67	36	\$34,797,640.67
DEPARTMENT OF ADMINISTRATIVE SERVICES	1	\$383,775.00	1	\$383,775.00
DEPARTMENT OF NATURAL RESOURCES	94	\$31,538,019.12		
DEPARTMENT OF PUBLIC SAFETY	1	\$37,058.52	1	\$37,058.52
DEPARTMENT OF TRANSPORTATION	19	\$7,381,503.73	14	\$7,019,462.44
<b>63 - PAULDING</b>	<b>11</b>	<b>\$8,375,637.04</b>	<b>11</b>	<b>\$8,375,637.04</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$806,525.00	2	\$806,525.00
DEPARTMENT OF PUBLIC SAFETY	1	\$29,062.04	1	\$29,062.04
DEPARTMENT OF TRANSPORTATION	8	\$7,540,050.00	8	\$7,540,050.00
<b>64 - PERRY</b>	<b>12</b>	<b>\$7,815,190.02</b>	<b>9</b>	<b>\$7,167,120.90</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	3	\$901,429.44	3	\$901,429.44
DEPARTMENT OF NATURAL RESOURCES	3	\$648,069.13		
DEPARTMENT OF PUBLIC SAFETY	1	\$23,010.49	1	\$23,010.49
DEPARTMENT OF TRANSPORTATION	5	\$6,242,680.96	5	\$6,242,680.96
<b>65 - PICKAWAY</b>	<b>249</b>	<b>\$394,514,940.66</b>	<b>137</b>	<b>\$346,622,640.66</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	4	\$916,030.63	4	\$916,030.63
DEPARTMENT OF NATURAL RESOURCES	108	\$47,721,700.00		
DEPARTMENT OF PUBLIC SAFETY	3	\$896,302.14	3	\$896,302.14
DEPARTMENT OF REHABILITATION AND CORRECTION	96	\$283,935,597.06	96	\$283,935,597.06
DEPARTMENT OF TRANSPORTATION	18	\$4,166,210.83	14	\$3,995,610.83
DEPARTMENT OF YOUTH SERVICES	20	\$56,879,100.00	20	\$56,879,100.00
<b>66 - PIKE</b>	<b>79</b>	<b>\$19,851,169.23</b>	<b>12</b>	<b>\$8,643,712.36</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	4	\$1,338,100.00	4	\$1,338,100.00
DEPARTMENT OF NATURAL RESOURCES	63	\$10,067,056.88		
DEPARTMENT OF PUBLIC SAFETY	1	\$24,716.11	1	\$24,716.11
DEPARTMENT OF TRANSPORTATION	11	\$8,421,296.25	7	\$7,280,896.25
<b>67 - PORTAGE</b>	<b>96</b>	<b>\$34,935,210.28</b>	<b>25</b>	<b>\$17,793,582.78</b>
BROADCAST EDUCATIONAL MEDIA COMMISSION	1	\$70,969.83	1	\$70,969.83

DEPARTMENT OF ADMINISTRATIVE SERVICES	3	\$884,457.86	3	\$884,457.86
DEPARTMENT OF NATURAL RESOURCES	71	\$17,141,627.50		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,778,181.34	2	\$1,778,181.34
DEPARTMENT OF TRANSPORTATION	19	\$15,059,973.74	19	\$15,059,973.74
<b>68 - PREBLE</b>	<b>136</b>	<b>\$54,615,162.35</b>	<b>28</b>	<b>\$7,555,862.35</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$751,311.08	2	\$751,311.08
DEPARTMENT OF NATURAL RESOURCES	105	\$45,998,900.00		
DEPARTMENT OF PUBLIC SAFETY	2	\$40,371.58	2	\$40,371.58
DEPARTMENT OF TRANSPORTATION	27	\$7,824,579.69	24	\$6,764,179.69
<b>69 - PUTNAM</b>	<b>19</b>	<b>\$4,857,268.52</b>	<b>19</b>	<b>\$4,857,268.52</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	4	\$1,435,661.70	4	\$1,435,661.70
DEPARTMENT OF PUBLIC SAFETY	1	\$21,118.82	1	\$21,118.82
DEPARTMENT OF TRANSPORTATION	14	\$3,400,488.00	14	\$3,400,488.00
<b>70 - RICHLAND</b>	<b>121</b>	<b>\$246,681,238.09</b>	<b>77</b>	<b>\$236,998,425.05</b>
BUREAU OF WORKERS COMPENSATION	1	\$771,936.47		
DEPARTMENT OF ADMINISTRATIVE SERVICES	8	\$2,379,412.19	8	\$2,379,412.19
DEPARTMENT OF NATURAL RESOURCES	38	\$8,203,239.00		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,443,825.53	2	\$1,443,825.53
DEPARTMENT OF REHABILITATION AND CORRECTION	48	\$226,909,145.63	48	\$226,909,145.63
DEPARTMENT OF TRANSPORTATION	23	\$6,852,598.25	18	\$6,144,960.69
INDUSTRIAL COMMISSION	1	\$121,081.01	1	\$121,081.01
<b>71 - ROSS</b>	<b>294</b>	<b>\$534,940,057.15</b>	<b>129</b>	<b>\$510,798,521.50</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	12	\$4,021,820.76	12	\$4,021,820.76
DEPARTMENT OF JOB AND FAMILY SERVICES	1	\$572,614.88		
DEPARTMENT OF NATURAL RESOURCES	150	\$16,539,500.00		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,189,894.14	2	\$1,189,894.14
DEPARTMENT OF REHABILITATION AND CORRECTION	92	\$482,397,010.35	92	\$482,397,010.35
DEPARTMENT OF TRANSPORTATION	23	\$23,189,796.25	23	\$23,189,796.25
OHIO HISTORY CONNECTION	13	\$6,884,443.00		
PUBLIC DEFENDER COMMISSION	1	\$144,977.78		
<b>72 - SANDUSKY</b>	<b>26</b>	<b>\$14,154,794.61</b>	<b>14</b>	<b>\$8,633,501.36</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$702,066.94	2	\$702,066.94
DEPARTMENT OF NATURAL RESOURCES	12	\$5,521,293.26		
DEPARTMENT OF PUBLIC SAFETY	3	\$633,836.16	3	\$633,836.16
DEPARTMENT OF TRANSPORTATION	9	\$7,297,598.26	9	\$7,297,598.26
<b>73 - SCIOTO</b>	<b>140</b>	<b>\$510,358,596.96</b>	<b>66</b>	<b>\$478,434,986.87</b>
BUREAU OF WORKERS COMPENSATION	1	\$544,010.09		
DEPARTMENT OF ADMINISTRATIVE SERVICES	12	\$3,834,780.13	12	\$3,834,780.13
DEPARTMENT OF NATURAL RESOURCES	69	\$30,122,500.00		
DEPARTMENT OF PUBLIC SAFETY	3	\$1,412,261.29	3	\$1,412,261.29



DEPARTMENT OF REHABILITATION AND CORRECTION	36	\$462,199,000.00	36	\$462,199,000.00
DEPARTMENT OF TRANSPORTATION	18	\$12,092,400.00	14	\$10,835,300.00
INDUSTRIAL COMMISSION	1	\$153,645.45	1	\$153,645.45
<b>74 - SENECA</b>	<b>50</b>	<b>\$47,575,038.33</b>	<b>47</b>	<b>\$47,263,739.83</b>
ADJUTANT GENERAL	1	\$1,956,478.88	1	\$1,956,478.88
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$742,636.85	2	\$742,636.85
DEPARTMENT OF DEVELOPMENTAL DISABILITIES	36	\$38,839,384.23	36	\$38,839,384.23
DEPARTMENT OF NATURAL RESOURCES	3	\$311,298.50		
DEPARTMENT OF PUBLIC SAFETY	1	\$26,819.13	1	\$26,819.13
DEPARTMENT OF TRANSPORTATION	7	\$5,698,420.74	7	\$5,698,420.74
<b>75 - SHELBY</b>	<b>69</b>	<b>\$35,778,742.50</b>	<b>35</b>	<b>\$32,329,712.50</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$724,927.50	2	\$724,927.50
DEPARTMENT OF NATURAL RESOURCES	33	\$3,171,250.00		
DEPARTMENT OF TRANSPORTATION	33	\$31,604,785.00	33	\$31,604,785.00
OHIO HISTORY CONNECTION	1	\$277,780.00		
<b>76 - STARK</b>	<b>63</b>	<b>\$152,870,281.25</b>	<b>57</b>	<b>\$148,641,581.95</b>
ADJUTANT GENERAL	2	\$14,945,178.58	2	\$14,945,178.58
BUREAU OF WORKERS COMPENSATION	1	\$1,191,604.73		
DEPARTMENT OF ADMINISTRATIVE SERVICES	17	\$9,925,981.61	17	\$9,925,981.61
DEPARTMENT OF HEALTH	1	\$22,575.00	1	\$22,575.00
DEPARTMENT OF MENTAL HEALTH AND ADDICTION SERVICES	7	\$68,842,658.69	7	\$68,842,658.69
DEPARTMENT OF NATURAL RESOURCES	4	\$2,646,959.06		
DEPARTMENT OF PUBLIC SAFETY	7	\$4,018,372.23	7	\$4,018,372.23
DEPARTMENT OF TRANSPORTATION	19	\$13,310,250.73	19	\$13,310,250.73
DEPARTMENT OF YOUTH SERVICES	4	\$37,576,565.12	4	\$37,576,565.12
LOTTERY COMMISSION	1	\$390,135.51		
<b>77 - SUMMIT</b>	<b>120</b>	<b>\$213,595,305.22</b>	<b>65</b>	<b>\$197,956,468.34</b>
ADJUTANT GENERAL	4	\$10,141,930.01	4	\$10,141,930.01
CIVIL RIGHTS COMMISSION	1	\$84,656.25		
DEPARTMENT OF ADMINISTRATIVE SERVICES	3	\$1,704,733.88	3	\$1,704,733.88
DEPARTMENT OF HEALTH	1	\$64,604.01	1	\$64,604.01
DEPARTMENT OF JOB AND FAMILY SERVICES	1	\$917,786.63		
DEPARTMENT OF MENTAL HEALTH AND ADDICTION SERVICES	7	\$124,776,870.56	7	\$124,776,870.56
DEPARTMENT OF NATURAL RESOURCES	35	\$7,951,799.45		
DEPARTMENT OF PUBLIC SAFETY	3	\$118,578.24	3	\$118,578.24
DEPARTMENT OF REHABILITATION AND CORRECTION	1	\$3,011.51	1	\$3,011.51
DEPARTMENT OF TRANSPORTATION	61	\$44,308,621.69	44	\$39,095,280.19
INDUSTRIAL COMMISSION	1	\$341,017.95	1	\$341,017.95
OFFICE OF THE ATTORNEY GENERAL	1	\$21,710,442.00	1	\$21,710,442.00
OHIO HISTORY CONNECTION	1	\$1,471,253.06		

<b>78 - TRUMBULL</b>	<b>118</b>	<b>\$102,818,054.89</b>	<b>69</b>	<b>\$97,032,568.77</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	5	\$1,604,069.44	5	\$1,604,069.44
DEPARTMENT OF NATURAL RESOURCES	47	\$5,645,994.06		
DEPARTMENT OF PUBLIC SAFETY	6	\$5,554,677.87	6	\$5,554,677.87
DEPARTMENT OF REHABILITATION AND CORRECTION	20	\$68,409,150.26	20	\$68,409,150.26
DEPARTMENT OF TRANSPORTATION	39	\$21,530,195.14	38	\$21,464,671.20
PUBLIC DEFENDER COMMISSION	1	\$73,968.12		
<b>79 - TUSCARAWAS</b>	<b>107</b>	<b>\$62,140,100.85</b>	<b>54</b>	<b>\$50,576,265.33</b>
ADJUTANT GENERAL	1	\$2,680,949.86	1	\$2,680,949.86
DEPARTMENT OF ADMINISTRATIVE SERVICES	10	\$2,520,394.17	10	\$2,520,394.17
DEPARTMENT OF NATURAL RESOURCES	1	\$1,078,029.62		
DEPARTMENT OF PUBLIC SAFETY	3	\$1,757,871.29	3	\$1,757,871.29
DEPARTMENT OF TRANSPORTATION	40	\$43,617,050.00	40	\$43,617,050.00
OHIO HISTORY CONNECTION	52	\$10,485,805.90		
<b>80 - UNION</b>	<b>60</b>	<b>\$169,787,945.88</b>	<b>55</b>	<b>\$169,438,471.88</b>
ADJUTANT GENERAL	1	\$6,019,715.00	1	\$6,019,715.00
DEPARTMENT OF ADMINISTRATIVE SERVICES	5	\$1,842,000.00	5	\$1,842,000.00
DEPARTMENT OF PUBLIC SAFETY	6	\$2,668,315.39	6	\$2,668,315.39
DEPARTMENT OF REHABILITATION AND CORRECTION	32	\$151,650,941.50	32	\$151,650,941.50
DEPARTMENT OF TRANSPORTATION	16	\$7,606,973.99	11	\$7,257,499.99
<b>81 - VAN WERT</b>	<b>30</b>	<b>\$9,258,456.92</b>	<b>16</b>	<b>\$7,772,806.92</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$785,260.00	2	\$785,260.00
DEPARTMENT OF NATURAL RESOURCES	5	\$657,900.00		
DEPARTMENT OF PUBLIC SAFETY	3	\$1,930,854.42	3	\$1,930,854.42
DEPARTMENT OF TRANSPORTATION	20	\$5,884,442.50	11	\$5,056,692.50
<b>82 - VINTON</b>	<b>152</b>	<b>\$45,000,597.14</b>	<b>19</b>	<b>\$14,102,427.14</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	7	\$2,328,900.00	7	\$2,328,900.00
DEPARTMENT OF NATURAL RESOURCES	133	\$30,898,170.00		
DEPARTMENT OF PUBLIC SAFETY	1	\$18,244.17	1	\$18,244.17
DEPARTMENT OF TRANSPORTATION	11	\$11,755,282.97	11	\$11,755,282.97
<b>83 - WARREN</b>	<b>209</b>	<b>\$342,267,387.09</b>	<b>109</b>	<b>\$323,719,447.87</b>
ADJUTANT GENERAL	3	\$2,875,781.00	3	\$2,875,781.00
DEPARTMENT OF ADMINISTRATIVE SERVICES	3	\$1,221,071.86	3	\$1,221,071.86
DEPARTMENT OF NATURAL RESOURCES	78	\$11,436,952.23		
DEPARTMENT OF PUBLIC SAFETY	6	\$1,299,857.51	6	\$1,299,857.51
DEPARTMENT OF REHABILITATION AND CORRECTION	67	\$283,634,400.00	67	\$283,634,400.00
DEPARTMENT OF TRANSPORTATION	39	\$36,906,117.50	30	\$34,688,337.50
OHIO HISTORY CONNECTION	13	\$4,893,207.00		
<b>84 - WASHINGTON</b>	<b>68</b>	<b>\$53,428,702.71</b>	<b>50</b>	<b>\$36,698,999.82</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	17	\$6,777,173.07	17	\$6,777,173.07



DEPARTMENT OF JOB AND FAMILY SERVICES	1	\$297,764.25		
DEPARTMENT OF NATURAL RESOURCES	5	\$604,294.00		
DEPARTMENT OF PUBLIC SAFETY	2	\$1,229,376.75	2	\$1,229,376.75
DEPARTMENT OF TRANSPORTATION	31	\$28,692,450.00	31	\$28,692,450.00
OHIO HISTORY CONNECTION	11	\$15,751,901.00		
PUBLIC DEFENDER COMMISSION	1	\$75,743.64		
<b>85 - WAYNE</b>	<b>32</b>	<b>\$16,078,800.31</b>	<b>22</b>	<b>\$12,202,801.81</b>
ADJUTANT GENERAL	1	\$2,243,431.48	1	\$2,243,431.48
DEPARTMENT OF ADMINISTRATIVE SERVICES	8	\$2,276,167.13	8	\$2,276,167.13
DEPARTMENT OF NATURAL RESOURCES	3	\$1,172,190.75		
DEPARTMENT OF PUBLIC SAFETY	5	\$1,210,276.14	5	\$1,210,276.14
DEPARTMENT OF TRANSPORTATION	15	\$9,176,734.81	8	\$6,472,927.06
<b>86 - WILLIAMS</b>	<b>22</b>	<b>\$9,484,348.05</b>	<b>17</b>	<b>\$7,837,079.86</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	5	\$2,137,865.58	5	\$2,137,865.58
DEPARTMENT OF NATURAL RESOURCES	5	\$1,647,268.19		
DEPARTMENT OF PUBLIC SAFETY	1	\$25,280.97	1	\$25,280.97
DEPARTMENT OF TRANSPORTATION	11	\$5,673,933.31	11	\$5,673,933.31
<b>87 - WOOD</b>	<b>58</b>	<b>\$74,637,716.06</b>	<b>40</b>	<b>\$68,292,565.97</b>
ADJUTANT GENERAL	3	\$22,002,459.68	3	\$22,002,459.68
BROADCAST EDUCATIONAL MEDIA COMMISSION	1	\$74,953.78	1	\$74,953.78
DEPARTMENT OF ADMINISTRATIVE SERVICES	5	\$1,965,527.35	5	\$1,965,527.35
DEPARTMENT OF PUBLIC SAFETY	2	\$1,485,731.98	2	\$1,485,731.98
DEPARTMENT OF TRANSPORTATION	36	\$32,469,018.62	28	\$30,520,637.56
OFFICE OF THE ATTORNEY GENERAL	1	\$12,243,255.63	1	\$12,243,255.63
OHIO HISTORY CONNECTION	10	\$4,396,769.03		
<b>88 - WYANDOT</b>	<b>47</b>	<b>\$12,022,744.65</b>	<b>22</b>	<b>\$6,729,705.46</b>
DEPARTMENT OF ADMINISTRATIVE SERVICES	2	\$1,247,571.53	2	\$1,247,571.53
DEPARTMENT OF NATURAL RESOURCES	6	\$1,807,397.50		
DEPARTMENT OF PUBLIC SAFETY	1	\$26,132.68	1	\$26,132.68
DEPARTMENT OF TRANSPORTATION	37	\$8,609,387.32	19	\$5,456,001.25
OHIO HISTORY CONNECTION	1	\$332,255.63		

Local Hazard Mitigation Planning Status					
As of 2/26/2024					
County	OEMA Region	Plan Title	Expiration Date	Status	Notes
Adams	3	Adams 2022 County Natural Hazards Mitigation Plan	3/6/2028	Active	
Allen	1	Allen County 2020 Hazard Mitigation Plan	3/28/2026	Active	Applying for grant to update plan under BRIC 2023
Ashland	2	Ashland County 2022 Hazard Mitigation Plan	10/6/2027	Active	
Ashtabula	3	Ashtabula County Hazard Mitigation Plan	4/20/2025	Active	Applying for grant to update plan under BRIC 2023
Athens	3	2019 Athens County Multi Jurisdictional Natural Hazard Mitigation Plan	3/9/2025	Active	Applying for grant to update plan under BRIC 2023
Auglaize	1	Auglaize County 2018 Hazard Mitigation Plan	1/4/2024	Expired	Was awarded grant to update plan
Belmont	3	Belmont County 2020 Hazard Mitigation Plan	10/27/2025	Active	Applying for grant to update plan under BRIC 2023
Brown	3	Brown County 2023 Hazard Mitigation Plan	4/19/2028	Active	
Butler	2	Butler County, Ohio 2023 Hazard Mitigation Plan	10/16/2028	Active	
Carroll	3	Carroll County 2020 Hazard Mitigation Plan	3/22/2026	Active	
Champaign	1	Champaign County 2019 Hazard Mitigation Plan	9/4/2024	Active	Was awarded grant to update plan
Clark	1	Clark County Hazard Mitigation 5 Year Plan Updated December 2019	6/15/2025	Active	Was awarded grant to update plan
Clermont	3	Clermont County 2020 All Hazards Mitigation Plan	6/14/2025	Active	Applying for grant to update plan under BRIC 2023
Clinton	2	Clinton County Hazard Mitigation Plan	3/22/2026	Active	Applying for grant to update plan under BRIC 2023
Columbiana	3	Columbiana County Hazard Mitigation Plan	1/27/2025	Active	Was awarded grant to update plan
Coshocton	3	Coshocton County 2021 County-Wide All Natural Hazard Mitigation Plan	1/10/2027	Active	
Crawford	1	Crawford County Hazard Mitigation Plan (2019)	1/8/2025	Active	Applying for grant to update plan under BRIC 2023
Cuyahoga	2	Cuyahoga 2022 County Hazard Mitigation Plan	9/15/2027	Active	
Darke	1	Darke County Hazard Mitigation Plan 5 Year Update 2018	3/26/2024	Active	Was awarded grant to update plan
Defiance	1	Defiance County 2022 Hazard Mitigation Plan Update	3/6/2028	Active	
Delaware	2	Delaware County 2024 Hazard Mitigation Plan	1/31/2029	Active	
Erie	1	Erie County, Ohio Natural Hazards Mitigation Plan	2/22/2026	Active	
Fairfield	2	Fairfield County 2023 Natural Hazard Mitigation Plan	1/15/2028	Active	
Fayette	2	2020 Fayette County Mitigation Plan	11/15/2025	Active	Applying for grant to update plan under BRIC 2023
Franklin	2	2018 Franklin County Natural Hazard Mitigation Plan	1/2/2029	Active	
Fulton	1	Fulton County All Hazards Mitigation Plan May 2020	6/15/2025	Active	Applying for grant to update plan under BRIC 2023
Gallia	3	2019 Gallia County Hazard Mitigation Plan	1/8/2025	Active	Applying for grant to update plan under BRIC 2023
Geauga	2	Geauga County 2020 Hazard Mitigation Plan	1/8/2025	Active	Applying for grant to update plan under BRIC 2023
Greene	2	Greene County 2020 Hazard Mitigation Plan	12/13/2025	Active	Applying for grant to update plan under BRIC 2023
Guernsey	3	Guernsey County 2018 Hazard Mitigation Plan	2/22/2024	Expired	Applying for grant to update plan under BRIC 2023
Hamilton	2	Hamilton County 2018 Multi Hazard Mitigation Plan	9/20/2028	Active	
Hancock	1	Hancock County Hazard Mitigation Plan 2019 Update	9/3/2024	Active	Was awarded grant to update plan
Hardin	1	Hardin County 2023 All Hazards Mitigation Plan	9/27/2028	Active	
Harrison	3	Harrison County Multi-Jurisdictional Hazard Mitigation Plan 2023	4/5/2028	Active	
Henry	1	2018 Henry County Natural Disaster Mitigation Plan	5/10/2024	Active	Was awarded grant to update plan
Highland	3	Highland County All Natural Hazards Mitigation Plan 2019 2023	12/11/2024	Active	Was awarded grant to update plan
Hocking	3	Hocking County 2019 Hazard Mitigation Plan	10/20/2024	Active	Was awarded grant to update plan
Holmes	3	Holmes County 2020 Hazard Mitigation Plan	3/22/2026	Active	Applying for grant to update plan under BRIC 2023
Huron	1	2019 Huron County Hazard Mitigation Plan	3/27/2024	Active	Applying for grant to update plan under BRIC 2023
Jackson	3	Jackson County 2023 Hazard Mitigation Plan	1/22/2028	Active	
Jefferson	3	Jefferson County Hazard Mitigation Plan 2021	11/2/2026	Active	
Knox	2	Knox County 2020 All Hazard Mitigation Plan	9/3/2025	Active	Applying for grant to update plan under BRIC 2023
Lake	2	Lake County 2022 Hazard Mitigation Plan	12/11/2027	Active	
Lawrence	3	Lawrence County 2021 Mitigation Plan	5/18/2027	Active	
Licking	2	2021 Licking Countywide All Natural Hazards Mitigation Plan	10/4/2026	Active	
Logan	1	Logan County 2023 Hazard Mitigation Plan Revisions	12/11/2028	Active	
Lorain	2	Lorain County 2022 Hazard Mitigation Plan	11/8/2027	Active	
Lucas	1	Lucas County 2019 Multi Jurisdictional Hazard Mitigation Plan	6/30/2024	Active	Was awarded grant to update plan
Madison	2	Madison Co. EMA Hazard Mitigation Plan	3/22/2026	Active	
Mahoning	3	Mahoning County Multi Jurisdictional Hazard Mitigation Plan Update 2018	3/10/2024	Active	Updating plan in-house
Marion	1	Marion County Local Hazard Mitigation Plan (2019)	1/8/2025	Active	Applying for grant to update plan under BRIC 2023
Medina	2	Medina County All Hazards and Flood Mitigation Plan 2019	6/19/2024	Active	Was awarded grant to update plan
Meigs	3	Meigs County 2018 Hazard Mitigation Plan	11/29/2023	Expired	Draft plan under review process
Mercer	1	Mercer County 2022 Hazard Mitigation Plan	5/19/2027	Active	
Miami	1	Miami County 2023 Hazard Mitigation Plan	8/24/2028	Active	
Monroe	3	Monroe County Hazard Mitigation Plan	4/19/2028	Active	
Montgomery	2	Montgomery County 2019 Hazard Mitigation Plan	7/17/2024	Active	Was awarded grant to update plan
Morgan	3	Morgan County 2021 Hazard Mitigation Plan Update	4/28/2026	Active	
Morrow	2	Morrow County Countywide All Natural Hazards Mitigation Plan 2018	11/28/2023	Expired	Plan is approved pending adoption
Muskingum	3	Muskingum County, Ohio 2023 Hazard Mitigation Plan	4/19/2028	Active	
Noble	3	Noble County 2020 Hazard Mitigation Plan	8/11/2025	Active	Applying for grant to update plan under BRIC 2023
Ottawa	1	Ottawa County 2022 Hazard Mitigation Plan	8/7/2027	Active	
Paulding	1	Paulding County Hazard Mitigation Plan	6/25/2023	Expired	Plan is approved pending adoption
Perry	3	Perry County 2023 Hazard Mitigation Plan	8/21/2028	Active	
Pickaway	2	Pickaway County 2020 Hazard Mitigation Plan	12/21/2025	Active	Applying for grant to update plan under BRIC 2023
Pike	3	2019 Pike County HMP	10/21/2024	Active	Updating plan under partnership with OSU
Portage	2	Portage County Hazard Mitigation Plan 2021	3/22/2026	Active	Applying for grant to update plan under BRIC 2023
Preble	1	2018 Preble County Multi Jurisdictional Hazard Mitigation Plan	10/16/2023	Expired	Was awarded grant to update plan.
Putnam	1	Putnam County HMPU 2021	4/28/2026	Active	Applying for grant to update plan under BRIC 2023
Richland	2	Richland County 2021 Hazard Mitigation Plan	6/21/2026	Active	

Ross	3	2020 Ross County Mitigation Plan	3/9/2025	Active	Applying for grant to update plan under BRIC 2023
Sandusky	1	Sandusky County 2020 Hazard Mitigation Plan	6/15/2025	Active	Applying for grant to update plan under BRIC 2023
Scioto	3	Scioto County 2020 Mitigation Plan	10/22/2025	Active	Applying for grant to update plan under BRIC 2023
Seneca	1	Seneca County Hazard Mitigation Plan	1/27/2025	Active	Applying for grant to update plan under BRIC 2023
Shelby	1	Shelby County 2023 Hazard Mitigation Plan	1/15/2028	Active	
Stark	2	Stark County Multi-Jurisdictional All Hazard Mitigation Plan	1/15/2028	Active	
Summit	2	Summit County 2019 Hazard Mitigation Plan	4/12/2024	Active	Was awarded grant to update plan
Trumbull	3	Trumbull County 2020 Hazard Mitigation Plan	3/8/2026	Active	Applying for grant to update plan under BRIC 2023
Tuscarawas	3	Tuscarawas County 2022 HMPU	12/12/2027	Active	
Union	2	Union County 2023 All Hazard Mitigation Plan	4/19/2028	Active	
Van Wert	1	Van Wert 2021 Hazard Mitigation Plan Update	6/29/2027	Active	
Vinton	3	Vinton County 2020 Mitigation Plan	3/22/2026	Active	Applying for grant to update plan under BRIC 2023
Warren	2	Warren County 2020 Hazard Mitigation Plan	11/3/2025	Active	Applying for grant to update plan under BRIC 2023
Washington	3	2021 Washington County Hazard Mitigation Plan	1/10/2027	Active	
Wayne	2	Wayne 2023 County Hazard Mitigation Plan	1/31/2029	Active	
Williams	1	Williams County Hazard Mitigation Plan 2020	3/2/2025	Active	Applying for grant to update plan under BRIC 2023
Wood	1	Wood County All Hazard Multi Jurisdictional Mitigation Plan 2018	9/12/2023	Expired	Draft plan under review process
Wyandot	1	Wyandot County 2017 Hazard Mitigation Plan	1/5/2023	Expired	Draft plan under review process

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Action Number	Action	Goal / Objective Reference	Hazard	Lead Agency	Priority	Potential Funding Source	Status	% Complete
<b>Goal 1, Objective 1</b>								
1	Conduct HAZUS Level 2 flood analyses for all counties in the state using the best available data.	Goal 1, Obj 1	Multi	Ohio EMA Mitigation Branch	C	Silver Jackets Funding	Silver Jackets funding was used to complete HAZUS Level 2 analysis for Planning Region 2.	100%
2	Continue to update and improve the vulnerability analysis for state-owned buildings and critical facilities.	Goal 1, Obj 1	Multi	Ohio EMA Mitigation Branch	C	GRF	Work with DAS to enhance the building inventory and incorporate data from ongoing appraisal process.	100%
3	Perform on site appraisals of all state buildings valued at \$500,000 or more.	Goal 1, Obj. 1	Multi-hazard	DAS - ORM	B	GRF	Site appraisals were conducted for all buildings over \$500,000. Data shared with state partners. Action will be repeated in 2024 plan cycle.	Ongoing
4	Perform desktop valuations for all state buildings valued at less than \$500,000 to determine current replacement value.	Goal 1, Obj. 1	Multi-hazard	DAS - ORM	B	GRF	Desktop valuations were conducted for all state buildings valued at less than \$500,000 and shared with state partners. Action will be repeated in 2024 plan cycle.	Ongoing
5	Gather and incorporate structure specific risk data in the Risk Management Information System (RMIS).	Goal 1, Obj. 1	Multi-hazard	DAS - ORM	B	GRF	Population of the Origami system was completed during the last planning period and this system will be used moving forward.	Completed
<b>Goal 1, Objective 2</b>								
6	Install pre-planned detour signage for recurring closures	Goal 1, Obj 2	Flood	ODOT	D	ODOT	Deleted	Deleted
7	Install sensors in shoulders or video detection to monitor flooding	Goal 1, Obj 2	Flood	ODOT	D	ODOT	Ongoing	Ongoing

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8	Ohio EMA will work with the National Weather Service and local emergency management agencies to review trigger points for flood warnings and adjust based on completed mitigation projects, changing flood levels and other factors.	Goal 1, Obj 2	Flood	Ohio EMA, NWS, Local EMA	D	GRF	Trigger points were adjusted for multiple gauges in northern Ohio based on meetings held with all partners.	Ongoing
9	Work with USGS, NOAA, and other partners to promote flood warning systems and the importance of stream and rain gauges.	Goal 1, Obj 2	Flood	Ohio EMA Mitigation Branch	C	USGS, HMA	DR-4507 HMGP 5% funds will be used to replace 175 rain gauges that are part of the Ohio STORMS system.	Ongoing
<b>Goal 1, Objective 3</b>								
10	Ensure that grant application review tools and processes prioritize acquisition of repetitely flooded and highest risk properties.	Goal 1, Obj 3	Flood	Ohio EMA Mitigation Branch	A	HMA	HMGP grant application scoring sheet awards additional points for projects that mitigate risk to repetitive loss structures.	Ongoing
<b>Goal 1, Objective 4</b>								
11	Inspect all Class I-III dams once every 5 years.	Goal 1, Obj 4	Dam Failure	ODNR-DoWR, DSP	B	Dam annual fees, GRF, FEMA National Dam Safety Grant Program.	ODNR Dam Safety Program continues to inspect on a 5-yr cycle, but this is an ongoing effort.	Ongoing
12	Take enforcement actions on violations of state dam/levee safety laws for severely deficient and/or structurally unsound high hazard dams.	Goal 1, Obj 4	Dam Failure	ODNR-DoWR, DSP	B	Dam annual fees, GRF, FEMA National Dam Safety Grant Program.	ODNR Dam Safety Program continues to take enforcement actions on violations of state law. Currently 136 efforts are active.	Ongoing

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13	Increase the number of Emergency Action Plans through compliance and education efforts.	Goal 1, Obj 4	Dam Failure	ODNR-DoWR, DSP	B	Dam annual fees, GRF, FEMA National Dam Safety Grant Program.	ODNR Dam Safety Program continues to review and approve EAPs and takes enforcement actions as needed.	Ongoing
<b>Goal 1, Objective 5</b>								
14	Continue to implement and improve the Ohio Safe Room Rebate Program.	Goal 1, Obj 5	Wind	Ohio EMA Mitigation Branch	B	HMA	Ohio EMA continues to apply for funding from BRIC and HMGP for this program. A tool was created on our website to track interest of citizens in the program and make it easy to notify them when the application period opens.	Ongoing
<b>Goal 2, Objective 1</b>								
15	Support communities who choose to adopt standards beyond NFIP minimums for flood loss reduction.	Goal 2, Obj 1	Flood	ODNR-DOWR, FPM	B	FEMA CAP-SSSE Program and State GRF	Ongoing - steady-state activity by FPM The majority of these initiatives include flood plain regulation, map modification & higher standards workshops.	Ongoing
16	Review and consider the most recent version of the ICC Commercial Codes for incorporation into the Ohio Building Code.	Goal 2, Obj 1	Multi	DOC – Industrial Compliance	B	DIC Operating Fund	The Board of Building Standards facilitated the update of the Ohio Building Code to the 2021 IBC version effective in 2024.	Ongoing
17	Review and consider the most recent version of the ICC Residential Codes for incorporation into the Ohio Building Code.	Goal 2, Obj 1	Multi	DOC – Industrial Compliance	B	DIC Operating Fund	The Board of Building Standards facilitated the update of the Residential Code to the 2018 IBC version effective in 2019.	Ongoing
<b>Goal 2, Objective 2</b>								

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18	Continue to participate in the public/private partnership effort between Ohio EMA and the business community.	Goal 2, Obj 2	Multi	Ohio EMA Mitigation Branch	C	GRF	The Ohio Public Private Partnership has focused on response and recovery efforts to date. The Ohio EMA Mitigation Branch will continue to explore the possibility of OP3's engagement in mitigation activities.	Ongoing
<b>Goal 2, Objective 3</b>								
19	Formalize a state level hazard mitigation grant program for Ohio communities.	Goal 2, Obj 3	Multi	Ohio EMA, DPS, and Governors Office	B	GRF	The state mtigation grant program was in the state budget proposal for the upcoming biennium.	20%
20	Work with Ohio EMA to document a process to be followed if CDBG-DR funds are ever available in the state.	Goal 2, Obj 3	Multi-hazard	Ohio Department of Development	C	CDBG-DR	Utilized CDBG-DR for tornado impact in Dayton Area	Ongoing
21	Explore the possibility of using the Alternative Stormwater Infrastructure Loan Program to target properties purchased with HMA grants as future green infrastructure project sites.	Goal 2, Obj 3	Flood	Ohio Department of Development	B	Alternative Stormwater Infrastructure Loan Program	Created Water and Wastewater Infrastructure Grant Program instead of loan program	Complete
22	Seek funding to expand local vector control programs.	Goal 2, Obj 6	Animal Diseases (For 2029 SOHMP)	ODH	B	GRF	Deleted per annual maintenance meetings- Funding was denied by CDC.	Deleted per annual maintenance meetings- Funding was denied by CDC.
<b>Goal 2, Objective 4</b>								
23	Develop a priority list of generator needs for Center for Medicaid/Medicare funded facilities.	Goal 2, Obj 4	Multi	ODH	B	GRF	Completed per annual maintenance meetings.	Completed per annual maintenance meetings.

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24	Ensure that federally-funded housing, community development, and economic development programs administered by the Ohio Development Services Agency are conducted in accordance with state and local floodplain management regulations.	Goal 2, Obj 4	Flood	Ohio Department of Development	C	GRF	Always work to adhere to requirements	Ongoing
25	Partner with ODNR Floodplain Management Program to develop educational information for floodplain managers and the manufactured home community on the Manufactured Homes Program.	Goal 2, Obj 4	Flood	DOC – Industrial Compliance	C	GRF	New action item.	0%
26	Limit construction or assist with relocation of electrical substations, distribution, and transmission lines in flood prone areas that serve critical infrastructure customers	Goal 2, Obj 4	Multi	PUCO	B	PUCO approval for electric infrastructure improvement rider(s)	Ongoing	Ongoing
27	Implement ODA commitments delineated in the Ohio Domestic Action Plan for Lake Erie.	Goal 2, Obj 4	Natural Hazards	ODA-DSWC	B	RF, USEPA & USD	These commitments were incorporated into ODA implementation of the H2Ohio initiative.	Completed
28	OPWC will continue to incorporate hazard mitigation principles into emergency projects whenever possible.	Goal 2, Obj 4	Multi	OPWC	B	GRF	Ongoing	Ongoing
<b>Goal 2, Objective 5</b>								



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29	Support dialogue between stakeholders about utilization of quality building components to mitigate damage.	Goal 2, Obj 5	Multi	OPWC	B	GRF	Ongoing	Ongoing
30	Work with industry to ensure a streamlined and consumer-focused claim filing and premium payment process during and after a disaster event.	Goal 2, Obj 5	Multi	ODI	C	GRF	Ongoing on as-needed basis.	Ongoing
31	Monitor the uptake of flood insurance on the private insurance market.	Goal 2, Obj 5	Multi	ODI	C	GRF	Will track and coordinate with Ohio EMA Mitigation at least annually.	Ongoing
32	Support insurers offering hazard mitigation discounts to customers	Goal 2, Obj 5	Multi	ODI	C	GRF	Ongoing on as- have no authority to force coverage by insurance companies. Always encouraging innovation and discounts.	Ongoing
33	Support dialogue between the National Flood Insurance Program, insurance companies and the lending community	Goal 2, Obj 5	Multi	ODI	C	GRF	Ongoing	Ongoing
34	Empower Ohioans with educational toolkits that will help them better understand hazard risks, insurance needs, and disaster preparedness.	Goal 2, Obj 5	Multi	ODI	C	GRF	Ongoing	Ongoing
<b>Goal 3, Objective 1</b>								
35	Invite at least two additional entities each year to participate on the SHMT.	Goal 3, Obj 1	Multi	SHMT	C	GRF	A representative from the Ohio EPA was invited to participate on the SHMT. This goal was re-worded for the 2024 plan update.	Completed

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36	OPWC will continue participation on the State Hazard Mitigation Team.	Goal 3, Obj 1	Multi	OPWC	B	GRF	Ongoing	Ongoing
<b>Goal 3, Objective 2</b>								
37	Continue inter-agency participation on the USACE Silver Jackets Initiative.	Goal 3, Obj 2	Flood	SHMT	C	GRF	The Ohio Silver Jackets team meets quarterly and continues to implement a range of mitigation projects statewide.	Ongoing
38	Review the OBOA Substantial Damage mutual aid process and incorporate recent Stafford Act changes.	Goal 3, Obj 2	Flood	Ohio EMA, ODNR, and OBOA	B	GRF	Process was reviewed and updated. Presentation at county EMA directors conference. Training of local officials is occured in 2023.	100%
39	Develop statewide procedures providing guidance to state agency fiscal officers on disaster cost tracking policy.	Goal 3, Obj 2	Multi	OBM	C	GRF	Implementation delayed due to COVID. Action carried over into 2024 plan.	Ongoing
<b>Goal 3, Objective 3</b>								
40	Develop and implement strong state incentives for maintaining local mitigation plans.	Goal 3, Obj 3	Multi	Ohio EMA	C	GRF	State incentives were not developed but local planning participation rate continues to be over 95% for the state. This action will be carried over into the 2024 plan.	0%
41	Continue participation in the FEMA PAS program that enables Ohio to review and approve local hazard mitigation plans.	Goal 3, Obj 3	Multi	Ohio EMA	C	HMA and GRF	This partnership has been successful and FEMA recently increased Ohio's responsibility under this program.	Ongoing

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Goal 3, Objective 4								
42	Ohio EMA will work with FEMA Region V legal staff to develop modified deed language for properties acquired with HMA funds in Ohio that clarifies the property re-use review and approval process.	Goal 3, Obj 4	Flood	Ohio EMA	C	HMA	No action on this item during this planning cycle. Action will be carried over into the 2024 plan.	0%
Goal 4, Objective 1								
43	Conduct training and/or post-disaster briefings for appropriate audiences on substantial damage assessments	Goal 4, Obj 1	Flood	ODNR-DOW, FPM	A	FEMA CAP-SSSE Program and State GRF	Ongoing - steady-state activity by FPM Workshops are conducted as needed or requested. Post-event briefings are ready for deployment.	Ongoing
Goal 4, Objective 2								
44	Develop and implement an outreach strategy targeting repetitive loss property owners on mitigation techniques and funding programs	Goal 4, Obj 2	Flood	Ohio EMA Mitigation Branch	C		Ohio EMA will continue to utilize FMA technical assistance grants to implement repetitive loss outreach to property owners.	Ongoing
Goal 4, Objective 3								
45	Reduce the number of severe repetitive loss properties each year by assisting such owners with successful funding of mitigation projects through FEMA mitigation programs	Goal 4, Obj 3	Flood	Ohio EMA Mitigation Branch	A	HMA, State GRF, and local funds from various sources including property owners	Ongoing effort through the administration and implementation of FEMA HMA programs and other mitigation funding sources. 1571 properties have been mitigated in Ohio using HMA programs.	Ongoing

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Goal 5, Objective 1								
46	Develop success stories in wind resistant construction codes and mitigation techniques.	Goal 5, Obj 1	Tornado	Ohio EMA Mitigation Branch	C	GRF	No action on this item during this planning cycle.	Ongoing
47	Update the Debris Management Course, deliver pilot offerings, and train Ohio EMA Regional staff to deliver the course.	Goal 5, Obj. 1	Multi	Ohio EPA and Ohio EMA	C	GRF	The action is completed but now transitioned to a new action to continue delivering the course in conjunction with Ohio EMA.	100%
48	Create Ohio version of mitigation planning and project courses	Goal 5, Obj 1	Multi	Ohio EMA	C	GRF	A mitigation planning course was created and has been delivered twice now.	50%
49	Vector Control recommendations communicated to the public to eliminate/avoid sources of standing water and overgrown brush that allow for the breeding of disease-carrying vectors.	Goal 5, Obj 1	Animal Diseases (For 2029 SOHMP)	ODH	C	GRF	Completed- Provided every year through normal programmatic actions (media, website, educational materials, etc.). New action to continue providing resources to jurisdictions.	Completed per annual maintenance meetings.
50	Ohio EMA will continue to actively participate on the Ohio Committee for Severe Weather Awareness.	Goal 5, Obj 1	Multi-hazard	Ohio EMA Mitigation Branch	C	GRF	Ongoing	Ongoing
51	Continue to maintain, populate, and enhance the State Hazard Analysis Resource and Planning Portal.	Goal 5, Obj 2	Multi	Ohio EMA Mitigation Branch	C	GRF	SHARPP was replaced by the Mitigation Information Portal (MIP).	100%

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Goal 5, Objective 2								
52	Develop an interactive digital summary of the State of Ohio Hazard Mitigation Plan.	Goal 5, Obj 2	Multi	Ohio EMA	C	PDM and State GRF	Digital summary of the SOHMP was created and is hosted on the MIP.	100%
53	Conduct open space monitoring of properties purchased with HMA funds and report to FEMA every 3 years using SHARPP.	Goal 5, Obj 2	Multi	Ohio EMA	A	GRF	Most recent monitoring was completed in March 2023.	Ongoing
Goal 5, Objective 3								
54	Sustain the Mitigation Branch internship program.	Goal 5, Obj 3	Multi	Ohio EMA	B	HMA and GRF	The Mitigation Branch continues to employ a college intern.	Ongoing
55	Continue the local mitigation planning studio course with The Ohio State University.	Goal 5, Obj 3	Multi	Ohio EMA and OSU	B	HMA and GRF	The most recent OSU mitigation planning studio resulted in an approved plan for Delaware County.	Ongoing
Goal 5, Objective 4								
56	Incorporate a "weather resilience" data category into the Traffic Operation Assessment Systems Tool (TOAST)	Goal 5, Obj 4	Multi	ODOT	B	ODOT	ODOT has revised the action to alternate. Data now incorporated into "VAST"- which evaluates risk to roads and bridges from hazards such as flooding, landslide, and rockfalls	Deleted
57	Educate potential applicants on how OPWC programs can be used to assist with mitigation.	Goal 5, Obj 5	Multi	OPWC	C	GRF	Ongoing	Ongoing
Goal 6, Objective 1								
58	Continue to support efforts to comply with the Emergency Management Accreditation Program (EMAP).	Goal 6, Obj 1	Multi	Ohio EMA Mitigation Branch	C	GRF	Ohio EMA was re-accredited by EMAP in February 2019. The next re-accreditation will occur in 2024.	Ongoing

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59	Continue participation on emergency management and floodplain association workgroups.	Goal 6, Obj 1	Multi	Ohio EMA Mitigation Branch	C	GRF	Mitigation Branch staff participate in multiple associations and work groups.	Ongoing
60	Participate in earthquake table top exercise with mitigation component.	Goal 6, Obj 1	Earthquake	Ohio EMA Mitigation Branch	C	GRF	Earthquake exercise was successfully conducted on May 28, 2019.	100%

Summary of FEMA Mitigation Program Funding - State of Ohio				
Program	Federal Share	State Share	Local Share	Program Total
HMGP-870	\$ 630,000	\$ 630,000	\$ -	\$ 1,260,000
HMGP-951	\$ 250,000	\$ -	\$ 383,300	\$ 633,300
HMGP-1065	\$ 721,500	\$ -	\$ 217,867	\$ 939,367
HMGP-1097	\$ 1,721,655	\$ 208,624	\$ 1,020,833	\$ 2,951,112
HMGP-1122	\$ 1,137,951	\$ 2,702,960	Data Not Available	\$ 3,840,911
HMGP-1164	\$ 9,083,056	\$ 3,490,605	\$ 3,190,065	\$ 15,763,726
HMGP-1227	\$ 5,426,834	\$ 3,283,373	\$ 3,271,089	\$ 11,981,296
HMGP-1321	\$ 297,310	\$ 289,745	\$ 50,000	\$ 637,055
HMGP-1339	\$ 847,417	\$ 231,223	\$ 316,739	\$ 1,395,379
HMGP-1343	\$ 329,512	\$ 52,247	\$ 173,301	\$ 555,060
HMGP-1390	\$ 863,898	\$ 718,518	\$ 327,494	\$ 1,909,910
HMGP-1444	\$ 139,068	\$ 37,209	\$ 9,145	\$ 185,422
HMGP-1453	\$ 2,048,689	\$ 2,071,335	\$ 1,133,366	\$ 5,253,390
HMGP-1478	\$ 32,021	\$ 9,568	\$ 8,000	\$ 49,589
HMGP-1484	\$ 4,230,606	\$ 163,932	\$ 1,404,717	\$ 5,799,255
HMGP-1507	\$ 752,424	\$ 164,804	\$ 162,252	\$ 1,079,480
HMGP-1519	\$ 2,109,464	\$ 787,072	\$ 442,869	\$ 3,339,405
HMGP-1556	\$ 2,484,734	\$ 2,050,442	\$ 1,529,262	\$ 6,064,438
HMGP-1580	\$ 7,193,257	\$ 1,315,933	\$ 1,130,177	\$ 9,639,367
HMGP-1651	\$ 1,679,616	\$ 379,251	\$ 293,121	\$ 2,351,988
HMGP-1656	\$ 2,777,449	\$ 969,617	\$ 411,471	\$ 4,158,537
HMGP-1720	\$ 4,480,109	\$ 1,570,055	\$ 565,676	\$ 6,615,840
HMGP-1805	\$ 4,713,715	\$ -	\$ 1,466,944	\$ 6,180,659
HMGP-4002	\$ 4,510,493	\$ 727,785	\$ 778,210	\$ 6,016,488
HMGP-4077	\$ 3,135,380	\$ 772,586	\$ 2,341,730	\$ 6,249,696
HMGP-4098	\$ 3,763,546	\$ 672,053	\$ 632,625	\$ 5,068,224
HMGP-4360*	\$ 13,983,490	\$ 2,085,979	\$ 2,108,432	\$ 18,177,901
HMGP-4424*	\$ 9,719,814	\$ 1,460,092	\$ 1,481,766	\$ 12,661,672
HMGP-4447*	\$ 3,623,825	\$ 511,089	\$ 512,036	\$ 4,646,950
HMGP-4507*	\$ 26,534,316	\$ -	\$ 2,832,215	\$ 29,366,531
<b>HMGP Subtotal:</b>	<b>\$ 119,221,149</b>	<b>\$ 27,356,097</b>	<b>\$ 28,194,702</b>	<b>\$ 174,771,948</b>
FMA 1996	\$ 96,240	\$ 25,313	\$ 19,500	\$ 141,053
FMA 1997	\$ 109,260	\$ -	\$ 36,420	\$ 145,680
FMA 1998	\$ 103,042	\$ -	\$ 34,347	\$ 137,389
FMA 1999	\$ 229,000	\$ 7,000	\$ 74,000	\$ 310,000
FMA 2000	\$ 39,880	\$ 6,960	\$ 6,333	\$ 53,173
FMA 2001	\$ 220,800	\$ 25,328	\$ 66,853	\$ 312,981
FMA 2002	\$ 23,938	\$ 11,458	\$ 3,017	\$ 38,413
FMA 2003	\$ 348,914	\$ 315,256	\$ 160,335	\$ 824,505
FMA 2004	\$ 37,870	\$ 12,623	\$ -	\$ 50,493
FMA 2005	\$ 97,529	\$ 32,067	\$ -	\$ 129,596
FMA 2006	\$ 48,968	\$ 8,457	\$ 8,507	\$ 65,932
FMA 2007	\$ 1,654,286	\$ 9,957	\$ 541,977	\$ 2,206,220
FMA 2008	\$ 135,531	\$ 4,504	\$ 42,542	\$ 182,577
FMA 2012	\$ 52,083	\$ 1,578	\$ 15,783	\$ 69,444
FMA 2013	\$ 162,875	\$ -	\$ -	\$ 162,875
FMA 2014	\$ 1,127,604	\$ 1,545	\$ 62,834	\$ 1,191,983
FMA 2015	\$ 1,298,449	\$ 19,152	\$ 21,458	\$ 1,339,059
FMA 2016	\$ 2,033,393	\$ 30,960	\$ 449,393	\$ 2,513,746
FMA 2017*	\$ 6,110,087	\$ 179,346	\$ 2,117,670	\$ 8,407,103
FMA 2018*	\$ 711,240	\$ 26,328	\$ 162,280	\$ 899,848
FMA 2020*	\$ 199,997	\$ -	\$ -	\$ 199,997
FMA 2021*	\$ 185,900	\$ -	\$ -	\$ 185,900
FMA 2022*	\$ 1,272,381	\$ -	\$ 191,938	\$ 1,464,319
<b>FMA Subtotal:</b>	<b>\$ 16,299,267</b>	<b>\$ 717,832</b>	<b>\$ 4,015,187</b>	<b>\$ 21,032,286</b>
PDM 2002	\$ 502,797	\$ 304,238	\$ 258,621	\$ 1,065,656
PDM 2003	\$ 238,966	\$ 220,209	\$ 147,419	\$ 606,594
<b>PDM (12-13) subtotal:</b>	<b>\$ 741,763</b>	<b>\$ 524,447</b>	<b>\$ 406,040</b>	<b>\$ 1,672,250</b>
PDM-C 2003	\$ 2,630,064	\$ 77,422	\$ 799,264	\$ 3,506,750
PDM-C 2006	\$ 1,603,955	\$ 42,933	\$ 492,084	\$ 2,138,972
PDM-C 2007	\$ 831,146	\$ 139,584	\$ 138,500	\$ 1,109,230
PDM-C 2008	\$ 49,174	\$ 13,962	\$ 4,312	\$ 67,448
PDM-C 2009	\$ 1,094,041	\$ 33,164	\$ 332,000	\$ 1,459,205
PDM-C 2010	\$ 4,614,169	\$ 90,079	\$ 1,346,570	\$ 6,050,818
PDM-C 2011	\$ 475,157	\$ 7,927	\$ 155,749	\$ 638,833
PDM-C 2012	\$ 1,025,240	\$ 29,848	\$ 321,913	\$ 1,377,001
PDM-C 2013	\$ 165,185	\$ 11,745	\$ 49,790	\$ 226,720

<b>Summary of FEMA Mitigation Program Funding - State of Ohio</b>				
<b>Program</b>	<b>Federal Share</b>	<b>State Share</b>	<b>Local Share</b>	<b>Program Total</b>
PDM-C 2014	\$ 655,874	\$ 32,204	\$ 193,712	\$ 881,790
PDM-C 2015	\$ 548,571	\$ 24,953	\$ 175,627	\$ 749,151
PDM-C 2016	\$ 1,865,474	\$ 67,550	\$ 755,028	\$ 2,688,052
PDM-C 2017	\$ 6,633,161	\$ 312,443	\$ 2,063,977	\$ 9,009,581
PDM-C 2018*	\$ 2,454,652	\$ 76,252	\$ 742,096	\$ 3,273,000
PDM-C 2019*	\$ 851,771	\$ 37,061	\$ 246,863	\$ 1,135,695
<b>PDM-C Subtotal:</b>	<b>\$ 25,497,634</b>	<b>\$ 997,127</b>	<b>\$ 7,817,484</b>	<b>\$ 34,312,245</b>
BRIC 2020*	\$ 679,573	\$ -	\$ 212,225	\$ 891,798
BRIC 2021*	\$ 846,263	\$ 75,708	\$ 162,500	\$ 1,084,471
BRIC 2022*	\$ 1,999,999	\$ -	\$ 624,987	\$ 2,624,986
<b>BRIC Subtotal</b>	<b>\$ 3,525,835</b>	<b>\$ 75,708</b>	<b>\$ 999,712</b>	<b>\$ 891,798</b>
LPDM 2008	\$ 293,828	\$ 8,858	\$ 90,060	\$ 392,746
LPDM 2009	\$ 376,295	\$ 9,960	\$ 126,038	\$ 512,293
LPDM 2010	\$ 1,087,906	\$ 37,013	\$ 1,218,030	\$ 2,342,949
<b>LPDM Subtotal:</b>	<b>\$ 1,758,029</b>	<b>\$ 55,831</b>	<b>\$ 1,434,128</b>	<b>\$ 3,247,988</b>
RFC 2007	\$ 189,841	\$ -	\$ -	\$ 189,841
RFC 2008	\$ 318,062	\$ -	\$ -	\$ 318,062
RFC 2010	\$ 138,021	\$ -	\$ -	\$ 138,021
RFC 2011	\$ 412,473	\$ -	\$ -	\$ 412,473
RFC 2012	\$ 1,499,318	\$ -	\$ -	\$ 1,499,318
<b>RFC Subtotal:</b>	<b>\$ 2,557,715</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,557,715</b>
SRL 2008	\$ 112,705	\$ 1,216	\$ 12,181	\$ 126,102
SRL 2009	\$ 108,900	\$ 1,100	\$ 11,000	\$ 121,000
<b>SRL Subtotal:</b>	<b>\$ 221,605</b>	<b>\$ 2,316</b>	<b>\$ 23,181</b>	<b>\$ 247,102</b>
DRU 2003	\$ 100,000	\$ -	\$ 33,333	\$ 133,333
<b>DRU Subtotal:</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>\$ 33,333</b>	<b>\$ 133,333</b>
PI 1998	\$ 500,000	\$ -	\$ 166,667	\$ 666,667
PI 1999	\$ 300,000	\$ -	\$ 100,000	\$ 400,000
PI 2000	\$ 300,000	\$ -	\$ 100,000	\$ 400,000
PI 2001	\$ 500,000	\$ -	\$ 166,667	\$ 666,667
<b>PI Subtotal:</b>	<b>\$ 1,600,000</b>	<b>\$ -</b>	<b>\$ 533,334</b>	<b>\$ 2,133,334</b>
<b>TOTAL:</b>	<b>\$ 171,522,997</b>	<b>\$ 29,729,358</b>	<b>\$ 43,457,101</b>	<b>\$ 240,999,999</b>

Updated February 27, 2024

Data Not Available: Local share records either incomplete or unavailable.

\* Projects are still ongoing within the funding source.



OHIO EMERGENCY MANAGEMENT AGENCY  
MITIGATION BRANCH

**ADMINISTRATIVE PLAN**  
for the  
HAZARD MITIGATION GRANT PROGRAM (HMGP)

Updated for DR-4507-OH  
DECLARED:  
March 31, 2020

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## **I. STATEMENT OF PURPOSE**

Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended, and the Disaster Mitigation Act of 2000, Public Law 106-390, establishes a cost-sharing Hazard Mitigation Grant Program (HMGP) used to fund state and local hazard mitigation projects. This section is closely tied to the post-disaster hazard mitigation plans defined and required in Section 322 of the Stafford Act, and is implemented following a Presidential declaration of a major disaster. Sections 322 and 404 of the Stafford Act, in combination with several other state and federal programs and activities, help to form an overall pre- and post-disaster hazard mitigation strategy for the State of Ohio and affected local governments in the State.

The purpose of this document is to delineate the general organization, staffing, policies, and procedures that the State of Ohio will use when administering Section 404 HMGP and Section 322 Hazard Mitigation planning requirements of the Stafford Act.

## II. REFERENCES AND AUTHORITIES

- A. The Robert T. Stafford Act of 1988, Public Law 93-288, as amended, 42 U.S.C. 5121 et seq., and related authorities
- B. Hazard Mitigation Relocation and Assistance Act of 1993, Public Law 103-181
- C. Disaster Mitigation Act of 2000, Public Law 106-390
- D. 44 Code of Federal Regulations
  - 1. Part 7, Nondiscrimination in Federally assisted Programs
  - 2. Part 9, Floodplain Management and Protection of Wetlands
  - 3. Part 80, Property Acquisition and Relocation for Open Space
  - 4. Part 201, Mitigation Planning
  - 4. Part 206, Federal Disaster Assistance
- E. 2 CFR Part 200
- F. National Flood Insurance Act, as amended
- G. 42 U.S.C. 4001 et seq.
- H. Executive Orders 13690 (Floodplain Management), 11990 (Protection of Wetlands), 12612 (Federalism), and 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Families)
- I. Ohio Revised Code, Section 5502, and implementing rules
- J. Ohio Emergency Operations Plan
- K. State of Ohio Hazard Mitigation Plan, 2019
- L. Hazard Mitigation Assistance Guidance and Addendum, February 27, 2015
- M. National Historic Preservation Act and the National Environmental Policy Act (NEPA)
- N. Hazard Mitigation Grant Program Management Costs (Interim) FEMA Policy #104-11-1
- O. Partial Implementation of the Federal Flood Risk Management Standard for Hazard Mitigation Assistance Programs (Interim) FEMA Policy FP-206-21-0003

### III. DEFINITIONS

APPLICANT - A state agency, local government, or eligible non-profit organization submitting an application to the grantee for assistance under HMGP.

GOVERNOR'S AUTHORIZED REPRESENTATIVE (GAR) - The person empowered by the Governor to execute, on behalf of the state, all necessary documents for disaster assistance. In Ohio, the functions of the GAR and the State Coordinating Officer (SCO) may be assigned to the same individual.

GRANT - An award of financial assistance. The total Hazard Mitigation Grant Program (HMGP) award shall not exceed twenty percent (20%) of the estimated total eligible Federal assistance under the Stafford Act up to \$35.333 billion of such assistance, excluding administrative costs authorized for the disaster.

GRANTEE - The government entity to which a grant is awarded and, which is accountable for the use of the funds provided. The grantee is the entire legal entity even if only a particular component of the entity is designated in the grant award document.

MANAGEMENT COST – Any indirect cost, any direct administrative cost, and any other administrative expense associated with a specific project under a major disaster, emergency or disaster preparedness or mitigation activity or measure.

MEASURE - Any mitigation measure, project, or action proposed to reduce risk of future damage, hardship, loss or suffering from disasters. The term “measure” is used interchangeably with the terms “project” and “action” in FEMA regulations.

MITIGATION BRANCH PROJECT MANAGER – The staff person from the Ohio EMA Mitigation Branch that has been assigned by the SHMO to be the Branch point of contact for that particular project.

NON-FEDERAL ENTITY – A state or local government, institution of higher education (IHE), or non-profit organization that carries out a Federal award as a recipient or sub-recipient.

PROJECT - Any mitigation measure, project, or action proposed to reduce risk of future damage, hardship, loss or suffering from disasters. The term “project” is used interchangeably with the terms “measure” and “action” in FEMA regulations.

44 CFR Part 201 Mitigation Planning and Part 206 Hazard Mitigation Grant Program – These rules contain the requirements to have a FEMA approved state and local natural hazard mitigation plans in order to be eligible for HMGP funds.

RECIPIENT – means a non-Federal entity that receives a Federal award directly from a Federal awarding agency to carry out an activity under a Federal program.

STATE ADMINISTRATIVE PLAN FOR THE HMGP - The plan developed by the State to describe the procedures for the administration of the Hazard Mitigation Grant Program (HMGP).

STATE COORDINATING OFFICER (SCO) - The person appointed by the Governor to act in cooperation with the Federal Coordinating Officer to administer disaster recovery efforts. In Ohio, the functions of the SCO and GAR may be assigned to the same person.

STATE HAZARD MITIGATION OFFICER (SHMO) - The person designated by the GAR as the responsible individual on all matters related to the HMGP.

STATE HAZARD MITIGATION PLANNER (SHMP) - The individual with the designated responsibility for developing and maintaining the State of Ohio Hazard Mitigation Plan in accordance with Section 322 (42 USC 5165).

STATE HAZARD MITIGATION TEAM - The team chaired by the SHMO that has a role in developing, updating, and implementing the state hazard mitigation plan; and assisting in recommendations and selection of projects for the HMGP and other Hazard Mitigation Assistance programs.

SUB-AWARD - An award provided by a pass-through entity to a subrecipient for the subrecipient to carry out part of a Federal award received by the pass through entity.

SUB-RECIPIENT – a non-Federal entity that receives a subaward from a pass-through entity to carry out part of a Federal program; but does not include an individual that is a beneficiary of such program.

## IV. CONCEPT OF ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

### A. ORGANIZATION

#### 1. Staffing Plan

**Refer to Attachment 1.**

#### 2. Mitigation Staffing Assignments

a. The Ohio Emergency Management Agency (Ohio EMA) and various State agencies will provide personnel who will perform the following functions:

1. Governor's Authorized Representative (GAR) – Executive Director, Ohio EMA.
2. Alternate GAR – Assistant Director, Ohio EMA.
3. State Coordinating Officer (SCO) – Executive Director, Ohio EMA.
4. State Hazard Mitigation Officer (SHMO) – Mitigation Branch Chief, Ohio EMA.
5. State Hazard Mitigation Planner – Mitigation Branch Planner.
5. Business Manager - Fiscal Branch Chief, Ohio EMA.
6. Disaster Services Consultant (DSC) employees – will generally serve as Mitigation Branch Project Managers overseeing multiple sub-awards. One DSC is also assigned to be the Branch fiscal point-of-contact.
7. Disaster Relief Grant Employees (DRG) staff will be hired as dictated by the staffing plan for the disaster – will generally serve as mitigation project managers overseeing multiple sub-awards.
8. Administrative Assistants – Ohio EMA Mitigation, Recovery, Grants and Fiscal Division Administrative Assistants provide support to staff that manage and projects.
9. Fiscal Specialist – Specialist assigned by Ohio EMA Fiscal Branch.
10. Members of the State Hazard Mitigation Team.

b. Cost of State personnel assigned to administer the HMGP in the Joint Field Office (JFO) are eligible HMGP management costs.

c. After the close of the JFO, costs of State personnel for continuing management of the HMGP are eligible HMGP management costs.

#### 3. Securing Other Specialized Technical Assistance

- a. Contractual Assistance – Traditional areas where assistance is needed and it is either not possible or cost effective to have such skill sets on staff. These can include but are not limited to: data development for benefit-cost analysis, expert appraisal review, engineering, and

specialized research assistance to complete NEPA requirements (i.e., records review by the Ohio Department of Natural Resources).

## B. ASSIGNMENT OF RESPONSIBILITIES

### 1. Governor's Authorized Representative (GAR)

- a. Ohio Revised Code Section 5502.22 provides authority for the Emergency Management Agency to administer the HMGP. The GAR is the state official ultimately responsible for ensuring that the state properly implements its responsibilities under Sections 322 (42 USC 5165) and 404 (42 USC 5170c) in a Presidential disaster declaration. The GAR shall supervise/monitor the activities of the SHMO. The GAR is responsible for the submission of a Section 404 (42 USC 5170c) grant application to Federal Emergency Management Agency (FEMA), on behalf of the State of Ohio, including state agencies, local governments, and private non-profit organizations.

### 2. State Hazard Mitigation Officer (SHMO)

- a. The SHMO is responsible for the State's Mitigation Program and the Section 404 (42 USC 5170c) program, as well as other mitigation programs, including development and maintenance of this Administrative Plan and procedures.
- b. Major responsibilities include:
  1. Prepare Section 404 (42 USC 5170c) program materials for distribution to communities announcing the availability of plan update funds.
  2. Train mitigation staff to assume their responsibilities.
  3. Provide direction for mitigation staff, as necessary.
  4. Disseminate Section 404 (42 USC 5170c) program information, initial application forms, and other program material.
  5. Brief local officials on mitigation, work with local Points-of-Contact, as related to HMGP.
  6. Ensure all required reports and correspondence are prepared and distributed. Sign all documents that are not specifically designated for GAR signature.
  7. Chair meetings of the State Hazard Mitigation Team, and follow-up on team recommendations, in support of HMGP.
  8. Ensure project development and technical assistance is provided to interested communities.
  9. Ensure project selection is in compliance with administrative plan guidelines and State Hazard Mitigation Plan.
  10. Submit projects selected to FEMA for review and approval.



11. Ensure proper grant management of HMGP projects approved by FEMA.
12. Monitor the status of projects.
13. Ensure projects are completed in a timely manner and within federal rules and regulations governing the HMGP.
14. Ensure projects are closed properly and in a timely manner.

### 3. Business Manager

#### a. Managing SMARTLINK, including:

1. Performing disbursements and financial revisions;
2. Preparing appropriate forms for closeout of projects/disasters; and,
3. Providing monthly status reports on expenditures to program managers.

#### b. Processing, or supervising the processing, of HMGP checks or the transfer of funds to Sub-recipients, recording disbursements, determining correct mailing addresses for checks, and entering disbursements into the state financial management system.

#### c. Maintaining records of administrative expenses and state management costs eligible for reimbursement for each open disaster.

#### d. Other duties as identified in **Attachment 1**.

### 4. State Hazard Mitigation Planner (SHMP)

#### a. Develop and deliver training to local officials on updating local natural hazard mitigation plans to ensure compliance with 44 CFR 201.6.

#### b. Perform project manager duties associated with planning grant projects.

#### c. Review draft local hazard mitigation plans for compliance with 44 CFR 201.6 before forwarding to FEMA Region V for final approval.

#### d. Update state mitigation plan with relevant data following a disaster declaration.

### 5. Other Mitigation Staff

#### a. Work on project development and implementation. Duties are outlined in the state management cost and staffing plan (**Attachment 1**).

## V. FUNDING

A. FEMA will make HMGP monies available to the State of Ohio as follows:

1. The total funds available for the HMGP shall be up to 4% of the total Stafford Act assistance provided as of June 1, 2021.
  - a. The amount of federal funds available for mitigation projects is \$38,395,080. For all HMGP authorized from disasters declared between Jan. 1, 2020 and Dec.31, 2021, FEMA is providing a 90% federal cost share. Federal funds in the amount of \$4,266,120 are available to apply for Recipient Management Costs. Federal funds in the amount of \$2,133,060 are available to apply for Sub-recipient Management Costs. These calculations are based upon the Department of Homeland Security Appropriations Act, 2022 provision that increases the federal cost share for Hazard Mitigation Grant Program (HMGP) to not less than 90% for all emergency or major disaster declarations occurring, or an incident period beginning, between Jan. 1, 2020, and Dec. 31, 2021
  - b. Sub-awards over \$1 million in federal share may be subject to the FEMA Strategic Funds Management (SFM) process. FEMA may elect to provide funding for certain projects in incremental amounts. SFM allows FEMA to schedule obligations to be available when the State is ready to execute an HMGP subgrant or components of the subgrant. SFM also allows for incremental obligations as needed within the 3-year period of performance requirement to support project activities as described in the project work schedule.
  - c. The federal share is applied to the lock-in amount and the lock-in amount remains the same. Applicant flexibilities for 'overmatch,' as described in 44 Code of Federal Regulations (CFR) § 206.432(c), remain. If a state, tribe or territory chooses to achieve more mitigation, it may contribute non-federal funding in excess of the required non-federal share. However, FEMA will not contribute to costs above the federally approved HMGP ceiling amount.
2. The federal funds provided to sub-recipients will be based on the cost-sharing provisions outlined in the FEMA-State Agreement or state legislation or as determined for each disaster. The federal share of approved projects will not exceed 90% of the total project cost.
3. The non-federal share of projects may exceed the federal share, and it may be provided from a combination of state, local, or private funding sources. However, Section 404 (42 USC 5170c) funds cannot be used as a substitute

or replacement to fund projects or programs that are available under other federal authorities, or used as a match for other federal funds.

4. Applicants must invest in the project cost through cash or in-kind contributions accounting for at least 10% of the total project cost, unless state funds are provided and the GAR approves a lesser share.
- B. The availability of state funding for Section 404 (42 USC 5170c) projects will be determined at the time of a Presidential disaster declaration. If such funds are made available, the amount of state funds for hazard mitigation projects available to communities will be equal to or less than the amount of HMGP funds awarded.
1. If State funding is provided, the funding shall be allocated in accordance with any requirements set by the Governor and/or the Ohio General Assembly.
  2. State agencies may receive a state share toward a project.
- C. All potential funding sources from other agencies and programs will be explored, and utilized, wherever possible.
- D. The State can set-aside 5% of the total HMGP available to use at its discretion. Any 5% project submitted to FEMA for approval must still meet basic eligibility, environmental, and benefit-cost analysis (BCA) requirements (although it is only a narrative BCA). Examples of projects eligible for 5% funding are experimental actions and measures not identified in the State's priorities (as noted in Section VI of this document). The 5% can be increased to 10% at the discretion of the Recipient for a disaster declaration involving tornadoes or high winds.
- E. The State can utilize up to 7% of the total HMGP funds available to award plan development/update grants to sub-recipient. The final plan deliverable of any sub-recipient awarded HMGP funds to develop/update a local mitigation plan will meet 44 CFR Part 201. These funds may also be used to develop planning data and update all or portions of the State of Ohio Hazard Mitigation Plan.
- F. Management costs will be requested from FEMA in accordance with FEMA Policy #104-11-1 and the HMA Guidance in effect at the time of the disaster declaration. The State may use funds made available by FEMA under its management cost allowance for any indirect costs, any direct administrative cost, and any other administrative expenses associated with a specific project under a major disaster, emergency or disaster preparedness or mitigation activity or measure. Regular time salaries, materials/equipment costs, travel, training and other cost items are allowable.

For DR-4507, up to 5% of the sub-recipient project budget will be made available to sub-recipients for management costs incurred. The sub-recipient may use management cost for the same purposes as described above.

Reallocations of state management cost budgets that are less than 10% of the management cost budget do not require prior approval from FEMA.

Reallocations that are greater than 10% must be submitted to FEMA in writing and include:

1. An explanation of why the change in budget is necessary,
2. An updated budget, and
3. An updated budget support narrative.

The recipient is responsible for oversight of sub-recipient management cost funds. Sub-recipient management cost funds will be reviewed by Mitigation Branch staff on a quarterly basis and during monitoring visits in accordance with this plan. Sub-recipient management cost closeout procedures will comply with Section XV.

#### G. Fiscal Procedures

##### 1. Sub-recipient fiscal procedures

- a. Sub-recipients will make requests for an advance and reimbursement of funds using the Mitigation Grant Program Request for Payment form **(Attachment 15)** at least 4 – 6 weeks prior to the actual need for the funds. This will allow enough time for the State to issue the state warrant or transfer funds. A community may elect to use electronic transfer of funds (EFT). Most requests for payment should be reimbursement requests with supporting documentation, however advancements are allowed, especially for large purchases such as acquiring property.
- b. The Sub-recipient Project Coordinator should request funds to pay salary on a quarterly basis. These funds should be identified appropriately on the request for payment form.
- c. The advance of funds request should specify how the funds would be utilized. For example, the request should indicate the need for management costs and/or project costs, and what supplies, equipment and/or number of structures to be acquired or demolished.
- d. The final payment of HMGP and/or state share for planning grants will be held until the final, FEMA approved locally adopted plan has been provided to the Ohio EMA. The amount held will not exceed 10% of the total project cost.
- e. The Sub-recipient will follow established fiscal procedures and comply with the 2 CFR Part 200. Expenditures will be tracked by funding source and show the balance of federal, state, and local funding. **Attachment 9**

is an example of the appropriate spreadsheet for tracking funds that will be used in all HMGP projects including management cost grant to sub-recipients.

## 2. State fiscal procedures

- a. State fiscal procedures include built in redundancy – the Mitigation Branch fiscal point-of-contact works closely with the Ohio EMA Business Manager and ODPS fiscal office. Procedures to ensure proper fiscal management include the program fiscal point-of-contact reviewing, on a monthly basis, grant expenditures to ensure proper coding.
- b. A monitoring program as described in this document will be used to monitor both programmatic and fiscal issues.
- c. Procedures have been developed to manage fund drawdowns including ensuring that quarterly reports from the sub-recipient are up-to-date before processing the drawdown.
- d. Quarterly reports are required to be submitted by sub-recipients to the recipient. These reports are reviewed for programmatic and fiscal issues.

## VI. ELIGIBILITY

### A. Applicants

1. Applicant eligibility criteria will be in accordance with federal regulations. Eligible applicants are: state agencies, local governments, and certain eligible private non-profit organizations. Ohio does not have any Federally recognized Indian tribes. Any questions regarding the eligibility of an applicant will be resolved by the SHMO or, if necessary, by the GAR.
2. The entire State is declared for Hazard Mitigation with a presidential declaration. The process for selecting applicants is explained in Section VIII.

### B. Projects

1. **Eligible Project Types.** Projects may be of any nature that will result in protection to public or private property. Specific types of eligible projects include but are not limited to:
  - a. Acquisition/relocation of real property in a hazard area;
  - b. Elevation of structures above the base flood elevation (BFE);
  - c. Retrofit of structures by wet or dry flood proofing (according to local code/building standards, compliant with NFIP standards); high wind strengthening; seismic strengthening of structures or their nonstructural components; application of wildfire resistant materials;
  - d. Minor structural flood control and storm water management measures, to include but not be limited to: debris basins, storm water detention basins or infiltration wells, culvert upgrades; diversions, flap gates or floodgates, and localized flood control systems to protect critical facilities;
  - e. Vegetation management, such as: natural windbreaks; living snow-fences; shoreline stabilization; natural dune restoration using native vegetation and sand-fencing; urban-forest practices; and landslide stabilization.
  - f. Tornado safe room design and construction
  - g. Phase I or II design, engineering, or feasibility studies for complex mitigation projects that are reasonably expected to be funded and implemented;
  - h. The state may utilize up to 5% of total HMGP funds for non-technically proven projects that would not normally be funded under the program.

Potential projects include, but are not limited to: research and development; generators for non-critical facilities; development of codes and standards; and education/public awareness programs with mitigation as central feature. Hazard warning systems, sirens, and NOAA weather radios may be eligible if the declaration includes a tornado event. Projects funded through this initiative are determined on a case by case basis and do not require review by the State Hazard Mitigation Team.

- i. The state may utilize up to 7% of total HMGP funds for mitigation planning purposes. Potential projects include, but are not limited to: updating/revision of state and/or local mitigation plans (or portions thereof), or the creation of new local mitigation plans. Local planning grant applications may be bundled and submitted as one state application, or submitted separately.

## 2. Minimum Project Eligibility Criteria

- a. **Federal Criteria.** To be eligible for the HMGP, a project must meet the minimum project criteria established by FEMA:
  1. Be in conformance with the Hazard Mitigation Plan developed as a requirement of section 322 of the Robert T. Stafford Act, 42 U.S.C. 5165.
  2. Local government applicants for project subgrants must have an approved local plan in accordance with 44 CFR part 201 before receipt of HMGP subgrant funding for projects.
  3. Have a beneficial impact upon the designated disaster area, whether or not located in the designated area.
  4. Be in conformance with 44 CFR Part 9, Floodplain Management and Protection of Wetlands, and other applicable environmental and historic preservation laws, regulations, Executive Orders and agency policy.
  5. Be cost-effective and substantially reduce the risk of future damage, hardship, loss, or suffering resulting from a major disaster. The grantee must demonstrate this by documenting that the project:
    - a. Addresses a problem that has been repetitive, or a problem that poses a significant risk to public health and safety if left unsolved.

- b. Will not cost more than the anticipated value of the reduction in both direct damages and subsequent negative impacts to the area if future disasters were to occur.
  6. Has been determined to be the most practical, effective, and environmentally sound alternative after consideration of a range of options.
  7. Contributes, to the extent practicable, to a long-term solution to the problem it is intended to address.
  8. Considers long-term changes to the areas and entities it protects and has manageable future maintenance and modification requirements.
  9. Solves a problem independently or constitutes a functional portion of a solution where there is assurance that the project as a whole will be completed.
- b. **State Criteria.** In addition to the above criteria, the State of Ohio has considered other basic criteria for evaluating potential Section 404 (42 USC 5170c) projects:
1. The community is participating and in good standing with the National Flood Insurance Program (NFIP). As a general rule, only mitigation activities involving pre-FIRM or post-FIRM compliant structures are eligible.



## VII. PRE-DECLARATION AND JOINT FIELD OFFICE ACTIVITIES

- A. Concept of Operations. As an event unfolds that may result in a Presidential disaster declaration, State Mitigation Branch staff initiate activities that, in the eventuality of a declaration, will lay the groundwork for appropriate and successful project applications, will maximize the technical assistance given limited resources, and will result in effective mitigation. These activities are divided into the following phases: Incident assessment, declaration, and Joint Field Office (JFO) activities.
- B. Incident Assessment. Incident assessment may include but is not limited to the following activities:
1. Reviewing local and state mitigation plans including: hazard identification / risk assessments; potential mitigation activities; identifying any problems or vulnerable critical infrastructure.
  2. Generate HAZUS models to project possible impacts in case of flood or earthquake.
  3. Participating in Emergency Operation Center (EOC) Emergency Support Function briefings,
  4. Coordinating with ODNR during flood incidents to identify NFIP sanctioned communities in impacted areas, and
  5. Participate on joint federal/state hazard mitigation teams formed during the preliminary damage assessment (PDA). Information acquired during this assessment process may be used to identify potential projects, and develop the mitigation strategy for that disaster.
- C. Disaster Declaration
1. Develop staffing a plan and logistics information for JFO, and
  2. Begin to work on the Hazard Mitigation Strategy in consultation with FEMA, and ODNR (for flood events).
- D. JFO Activities
1. Develop the Hazard Mitigation Strategy. The Hazard Mitigation Strategy will identify the different activities that are to be conducted as a result of the disaster declaration. It will be prepared in consultation with FEMA and ODNR (for flood events).

2. Provide mitigation planning and project technical assistance to impacted communities.
3. Attend meetings / briefings, including Federal Coordinating Officer meetings.
4. Complete the mitigation section of the ESF-14 Recovery Report.
5. Implement the Hazard Mitigation Strategy.
6. Conduct Mitigation Briefings. Briefings are part of the State's education and public awareness process necessary to the effective implementation of mitigation. During the briefings, local officials are given the opportunity to identify mitigation issues and concerns. Although primarily focused on HMGP eligibility issues, application process/development, and types of mitigation actions; the National Flood Insurance Program and FEMA's other mitigation programs are also discussed briefly. The briefing is given as a Powerpoint presentation **(Attachment 10)**.

Briefings can be a joint NFIP/mitigation briefings if the flood event was in an area with high flood insurance policy coverage and Increased Cost of Compliance will be triggered due to the large number of substantially damaged structures.

For this declaration, mitigation briefings will be conducted through a series of three (3) webinars. A webpage was also created on the Ohio EMA Mitigation Branch website to notify potential sub-recipients of the availability of HMGP funds. Emails explaining the application process were also sent to all county EMA directors and local floodplain administrators in the state.

## VIII. APPLICATION PROCESS / PROJECT DEVELOPMENT

### A. Concept of Operations

The HMGP application cycle will be a two-part process. Pre-applications are submitted first (**Attachment 2**). Pre-applications are reviewed and ranked by the SHMT and enough pre-applications to expend 150 - 200% of the estimated project funds will be selected for full project application development (this is to allow for projects that could be withdrawn and for the submission of zero funded projects to ensure that all Federal and state funds can be appropriated). Full project applications (**Attachment 3**) will be evaluated by the SHMT after the deadline for submission has passed. Projects will then undergo a cost-effectiveness, environmental, and completeness and eligibility review conducted by Mitigation Branch staff. Eligible and complete full project applications will then be submitted to FEMA for approval. Additional application cycles may be required to ensure that a sufficient number of applications are developed to spend the Federal fund available.

The timeline for this process is as follows:

<b>ESTIMATED HMGP APPLICATION TIMELINE</b>	
Time Period	Event
Week 0	Disaster Declared
Week 4	30-day HMGP estimate due from FEMA
Week 8	Pre-application period opens
Week 12	Pre-applications submitted to state
Week 13	SHMT meets to review pre-applications and select those for full application development
Week 24	6-month HMGP estimate due from FEMA
Week 28	Full normal applications due at Ohio EMA
Week 31	SHMT meets to review and rank full applications
Week 32	OEMA completes completeness and eligibility review; begin to submit projects to FEMA for approval
Week 52	HMGP application deadline without two possible 90-day extensions. Completion of project application submittal to FEMA; FEMA begins to approve projects

## IX. PROJECT REVIEW, RANKING, AND SELECTION

### A. Priority

The following priorities are established by the State of Ohio under HMGP for DR-4507 based on the unique characteristics of the event and the *State of Ohio Hazard Mitigation Plan*:

- 7% planning funds will be utilized to fund local natural hazard mitigation plans that are approaching the five-year deadline for plan expiration. Priority will be given to planning grant applications with the earliest plan expiration date. Planning grant applications are not reviewed by the SHMT.
- Among flood loss reduction projects, priority will be given for the acquisition of repetitively flood-prone properties as it is the only permanent mitigation solution.
- Priority will also be given to the construction/installation of safe rooms that mitigate the loss of life from severe wind and storm events.
- The State will utilize 5% funds to pay for the installation of stream gage equipment used to monitor flood conditions....Advanced Assistance projects will also be prioritized for this disaster. Applications with complete scopes of work, budget, and timelines will be prioritized. After all project applications are developed and submitted, Advanced Assistance projects will also be used to ensure that all Federal funds are spent.

### B. Review Process

1. The SHMO and/or Mitigation Branch staff will perform the initial review of project pre-applications to ensure all information and documentation is provided. The Mitigation Branch staff member assigned to each pre-application will present the project to the SHMT.
2. The SHMO will chair the SHMT. Representatives from the following agencies/organizations are permanent members of this team:
  - a. Ohio EMA
  - b. Development Services Agency, Community Services Division
  - c. Department of Natural Resources, Division of Water Resources, Floodplain Management Program
  - d. Watershed Conservancy District Representative
  - e. Emergency Management Association of Ohio (EMAO)
  - f. U.S. Army Corp. of Engineers (USACE)
  - g. U.S. Geological Survey
  - h. Ohio Voluntary Organizations Active in Disaster
  - i. Ohio Public Works Commission
  - j. Federal Emergency Management Agency (FEMA)

3. Additional State Agency representatives will be determined by the nature of the projects for which HMGP funds have been requested. Appropriate Federal agencies may also be asked to help review the merits of certain types of projects.
4. In keeping with the MOU between FEMA and the USACE, the appropriate Corps district will be advised of all proposed mitigation projects in Ohio prior to the recommendation to forward to FEMA for approval.

#### C. Evaluation and Ranking of Projects

1. The SHMT will review all applications (with the exception of applications for projects under 5% and 7% funding set-asides) according to established criteria. The membership of the State Hazard Mitigation Team will evaluate each project according to the HMGP Application Scoring Sheet (see **Attachment 6**). Criteria used to evaluate the projects include, but are not limited to the following:

1. Whether the community was in the declared or impacted area,
2. Consistency with state and local mitigation plans,
3. The community's ability to manage a grant,
4. Repetitive nature of the hazard the mitigation option is designed to protect against,
5. Implementation of day-to-day mitigation programs outside of HMGP,
6. Other criteria as necessary

Projects are ranked according to their total evaluation score, highest to the lowest.

- c. The SHMT will review all projects submitted as zero funded projects using the above evaluation and ranking criteria.

#### D. Environmental and Floodplain Management Reviews

1. National Environmental Policy Act (NEPA) coordination and review are FEMA responsibilities. In order to assist FEMA, the Mitigation Branch gathers documentation from applicants and various government agencies and prepares a Record of Environmental Consideration (REC) for FEMA concurrence. Documentation includes:

- a. Site photographs
  - b. Subapplicant responses to the Environmental Review section of the HMGP application (see **Attachment 3**),
  - c. A series of maps depicting the project location on:
    - i. A street and/or plat map
    - ii. Topographic map
    - iii. Flood Insurance Rate Map
    - iv. Wetlands map (if applicable)
    - v. State Historic Preservation Office Map (if applicable)
  - d. Consultation with:
    - i. The U.S. Army Corps of Engineers
    - ii. State Historic Preservation Office
    - iii. Ohio Department of Natural Resources
    - iv. The Ohio Environmental Protection Agency
    - v. The U.S. Fish and Wildlife Service
  - e. Public notice of project provided by community
2. Communities that participate in the National Flood Insurance Program and/or that adopt local regulations governing development in identified flood hazard areas are responsible for ensuring that proposed mitigation projects in these areas meet applicable floodplain management criteria. Copies of this documentation should be maintained with the local project files and be available for review during monitoring visits.

#### E. Selection

1. For project applications, following the evaluation and ranking of projects, the SHMT will make the following recommendations to the GAR:
  - a. Projects recommended for approval, and,
  - b. The order in which projects should be funded (i.e., a listing of the projects by priority).
3. In the event two or more projects are tied in rank, they will be listed according to their benefit-cost ratios (BCR).

3. The GAR will make the final decision regarding the selection, level of funding for, and ranking of projects by priority. Those projects not selected for funding will be forwarded to FEMA for approval as zero funded projects. This means that if additional funds become available, or if cost-underruns occur in other projects, the zero funded projects can receive funding if approved by FEMA.
4. The GAR will notify all applicants of the decision made by the state relative to their proposed project.
5. Following notification by the applicant, the projects will have a final environmental, cost-effectiveness, and completeness review. The GAR will then submit the applications to the FEMA Regional Administrator for approval. Submittal will be done in NEMIS as well as hard copy. The application materials, which the GAR will forward to FEMA, will include the following:
  - a. A SF 424 (Application for Federal Assistance).
  - b. A SF 424D (Assurances for Construction Programs), if appropriate.
  - c. A Project Summary that includes:
    1. Community point of contact, address, phone and fax numbers
    2. Major disaster number
    3. Project number
    4. Applicant name
    5. Location of the project
    6. Description of the project
    7. List of alternatives considered
    8. Congressional district
    9. Record of Environmental Consideration
    10. Benefit Cost Analysis
    11. Project Review and Results statement
    12. Projects involving the acquisition of property for open space (acquisitions and relocations) must include:
      - A photograph that represents the property at the time of application,
      - Statement of assurances acknowledging the conditions for mitigation of the property,
      - A notice of voluntary interest form signed by each property owner, which must include that the sub-applicant has informed them in writing that it will not use its eminent domain authority for the open space purpose,
      - Sample of the actual deed restriction that the local government will record with each property deed and,
      - Documentation of coordination with the U.S. Army Corps of Engineers and the Ohio Department of Transportation.

13. Projects that mitigate property by elevating, retrofitting, and/or relocation must include a signed form acknowledging the conditions for mitigation of property in a Special Flood Hazard Area with FEMA grant funds, and a statement that the elevation will be designed in accordance with ASCE 24-14, or latest edition as minimum design criteria.
6. All approved mitigation projects must be submitted to FEMA for environmental concurrence and obligation of funds twelve (12) months from the date of the disaster declaration. If necessary, the state can request up to two (2) additional ninety (90) day extensions to the one year application deadline (for a total of 18 months).

#### F. Award

1. FEMA will sign the REC and approve projects when all submittal requirements are met. A press release describing the project may be developed by FEMA Region and issued with the award.
2. Prior to project approval and if notice has been received by the SHMO, the local official of the community (project point-of-contact), the County EMA Director, the Ohio EMA Regional Field Office, the EMA PIO (if not already notified), and Ohio EMA Executive Director will be notified by the SHMO. This will be done by e-mail to ensure that local and state staff are aware in the case that there is media follow-up due to an early FEMA and/or Congressional press release.
3. After FEMA approval of a project has been received by the Mitigation Branch, the Executive Director will send a congratulatory letter followed by the State/Local Agreement and other administrative forms from the SHMO.



## X. PROJECT INITIATION

### A. General

1. Ohio EMA will serve as the Recipient for project management and accountability of funds in accordance with 2 CFR Part 200. (Sub-recipients are accountable to the Recipient for funds that have been awarded to them and will utilize the same resources).
2. The SHMO will provide the sub-recipient with the State/Local Grant Agreement, two W-9 forms, and a sample Designation of Applicants Agent (**see Attachments 7 and 8**). The Chief Elected Official (CEO) must sign the agreement and return to the Ohio EMA within thirty (30) days of receipt. If a problem should arise with the agreement, the SHMO should be notified as soon as possible to avoid any delays in beginning the project.
3. The GAR must sign the agreement, and the Mitigation Branch Project Manager will provide the Sub-recipient with a copy of the executed document, along with program requirements and information during the Implementation Meeting.
4. The designated local Project Manager will meet with the Mitigation Branch Project Manager within thirty (30) days of submission of the signed State/Local agreement (see Section XIV(A)(3) for more specific information on the *Implementation Meeting*).
5. Based upon the approved project application and work schedule for the project, both the Ohio EMA and sub-recipient will implement a record keeping and financial system relative to the project.
6. Sub-recipients will submit quarterly progress reports (**Attachment 11**) to the SHMO. Program regulations and this Administrative Plan identify specific due dates for these reports (see Section XIII – Reports.). The SHMO will submit quarterly progress reports to FEMA. The final report will be a complete assessment of project accomplishments and will meet 44 CFR Part 206 requirements.
7. The Mitigation Branch Project Managers will monitor and evaluate project accomplishments and adherence to the work schedule. Problems will be reported to the SHMO, GAR, and FEMA HMO as soon as identified (see Section XIV).
8. The Mitigation Branch Project Manager, SHMO, and Fiscal Officer will review advance of funds requests, time extension requests, and cost overruns.

9. The Mitigation Branch Project Manager will coordinate individual project close out and the SHMO will coordinate the overall grant closeout.

## B. Request for Funds

1. The state may advance a portion of the federal share of the cost of an approved hazard mitigation project.
2. An initial advance will be made to an applicant based on expenditures necessary to start the project; ensuring that the remaining work to be completed is well within the dollar amount of the approved project. Additional advances will be made as long as expenditures can be documented, good record keeping is maintained, and sound fiscal procedures are used.
3. A request for an advance of funds must be submitted in writing to the SHMO. The request must be made using the form in **Attachment 15**. Request for funds should be made at least 4 – 6 weeks prior to the identified need, and should be expended within thirty (30) days of receipt.
4. Requests for funds are reviewed and signed in the following order prior to forwarding to the Fiscal Specialist for processing:
  - a. The Mitigation Branch Project Manager responsible for project oversight,
  - b. The Mitigation Branch Fiscal Staff person responsible for fiscal tracking and grant reconciliations, and
  - c. The SHMO for final review and concurrence.
5. If the request is denied, the sub-recipient will be advised and given the reason for the denial. Requests will be denied if the sub-recipient is not up-to-date in submitting quarterly reports.

## C. Time Limits and Extensions

### 1. Time Limits

- a. As a general rule, projects must be initiated within ninety (90) days of the approval date. When FEMA approves a project, the initial performance period is no later than (3) three years from the close of the application period.

### 2. Time Extensions

- a. If a sub-recipient determines that the project cannot be completed by the time specified in the state-local grant agreement, the sub-recipient must immediately notify the Mitigation Branch Project Manager, and request a

time extension. Formal requests for a time extension must be submitted by letter and the sub-recipient must:

1. Explain why the project cannot be completed by the deadline;
  2. Explain the outstanding project work;
  3. Explain when it anticipates the project will be completed; and
  4. Provide a signed request for extension by the appropriate local authority.
- b. Upon receipt of the time extension request, the Mitigation Branch Project Manager will review the request for appropriateness and determine whether the extension request is necessary for the state-local agreement, for the FEMA approval, or both. The Mitigation Branch Project Manager will send the extension request form (for a state-local agreement extension request) to the sub-recipient for signature. If a FEMA extension request is needed, the Mitigation Branch Project Manager will complete the extension request form and prepare the request letter for the GAR signature. **Extension requests to the FEMA period of performance must be submitted to the FEMA Regional Office no later than 60 days prior to the expiration of the period of performance.**
- c. The Mitigation Branch Project Manager will then forward the request, signed form(s) and prepared letters (if necessary) with a recommendation to the SHMO who will then forward the request to the GAR and/or FEMA (if necessary), along with a recommendation for approval or disapproval.
- c. The Mitigation Branch Project Manager is responsible for ensuring that projects are operational within approved timeframes.

#### D. Cost Overruns/Under-runs

1. Sub-recipients will be required to notify their assigned Mitigation Branch Program Manager by letter as soon as they determine that they will have a project cost overrun. The letter should include the dollar amount of the overrun, the reason for the overrun, and an appropriate justification and documentation (invoices, copies of contracts, pictures, and so on) to support the additional costs.
2. The SHMO in consultation with the Mitigation Branch Project Manager will evaluate each cost overrun. If the evaluation indicates that the cost overrun is justified, and if funds are available, the SHMO may recommend to the GAR approval of cost overruns. Cost overruns will be approved only if funds are available in the grant program to support the additional amount requested.
3. The GAR will forward all such cost overruns, along with a recommendation for approval, to the FEMA Region V, Regional Administrator. The Regional

Administrator will notify the GAR of the final determination made on the overrun.

4. The sub-recipient must notify the SHMO as soon as possible if a cost under run will occur.
5. Any request for deviation from an approved project must be consistent with and approved in accordance with current FEMA policy guidance as it relates to a change of project scope. This may trigger the need to review environmental compliance and/or conduct a new benefit-cost analysis. Project amendments must be sent to the FEMA Regional Office for approval prior to commencement of work related to the change in scope of the project. The Mitigation Branch Project Manager will be responsible for ensuring project amendments comply with all rules and any NEMIS changes that may be needed as a result.

## XI. APPEALS

- A. An eligible applicant or sub-recipient may appeal a decision made by the Mitigation Branch staff regarding projects submitted for funding under the HMGP. The appeal must be in writing, and contain sufficient additional information beyond that submitted with the original application, to warrant consideration. There are two types of appeals: those appealing state policies and those appealing Federal (FEMA) policies. The appeal will be made to the SHMO who will then determine whether the appeal is to a state policy or Federal policy. Upon this determination, the processes identified below will be followed accordingly.

Appeals relating to state decisions based on state policies such as determinations made by the State Hazard Mitigation Team (SHMT), NFIP compliance, state mitigation priorities, state/local agreement issues, reasonable and necessary costs associated with project management, etc. are usually state appeals. For issues regarding program eligibility, time extensions beyond the FEMA approved time for the grant overall, determination of allowable project management costs, allowable project costs, and other project implementation requirements, or the state's interpretation of any Federal policy related to these issues is usually a Federal appeal. Any appeal disputing the benefit-cost ratio (BCR) for a specific property or project must be accompanied by a benefit-cost analysis conducted by the appellant in accordance with FEMA guidelines.

- B. State Appeals. There are two levels of state appeal. The Administrative Officer (AO) with responsibility for oversight of the Mitigation Branch is the decision-maker for the first appeal. If a second appeal is necessary the Governor's Authorized Representative (GAR) makes the decision on the second appeal.
1. All applicant appeals must be submitted in writing to the AO within thirty (30) days of the date of the letter notifying the applicant of the State Hazard Mitigation Officers decision. The AO will respond within thirty (30) days of the applicant's letter.
  2. If the applicant does not agree with this decision they can appeal to the GAR. The applicant must provide additional information supporting their position to the GAR within thirty (30) days of the first decision letter. The GAR will respond within thirty (30) days of receipt of the request for appeal. The GAR's decision is final and no other state appeals will be considered.
  3. The GAR may, on behalf of an applicant or the state, request guidance and/or a decision from FEMA related to an applicant's appeal to the state. If guidance is requested from FEMA, the GAR will notify the applicant and

an additional thirty (30) days will be added to the time frame for response from the GAR.

C. Federal Appeals. The applicant or sub-recipient has the option of appealing to FEMA for a decision relating to Federal policy.

1. Federal appeals must be submitted in writing to the SHMO. All Federal appeals on behalf of the applicant or state are made by the Executive Director of the Ohio Emergency Management Agency to the FEMA Regional Administrator.
2. The Mitigation Branch may prepare materials and information including a summary and staff recommendation related to the issue being appealed to be forwarded to FEMA.
3. The appeal will then be forwarded to the FEMA Regional Administrator within sixty (60) days of the date the applicant requests the appeal.
4. Per the 44 CFR Part 206.440 FEMA will respond within ninety (90) days.
5. An appeal of the FEMA decision may be made within the following ninety (90) days to the FEMA Associate Director in Washington. FEMA will respond within ninety (90) days and the decision is final. No other appeals exist.

FEMA's decision will be in writing to the state. The state will copy the sub-applicant with FEMA's decision.

## **XII. TECHNICAL ASSISTANCE**

As a general rule, applicants for HMGP funds will be responsible for obtaining any technical assistance they may need in order to develop a hazard mitigation project proposal or to carry out a hazard mitigation project. Technical assistance will be available from the Ohio Emergency Management Agency Mitigation staff and FEMA Region V, Mitigation Division. Applicants may also request assistance from Regional Planning Councils and State agencies. Applicants who want such assistance are advised to notify the SHMO.

**XIII. REPORTS**

- A. Sub-recipients will submit a Quarterly Progress Report (QPR) (**Attachment 11**) to the SHMO within fifteen (15) days of the end of the quarter, on the following schedule:

<u>Quarter</u>	<u>Months</u>	<u>Report Due</u>
1 <sup>st</sup>	Oct. - Dec.	Jan. 15
2 <sup>nd</sup>	Jan. - Mar.	Apr. 15
3 <sup>rd</sup>	Apr. - June	July 15
4 <sup>th</sup>	July - Sept.	Oct. 15

- B. QPRs will be used to monitor and follow-up on projects. Failure to submit reports may result in suspension of HMGP funds. Copies of QPRs will be maintained by the State. The SHMO will submit a quarterly report to FEMA on the status of all mitigation projects by the end of the month following the end of the quarter.



## XIV PROGRAM MONITORING

### A. Purpose of Project Monitoring

1. As the Recipient for federal mitigation funds, the Ohio EMA is responsible for managing the day-to-day operations of Recipient and Sub-recipient activities. Ohio EMA must monitor Recipient and Sub-recipient activities to assure compliance with applicable Federal requirements and that performance goals are being achieved. Monitoring must cover each program, function or activity.
2. Role of Mitigation Staff
  - a. The Mitigation Branch staff person assigned the project (herein referred to as the Mitigation Branch Project Manager) will be responsible for reviewing and documenting the community's ability to implement the project according to their project application, grant agreement, program requirements, and federal regulations. This is accomplished through the review of quarterly progress reports, on-site review of the project and fiscal records and the project area to ensure the scope of work as outlined in the project application is being fulfilled and all funds are expended and accounted for properly.
  - b. The SHMO will be notified as soon as possible of any significant issues related to the above. Reporting requirements are discussed under section XIII Reports.
3. Implementation Meeting & Monitoring Visits
  - a. **Implementation Meeting.** An on-site meeting will be conducted no later than two (2) months after the grant agreement has been signed by the community. If an on-site meeting cannot be conducted, the meeting can be conducted virtually. The purpose of this meeting is to ensure the local Project Manager understands the program requirements. Often, the local Project Manager will not be the person who was involved in the development of the project and may not be as familiar with requirements of the program. The local Project Manager, local officials, and fiscal officer for the community are encouraged to attend the implementation meeting. Meeting topics include:
    - Presentation and review of the Implementation Binder. The Implementation Binder includes guidance materials, forms, timelines, and reporting requirements.
    - Review of file management procedures and fiscal management procedures.
    - Review of procedures that are specific to the mitigation action being funded.

The implementation meeting should also consist of a tour of the project site, especially if it has not been visited by the Mitigation Branch Project Manager to date.

- b. Following the implementation meeting, monitoring visits will be conducted. The frequency of monitoring visits will be based on the project type:
  - For 5% Projects, such as a single warning siren, that does not constitute significant construction, an annual monitoring visit shall be conducted at a minimum.
  - Planning projects shall not necessitate any additional monitoring visits beyond the implementation meeting. Provided drawdown requests are tied to plan progress milestones that have been verified by the SHMP, and the final drawdown is contingent on the final plan being submitted.
  - For all other mitigation projects, monitoring visits shall be conducted no less than one time each year. The monitoring visits will include a review of programmatic files and fiscal records. The visit should also include an on-site visit to the project area. These visits will occur throughout project completion.
- c. Additional monitoring visits may be scheduled by assigned Mitigation Branch Project Manager(s) in communities displaying an inability to manage the mitigation grant properly. Determination of an inability to manage the grant would include, but not be limited to the following inconsistencies in project implementation:
  1. The project is not on schedule for completion within the 24-month grant agreement.
  2. Project/program activities are not being documented properly.
  3. Quarterly progress reports are not being provided each quarter or are not complete.
  4. The community does not appear to be meeting their local cost share responsibility.
  5. More than one instance of a failure to follow guidance on issues related to the project.
- d. The SHMO or immediate supervisor will determine if additional monitoring visits are needed after discussion with the assigned Mitigation Branch Project Manager. The local Project Manager will be notified in writing, within ten (10) days of the most recent monitoring visit, of any corrective actions and the date of the next monitoring visit.

- e. A sub-recipients failure to comply with requested corrective actions may result in enforcement actions as outlined in 2 CFR Parts 200.207 and 200.338.
4. Scheduling the Implementation Meeting and Monitoring Visit(s)
- a. The scheduling of the implementation meeting should be done through the local Project Manager. Minimally, local officials, the local Project Manager, and whoever is responsible for fiscal management in the community should attend.
  - b. The first monitoring visit will be scheduled during the implementation meeting. Other monitoring visits should be scheduled during each subsequent visit.
  - c. A letter or email to the local Project Manager will be used to confirm the implementation meeting and monitoring visits. The County EMA Director, Ohio EMA Regional Field Operations staff, and any other appropriate local officials should be copied. The letter should outline the purpose of the visit, what the Mitigation Branch Project Manager wants to review, who should be at the meeting, and if other officials are needed in addition to the local Project Manager.
5. Conducting the Monitoring Visit
- a. The Mitigation Branch Project Manager shall review the project application prior to the monitoring visit and take the project files/binder to the monitoring visit. At a minimum the Mitigation Branch Project Manager should be as familiar with the project as the local Project Manager.
  - b. The project must be implemented according to program guidance and the scope of work outlined in the project application. Discrepancies should be discussed with the local Project Manager. If needed, clarification will be requested from the community officials responsible for project success.
  - c. Quarterly Progress Reports (QPRs) are required to document the progress of the project. The QPR should reflect the amount of funds expended, and the steps taken with each structure in the project (e.g. property closing, demolition, etc).
  - d. The QPR should be used in the review of project files. For example, if the QPR indicates a property has been acquired, the file should include the appropriate documentation.

- e. The Mitigation Branch Project Manager shall review the fiscal information and spreadsheets to assess the funding levels and the amount advanced. All funds advanced prior to the last thirty (30) days should be expended. The only exception to this would be management costs.
  - 1. The fiscal documentation should be compared to the last QPR and/or the spreadsheet.
  - 2. Use the Final Closeout Report form (**Attachment 12**) to determine the amount of the local share of the project. Calculating the local share is especially important after the project is a year old and/or the project scope of work is one-half complete. All communities are aware of their local share commitment and should be prepared to document availability.
  - 3. Verify the exact percentage of local share budgeted in the project. The federal funds contributed should be 90%.
- f. Each property file must be reviewed to ensure compliance with the Duplication of Benefit (DOB) requirement. Documentation related to how disaster assistance was expended should be provided in each file.
- g. The Record of Environmental Consideration (REC) should also be reviewed during the monitoring visit, especially if further coordination or special conditions have been requested or required by an agency. For example, the Indiana bat is commonplace in Ohio and will impact the cutting of trees. The local Project Manager should document whether trees have been removed during implementation of the project. Or, if an elevation project requires obtaining a local floodplain development permit, this should be in the file. The REC should be reviewed during the first monitoring visit and in subsequent visits if conditions have been identified requiring compliance by the community.
- h. The Project Monitoring Forms will be used to document the review of individual property files (**Attachment 13**). The appropriate form will be completed for each property file. The Mitigation Branch Project Manager will identify whether the file was complete or incomplete in the box in the upper right corner.
- i. The Mitigation Branch Project Manager shall discuss corrective actions with the local Project Manager at the time of the monitoring visit. The local Project Manager can begin working on the corrections before the follow up letter is sent to the appropriate community officials.

## 6. Reporting Requirements

- a. After the implementation meeting, the Mitigation Branch Project Manager will follow-up on specific issues with the local Project Manager, but a follow-up letter is not required.
- b. Following monitoring visits (not implementation meetings), a follow up letter will be sent by the Mitigation Branch Project Manager to the local Project Manager within 10 days of the monitoring visit. The letter will outline the results of the visit and any corrective actions required. The local Project Manager will be given 30 days to complete the corrective actions.

## 7. Follow-up

- a. The completed Project Monitoring forms must be given to the Mitigation Branch Project Manager assigned to that project upon return from the visit if he/she did not conduct the monitoring visit personally.
- b. This individual will prepare property listings with property owner, address, and parcel numbers for the completed files, and property owner, address, and the information missing from the file.
- c. The monitoring forms and property listings will be filed when completed. A copy of the property listings will be provided to the appropriate staff person.
- d. The property listings will be used during future monitoring visits to identify the files already reviewed and prevent duplication of effort.

## B. Post-Project Closeout Open Space Monitoring for Properties Acquired with HMGP Funds

1. Ohio EMA will comply with the requirements in 44 CFR Part 80 to monitor properties acquired with Hazard Mitigation Assistance funds and report the status to FEMA every three years
2. Ohio EMA will comply with 44 CFR Part 80 to review re-use requests and coordinate with FEMA Region V as required.

## XV. PROJECT COMPLETION AND CLOSE OUT

A. The period of performance begins on the date of declaration or authorization for HMGP and ends no later than 3 years from the close of the application period. The Mitigation Branch Project Manager is responsible for ensuring that all approved activities are completed by the end of the period of performance. The deadline can be extended if necessary, but only in unusual circumstances (see Section X(C)(2)). The total period of performance should not exceed five (5) years.

### B. Project Completion by Sub-recipient

1. The local Project Manager **must** notify the Ohio EMA Mitigation Branch Project Manager within ten (10) days of the completion of **all** work on the project. This contact may be by phone with a follow up written notification by email or by letter.
2. The notification should be accompanied by a Final Progress Report (which is a quarterly report modified to indicate that it is a final report) and fiscal documentation including a completed Record of Grant Activity (**Attachment 9**).
3. Upon receiving this notification the Mitigation Branch Project Manager will schedule a final monitoring visit to review all program and fiscal records related to the project. All project funds are suspended at the time of completion of the project unless approval to spend is given in writing by the SHMO.

### C. Final Monitoring Meeting -- Programmatic Closeout

1. At the time of closeout all files not previously reviewed or complete will be reviewed to ensure all appropriate documents are included. The Project Monitoring Form (**Attachment 13**) will be utilized for the review. At closeout, the Mitigation Branch Project Manager must be able to fully complete a monitoring form for each property in the project.
2. If a file does not contain all required documentation, the local Project Manager will be required to provide the information within thirty (30) days of closeout, if not readily available at the monitoring meeting. If this time frame is not appropriate, a greater amount of time may be granted by the Mitigation Branch Project Manager. However, failure to provide the documentation may result in the requirement to repay some or all of the grant amount for a particular property or activity.

3. A photograph(s) of the project area or each individual acquired property must be taken by the Mitigation Branch Project Manager at the closeout meeting. The photograph(s) are required to close out the project with FEMA.
4. For projects involving the acquisition of property for open space, the Mitigation Branch Project Manager must obtain a copy of the recorded deed for each property mitigated with deed restrictions consistent with FEMA model language. The Mitigation Branch Project Manager must also obtain a signed copy of the Statement of Voluntary Interest form.
5. The Mitigation Branch Project Manager will obtain a completed NFIP Repetitive Loss Update Worksheet (AW-501 form) for each property mitigated that is on the NFIP repetitive loss or severe repetitive loss list.
6. For projects where a structure will remain in the Special Flood Hazard Area, the Mitigation Branch Project Manager will obtain a copy of the notice recorded with the deed specifying flood insurance, disaster assistance and floodplain regulation compliance requirements for the property.

#### D. Final Monitoring Meeting - Fiscal Closeout

1. If possible, the local Project Manager should provide copies of spreadsheets to the Mitigation Branch Project Manager before conducting the closeout meeting.
2. The total project cost will be determined and appropriate cost shares calculated. Any discrepancies will be noted and brought to the attention of the local Project Manager. The Mitigation Branch Project Manager will work with the local Project Manager to reconcile any discrepancies. If the closeout identifies unspent project or management cost funds being held by the community they must return the funds upon notification by the Mitigation Branch Project Manager. If funds are due the community, the Mitigation Branch Project Manager will request those funds as soon as possible and will forward the state warrant within sixty (60) days of identifying the short fall.
3. In the event final closeout cannot be completed, funds due the community will be held until all required information has been provided to the Mitigation Branch Project Manager.

#### E. Completing Project Closeout with Sub-recipient

After the fiscal issues have been reconciled, monitoring forms are completed, and the necessary documentation has been obtained from the local Project

Manager, the Mitigation Branch Project Manager shall provide a final closeout package to the community. The package will include:

- A letter of congratulations (under the signature of the SHMO) indicating that the documents and fiscal records were reviewed and accepted by the Mitigation Branch, and
- A completed Final Closeout Report with the reconciled / adjusted project costs (**Attachment 12**).

#### F. Completing Project Closeout with FEMA

1. De-Obligation of Funds. If funds are to be de-obligated because of cost under-runs, it is necessary to request that FEMA de-obligate funds. The Mitigation Branch must have confirmation of FEMA's de-obligation of the funds (a letter) before a Closeout Package can be sent to them. The de-obligation request letter will be under the signature of the Alternate GAR or GAR to the FEMA V Regional Administrator.
2. Transmittal of Closeout Package to FEMA. Upon completion of the project closeout with the sub-recipient and de-obligation of remaining funds (when necessary), a closeout package shall be submitted to FEMA. The closeout package will include:
  - A letter of transmittal to the FEMA V Regional Administrator, cc: HMO, (under the signature of Alternate GAR or GAR) requesting that FEMA closeout the project,
  - A completed Final Closeout Report with the reconciled / adjusted project costs (**Attachment 12**),
  - Property Information Sheet for each property mitigated,
  - Pictures of properties in their final, mitigated state,
  - Completed NEMIS Project Closeout Verification Form, and
  - For projects involving the acquisition of property for open space, the following shall be provided for each mitigated property
    - A copy of the recorded deed,
    - A photo of each property site after project completion,
    - A signed Voluntary Participation Form for each property acquired,
    - The latitude and longitude coordinates, and
    - Identification of property repetitive loss status.
  - For mitigation projects in the Special Flood Hazard Area where structures remain after project implementation (elevation or retrofit of a structure), a copy of the notice recorded with the deed specifying flood insurance, disaster assistance and floodplain regulation compliance requirements for the property.
    - Verification of flood insurance for each structure
  - For elevation projects:



- A final Elevation Certificate for each structure to verify compliance with NFIP requirements, and
  - Verification of flood insurance for each structure.
- G. The Ohio EMA and sub-recipient will comply with the Single Audit Act, as amended, and maintain all project documentation for a period of three years following project or disaster closeout.
- H. Specific audit requirement information will be included with the State/Local Agreement.
- I. The Mitigation Branch Project Manager is responsible for ensuring that the appropriate mitigation project information is entered into the Mitigation Information Portal. Some of this data may be entered by the local Project Manager.

## **XVI. PLAN REVIEW AND UPDATING**

- A. This document will be reviewed annually by the SHMO noting any changes in policy or guidance so that the plan can be easily updated when a Major disaster declaration occurs. It will be updated as needed to reflect regulatory or policy changes, or to improve program administration.
- B. Following a Presidential disaster declaration, the SHMO will prepare any updates, amendments, or revisions to the plan that are required in order to meet current policy guidance or changes in the administration of the HMGP, and submit the plan to FEMA for approval.
- C. FEMA will reply in writing that the plan is approved and/or if any further revisions required. FEMA will provide a timeframe for submission of any corrections in their letter.

## **XVII. ATTACHMENTS**

- Attachment 1 – State Management Cost & Staffing Plan / Budget Worksheet
- Attachment 2 – HMGP Project Pre-application
- Attachment 3 – HMGP Project Full Application
- Attachment 4 – HMGP Planning Grant Application
- Attachment 5 – HMGP Application Workbook
- Attachment 6 – HMGP Application Scoring Sheet and Instructions
- Attachment 7 – State/Local Agreement for Projects and Planning Grants  
(includes audit standards)
- Attachment 8 – Sample Designation of Applicants Agent
- Attachment 9 – Record of Grant Activity form
- Attachment 10 – Mitigation Briefing PowerPoint Slides
- Attachment 11 -- Quarterly Progress Report (QPR)
- Attachment 12 -- Final Closeout Report
- Attachment 13 -- Individual File Review form
- Attachment 14 -- Property Information Sheet
- Attachment 15 -- Mitigation Grant Program Request for Payment form



# Hazard Mitigation Assistance Grant Pre-Application

BRIC/FMA Return by

HMGP Return by

to [saferryman@dps.ohio.gov](mailto:saferryman@dps.ohio.gov)

**Jurisdiction Name**

**Point of Contact**

**Email Address**

**County**

**Address**

**Phone #**

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**A brief description of the proposed project, please include as much detail as possible.**

**Estimated Budget for Project**

**Local Match Source.**

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**Please attach all engineering studies or data the jurisdiction has about the proposed project. All Hazard Mitigation Assistance (HMA) grants must be able to show that the project is technically feasible and will help avoid damages or losses to people, property or infrastructure.**

**Additionally, all projects funded under any HMA grant (BRIC, FMA, or HMGP) are required to have a positive benefit cost analysis score using FEMA's Benefit Cost Analysis (BCA) software. For complex storm water and infrastructure projects, detailed engineering studies or data will be needed to determine cost effectiveness. If the data is not available at the time pre-application's are due, Ohio EMA will: 1) describe the data that is required and recommend funding sources to help gather needed information, or 2) establish a deadline to submit the needed data in order to be considered for this round of funding.**



**Ohio Emergency Management Agency**  
2855 W. Dublin-Granville Road • Columbus, Ohio 43235

**Application Packet for the  
Hazard Mitigation Grant Program (HMGP)  
FEMA-DR-4507-OH  
Declared March 31, 2020**

**Note:** This packet has been developed for prospective sub-applicants invited to develop a Hazard Mitigation Grant Program (HMGP) full application. It outlines the specific information required for the State and Federal government to review proposed mitigation activities. Ohio EMA cannot forward an incomplete application to FEMA for project approval. Ohio EMA Mitigation Branch staff is available to provide technical assistance to complete your application.

The deadline to submit DRAFT full applications is November 22, 2021. **The deadline to submit FINAL full applications is January 17, 2022.** All applications must be received or postmarked by 5:00 pm to be considered for possible funding. Electronic copies of the completed application are preferred; but hard copies will be accepted.

Applications must be submitted to:

Ohio Emergency Management Agency  
Steve Ferryman, State Hazard Mitigation Officer  
2855 W. Dublin-Granville Road  
Columbus, Ohio 43235-2712  
Email: [saferryman@dps.ohio.gov](mailto:saferryman@dps.ohio.gov)

A FEMA approved Local Hazard Mitigation Plan (LHMP) is required by 44 CFR Part 206.434 to be eligible for a FEMA HMGP grant award.

**Section 3.1 must be filled out for each structure within your acquisition / demolition / elevation / relocation / retrofitting project. Section 3.2 must be completed for storm water projects. Section 3.3 must be completed for any community safe room projects.**

This application **does not** guarantee project approval or funding for any project or portion of a project as described herein. Submission of this application will result in a review for cost effectiveness, environmental compliance, and its prioritization by the State Hazard Mitigation Team. While the Ohio Emergency Management Agency attempts to minimize the overdevelopment of HMGP applications to ensure at least some funding, it is possible that funding will not be awarded.

Should assistance be required in the preparation of your application, please contact Steve Ferryman, State Hazard Mitigation Officer at (614) 799-3539 or by email at [saferryman@dps.ohio.gov](mailto:saferryman@dps.ohio.gov)

**SECTION 1: GENERAL APPLICATION**  
*The general application section must be completed fully. This application cannot be processed if this section is not completed.*

**APPLICANT INFORMATION**

Applicant (Organization) Name:	
Applicant County:	
Applicant Address:	
Congressional District:	
Ohio House District:	
Ohio Senate Districts:	
Federal Tax ID Number:	
State Tax ID Number:	
FIPS Code:	
DUNS Number:	
NFIP Participation Status:	

Does the Applicant meet FEMA criteria to be considered an Economically Disadvantaged Rural Community?  YES  NO. If yes, please provide explanation below:

Is Applicant delinquent on any Federal debt?  YES  NO. If yes, please provide explanation below:

**AUTHORIZED APPLICANT'S AGENT CONTACT INFORMATION**

Contact Information	Primary Point of Contact (POC)	Secondary Point of Contact
First Name:		
Last Name:		
Title:		
Agency/Organization:		
Address 1:		
Address 2:		
City/State/Zip:		
Phone:		
FAX:		
E-mail:		

Is the preparer of this application either:  Primary POC       Secondary POC       Other  
If other is checked please provide name, title and telephone number below:

Does community currently participate in other ongoing hazard mitigation programs (adopted floodplain management regulations, building codes to protect against multiple hazards, participate in the Community Rating System, Firewise, and/or developed/implemented a stormwater management utility)? Please explain.

**NARRATIVE DETAIL ABOUT THE COMMUNITY**

(Please provide demographic, geographic, and hazard history information on the community)

**LOCAL HAZARD MITIGATION PLAN NAME**

**LOCAL HAZARD MITIGATION PLAN FEMA APPROVAL DATE. IF THE LOCAL HAZARD MITIGATION PLAN WILL EXPIRE BEFORE DECEMBER 2022 PLEASE DESCRIBE THE COMMUNITY'S PLAN UPDATE SCHEDULE. HMGP FUNDS CANNOT BE AWARDED TO COMMUNITIES WITH EXPIRED LOCAL MITIGATION PLANS.**

**DESCRIBE HOW YOUR PROPOSED MITIGATION ACTIVITY IS CONSISTENT WITH YOUR FEMA APPROVED LOCAL HAZARD MITIGATION PLAN.**

**PROJECT DESCRIPTION**

Select the type of hazards the proposed project will mitigate (check all that apply):

- Flood   
  Wind/tornado   
  Severe thunderstorm/lightning   
  Earthquake   
  Wildfire  
 Land subsidence/landslide   
  Winter storm/ice   
  Other (please describe):

Identify the type of proposed mitigation activity (check all that apply):

- Acquisition/demolition   
  Acquisition/relocation   
  Building elevation  
 Building retrofit   
  Stormwater or small drainage project that reduces localized flooding  
 Small levee/floodwall/berm to protect critical facility or single structure  
 Tornado/wind/storm safe room  
 Other (please describe):

Describe, in detail, the existing problem as it affects the project area (not the entire community):

Describe, in detail, the proposed scope of work (what are you planning to do).

Will the mitigation option, to the extent practical, contribute to a long term solution to the problem it is intended to address?

Describe any other on-going or proposed projects in the area that may impact, positively or negatively, the proposed project.



<p>Provide the number for each property type (listed below) that will be affected by the project and included in the scope of work (even if they are alternate properties):</p> <p>Residential buildings: _____ Residential vacant lots: _____ Business/commercial buildings: _____</p> <p>Public buildings: _____ Schools/hospitals/houses of worship: _____ Other: _____</p>
<p>Describe the total number of people that will be protected by the proposed project:</p>
<p>Describe the type(s) of protection and/or level of protection the proposed project will provide: (e.g. the storm water project will mitigate flood damage to structures up to the 50-year flood event, safe room will protect to EF-5 tornado)</p>
<p>Does the project protect a "critical facility" as defined by HMA Guidance? If so, please provide details on the number of critical facilities protected and the level of protection provided.</p>
<p>Does the project include any mitigation education or outreach efforts? If so, please describe.</p>
<p>Describe the physical location of the project area including street numbers, neighborhoods, and zip codes. Please provide precise longitude and latitude coordinates for the overall project site (see HMGP Application Workbook for details):</p>
<p>Project location maps and photographs</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Attach one copy of a city or county scale map (large enough to show the entire project area) with the project site and structures clearly marked on the map.</li> <li><input type="checkbox"/> Attach one copy of the Flood Insurance Rate Map (FIRM), including the panel information, and the Flood Boundary and floodway map (if available) with the project site and location of structures clearly marked on the map. <i>FIRMs are typically available from your local floodplain administrator, or a smaller version, a FIRMette can be produced by going to FEMA's website: <a href="http://msc.fema.gov/">http://msc.fema.gov/</a>. See the HMGP Application Workbook for additional information on creating a FIRMette.</i></li> <li><input type="checkbox"/> Attach five photographs of each structure in the project. The photographs must be taken in accordance with the "Photographing Your project" guidance located in <i>the HMGP Application Workbook</i>.</li> <li><input type="checkbox"/> Attach a minimum of three photographs of the project area. The photographs should be representative of the project area, including: any relevant streams, creeks, rivers, etc., and drainage areas which affect the project site or will be affected by the project; and pictures of streetscapes looking both ways on streets where major project activities are to occur.</li> </ul>

**Property Summary Information**

*Please complete the table below for individual parcels and/or buildings that will be included in the project. The Priority Ranking column should be completed for all projects that involve multiple private properties and property owners. **Additional lines may be added if necessary.***

Priority Ranking	Property Owner	Street Address (include city/state/zip)	Parcel #	Latitude	Longitude
1	John Doe	123 Fake St, OH 43210	10-10110-1100	40.000000	-83.000000
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
19					
20					
22					

<b>Project Milestones/Schedule of Work</b>	
<i>List the major milestones in this project by providing an estimated time-line for the critical activities not to exceed a period of two years for performance (e.g., designing, engineering, permitting, etc.) See the HMGP Application Workbook for a sample Schedule of Work.</i>	
<b>Milestone</b>	<b>Number of Days / Months to Complete</b>

**Estimated Project Budget**

*Below, please complete the appropriate categories to estimate the project's budget. Details must be provided to include: contractor estimates, hourly and fringe rates for in-house staff, documentation to support estimated costs etc. Lump sum estimates cannot be accepted. Contingency costs must be on a separate line item, must not exceed 5%, and must be justified in the budget narrative. Any eligible pre-award costs and local project management costs must be identified as a separate line item. The cost categories in the table below should be changed to match the scope of work for the project. **NOT ALL CATEGORIES WILL APPLY TO ALL PROJECTS***

Project Budget Detail			
Category	Quantity or Number	Unit Cost	Total (\$)
Property appraisal			
Property acquisition (parcels that also include buildings)			
Vacant parcel acquisition			
Closing costs/legal fees (recording, pro-rated taxes, etc.)			
Asbestos assessment and abatement			
Demolition / site restoration / seeding			
Engineering and/or design			
Building elevation			
Elevation Certificate(s)			
Building jacking and moving costs for relocation projects			
Site preparation including foundation, water, sewer and utility hookups for relocation projects			
Renter's URA			
Non-URA relocation assistance			
Environmental resource or historic property treatment measures			
Building retrofit construction/remodeling costs (please describe):			
Permit fees			
Project management salary			
Engineering design costs including hydrologic and hydraulic analysis			
Other (please describe):			
<b>TOTALS:</b>			

**Budget Narrative**

Please use the space below to provide a narrative description of the project budget to include an **explanation of how the cost estimate was developed for each element**. The narrative must include salary and fringe benefit rates for in-house personnel that will be charging the grant. Please attach contractor estimates if applicable and any other documentation necessary to justify budget costs.

**Funding Sources**

Total Project Cost Estimate	\$	
	Dollars	Percentage
Proposed Federal Share (cannot exceed 75%)	\$	%
Proposed Non-Federal Share	\$	%

**Non-Federal Share Identification**

Category	Source Name	Funding Type	Amount (\$)
1. State Share	State Disaster Relief Fund		
2. Applicant Share -- Cash			
3. Applicant Share -- In-Kind **			
4. Applicant Share -- Other Sources			
<b>Grand Total (This must match the "total project cost estimate" above)</b>			<b>\$</b>

If you would like to make any comments, please enter them below:

**\*\*In-Kind Contribution Description**

*Using the categories found on the Project Budget Detail table, identify those categories and costs that are intended to be counted as in-kind match. Please ensure that any item listed below is reflected in the Project Budget Detail table as well as the Non-Federal Share Identification table above.*

Category	Number	Unit Cost	Total (\$)
In-kind labor (please describe):			
In-kind materials (please describe):			
In-kind equipment (please describe):			

Does the applicant have sufficient staff and resources for implementation of the proposed mitigation project?  
Please explain:

Attach a letter of commitment on the applicant's letterhead committing to the non-Federal share of this project signed and dated by the appropriate community official (see the HMGP Application Workbook for an example letter of commitment).

**Maintenance Schedule and Costs**

*DO NOT include these costs in the Project Budget Detail Table. They are being requested as they must be factored into the benefit-cost analysis.*

For proposed projects that involve the retrofit or modification of existing public property or would result in the public ownership or management of property, structures, or facilities, please describe the long-term maintenance activities *(If the proposed project only involves the retrofitting, elevating, other modification or type of project where the ownership will remain private after project completion, DO NOT complete this table):*

Identify the entity that will perform this maintenance:

Attach a letter of maintenance commitment on the applicant's letterhead committing to maintenance of each property within the project; signed and dated by the appropriate community official(s). See the HMGP Application Workbook for an example of a maintenance commitment letter.

**SECTION 2: ENVIRONMENTAL REVIEW**

*Because HMGP projects involve Federal funds, all projects must undergo a historic preservation and environmental review as part of the grant application process. All projects must be compliant with the National Environmental Policy Act (NEPA) and associated Federal, state and local laws and regulations to obtain funding. NO WORK other than eligible pre-award costs (usually design and engineering related) can be done prior to the NEPA review process. This application cannot be processed if this section is not completed.*

**Decision Making Process / Alternatives Review**

*The NEPA process requires that at least two alternative actions be considered that addresses the same problem/issue as the proposed project. In this section describe two feasible alternative projects that were considered to mitigate the hazards faced in the project area. One alternative is the "No Action Alternative".*

Describe the process you used to decide that this project is the best solution to the problem. Please detail all efforts made at obtaining public input: (e.g., public meetings, a workgroup to assist with the development of the project, etc.)

- Attach a copy of a published public notice and any additional documentation of public input (see the HMGP Application Workbook for a sample public notice and more information on this requirement).

Discuss the "No Action Alternative." Identify the impacts of the project area if the no action alternative is taken:

Identify another feasible alternative. This could be an entirely different mitigation method or a significant modification to the design of the current proposed project. Please identify all of the following for the alternative project: (Project description, project location, scope of work, impacts of the alternative if implemented, and estimated budget/costs)

Explain why this project is the best alternative:



**Compliance with Specific Laws and Regulations**

*Please answer the questions below as they pertain to specific environmental / historic preservation laws and regulations.*

*National Historic Preservation Act – Historic Structures.* Does the proposed project affect or is it in close proximity to any buildings or structures that are historically significant or individually listed on the National Register of Historic Places? If yes, please describe the effects of the proposed project on such properties:

*National Historic Preservation Act – Archeological Resources.* Does the proposed project involve any ground disturbance activity? If yes, please describe the general description of width, length, and depth of proposed ground disturbing activity:

*National Historic Preservation Act – Archeological Resources.* Please describe the current land use in the project area, the previous land use in the project area (if known), and any previous ground disturbances (if known):

*National Historic Preservation Act -- Archeological Resources.* Are there any known archaeological resources near properties that will be affected by the project? If yes, please explain:

*Endangered Species Act and Fish and Wildlife Coordination Act.* Does the proposed project remove vegetation? If yes, please describe the type and amount affected:

*Endangered Species Act and Fish and Wildlife Coordination Act.* Is the proposed project in or near any type of waterway or body of water (within 1/2 mile)? If yes, please describe the type / dimensions / proximity of the project to the water body. Also, please describe the effect of project on the water body:

*Clean Water Act, Rivers and Harbors Act, and Executive Order 11990 (Protection of Wetlands).* Will the project involve work near or in a waterway, dredging or disposal of dredged material, excavation, adding fill material or result in any modification to water bodies or wetlands designated as "waters of the U.S." as identified by the US Army Corps of Engineers or on the National Wetland Inventory? If yes, please describe the activity and describe the alternatives considered to eliminate or minimize impacts to wetlands:

*Executive Order 11988 (Floodplain Management).* Is the project located in a FEMA identified 100- or 500-year floodplain (on a FIRM map), in a FEMA identified floodway, or identified as a floodplain through some other source? If yes, please describe the alternatives considered to eliminate or minimize the impacts to floodplains:

*Executive Order 11988 (Floodplain Management).* Does the project alter a watercourse, water flow patterns, or a drainage way, regardless of its floodplain designation? If yes, please describe:

- If yes, attach documentation of the hydrologic and hydraulic analysis from a qualified engineer to demonstrate how drainage and flood flow patterns are changed and that identifies down and upstream effects.

*Coastal Zone Management Act.* Is the project located in a designated Coastal Erosion Zone or below the Ordinary High Water of Lake Erie? *Please contact the ODNR Office of Coastal Management for more information).* If yes, please describe how the proposed project will affect these areas:

- If yes, please attach a permit from the ODNR Coastal Management Office or attach a request for information and response letter regarding coastal zone management requirements for the proposed activity.

*Farmland Protection Policy Act.* Will the project convert more than 5 acres of farmland outside the boundaries of a city or village? If yes, please describe:

*Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – Hazardous and Toxic Materials.* Is there a reason to suspect there are contaminants from a current or past use on the property associated with the proposed project? Are there any studies, investigations, or enforcement actions related to the property associated with the proposed project? Are any properties currently or that have been used in the past for commercial enterprises? Please explain:

- If yes for any property in the proposed project, please submit the hazardous material survey form in Appendix E of the Application Workbook. Your application will not be processed without this completed document.

*Executive Order 12898, Environmental Justice for Low Income and Minority Populations.* Is the project in an area of low income or minority populations? Will the project cause any changes that may affect nearby low income or minority populations result in adverse effects, or change availability of services? Please explain:

*Special Flood Hazard Area.* If the project is located in a SFHA, will all NFIP requirements be addressed (local flood hazard area development permit, hydrologic and hydraulic analysis and Letter of Map Change if applicable, etc.)? Please explain:

*Stafford Act Section 308 - Nondiscrimination in Disaster Assistance (42 U.S.C. 5151).* Does the project comply with Section 308 of the Stafford Act? (Section 308 states that disaster assistance activities shall be accomplished in an equitable and impartial manner, without discrimination on the grounds of race, color, religion, nationality, sex, age, disability, English proficiency, or economic status.) Please explain:

**SECTION 3.1: PROJECT WORKSHEETS – ACQUISITION / ELEVATION / RELOCATION / RETROFITTING**  
 Prepare a separate worksheet for each individual property to be **acquired, elevated, relocated, or relocated**. Please note that the last page of the worksheet must be signed by the property owner.

SITE INFORMATION	
Owners Name (Must be the person whose name is on the property's deed):	
Spouse's Name (If applicable):	
Street Address (Including city, state, zip) or Physical/Legal Location:	
Latitude/Longitude (See the HMGP Application Workbook for instructions):	
CID Number: (This can be obtained from the FIRM or FIS)	
FIRM Panel Number:	
FIRM Effective Date:	
What is the chosen mitigation action for this site?	<input type="checkbox"/> Acquisition/demolition <input type="checkbox"/> Acquisition/relocation <input type="checkbox"/> Building elevation <input type="checkbox"/> Building retrofit <input type="checkbox"/> Small levee/floodwall/berm to protect critical facility or single structure <input type="checkbox"/> Other (please describe):
Project Cost: (Estimated cost to mitigate this property)	
Maintenance Cost: (Estimated cost to maintain mitigation measure being proposed for this property)	
<b>For acquisition/relocation projects only:</b> What are the communities future plans for the deed restricted property (park, wetland, open space etc.). Provide details if available.	
Describe any secondary benefits of the project that are NOT directly related to mitigation (i.e. environmental enhancement, historic preservation, community resilience etc.).	

STRUCTURE INFORMATION
<i>This information can be obtained from tax records, appraisal letters from homeowners, title documents, etc.</i>
Building type: <input type="checkbox"/> 1-story w/o basement <input type="checkbox"/> 2-story w/o basement <input type="checkbox"/> Split-level w/o basement <input type="checkbox"/> 1-story w/ basement <input type="checkbox"/> 2-story w/ basement <input type="checkbox"/> Split-level w/ basement <input type="checkbox"/> Mobile/Manufactured home <input type="checkbox"/> Other (please describe):

**Building use:**

- Primary residence       Rental property       Secondary residence       Commercial/industrial  
 Public building       Multi-family       Other (please describe):

If the building is currently being used as a residence, was it ever used as something other than residential in the past (e.g., converted from an old service station)? If yes, please describe the use below:

If the property is a rental property, please provide documentation of the monthly rent (copy of lease or canceled check).

Foundation type:  Basement     Crawl Space     Slab on grade     Piers/piles/columns     Other  
 Does the building have a walk-out basement or lower level?  Yes     No  
 Is the basement finished or partially finished?  Yes     No

Construction type:  Wood frame     Concrete block     Brick     Metal     Other

Provide a surveyor stamped First Floor Elevation (FFE) of the structure, if available:

Date of construction for the structure:

Please list the square footage of each component of the structure, if applicable.

Basement Finished: \_\_\_\_\_      Basement Unfinished: \_\_\_\_\_  
 Garage Finished: \_\_\_\_\_      Garage Unfinished: \_\_\_\_\_  
 Is garage attached or detached? \_\_\_\_\_  
 Finished Area Square Footage: \_\_\_\_\_  
 Total Finished Area: \_\_\_\_\_

Total Building Replacement Value (can be obtained from <http://www.building-cost.net/>, Auditor's Tax Card, Appraisal, Contractor Estimate, Cost Estimating Guide, etc.):

**Note:** If you use <http://www.building-cost.net/>, print out or save the results page as a pdf file and attach to the application.

Is the structure or its contents currently insured by a flood policy through the National Flood Insurance Program (NFIP)?  
 Yes     No.  
 Has the structure or its contents been insured in the past by a policy through the NFIP?  Yes     No  
 If yes to either question, please provide the policy number if known: \_\_\_\_\_

**History of Hazards / Damages to the Property**

List all the current and past damages to the property (including damages to the structure, its contents, and displacement costs. Include damage from declared disaster events and other hazard events that did not result in a Presidential declaration. Damages should be tied to one event per line. Provide proof of all costs of repairs with receipts, insurance claims documents, repair or damage estimates, or any other documentation if possible. **NOTE: This data is not required if the property is substantially damaged (and an official substantial damage determination has been completed), in the 100-year floodplain, and the mitigation option is acquisition.**

Date (Date of event – one event per line)	Precipitation Amount (if known)	Description of Damages (For flood events include depth of flooding inside of the structure)	Cost of repairs/replacement/displacement structure/content (to the extent possible, provide documentation of these costs)
Ex. 6/30/1998	Ex. 7 inches	Ex. Basement full, five feet of water on the first floor. Foundation wall collapsed, carpet/drywall on first floor ruined.	Ex. SBA loan for \$110,000: Building damages \$69,114 and content damages - \$20,734


**Building Elevation Data**

*This section should only be completed for flood mitigation projects where the mitigation action is elevating the building. The datum must be included for all elevations. Examples of commonly used datum's include: National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD) of 1988, etc.*

What is the lowest floor elevation (including basement) of the structure to be elevated:  
(feet above sea level)? \_\_\_\_\_

What is the base flood elevation (BFE) at the building site:  
(feet above sea level)? \_\_\_\_\_

What is the proposed elevation height: (feet above sea level) *A minimum of 1 foot of freeboard above the BFE is required for elevated buildings.* \_\_\_\_\_

Proposed foundation type:  Pilings/piers/columns  Extended foundation walls  Other (please describe):

**Attachments**

*The following must be attached for each property for which a project worksheet is completed as applicable.*

- Attach five photographs of each structure in the project. The photographs must be taken in accordance with the "Photographing Your project" guidance located in the HMGP Application Workbook.
- Include a copy of the tax parcel card from the County Auditor's office for each parcel/structure.
- Include a completed hazardous materials survey for each structure that is currently or has been indicated as being non-residential. This is not applicable to residential structures/parcels that have always been in residential use.
- Include a completed substantial damage determination from the community's floodplain administrator (if applicable). This can be either a letter from the floodplain administrator indicating the structure is substantially damaged or a signed and dated summary form from the FEMA Residential Substantial Damage Estimator.
- Attach the Building Replacement Value documentation. Print-out from <http://www.building-cost.net/>, Auditor's Tax Card, Appraisal, Contractor Estimate, etc.

**Property Owner Acknowledgements and Signatures**

*The property owner of the site described above must acknowledge and sign below. Failure to do so will result in the application **NOT** being processed. For Acquisition projects only*

I / we, \_\_\_\_\_, am/are the legal owner(s) of the property located at:  
(Property owner name)

\_\_\_\_\_, hereby acknowledge and agree to the following:  
(Property address)

1. That this project, if funded, may result in a mitigation action to the property described above.
2. That should the project be implemented my/our decision to participate is **voluntary**.
3. That the project applicant nor any other governmental entity will use the power of eminent domain or condemnation for the purpose of forcing my/our participation into this program.
4. That I/we authorize the Federal Emergency Management Agency (FEMA) to release information from my Disaster Recovery Assistance File to the State of Ohio, including appropriate agencies of the State of Ohio responsible for providing disaster assistance and mitigation program assistance, and the appropriate local jurisdiction and/or their designated agent administering a hazard mitigation project grant, for the purposes of a mitigation action under FEMA's Hazard Mitigation Grant Program. This authorization permits the release of information that is deemed confidential under Federal and State Privacy Acts. This authorization is given to obtain and/or provide assistance I need as a result of this Federal disaster to ensure that benefits are not duplicated. This authorization includes only information necessary to allow the appropriate agencies or organizations to make this determination. This information is not to be used for any other purpose.
5. I understand my right to contest the value determined by the first appraisal of my property paid for by grant funds. I understand that I have the option to obtain a second appraisal at my own expense. I understand that if I decide to pay for a second appraisal, the appraisal must meet the same guidelines as the first appraisal. The appraisal must be completed by a certified appraiser, must depict relevant comparable properties, must be on the "standard form" for residential and narrative form for commercial appraisals, and must be reviewed by the State Reviewer.
6. That the information provided on this form is done so to the best of my/our knowledge.

Signed by: \_\_\_\_\_  
*Printed or typed name of property owner*

Signature: \_\_\_\_\_  
*(Date)*

Signed by: \_\_\_\_\_  
*Printed or typed name of property owner*

Signature: \_\_\_\_\_  
*(Date)*

**Statement of Assurances for Property Acquisition**  
*All Acquisition project applicants must acknowledge and sign below.*  
*Failure to do so will result in the application **NOT** being processed.*

Name of Project Sub-Applicant: \_\_\_\_\_

As the duly authorized representative of the sub-applicant, I certify that the sub-applicant:

1. Will ensure that participation by property owners is voluntary. The prospective participants have been informed in writing that participation in the program is voluntary, that the Sub-applicant will not use its eminent domain authority to acquire their property for the project purposes should negotiations fail;
2. Will ensure each property owner will be informed, in writing, of what the Sub-applicant considers to be the fair market value of the property. The Sub-applicant will use the Model Statement of Voluntary Transaction to document this and will provide a copy for each property after award;
3. Will accept all of the requirements of the FEMA grant and the deed restriction governing the use of the land, as restricted in perpetuity to open-space uses. The Sub-applicant will apply and record a deed restriction on each property in accordance with the language in the FEMA Model Deed Restriction. The community will seek FEMA approval for any changes in language differing from the Model Deed Restriction.
4. Will ensure that the land will be unavailable for the construction of flood damage reduction levees and other incompatible purposes, and is not part of an intended, planned, or designated project area for which the land is to be acquired by a certain date;
5. Will demonstrate that it has consulted with the US Army Corps of Engineers regarding the subject land's potential future use for the construction of a levee system, and will reject future consideration of such use if it accepts FEMA assistance to convert the property to permanent open-space;
6. Will demonstrate that it has coordinated with its State Department of Transportation to ensure that no future, planned improvements or enhancements to the Federal aid systems are under consideration that will affect the subject property;
7. Will remove existing structures within 90 days of settlement;
8. Post grant award, will ensure that a property interested is conveyed only with the prior approval of the FEMA Regional Director and only to another public entity or to a qualified conservation organization pursuant to 26 CFR 1.170A-14;
9. Will submit every three years to the Grantee, who will then submit to the FEMA Regional Director, a report certifying that it has inspected the subject property within the month preceding the report, and that the property continues to be maintained consistent with the provisions of the grant. If the subject property is not maintained according to the terms of the grant, the Grantee and FEMA, its representatives, designated authorities, and assigns are responsible for taking measures to bring the property back into compliance; and
10. Will not seek or accept the provision of, after settlement, disaster assistance for any purpose from any Federal entity with respect to the property, and FEMA will not distribute flood insurance benefits for that property for claims related to damage occurring after the date of the property settlement.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the identified assurances and certifications.

\_\_\_\_\_  
 Type Name of Authorized Agent Title

\_\_\_\_\_  
 Signature

\_\_\_\_\_  
 Date Signed



**Model Deed Restriction for Property Acquisition**

***All project applicants must acknowledge and sign below if the project involves the acquisition of property.***

*Failure to do so will result in the application **NOT** being processed.*

Exhibit A is FEMA's Model Deed Restrictions that support 44 C.F.R. Part 80 requirements. Applications requesting mitigation assistance to acquire properties for open space purposes must include a copy of the deed restriction language proposed to meet these requirements.

The deed conveying the property to the locality must reference and incorporate Exhibit A (or equivalent name). Any variation from the model deed restriction can only be made with prior approval from FEMA's Office of Chief Counsel. Such requests should be made to the FEMA Regional Administrator through the relevant State or Tribal Office. Exhibit A shall be attached to the deed when recorded.

**Exhibit A**

In reference to the property or properties ("Property") conveyed by the Deed between \*property owner] participating in the federally-assisted acquisition project ("the Grantor") and \*the local government+, ("the Grantee"), its successors and assigns:

WHEREAS, The Robert T. Stafford Disaster Relief and Emergency Assistance Act, ("The Stafford Act"), 42 U.S.C. § 5121 et seq., identifies the use of disaster relief funds under § 5170c, Hazard Mitigation Grant Program, including the acquisition and relocation of structures in the floodplain;

WHEREAS, the mitigation grant program provides a process for a local government, through the State, to apply for federal funds for mitigation assistance to acquire interests in property, including the purchase of structures in the floodplain, to demolish and/or remove the structures, and to maintain the use of the Property as open space in perpetuity;

Whereas, [state or tribe] has applied for and been awarded such funding from the Department of Homeland Security, Federal Emergency Management Agency and has entered into a mitigation grant program Grant Agreement dated [date] with FEMA and herein incorporated by reference; making it a mitigation grant program grantee.

Whereas, the Property is located in [Village/City/County], and [Village/City/County] participates in the National Flood Insurance Program and is in good standing with NFIP as of the date of the Deed;

Whereas, the [local government], acting by and through the [local government] Board, has applied for and been awarded federal funds pursuant to an agreement with \*State+ dated \*date + ("State-Local Agreement"), and herein incorporated by reference, making it a mitigation grant program sub grantee;

WHEREAS, the terms of the mitigation grant program statutory authorities, Federal program requirements consistent with 44 C.F.R. Part 80, the Grant Agreement, and the State-local Agreement require that the Grantee agree to conditions that restrict the use of the land to open space in perpetuity in order to protect and preserve natural floodplain values;

Now, therefore, the grant is made subject to the following terms and conditions:

1. Terms. Pursuant to the terms of the [select mitigation grant program] program statutory authorities, Federal program requirements consistent with 44 C.F.R. Part 80, the Grant Agreement, and the State-local Agreement, the following conditions and restrictions shall apply in perpetuity to the Property described in the attached deed and acquired by the Grantee pursuant to FEMA program requirements concerning the acquisition of property for open space:

a. Compatible uses. The Property shall be dedicated and maintained in perpetuity as open space for the conservation of natural floodplain functions. Such uses may include: parks for outdoor recreational activities; wetlands management; nature reserves; cultivation; grazing; camping (except where adequate warning time is not available to allow evacuation); unimproved, unpaved parking lots; buffer zones; and other uses consistent with FEMA guidance for open space acquisition, Hazard Mitigation Assistance, Requirements for Property Acquisition and Relocation for Open Space.

b. Structures. No new structures or improvements shall be erected on the Property other than:

i. A public facility that is open on all sides and functionally related to a designated open space or recreational use;

ii. A public rest room; or

iii. A structure that is compatible with open space and conserves the natural function of the floodplain, including the uses described in Paragraph 1.a., above, and approved by the FEMA Administrator in writing before construction of the structure begins. Any improvements on the Property shall be in accordance with proper floodplain management policies and practices. Structures built on the Property according to paragraph b. of this section shall be flood proofed or elevated to at least the base flood level plus 1 foot of freeboard, or greater, if required by FEMA, or if required by any State, Tribal, or local ordinance, and in accordance with criteria established by the FEMA Administrator.

c. Disaster Assistance and Flood Insurance. No Federal entity or source may provide disaster assistance for any purpose with respect to the Property, nor may any application for such assistance be made to any Federal entity or source. The Property is not eligible for coverage under the NFIP for damage to structures on the property occurring after the date of the property settlement, except for pre-existing structures being relocated off the property as a result of the project.

d. Transfer. The Grantee, including successors in interest, shall convey any interest in the Property only if the FEMA Regional Administrator, through the State, gives prior written approval of the transferee in accordance with this paragraph.

i. The request by the Grantee, through the State, to the FEMA Regional Administrator must include a signed statement from the proposed transferee that it acknowledges and agrees to be bound by the terms of this section, and documentation of its status as a qualified conservation organization if applicable.

ii. The Grantee may convey a property interest only to a public entity or to a qualified conservation organization. However, the Grantee may convey an easement or lease to a private individual or entity for purposes compatible with the uses described in paragraph (a), of this section, with the prior approval of the FEMA Regional Administrator, and so long as the conveyance does not include authority to control and enforce the terms and conditions of this section.

iii. If the title to the Property is transferred to a public entity other than one with a conservation mission, it must be conveyed subject to a conservation easement that shall be recorded with the deed and shall incorporate all terms and conditions set forth in this section, including the easement holder's responsibility to enforce the easement. This shall be accomplished by one of the following means:

a) The Grantee shall convey, in accordance with this paragraph, a conservation easement to an entity other than the title holder, which shall be recorded with the deed, or

b) At the time of title transfer, the Grantee shall retain such conservation easement, and record it with the deed.

iv. Conveyance of any property interest must reference and incorporate the original deed restrictions providing notice of the conditions in this section and must incorporate a provision for the property interest to revert to the State, Tribe, or local government in the event that the transferee ceases to exist or loses its eligible status under this section.

2. Inspection. FEMA, its representatives and assigns including the state or tribe shall have the right to enter upon the Property, at reasonable times and with reasonable notice, for the purpose of inspecting the Property to ensure compliance with the terms of this part, the Property conveyance and of the grant award.

3. Monitoring and Reporting. Every three years on [date], the Grantee (mitigation grant program sub grantee), in coordination with any current successor in interest, shall submit through the State to the FEMA Regional Administrator a report certifying that the Grantee has inspected the Property within the month preceding the report, and that the Property continues to be maintained consistent with the provisions of 44 C.F.R. Part 80, the property conveyance, and the grant award.

4. Enforcement. The Grantee (mitigation grant program sub grantee), the State, FEMA, and their respective representatives, successors and assigns, are responsible for taking measures to bring the Property back into compliance if the Property is not maintained according to the terms of 44 C.F.R. Part 80, the property conveyance, and the grant award. The relative rights and responsibilities of FEMA, the State, the Grantee, and subsequent holders of the property interest at the time of enforcement, shall include the following:

a. The State will notify the Grantee and any current holder of the property interest in writing and advise them that they have 60 days to correct the violation.

i. If the Grantee or any current holder of the property interest fails to demonstrate a good faith effort to come into compliance with the terms of the grant within the 60-day period, the State shall enforce the terms of the grant by taking any measures it deems appropriate, including but not limited to bringing an action at law or in equity in a court of competent jurisdiction.

ii. FEMA, its representatives, and assignees may enforce the terms of the grant by taking any measures it deems appropriate, including but not limited to 1 or more of the following:

a) Withholding FEMA mitigation awards or assistance from the State or Tribe, and Grantee; and current holder of the property interest.

b) Requiring transfer of title. The Grantee or the current holder of the property interest shall bear the costs of bringing the Property back into compliance with the terms of the grant; or

c) Bringing an action at law or in equity in a court of competent jurisdiction against any or all of the following parties: the State, the Tribe, the local community, and their respective successors.

5. Amendment. This agreement may be amended upon signatures of FEMA, the state, and the Grantee only to the extent that such amendment does not affect the fundamental and statutory purposes underlying the agreement.

6. Severability. Should any provision of this grant or the application thereof to any person or circumstance be found to be invalid or unenforceable, the rest and remainder of the provisions of this grant and their application shall not be affected and shall remain valid and enforceable.

[Signed by Grantor(s) and Grantee, witnesses and notarization in accordance with local law.]

Grantor's Signature \_\_\_\_\_

Date \_\_\_\_\_

Name (printed or typed) \_\_\_\_\_

Grantee's Signature \_\_\_\_\_

Date \_\_\_\_\_

**Acknowledgement of Conditions For Mitigation of Property in a Special Flood Hazard Area With FEMA Grant Funds**

*A signed copy of this acknowledgement must be submitted with the application for any structure included in the project where the proposed mitigation activity is **elevation, flood proofing, or retrofitting.***

*Failure to do so will result in the application **NOT** being processed.*

Property Owner \_\_\_\_\_

Street Address \_\_\_\_\_

City State Zip Code \_\_\_\_\_

Deed dated \_\_\_\_\_ Recorded \_\_\_\_\_

Tax map \_\_\_\_\_ block \_\_\_\_\_ parcel \_\_\_\_\_

Base Flood Elevation at the site is \_\_\_\_\_ feet (NGVD).

Map Panel Number \_\_\_\_\_, effective date \_\_\_\_\_

As a recipient of Federally-funded hazard mitigation assistance under the Hazard Mitigation Grant Program, as authorized by 42 U.S.C. §5170c / Pre-Disaster Mitigation Program, as authorized by 42 U.S.C. §5133 / Flood Mitigation Assistance Program, as authorized by 42 U.S.C. §4104c / Severe Repetitive Loss, as authorized by 42 U.S.C. §4102a, the Property Owner accepts the following conditions:

1. That the Property Owner has insured all structures that will **not** be demolished or relocated out of the SFHA for the above-mentioned property to an amount at least equal to the project cost or to the maximum limit of coverage made available with respect to the particular property, whichever is less, through the National Flood Insurance Program (NFIP), as authorized by 42 U.S.C. §4001 *et seq.*, as long as the Property Owner holds title to the property as required by 42 U.S.C. §4012a.

2. That the Property Owner will maintain all structures on the above-mentioned property in accordance with the flood plain management criteria set forth in Title 44 of the Code of Federal Regulations (CFR) Part 60.3 and City/County Ordinance as long as the Property Owner holds title to the property. These criteria include, but are not limited to, the following measures:

i. Enclosed areas below the Base Flood Elevation will only be used for parking of vehicles, limited storage, or access to the building;

ii. All interior walls and floors below the Base Flood Elevation will be unfinished or constructed of flood resistant materials;

iii. No mechanical, electrical, or plumbing devices will be installed below the Base Flood Elevation; and

iv. All enclosed areas below Base Flood Elevation must be equipped with vents permitting the automatic entry and exit of flood water.

For a complete, detailed list of these criteria, see City/County Ordinance attached to this document.

3. The above conditions are binding for the life of the property. To provide notice to subsequent purchasers of these conditions, the Property Owner agrees that the City/County will legally record with the county or appropriate jurisdiction's land records a notice that includes the name of the current property owner (including book/page reference to record of current title, if readily available), a legal description of the property, and the following notice of flood insurance requirements:

"This property has received Federal hazard mitigation assistance. Federal law requires that flood insurance coverage on this property must be maintained during the life of the property regardless of transfer of ownership of such property. Pursuant to 42 U.S.C. §5154a, failure to maintain flood insurance on this property may prohibit the owner from receiving Federal disaster assistance with respect to this property in the event of a flood disaster. The Property Owner is also required to maintain this property in accordance with the flood plain management criteria of Title 44 of the Code of Federal Regulations Part 60.3 and City/County Ordinance."

4. Failure to abide by the above conditions may prohibit the Property Owner and/or any subsequent purchasers from receiving Federal disaster assistance with respect to this property in the event of any future flood disasters. If the above conditions are not met, FEMA may recoup the amount of the grant award with respect to the subject property, and the Property Owner may be liable to repay such amounts.

This Agreement shall be binding upon the respective parties' heirs, successors, personal representatives, and assignees.

THE CITY/COUNTY OF \_\_\_\_\_

A \_\_\_\_\_ municipal corporation

By: \_\_\_\_\_

[Name, Title]

of the City/County of \_\_\_\_\_

&

\_\_\_\_\_

[Name of Property Owner]

WITNESSED BY:

\_\_\_\_\_

[Name of Witness]

[Notary Public seal]

**SECTION 3.2: PROJECT WORKSHEETS – DRAINAGE / STORMWATER PROJECTS**

*This worksheet must be completed for drainage, stormwater or other engineered projects.*

**History of Damages in the Project Impact Area**

*For these types of projects it is important to know the history of damages in the area where flooding will be reduced as a result of the project (Project Impact Area or PIA) so it can be understood how the proposed project will reduce damages. This information is necessary to perform a benefit-cost analysis. Please provide data only for buildings and infrastructure that were affected by the flood event and that will be protected to some level by the proposed project.*

How many structures in the PIA were flooded (in other words how many structures had water inside of them)?

How many structures in the PIA experienced yard flooding only?

Please provide the following information in a table format for each past flood event: frequency of the flood event (or frequency of the precipitation event if flood frequency is not known), address of each structure, depth of flooding inside of each structure (inches and/or feet), duration of flooding in each structure (hours and/or days), dollar loss for each structure above (include structure, contents, property damage) impacted in questions 3-1 and 3-2 above. Also, attach a copy of the tax parcel card form the County Auditor’s office for each property listed.

Please provide the following information in a table format for each past flood event for roads in the PIA: A listing of the roads that were closed due to flooding, the duration of the closure (in days), the number of one-way traffic trips per road, and the detour or delay time per one-way trip (in hours), the amount of damages (in dollars) caused by flooding per road (i.e., washout materials, culvert damages, pipe damages).

Was any non-profit or public facility in the PIA affected by these past flood events in the project? If yes, indicate the name / purpose of the each facility and the annual operating budget amount for the facility:

List the costs incurred due to emergency measures in the PIA:

List the costs incurred for debris removal within the PIA:

How many days was the community without power (if not the entire community, the PIA)?

How many days was the community without potable water (if not the entire community, the PIA)?

How many days was the community without wastewater treatment (if not the entire community, the PIA)?

Please attach any documentation for other indirect damages caused by flooding within the PIA (i.e., lost wages, police department overtime wages, public works cleanup crew overtime wages, cost incurred on clearance of vehicles and other disaster-related materials, damages to electric panels in pumping facilities, levee breaches and damaged equipment).

**Project Design and Impacts**

*It will be necessary for the applicant to obtain engineering assistance for these projects and answer many of the questions below.*

Have preliminary plans for the storm water management / drainage project been completed?  Yes  No. If yes, please attach a copy.

Have final approved plans and/or final hydrology/hydraulic studies from a registered professional engineer (P.E.) for the proposed project been completed?  Yes  No. If yes, please attach a copy and please provide the contact information for the firm/P.E. that completed the study:

Will the project change (reduce or increase) any FEMA identified BFE's or reduce or enlarge the FEMA identified 100-year floodplain?  Yes  No. If yes, it will be necessary to submit for a Letter of Map Revision to FEMA. Please contact the Mitigation Branch for more information on this process.

Based on hydrologic/hydraulic studies above, does the proposed project negatively impact any nearby property or structure?  Yes  No. If yes, please describe how this impact will be mitigated:

Provide a Summary Report from the consultant or P.E. describing the problem and the proposed solution with the necessary supporting engineering calculations for the project/solution. The report should also certify the level of protection and the magnitude of event the completed scope of work will mitigate (*for example, 40 homes will be protected against the 100-year flood event*). Finally the Summary Report should provide an estimate of damages that is anticipated for events beyond the mitigation efforts. (*For example, the 40 homes can anticipate 15% structural damages for the 250-year flood event and 30% structural damages for the 500-year flood event*).



**SECTION 3.3: PROJECT WORKSHEETS – COMMUNITY SAFE ROOMS**  
*This worksheet must be completed for Community Safe Room Projects.*

**Community Safe Room Construction: (choose one)**

Reinforced and precast concrete	
Reinforced masonry	
Un-reinforced masonry	
Steel	
Wood	
Other, please explain:	

Is safe room Above or Below Ground?

Please indicate whether the safe room will be a "dual use" facility and describe the dual use.

**Building Dimensions**

Length:	Width:	Height:
Total Square Footage:		
Shelter Area: (Sq. Ft.)		

**Tornado Occupancy (Please attach the supporting documentation)**

Maximum Occupancy:

Possible Occupancy per each hour of the day:

12:00 a.m.		12:00 p.m.	
1:00 a.m.		1:00 p.m.	
2:00 a.m.		2:00 p.m.	
3:00 a.m.		3:00 p.m.	
4:00 a.m.		4:00 p.m.	
5:00 a.m.		5:00 p.m.	
6:00 a.m.		6:00 p.m.	
7:00 a.m.		7:00 p.m.	
8:00 a.m.		8:00 p.m.	
9:00 a.m.		9:00 p.m.	
10:00 a.m.		10:00 p.m.	
11:00 a.m.		11:00 p.m.	

6 a.m. to 6 p.m. Average:	
6:00 p.m. to Midnight Average:	

Midnight to 6 a.m. Average:	
(If mobile home park, the numbers would be greater in the evening hours and less during the during work hours, where as a commercial building the numbers would be higher during the day time.)	

Cost of Project:	
Cost of Maintenance Per Year:	
Life of Project:	
<b>You must attach justification for the above information</b>	
Design Wind Speed:	
<b>Must be 250 MPH for all Community Safe Rooms in the State of Ohio.</b>	

Do you understand that an operations and maintenance plan is required for all Community Safe Rooms and the costs associated with such a plan must be included with the budget? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is the currently an existing warning siren in place? <input type="checkbox"/> Yes <input type="checkbox"/> No, If not are there any plans to install a warning siren? <input type="checkbox"/> Yes <input type="checkbox"/> No
Have you attached a map indicating a .5 mile radius around the Community Safe room? <input type="checkbox"/> Yes <input type="checkbox"/> No

<p>Remember to attach an engineered site plan, maps, descriptive statement of operations &amp; maintenance plans, pictures and any other related items. If you have any questions please contact staff.</p>
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**Acknowledgements and Signatures**  
*All project applicants must acknowledge and sign below.*  
*Failure to do so will result in the application **NOT** being processed.*

The \_\_\_\_\_ (sub-applicant name, County), Ohio, hereby acknowledges and agrees to the following:

1. To accept responsibility at its own expense, for the routine maintenance for projects funded as a result of this application that involve the retrofit or modification of existing public property or whose proposed project would result in the public ownership or management of property, structures, or facilities. Routine maintenance shall include, but not be limited to such responsibilities such as keeping vacant land clear of debris, garbage, and vermin; mowing; keeping stream channels, culverts, and storm drains clear of obstructions and debris; and keeping detention ponds free of debris, trees, and woody growth.
2. That any property which is acquired, deed restricted, and consequently owned by the sub applicant or other qualified entity as a result of a project funded from this application will remain in open space or be maintained as an open space compatible use, as defined by the Federal Emergency Management Agency, *in perpetuity (forever)*.
3. That it will work, in good faith, with the Ohio Department of Natural Resources – Floodplain Management Program, to resolve any programmatic deficiencies and or violations of its flood damage reduction regulations identified as a result of an evaluation of its floodplain management program.
4. That this application *does not* guarantee funding for any project or portion of project as described herein. Submission of this application will result in its review for cost effectiveness, environmental compliance, and its prioritization by the Ohio State Hazard Mitigation Team. While the Ohio Emergency Management Agency attempts to minimize the overdevelopment of HMGP applications to ensure at least some funding; it is possible that funding will not be awarded.

**TO THE BEST OF MY KNOWLEDGE AND BELIEF, DATA IN THIS APPLICATION AND ANY SUPPORTING DOCUMENTS ARE TRUE AND CORRECT**

Prepared by: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

*Please note that the above signature(s) must be made by an individual or individual(s) (in counties this is the three county commissioners, townships the three township trustees) with the legal signing authority for the respective local government.*

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**If additional information is required, contact Steve Ferryman, State Hazard Mitigation Officer, at (614) 799-3539.**

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**Project Management Costs**

Sub-recipients of projects awarded by FEMA are eligible to apply for management costs up to 5% of the total project award. Management costs can be used for any indirect cost, and direct administrative cost, and any other administrative expense associated with a specific project. A list of eligible management cost activities can be found in the current version of FEMA's Hazard Mitigation Assistance Guidance. FEMA will provide management costs to the recipient (state), and the recipient will reimburse the sub-recipient for eligible management costs. Management cost awards must meet the uniform administrative requirements for a federal award found in 2 CFR Part 200, in particular, records retention, closeout and audit. Management costs that are not used, or improperly used, must be returned to the Recipient prior to project closeout.

Does the sub-recipient plan to apply for management costs?  Yes If Yes, please answer the questions below.  No If no, your response to the questions below are NOT required.

Enter the amount of management cost being requested. \$ \_\_\_\_\_

**Management Cost Budget Narrative**

*Please use the space below to provide a narrative description of the management cost budget to include an **explanation of how the cost estimates were developed for each element**. The narrative must include salary and fringe benefit rates for in-house personnel that will be charging the grant. Please attach contractor estimates if applicable and any other documentation necessary to justify budget costs.*



**STATE OF OHIO HAZARD MITIGATION  
PLANNING GRANT APPLICATION  
FEMA-DR-4507**

**OHIO EMERGENCY MANAGEMENT AGENCY**  
2855 W. Dublin-Granville Road, Columbus, Ohio 43235-2712  
614/799-3539

Community Name \_\_\_\_\_

Contact Name \_\_\_\_\_ Position \_\_\_\_\_

Address \_\_\_\_\_

Phone Number \_\_\_\_\_ Email \_\_\_\_\_

National Flood Insurance Program CID Number \_\_\_\_\_

Applicant DUNS Number \_\_\_\_\_ FIPS Code \_\_\_\_\_

Ohio House District # \_\_\_\_\_ Ohio Senate District # \_\_\_\_\_

U.S. Congressional District \_\_\_\_\_

**INSTRUCTIONS:**

Please answer each question as fully as you can. Print or type your responses clearly. If you have questions about this application, please contact Luan Nguyen, State Mitigation Planner at (614) 799-3531, or email at [Lknguyen@dps.ohio.gov](mailto:Lknguyen@dps.ohio.gov). Attach additional pages if necessary. **Applications are due by 5:00 pm, Friday, October 8, 2021.** Please email your application to:

Luan Nguyen  
[Lknguyen@dps.ohio.gov](mailto:Lknguyen@dps.ohio.gov)

Or mail your application to:

**Ohio Emergency Management Agency  
Mitigation Branch  
ATTN: Luan Nguyen, State Hazard Mitigation Planner  
2855 West Dublin-Granville Road  
Columbus, Ohio 43235-2712**

**SCOPE OF WORK**

**1. Please indicate if this planning grant application is for a “new” hazard mitigation plan, or the update of an existing hazard mitigation plan. If the application is for a plan update, please describe the reasons for the update (i.e. Is the plan being updated as part of the required five year update cycle, or was there a significant event in the community that necessitated an update of the mitigation plan?).**

**2. If this application is for a plan update, please describe mitigation plan implementation efforts since the approval of the last plan.**

**3. Please list the local stakeholders (businesses, non-profit organizations, academic institutions, and neighboring counties/communities) that will be invited to participate on the Committee that will develop the updated plan.**

**4. Will you hire a contractor to help develop your local hazard mitigation plan update?** (If yes, please list the services they will perform such as write the plan, facilitate meetings, coordinate community input, etc.)

**5. Please describe your plan to involve the public in the development and maintenance of your local mitigation plan.**

**6. The following link will take you to the Mitigation Information Portal (MIP):** <https://services.dps.ohio.gov/MIP/PublicSite/LocalPlan>. The MIP contains .pdf copies of every local mitigation plan in Ohio, and provides a platform to capture and summarize local Hazard Identification and Risk Assessments and proposed local mitigation actions. Sub-grantees are required to enter pertinent local mitigation plan information into the MIP. Please review how the MIP system captures this information and describe how your local mitigation plan will be modified as part of the update to ensure that the required information is documented as part of the planning process.

**7. Describe the plan adoption process for the jurisdiction(s). The plan adoption process must ensure sufficient time to complete the plan, as well as time for State (30 days) and FEMA (45 days) plan review. The plan adoption process must also allow time for the jurisdiction(s) to make any modifications required as part of the plan review process and allow sufficient time for jurisdictions to formally adopt the plan.**

**8. Please review the attached Local Hazard Mitigation Plan (LHMP) Scope of Work Template. This template is a general guideline on the processes of updating an LHMP. Local Hazard Mitigation Plans will be developed for each county using the most recent and best available data. If acquiring the best available data requires the addition of studies or purchases relevant to plan development, the County may make additions to the Scope of Work based on determination of local needs. Please list any additions below:**



## **Scope of Work Template Local Hazard Mitigation Plan (LHMP)**

Local Hazard Mitigation Plans (LHMP) will be developed for each county using the most recent and best available data. The County may make additions to the baseline Scope of Work Template based on determination of local needs. This template is a general guideline on the processes of updating an LHMP. The plans will be developed as follows:

1. Milestone 1: Organize planning team and hold kick-off meeting (months 1-2)
  - a. Identify team members
  - b. Address mandate for plan
  - c. Review local demographic, climatologic, topographic overview information for county and local communities in order to update community profile
  - d. Gather data for critical facilities –replacement costs, location, numbers of people within, impact
2. Milestone 2: Planning Meeting 2 (month 3-4)
  - a. Review draft of demographic, climatologic, topographic and general opening statements for the plan
  - b. Update historic hazard information and documentation
  - c. Prioritize hazards
3. Milestone 3: Prepare risk information for dissemination (month 5-6)
  - a. Update Hazard Vulnerability Analysis with best available data
4. Milestone 4: Planning team meeting 3 (month 7-8)
  - a. Host public meeting to discuss hazards and challenges facing community
  - b. Solicit public input into development of goals for plan and community priorities
5. Milestone 5: Review of draft and edits (months 9-11)
  - a. Prepare final draft of plan for submission to Ohio EMA for review
  - b. Prepare Local Hazard Mitigation Plan (LHMP) Review tool
  - c. Submit plan for State review
6. Milestone 6: Review at Region V (Month 12-14)
  - a. Submit plan to FEMA for review
  - b. Make changes, edits, and additions as required by FEMA review
  - c. Resubmit for FEMA review and approval pending adoption
7. Milestone 7: Adoption of the plan (Month 15-16)
  - a. Create a county resolution for adoption of the federally approved county hazard mitigation plan
  - b. Submit county resolution of adoption to FEMA for Final Federal Approval
  - c. Obtain resolutions of adoption by incorporated cities and villages
  - d. Entry of approved plan, HIRA summary, and mitigation actions into the State Hazard Analysis and Resource Planning Portal (SHARPP)
8. Milestone 8: Close out (Month 17-18)
  - a. Closeout project with FEMA

9. Describe how you will manage the costs and schedule, and how you will ensure successful performance.

10. If the application is for a plan update, will the plan update/maintenance process in the existing plan be followed? If not, please describe any possible modifications to that process that will be incorporated into the update. Luan Nguyen, State Hazard Mitigation Planner (614-799-3531) may be able to provide a copy of the previous plan and its "Local Hazard Mitigation Crosswalk" to assist in answering this question.

## BUDGET

11. Please complete the budget table on the following page. The budget must be tied to the proposed scope of work described in this application. Whenever possible, the source of the cost estimate must be described in the table and/or attached to the application. Possible sources of cost estimates include: contractor estimate, hourly rate of person(s) assigned to complete task x estimated number of hours to complete, unit cost etc. If the plan will be developed "in house" (not by a contractor), please indicate in the "Source of Cost Estimate" column the hourly rate, fringe rate, and number of hours budgeted for each task.

For your convenience, attached is a list of mitigation planning contractors that may assist in providing a cost estimate and budget. If hiring a contractor to update your Local Hazard Mitigation Plan, please contact at least three contractors (not limited to the list) and request a cost-estimate in the form of the budget table below. Ohio EMA does not endorse or recommend any contractor.

The contractor should only include cash costs in the estimate. Please do not account for in-kind in the estimate budget table below.

Task	Cost Estimate				Narrative
	Federal (75%)	State (12.5%)	Local (12.5%)	Total Grant (100%)	
<b>Meetings</b>					
Contractor Labor				\$ -	Meetings held as designated in overall project SOW. Estimated expenses to travel to meetings. Supplies include handouts for meetings, poster boards, markers, name badges. Facility costs for meetings
In-kind Labor				\$ -	
Travel Expenses				\$ -	
Supplies				\$ -	
Meeting Facility Fee				\$ -	
<b>Subcategory Total:</b>	\$ -	\$ -	\$ -	\$ -	
<b>Data Research and Collection</b>					
GIS Mapping				\$ -	Includes GIS mapping, risk assessment, existing mitigation plan review
Risk Assessment				\$ -	
Existing Mitigation Plan Review				\$ -	
<b>Subcategory Total:</b>	\$ -	\$ -	\$ -	\$ -	
<b>Plan</b>					
Drafting				\$ -	Includes plan development, review, production, and entry of data into SHARPP
Review				\$ -	
Final Production				\$ -	
Enter Plan Data into SHARPP				\$ -	
<b>Subcategory Total:</b>	\$ -	\$ -	\$ -	\$ -	
<b>Public Information and Involvement</b>					
Mitigation Plan-Related Public Training				\$ -	Mitigation-plan related training for the public. See contractor estimate.
Printing public notices				\$ -	See contractor estimate.
Advertising				\$ -	See contractor estimate.
<b>Subcategory Total:</b>	\$ -	\$ -	\$ -	\$ -	
<b>Total:</b>	\$ -	\$ -	\$ -	\$ -	
<b>Cost Share</b>					
<b>County Cost Share</b>				<b>Percentage</b>	
Federal Cost Share	\$			-	
State Cost Share	\$			-	
Local Cost Share	\$			-	
<b>Total:</b>	\$			-	<b>100.00000%</b>

**12. This is a cost-share initiative. Federal funds provide 75% and State funds provide 12.5% of the funding with a 12.5% local match. The local match can be local government allocations and/or in-kind services. Please indicate how your community will fund the mandatory 12.5% match. If your community intends to use in-kind funds as a full or partial match, please estimate the in-kind contribution in the form of the table below.**

<i>Organization/Agency Staff</i>							
Name	Position	Department	Rate/hr	Fringe/hr	Hourly Total	Hours	Cost

**13. Please use this opportunity to clarify your answers to any of the above questions; to comment on your community's ability to write, fund and implement an all-natural hazard mitigation plan; or to comment on this application.**

I acknowledge that all information on this application is true to the best of my knowledge. If awarded this grant, I understand that the end result must be a FEMA-approved natural hazard mitigation plan that must be adopted by each jurisdiction participating in the plan to maintain mitigation project eligibility. The applicant will also ensure that the Mitigation Information Portal (MIP) is updated as part of the final plan deliverable.

\_\_\_\_\_  
Signature and Title of Local Official

\_\_\_\_\_  
Date

**Hazard Mitigation Grant Program (HMGP)  
Application Workbook**



**STATE OF OHIO**

**Emergency Management Agency**

**Mitigation Branch**

**Revised:  
June 2019**

*The mission of the Mitigation Branch is to integrate hazard mitigation principles in a variety of ways to make Ohio communities more sustainable and citizens more resilient in the face of future disaster events.*

Congratulations! You have decided to develop a full project application under the Hazard Mitigation Grant Program (HMGP). In developing a full project application, you are taking steps to improve your community's resiliency to natural hazards and if the project is selected and funded, implement actions that will form a long term or permanent solution to reduce the potential of damage and/or loss of life.

The HMGP is offered through the Federal Emergency Management Agency (FEMA) on whose behalf the Ohio Emergency Management Agency (Ohio EMA) - Mitigation Branch administers in Ohio. In this partnership effort, communities have a role in developing quality project applications, the state has a role in ensuring the proper environmental review and cost effectiveness analysis is completed, and FEMA has a role in providing tools and assistance for overall program administration and also has final approval of all HMGP projects.

This Application Workbook is meant to accompany the State of Ohio HMGP Project Application (also referred to herein as the HMGP Application). It is the intent of this Workbook to clarify and provide insight, instruction, and tips for completing the HMGP Application.

My OHIO EMA Mitigation Branch point-of-contact for this application is:

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# An Introduction to Hazard Mitigation in Ohio

Mitigation is defined as any action taken to reduce or eliminate the long-term risk to human life and property from hazards. The key words in this definition are “long-term” which implies things like temporary measures are not mitigation measures. Nor are measures that are regular operations/maintenance functions like servicing a pump that is part of a larger flood control system considered mitigation.

Why do we mitigate? Simply stated, Ohioans are subject to many types of hazards. Flooding, winter storms, tornadoes, severe thunderstorms, and landslides are Ohio’s most prevalent hazards as defined by a combination of frequency and impact. Of these, flooding is Ohio’s most common hazard with flood hazard areas identified in all 88 counties and most municipalities. Since Ohio has a long history of settlement, many homes, businesses, and infrastructure was constructed before modern codes which have now begun to incorporate hazard reduction. Thus, there is a lot of development at risk from hazards.

As a result of the Disaster Mitigation Act of 2000, communities across the nation and in Ohio are undertaking hazard mitigation planning. Mitigation actions can sometimes be difficult to quantify and can be undertaken and/or funded by a variety of sources. For example, a public outreach campaign on hazard mitigation can be done at a relatively low cost by any community. However larger projects often rely on several sources of funding. FEMA and its hazard mitigation programs provide funding for a variety of mitigation projects. HMGP is one of the largest sources of mitigation funding in Ohio. However, it is important to remember that there are some mitigation activities that HMGP can fund and some it cannot – FEMA mitigation programs do not necessarily fund all mitigation activities.

The following bulleted items are examples of the benefits mitigation provides to society:

- It creates safer communities by reducing loss of life and property damage. For example, the rigorous building standards adopted by the 20,000 communities that participate in the National Flood Insurance Program (NFIP) across the country are saving the nation more than \$1.1 billion a year in prevented flood damages. The NFIP is one of the nation’s oldest flood mitigation programs.
- It allows individuals to minimize post-flood disaster disruptions and recover more rapidly. For example, homes built to NFIP standards incur less damage from floods. And when floods do cause damages, flood insurance protects the homeowner’s investment, as it did for the more than 200,000 Gulf Coast residents who received more than \$23 billion in payments following the 2005 hurricanes. Similarly, buildings constructed to seismic codes, or those constructed to withstand other hazards see a similar decrease in disruptions.
- It lessens the financial impact on individuals, communities, and society as a whole. For example, a recent independent study by the Multi-hazard Mitigation Council shows that each dollar spent on mitigation saves society an average of four dollars.



# A Summary of the Hazard Mitigation Grant Program

## **Purpose of the Program**

Authorized under Section 404 of the Stafford Act, the Hazard Mitigation Grant Program administered by the Federal Emergency Management Agency (FEMA) provides grants to States and local governments to implement long-term hazard mitigation measures. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. HMGP funds are not meant to repair damaged structures to restore their function before they were damaged; rather HMGP is used to improve that structure to make it more resistant to the hazard during future events.

## **Eligible Applicants**

[Hazard Mitigation Grant Program](#) funds are available following a Presidential disaster declaration. Eligible applicants include States, local governments, Indian Tribal governments, and some Private Non-Profit organizations. Communities may apply for HMGP assistance on behalf of affected individuals and businesses. Individual property owners cannot apply to participate in HMGP unless the property owner is one of the eligible applicant types listed above.

## **Types of Projects that can be Funded**

All funds must be used to reduce or eliminate losses from future disasters. Examples of projects include:

- Elevating flood-prone homes or businesses;
- Acquiring (and either demolishing or relocating) flood-prone homes from willing owners and returning the property to open space;
- Retrofitting buildings to minimize damage from high winds, flooding, earthquakes, and other hazards;
- Protective measures for utilities (e.g., electric and gas); water and sanitary sewer systems and/or infrastructure (e.g., roads and bridges);
- Storm water management projects (e.g., culverts, retention basins) to reduce or eliminate long-term risk from flood hazards;
- Construction of safe rooms (e.g., tornado and severe wind shelters) for public and private structures that meet the FEMA construction criteria in FEMA 320 "Taking Shelter from the Storm" and FEMA 361 "Design and Construction Guidance for Community Shelters; and
- Implementing minor flood control projects to protect critical facilities.

Generally the project should:

- Substantially reduce the risk of future damage, hardship, loss, or suffering from a major disaster;
- Have a beneficial impact in the designated disaster area;
- Conform with federal floodplain, wetland, and environmental regulations;
- Solve a problem, or part of a problem when there is assurance that the whole project will be completed;
- Be cost-effective in that it addresses a problem that is repetitive or that poses a significant risk if left unsolved;

- Contribute substantially to the problem's long term solution;
- Provide cost-effective protection over the expected project life;
- Have manageable future maintenance requirements;
- Be determined to be the most practical, effective, and environmentally sound alternative among the possible options; and
- Have the documented support of the local community.

Some of the reasons that projects/applications have been determined to be ineligible:

- Project application fails to meet requirements under the National Environmental Policy Act (NEPA) for adequate public involvement in the development of the alternatives;
- Project is for operation and maintenance versus disaster related mitigation;
- Project is the responsibility of another federal agency such as the U.S. Army Corps of Engineers, the Natural Resources Conservation Service, or FEMA's Public Assistance Program;
- Project is the result of deferred maintenance versus natural hazard related;
- Project has an inadequate cost/benefit ratio (in other words not cost effective); and
- When HMGP project is part of a larger effort, no assurance is made that the whole project will be completed.

### **Funding Constraints**

In Ohio, HMGP funding is based on up to 20% percent of total disaster assistance funds spent by FEMA for mitigation measures to be implemented during the recovery after a Presidential declared disaster. Because there is always more demand than funds available, these funds are competitive. Funds are cost shared 75% Federal 25% non-Federal. Sometimes part of the non-Federal cost share is picked up by the state – this is determined on a disaster by disaster basis.

HMGP grant applications are submitted to the Ohio Emergency Management Agency, which sets mitigation priorities and awards grants based on available funding and State criteria. FEMA conducts the final eligibility review to ensure that all projects are compliant with Federal regulations, including the Federal law that requires States and communities to have FEMA-approved mitigation plans in place prior to receipt of HMGP project funds. A mitigation plan must identify hazards, assess community needs, and describe a community-wide strategy for reducing risks associated with natural disasters.

### **The 5% and 7% Set Aside**

Under HMGP, the state has the discretion to fund projects that either: involve actions where it is difficult to measure the benefits and costs of the project, and projects that involve some aspect of mitigation planning. These are called 5% and 7% projects respectively. Examples of projects that can be funded under each include:

#### **5% Set Aside Projects**

- NOAA weather radios
- Warning systems
- Generators and/or generator hook-ups
- Lightning protection projects

#### **7% Planning Projects**

- Initial creation of a community hazard mitigation plan

Update of a community hazard mitigation plan  
Special studies that contribute to an update of a community hazard mitigation plan

### **Ohio Mitigation Priorities**

It is important to understand the priorities of hazard mitigation in Ohio. The three documents that identify these priorities are the current State of Ohio Hazard Mitigation Plan, the Administrative Plan that is revised after each Presidential disaster declaration, and the Mitigation Action Strategy developed for each Presidential disaster declaration.

The State of Ohio Hazard Mitigation Plan is a document that takes a statewide analysis of the hazards and exposure to people and the built environment. The plan incorporates data from many sources, including local hazard mitigation plans to estimate potential losses statewide. It also identifies state mitigation priorities based on this statewide analysis as well as an analysis of local mitigation plan priorities. For example a state mitigation priority is the acquisition and demolition of flood-prone structures as this is a permanent mitigation solution.

The Administrative Plan and the Mitigation Action Strategy, both which are updated after each disaster, identifies priorities based on the disaster that resulted in HMGP funds being made available. These documents also identify mitigation priorities. For example, one priority identified is mitigation projects coming from counties that were declared in the disaster. Such projects have more favorable scoring factors when projects are being ranked for funding versus those that are submitted from counties that weren't declared in the disaster (as HMGP applications are taken from communities statewide). Also, the Mitigation Action Strategy might identify a specific mitigation focus that becomes a priority for that disaster. For example, for the flooding disaster that occurred in June 2006, the Mitigation Action Strategy included priority to assist Adams County with the development of a hazard mitigation plan because it was the only remaining county in Ohio that had neither developed a plan or was in the process of developing a plan.

It is important to understand that, in general, the 5% and 7% projects have a lower relative priority than standard HMGP projects, especially those coming from the counties which were declared in the disaster where the HMGP funding originated. They are most often funded when that type of project is specified in the Mitigation Strategy, if the overall pool of project applications is either small or includes many project applications that are not likely to be funded, or when there may be a need to include some smaller project to fully allocate the FEMA funding.

### **An Overview of Ohio's HMGP Project Application Process**

The application process begins soon after a Presidential declaration is made. The steps include the following:

- HMGP briefings are conducted in counties that were declared
- The pre-application period opens when a major disaster is declared
- Notice is given statewide of the open pre-application period
- Project pre-applications are developed and submitted to Ohio EMA
- The State Hazard Mitigation Team (SHMT) meets to review and rank the project pre-applications
- The highest ranked pre-applications are selected and applicants are invited to develop full project applications

- Full applications developed and submitted to Ohio EMA, usually within 6-9 months of the disaster declaration
- State reviews projects to ensure eligibility
- The SHMT meets for a second time to rank the full project applications. This is especially important when there are more eligible applications developed and approvable than funds available.
- State submits the highest ranked project applications to FEMA within 12-18 months of the disaster declaration
- FEMA obligates funds after submittal of applications and concurrence of their eligibility. This must occur within 24 months of disaster declaration.

It is important to note that applicants who are invited to develop full project applications are not guaranteed project funding. While Ohio EMA strives to not unduly overdevelop project applications as it can be a task that takes time and resources, at the same time Ohio EMA must develop enough full project applications to ensure that all funding is allocated. This is why, when applicants are asked to develop full project applications, they are asked to develop a project with a not-to-exceed federal and/or state share.

# The 10-Step Project Development Process

Developing a HMGP project application is not just an exercise in completing the paper application; rather, at a minimum involves at least some public participation and at its best involves an extensive amount of public participation. For example, the application requires that at least two alternatives be identified to the project proposal. How are those alternatives evaluated? How has it been determined that the project proposal is the best mitigation idea? Also, where a mitigation project proposal involves mitigating individual properties, it is necessary to prioritize the properties based on applicant developed criteria. What are fair criteria? How is this done in an objective manner?

The 10-step project development process was initially used as a tool by Federal and state mitigation staff to assist local communities in the development of mitigation projects under HMGP. Local communities are encouraged to use this process to ensure a complete application package, so a well-defined project is forwarded to the state for review and selection with it ultimately being approved by FEMA.

**Although the use of this process is not required, it is strongly recommended for most projects, and is especially recommended for projects that involve mitigation activities to private property and buildings.** Following all steps may not be as important for infrastructure projects, stormwater management projects, or the 7% planning / 5% initiative projects.

## **STEP ONE - MEETING WITH LOCAL OFFICIALS**

A meeting is first held between mitigation staff either from FEMA or Ohio EMA to explain the available community mitigation opportunities to local officials. In the case of disaster affected communities, this may occur within weeks of the event. At a minimum the Chief Executive Officer of the community, (i.e., county commissioner(s), mayor, township trustee(s)), legislative body members (i.e., city or village council members), floodplain administrator, public works officials, building officials, and planning/zoning officials, and county emergency management officials should be present. Items of discussion will include, but not be limited to: Purpose and benefits of mitigation, importance of compliance with the National Flood Insurance Program (NFIP), mitigation as part of disaster assistance programs, and the Hazard Mitigation Grant Program (HMGP). Minimally, mitigation representatives from FEMA and/or Ohio EMA, Department of Natural Resources (DNR), Small Business Administration (SBA), and other Individual Assistance programs might be invited to attend the meeting.

Usually this meeting will occur during the pre-application period; however, it could also occur after a pre-application is selected to discuss aspects of the full project application. A packet of information with materials on various mitigation programs and a Pre-Application form will be left with local officials. If officials are interested in developing a mitigation project they could complete the pre-application form at the time of the meeting, and send the form back with the Ohio EMA or FEMA mitigation staff. If the officials do not want to commit at that time, they must return the pre-application to the Ohio EMA by the deadline date provided on the pre-application form.

## **STEP TWO - REVIEW THE COMMUNITY'S HAZARD MITIGATION PLAN**

It is important, at the very beginning of this process, to review the community's hazard mitigation plan. If it is unfamiliar, a local hazard mitigation plan identifies hazards, contains a risk assessment and/or vulnerability analysis, and contains community mitigation goals, objectives and actions. **A requirement of receiving HMGP funds is that the proposed project must meet a goal, objective, or action item in the local plan** – this linkage must also be explained in the HMGP Application.

A good resource for this step is the county emergency management office. In most instances, the county emergency management office is the keeper of the community's hazard mitigation plan (the community plan may be incorporated into a countywide plan). The county emergency management office can help you review the existing plan and, if necessary, assist with coordinating the plan's update.

It is necessary to document this information in Section I of the HMGP Application.

## **STEP THREE - PUBLIC MEETING**

If a community is selected to develop a full project application, based on the selection of its pre-application, another meeting with local officials is held to discuss scheduling a public/town meeting. The public meeting should be held as soon as possible. The same information will be presented at the public meeting with residents as with the local officials. A public meeting allows the residents of the community to participate in the project development process, and offer their ideas regarding possible solutions.

**A sample agenda for the public meeting can be found in the appendices.**

## **STEP FOUR - ORGANIZE A PROJECT DEVELOPMENT COMMITTEE**

When the public meeting is completed and agreement is reached to go forward with project development, a committee/team should be created. The committee/team will be responsible for following this process for project development, obtaining information needed to complete the project application, and submittal of the project application to the Ohio EMA. Membership on this committee/team is important. At a minimum the following individuals should be participants: a local official, mayor or CEO, at least one council member, community floodplain administrator, economic development/community action representative, planning commission member, (if appropriate), and one or more community members at large (usually persons that have been affected by the disaster and/or may be a participant in the proposed project). Each committee member should understand that development of a mitigation project takes time and commitment.

The committee should elect a Chairperson, a Secretary, and determine meeting times and other administrative activities at the first meeting. Good note taking is important. The notes should be typed and distributed at meetings. If good notes are taken half the job of writing the project description will be accomplished.

**A sample agenda for the first project development committee meeting can be found in the appendices.**

## **STEP FIVE - DEFINE THE PROBLEM**

Defining the problem is an important part of the process. The community must know what the entire problem is that they want to solve before deciding on a solution. The problem must be stated clearly. The HMGP Application requires that the problem be described fully. The committee must describe the purpose of the project, give the exact project location, and describe the project in detail explaining how it will reduce future damages. Associating each step in the process with the actual application may help them to understand how important this step is to developing their project.

## **STEP SIX - IDENTIFY ALTERNATIVES**

Once the problem has been identified, the committee is ready to brainstorm possible solutions. The group should entertain a range of ideas. Nothing should be thrown out as a way of solving the problem. A good technique is to go around the group and write the ideas using a flip chart until all the ideas have been verbalized.

Once the alternatives have been identified the committee should review them to see if duplication has occurred. At this time the group may elect to throw out some of the ideas and re-write the statements. The committee should ensure that everyone clearly understands what each statement means. This should be documented concisely and will be needed for the written project description. There should be at least three, but no more than five good alternatives including the no action alternative for the committee to evaluate.

## **STEP SEVEN - DEVELOP CRITERIA**

Once the alternatives have been stated clearly, the group should select the criteria for evaluating each alternative. It is important to note that a detailed explanation of each alternative considered and the justification for selection of the best alternative will be part of the project description.

Certain items should automatically be part of the criteria, especially those related to the HMGP. Examples are:

1. Is it good for the community?
2. Does it solve the problem?
3. Is it a long-term solution?
4. Is it cost-effective? Is it technically feasible?
5. Does it comply with floodplain and wetlands regulations?
6. Does it transfer the problem?
7. Does it meet a goal, objective, or action in the community's mitigation plan?

Each one of the criteria should be explained concisely in the project description. The group should add additional criteria as appropriate to their needs. Of the criteria above, #4 is probably the most important from the standpoint of the project being funded. Projects must pass a benefit-cost analysis in order for Federal funds to be used. Please consult with Ohio EMA for further information.

## **STEP EIGHT - SELECT BEST ALTERNATIVE**

A matrix may be developed to assist with evaluation of alternatives against the established criteria. The committee could give a numerical value to each criterion, or use “yes/no”, or even plus/minus when evaluating the alternatives. It should be noted that just because an alternative receives the highest score, it is not necessarily the best solution. The committee may select another alternative as their best solution, but they should be able to justify in detail their selection.

Once the group has selected a solution, another public meeting could be held to present the solution(s) to the residents of the community. Buy-in from the community is important to implementation! Also, it is now important to go back to STEP TWO to determine whether the selected alternative can be linked to a goal, objective or action in the local mitigation plan as it may be necessary to update the plan based on the committee’s findings.

## **STEP NINE - COMPLETE THE PROJECT APPLICATION**

This will be the most time consuming step. It is essential that the HMGP Project Application be fully completed and instructions followed. The Ohio EMA Mitigation Branch point-of-contact can be helpful in overcoming obstacles, clarifying what is being asked, and providing examples from other projects. The information below is meant to provide guidance on the most important sections of the application.

### **Scoping the Project – Strategies**

Once the best solution(s) has been selected, the solution must be scoped out. For projects that involve mitigation actions to private property and buildings, the residents of the project area should be surveyed to find out how many of the residents wish to participate in the project. In addition to the survey, this is the time that the *Acquisition/ Elevation/ Relocation/ Retrofitting Project Worksheet* should be completed from those who wish to participate in the project.

You have been or will be provided a Federal and State share that is not to be exceeded for the project. This will shape your project in a few important ways.. First, the Federal share cannot exceed 75% of the total project. Second, this will give you an idea as to how much in local matching funds will be needed for the project. Ohio EMA Mitigation staff can assist in identifying different sources of local matching funds; however, it is up to the applicant to seek these sources out. Also, if the Federal and/or state share is not enough to fully implement the project idea as written in the project pre-application, it will be necessary to adjust the scope and budget of the project. It is important to ensure that the project as proposed will actually result in a mitigated condition. For example, if a storm water project is being proposed, it must be shown that the project will reduce flooding and damages.

For projects that involve mitigation actions to private property and buildings, it is a good idea to “overdevelop” the project by having alternate properties included. What this means is that as a project budget is prepared, it may be determined that only a certain number of willing participants can actually participate (due to funding constraints). In the application, go ahead and include some or all of the additional properties. Why? Ohio EMA has seen with many projects that because the program is voluntary on the part of the property owner, there are almost always property owners who choose not to participate. Unfortunately, due to program rules, properties cannot be added to the project unless they have already been approved by FEMA. By adding these “alternate” properties, FEMA clearance is obtained, the properties can be added if a higher priority property drops out, and all of the grant funds are spent!



**Completing the Project Worksheets**

Section III of the HMGP Application includes specific project worksheets that should be completed at this time, if applicable. Information obtained from those worksheets will assist in the development of the project description, scope of work, project budget, and completing Section II – Environmental Review.

Where the *Acquisition/ Elevation/ Relocation/ Retrofitting Project Worksheet* is required, it is important that this is filled out as completely and accurately as possible. This is especially important for the *History of Hazards / Damages to the Property* table. The information recorded in that table will be used to perform the benefit-cost analysis that is required for every structure in every project. Specific information is necessary here, vague information cannot be used. If there are any copies of damage estimates (from insurance forms, contractor estimates, etc.) attach them to the worksheet. Also, please do not forget to have the property owners sign the worksheet as the acknowledgements on the worksheet are necessary to process the application.

The *Drainage / Stormwater Project Worksheet* must be completed for all such projects. It is likely that an engineer or similar design professional will have to complete the worksheet, since these types of projects tend to be engineered solutions.

Depending on the type of mitigation action being proposed in your application (acquisition, elevation, etc), there may be multiple forms that require signature from property owners participating in the project. It is recommended that you review the application carefully and obtain all required signatures on the appropriate forms from participating property owners at this time.

**Establishing a Priority List**

This is necessary when a project involves mitigation actions to private properties and buildings. As explained above, it is strongly recommended that alternate properties be included in the scope of the project. Since there will only be so much funding available for the project, a priority list must be established so project funds will be spent in a fair and equitable manner. As a HMGP project is implemented, the local project manager uses the priority list to begin mitigation actions and proceeds down the list until funds run out.

Criteria for establishing the priority of properties in a project can be varied and should be selected by the project development committee. Also the criteria could be given a larger or smaller relative weight. An example of priority criteria and results is listed below:

*After a devastating flood in 1998, the Village of Corning in Perry County developed a HMGP project application for acquiring/demolishing, elevating, and retrofitting several homes. The criteria selected by the project development committee to prioritize the properties included repetitive flooding, depth of flooding, substantial damage, elderly living in the home, handicapped living in the home. Points were assigned for each of the criteria:*

<i>Repetitive Flooding –</i>	<i>flooded once</i>	<i>3 points</i>
	<i>flooded twice</i>	<i>6 points</i>
	<i>flooded 3 or more times</i>	<i>9 points</i>
<i>Depth of Flooding --</i>	<i>up to 2ft on first floor</i>	<i>2 points</i>
	<i>2-4 feet on first floor</i>	<i>4 points</i>

over 4 feet on first floor basement	6 points add 2 points to each above
--	--

*Substantial Damage - Determined substantially damaged by floodplain administrator 6 points, not substantially damaged 0 points*

<i>Elderly?-</i>	<i>no elderly living in home</i>	<i>0 points</i>
	<i>1 elderly person</i>	<i>1 point</i>
	<i>2 or more elderly persons</i>	<i>2 points</i>

<i>Handicapped? -</i>	<i>no handicapped living in home</i>	<i>0 points</i>
	<i>1 handicapped person</i>	<i>1 point</i>
	<i>2 or more handicapped persons</i>	<i>2 points</i>

*Based on this scoring key, scores were assigned for each property and a total was calculated. The top five properties were: Imboden (25 points), Cales (25 points), Wycinski (24 points), Kinsel (23 points), and Ferguson (21 points).*

**Writing the Project Description**

As Step Eight is being completed the group should start writing the actual project description and preparing the application. If the project development committee has kept good notes of their meetings and copies of all the additional information acquired, this step should not be difficult. Every aspect of the project must be described in detail.

**Developing the Scope of Work (Project Milestones) and Schedule**

The community must identify project milestones and prepare a work schedule for the project. The amount of time needed to complete the project should be outlined as well as the activities that will occur. If the project includes acquisition and/or relocation of structures, a plan for use/reuse of the acquired properties will also be required. For planning purposes, a two year implementation period should be used as the standard grant agreement is for that amount of time. A sample is provided below:

*ESTIMATED PROJECT COMPLETION TIMELINE  
ACQUISITION / DEMOLITION OF FLOODPRONE RESIDENTIAL STRUCTURES  
(This HMGP project will be completed within two years of approval by FEMA)*

<i>FEMA approval of the project</i>	<i>0 weeks</i>
<i>Complete administrative paperwork and meet with State</i>	<i>1.5 month</i>
<i>Complete identification of project manager</i>	<i>2 month</i>
<i>Hire independent appraiser; identify title company and Bank to handle closing</i>	<i>3 month</i>
<i>Complete appraisals and receive acceptance from State</i>	<i>6 month</i>
<i>Make offers to property owner(s)</i>	<i>7 month</i>
<i>Complete closings on properties</i>	<i>15 month</i>

<i>Complete demolition of structure(s) (Including Grading and Seeding)</i>	<i>18 month</i>
<i>Conduct final review of files</i>	<i>22 month</i>
<i>Closeout project with State</i>	<i>24 month</i>

### **Preparing the Project Budget**

The budget table in Section I of the HMGP Application identifies most budget line items that are needed for commonly implemented mitigation projects.

The applicant should have some commitment from other programs for funding the project. The HMGP may contribute up to 75% of the total project cost, but the amount of funds available from the disaster and the number of projects selected will affect the amount awarded. During this step a meeting with appropriate program managers is recommended. This is a good way to identify the programs as well as obtain some funding commitment. It should also be noted that the committee should be looking into other financial programs from the beginning of the project development to ensure all appropriate officials are aware of the project, and all funding programs have been explored.

The Ohio EMA Mitigation Branch point-of-contact can provide samples of budgets for different type of mitigation projects.

### **Cost Effectiveness**

The most important criteria for all projects in determining whether or not it can be funded is cost effectiveness. Federal law establishes a minimum threshold that every project must meet (except 7% and 5% projects). HMGP projects must be able to show that for each dollar spent on the project, there will be at least one dollar of benefits. Said in another way, a benefit cost analysis (BCA) must show a benefit cost ratio (BCR) of 1 or above.

The Ohio EMA Mitigation Branch is responsible for performing BCAs for all HMGP projects. In order to do this, certain data must be available so it can be input into the computer program provided by FEMA to conduct BCAs. Some of this data is requested on the *Section III - Project Worksheets* when information on past flood damages is requested. **It is important that historical damage information be provided as completely and detailed as possible. In the past, project applications have had to be significantly reduced or eliminated because they were determined not to be cost effective.**

For flood mitigation projects where: 1) The mitigation option is acquisition/demolition, 2) the structure is in the 100-year floodplain, and 3) the structure was determined to be substantially damaged by the community's floodplain administrator, the substantial damage determination can be provided in lieu of a benefit cost analysis and per FEMA policy it is automatically cost-effective. This is a very powerful option; however, it means that the community's floodplain administrator must perform the duties outlined in its floodplain management regulations, which includes making substantial damage determinations.

### **Environmental Considerations**

The Ohio EMA is responsible for completing the Record of Environmental Consideration (REC). However, information necessary to complete the REC is provided by the project applicant in Section II of the HMGP Application.

This section is also where the information developed under Steps 5-8 of the 10-Step Process will be provided. Also, please keep in mind the following environmental issues or considerations:

- If the project involves the acquisition of a residential structure, it must be determined whether the use of that building was always residential. Sometimes, old buildings that were other uses (service stations, school buildings, etc.) have been converted into residences. In these instances, a hazardous materials property owner survey form must be completed. Also, if the property that is to be acquired is non-residential, the same survey form must be completed. If it is discovered that a site has underground storage tanks or requires environmental cleanup, HMGP funds cannot be used for such activities.
- There is often the need for more detailed historical information when a hazard mitigation project is taking place in an area with a large number of historical buildings (as listed on the National Register of Historic Places), in a historic neighborhood or downtown area, or in communities that might be located in special historic areas such as the Ohio & Erie Canal National Heritage Corridor.
- Projects that involve ground disturbance where it hasn't already occurred (such as relocating a building to a new site, or storm water management projects), may require significantly more environmental analysis than projects that involve retrofitting existing buildings or properties.

The Ohio EMA Mitigation Branch coordinates with several state and federal agencies in performing the environmental review.

### **Public Notice**

Public participation is required for HMGP projects under both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA). Section 106 of the NHPA states that public input should take place at all points during the development and implementation of a project, ideally as early as possible in the process. As a result, project specific public notification is required for all mitigation projects involving ground disturbance. This affects all projects with the exception of planning and study projects.

Project specific public notification should conform to local standards of public notice. In Ohio, this means usually publishing a notice in a local newspaper, or, if a newspaper is not printed or widely circulated in the project area, posting of the notice in at least five places for not less than fifteen (15) days per Ohio Revised Code Section 731.25. A public notice can take the form of an article in a newspaper, an announcement at a town meeting, a media release, a public hearing, or a general public meeting. Physical evidence that the affected public was given adequate time to study a project and respond must be included in the HMGP Application.

The most recent official public notice must have occurred within 12 months of FEMA approving the project; otherwise a notice must be reprinted.

**A sample public notice is included in the Appendices.**

## **STEP TEN - FINAL REVIEW AND SUBMISSION OF PROJECT APPLICATION**

The HMGP Application should be reviewed to ensure all required information has been provided, and the project is thoroughly defined. Review to ensure each question on the application is answered in the detail requested. Ensure maps and other attachments are included.

A letter of transmittal should be signed by community officials, attached to the project and application, and forwarded to:

Ohio Emergency Management Agency  
Steve Ferryman, Mitigation Branch Chief  
State Hazard Mitigation Officer  
2855 W. Dublin-Granville Road  
Columbus, Ohio 43235  
Email: [saferryman@dps.ohio.gov](mailto:saferryman@dps.ohio.gov)

# Tips for Completing Your Application

## TAKING AND SUBMITTING PHOTOGRAPHS

### PHOTOGRAPHING YOUR PROJECT




Photos of project structures or vacant lots are required for all hazard mitigation project applications. An application packet with good standardized photographs can help both the State Hazard Mitigation Team (SHMT) and the Federal Emergency Management Agency (FEMA) in understanding your project and may lead them to award funding to your project. The photographs are, also, necessary for completing the environmental and historic preservation reviews.

The following standards have been developed to assist you in taking and submitting photographs that are clear, discernible, and standardized. ***Projects with Photographs not submitted in the required manner will not be accepted and will require you to re-submit the photographs in the approved format prior to your application being considered.***

### HOW TO TAKE THE PHOTOGRAPHS

When taking photos for a hazard mitigation project, use a digital camera with a resolution of at least 640 x 480 dpi or greater (“Thumbnail” sized images *will not* be accepted). A minimum of five pictures are required for each structure in your project or a minimum of three for each empty lot. Try to avoid harsh lighting conditions (mid-day sun or late evening), vegetation that obscures the structure, and photos that show both bright-lit and dark-lit areas. Multiple photographs may be necessary to document the overall appearance of the structure or empty lot. If possible, a second person should be included in the photos holding up a sign with the address on it.

#### To Photograph A Building Or Structure:

-  A **minimum** of five photographs at an oblique angle as shown in the site diagram below, but don’t be afraid to shoot at any other angle to get the best shot(s) available. See Diagram A.
-  One photograph of each front elevation (facade) so that both the entire wall and the extent of the roof line appear in the image.
-  One “streetscape” or contextual view showing the building and its neighbors.

Examples of photographs from a successful application, PDMC 2006 City of Fairfield, demonstrate appropriate photos to submit.



5391 Crystal Drive #1

5391 Crystal Drive #2

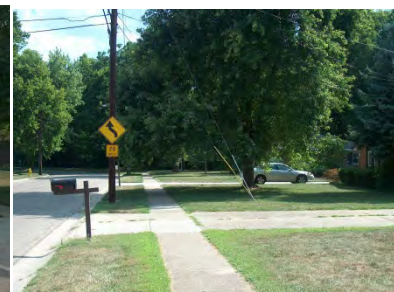
5391 Crystal Drive #3





5391 Crystal Drive #4

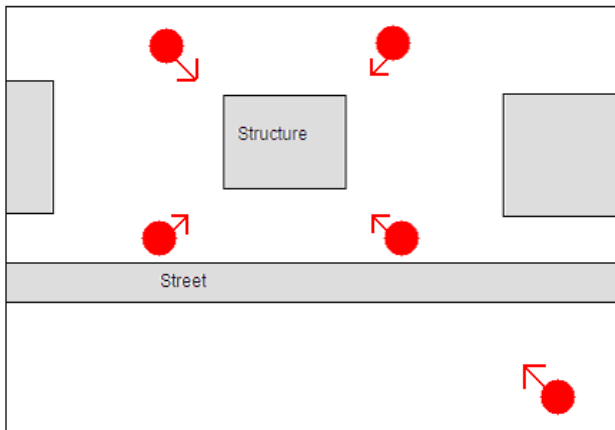


5391 Crystal Drive #5 and #6 (Streetscape Views)

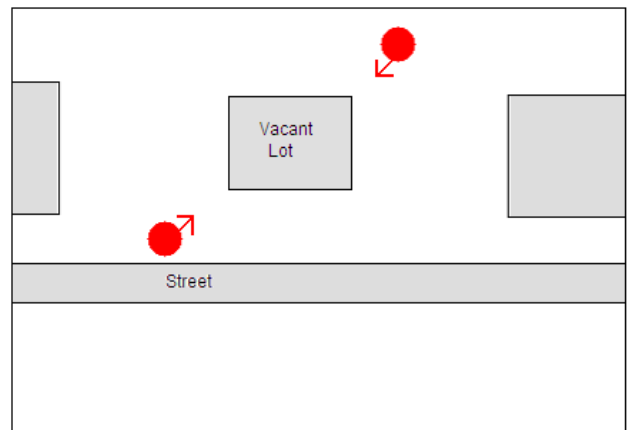


**To Photograph A Vacant Lot:**

-  A **minimum** of three photographs should be taken of each vacant lot. See Diagram B.
-  One photograph from opposite corners of the lot and one “streetscape”. Be sure that the photographs clearly show the entire lot from two angles, as shown in the site diagram below, but don’t be afraid to shoot at any other angle to get the best shot(s) available.



**Diagram A:** Illustrates five ideal location points as to photographing a structure involved in a project.



**Diagram B:** Illustrates three ideal location points as to photographing a vacant lot involved in a project.



## SAVING AND CATALOGING YOUR PHOTOGRAPHS

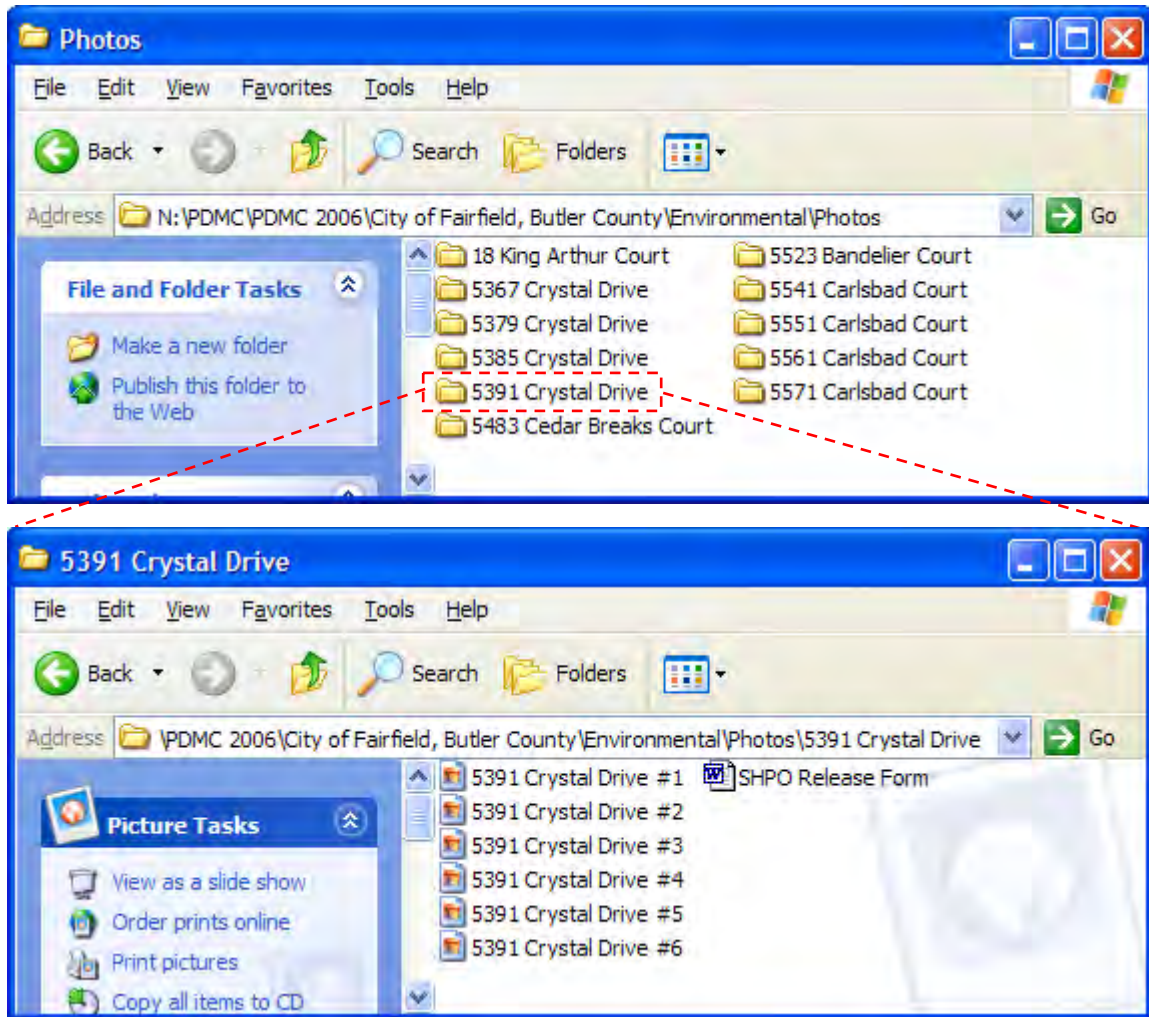
The photos must be saved in JPEG or PDF format with the street address as its name with #1, #2, #3, etc. to differentiate the photos. For example, like in the photos above, a picture would have a naming convention of:

5391 Crystal Drive #3 or 5391 Crystal Drive #7 (if more than five photos)

All the photos of the same structure or vacant lot must be placed in a file folder with the street address as its name. For example, like in the photos above, the file folder would have a naming convention of:

5391 Crystal Drive

An example of how the file folders and photos should look and be named:





## SUBMITTING YOUR PHOTOGRAPHS

The photographs for your project need to be submitted in digital format (JPEG or PDF). The photographs may either be emailed, sent via FTP site or mailed on a DVD or CD.

## TAKING LATITUDE & LONGITUDE



### REQUIREMENT

All mitigation projects are required by FEMA to be geocoded using standard datum. Coordinates must be in decimal degrees longitude and latitude with at least 6 decimal places for property locations and include a minus (-) to show west longitude.

### Example

Latitude: 40.002998  
Longitude: -83.019498

The Ohio State University football stadium "The Shoe"

## Where to obtaining Latitude & Longitude Coordinates

How to obtain latitude and longitude coordinates using Google Maps

1. On your computer, navigate to Google Maps <https://www.google.com/maps>.
2. Hover over the structure(s) or project area
3. Right-click the place or area on the map.
4. Select what's here?
5. At the bottom, you'll see a card with the Latitude and Longitude coordinates.

**APPENDIX A: AGENDA FOR PUBLIC MEETING**

<b><u>ITEM</u></b>	<b><u>TIME</u></b>	<b><u>PRESENTER</u></b>
<b>1. Introduction</b>	<b>:15</b>	<b>Local Official</b>
<b>2. Purpose of Meeting</b>	<b>:20</b>	<b>Ohio EMA – MIT</b>
a. Define Mitigation		
b. Why are we here?		
c. Review HMGP 10-Step Process		
<b>3. Define the Problem</b>	<b>:15</b>	<b>Ohio EMA – MIT</b>
a. Brainstorming with general public (Example – Sheet flow from hills, too much debris in streams too much rain)		
<b>4. List Possible Solutions</b>	<b>:15</b>	
a. Brainstorming with general public (Examples – Clear debris from streams, Do Nothing, Elevation of structures)		
<b>5. Criteria for Review</b>	<b>:10</b>	
a. Discuss criteria as a means of selecting the best solution (Examples – Cost-effective, permanent solution, good for the community)		
<b>6. Establish Mitigation Committee</b>	<b>:15</b>	
<b>If there is buy-in from the community, then establish the committee.</b>		
a. Membership should have a least one person from the impacted area		
b. Set a date and identify location for the first meeting		
<b>7. Adjourn</b>		

## APPENDIX B: AGENDA FOR FIRST COMMITTEE MEETING

The community has decided to participate in the Hazard Mitigation Grant Program (HMGP). The Committee is the voice of the community and represents the community.

	<b><u>ITEM</u></b>	<b><u>TIME</u></b>
1.	<b>Organize the Committee</b> - Administrative details	<b>:30</b>
2.	<b>Review the Problem</b> - Use the public meeting flip chart	<b>:10</b>
3.	<b>Review the Solutions</b> - Use the public meeting flip chart	<b>:10</b>
4.	<b>Review Criteria</b> - Use the public meeting flip chart - Add additional criteria if appropriate	<b>:10</b>
5.	<b>Focus on the Problem</b> - Project location - Define the problem more precisely (reduce the list)	<b>:20</b>
6.	<b>Review solutions against criteria</b> - Evaluate solutions against set criteria - Determine best solution if possible	<b>:30</b>
7.	<b>Prepare for next meeting</b> - Set date, time and location	<b>:10</b>

**APPENDIX C: SAMPLE LETTER OF COMMITMENT  
(PLEASE PLACE ON OFFICIAL LETTERHEAD)**

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As a potential sub grantee in the Hazard Mitigation Grant Program, \_\_\_\_\_(Community Name)\_\_\_\_\_ hereby commits the matching funds necessary for the \_\_\_\_\_(Project Type)\_\_\_\_\_ project located at \_\_\_\_\_(Addresses/Location)\_\_\_\_\_.

Upon FEMA project approval, \_\_\_\_\_(Community Name)\_\_\_\_\_ is responsible for \_\_\_\_\_(%)\_\_\_\_\_ of the total project cost and intends to utilize the following non-federal sources:

-In-Kind Contribution, In Kind service, in the amount of \_\_\_\_\_, available as of \_\_\_\_\_(Example) \_\_\_\_\_(Date)

-General Fund, Funds, In Kind service, in the amount of \_\_\_\_\_, available as of \_\_\_\_\_(Example) \_\_\_\_\_(Date)

-Community Development Block Grant, in the amount of \_\_\_\_\_, Funds available as of \_\_\_\_\_(Example) \_\_\_\_\_(Date)

As chief elected official(s), I/we understand the responsibilities of a sub grantee in the Hazard Mitigation Grant Program (HMGP) and hereby authorize the use of these non-federal funds for this proposed project.

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date

## **PUBLIC NOTICE REQUIREMENT INSTRUCTION FORM**

**Instructions:** Typically projects that are involved with EO 11988 (Protection of Floodplains), EO 11990 (Protection of Wetlands), preparation of an Environmental Assessment or the preparation of an Environmental Impact Statement, require that the public be consulted in the decision making process and then notified of the final conclusion. This usually takes place in the form of a public notice. **In order to be compliant with the public notice requirement, the following must be completed.**

Publish the public notice in a local/community newspaper for a minimum of 1 day. FEMA will allow for a 30-day public comment period which will take effect the day after the last notice has been published. Along with the standard verbiage detailed below, the published public notice must also refer all comments to Nicholas Mueller, Regional Environmental Officer (information referenced below).

**The following three paragraphs must be included as part of the public notice.**

---

### **Public Notice**

(Community Name), in conjunction with the Ohio Emergency Management Agency (OEMA) and the Federal Emergency Management Agency (FEMA) has applied for a Unified Hazard Mitigation Program Project for (provide project type and description - example “the acquisition and demolition of two governmental structures along the Dry Run Creek in South Lebanon, Warren County”).

Under the National Environmental Policy Act (NEPA), EO 11988 and EO 11990, public notice is required of any federal actions that affect floodplains or wetlands. All necessary permits will be obtained prior to construction and completion of the project.

The objectives of the Unified Hazard Mitigation Program are to prevent future losses of lives and property, to implement state or local Hazard Mitigation plans, to enable mitigation measures to be implemented during immediate recovery from disaster, and to provide funding for identified and approved hazard mitigation projects.

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Public participation is encouraged. Interested parties and/or citizens are invited to comment on the project either in writing to:

**Duane Castaldi, Regional Environmental Officer  
FEMA Region V  
536 South Clark Street, 6<sup>th</sup> Floor  
Chicago, IL 60605**

Or comments may be directed via e-mail to Mr. Castaldi:

[Duane.Castaldi@fema.dhs.gov](mailto:Duane.Castaldi@fema.dhs.gov)

**APPENDIX E: HAZARDOUS MATERIALS  
PROPERTY OWNER SURVEY FORM (For Non-Residential Properties)**

Owner(s) Name <i>(Must be the person(s) whose name is on the property's deed):</i>	
Street Address (Including city, state, zip) or Physical/Legal Location:	
Owner(s) Phone Number:	

As owner(s) of the above referenced property, I/we represent and certify that I/we have used due diligence to determine, to the best of my (our) knowledge, that the description of the property described herein is accurate with respect to the presence or absence of contamination from toxic or hazardous substances. The term "property" refers to the physical piece of legally recorded land that is to be acquired.

1. Is or was the property currently or previously used for governmental, commercial, light industrial or industrial activities?  Yes  No. If yes, list specific type and nature (Use additional sheets if necessary)
  
2. Are there any Aboveground Storage Tanks (AST), Underground Storage Tanks (UST), or Leaking Underground Storage Tanks (LUST) present on the property?  Yes  No. If yes, list type of each tank, capacity and condition.
  
3. Are there presently or has there been in the past any generation, treatment, storage, disposal, release, or spill of petroleum products, solid or hazardous substances and/or wastes (this includes pesticides, herbicides, or rodenticides), other than normal quantities of household substances?  Yes  No. If yes, list type of activity, substance, and quantity involved.
  
4. Is there presently or has there been in the past a transportation facility on what is now your property? This includes parking lots, railroad yards, railroad or roadway right-of-way?  Yes  No. If yes, list type of facility or activity.
  
5. Have you noticed any unusual odors or discoloration in your drinking water or on your property?  Yes  No. If yes, describe the location, color, and odor of the water.

6. For your property, is there presently or has there been in the past any:

A.) Environmental investigations conducted by Federal, State, local government agencies, or private firms?  Yes  No.

Or;

B.) Environmental or Occupational Safety and Health Administration (OSHA) citations or notices of violation?  Yes  No.

If yes, list the type of investigation or violation and the preparer or origin of the investigation or violation.

7. Are there any drinking water wells or sewage septic tanks/systems on your property, or do any of the structures contain asbestos or lead containing materials?  Yes  No. If yes, identify the location.

8. If there are any issues not raised by the previous questions, please attach an extra sheet describing any other issues.

The property owner(s) acknowledge this certification regarding hazardous substances and/or waste is a material representation of fact upon which the Hazard Mitigation Grant or Flood Mitigation Assistance program applicant and other government entities rely upon to execute the property purchase. The property owner(s) certify the information contained within this HAZARDOUS MATERIALS PROPERTY SURVEY FORM is a full disclosure of all available information to the best of their knowledge and the owner(s) has exercised due diligence in obtaining all relevant information. Failure to disclose may result in repaying all funds to the State of Ohio.

**Preparer:**

Signature: \_\_\_\_\_  
                  Typed or Printed Name

Date: \_\_\_\_\_

**Owner(s):**

Signature: \_\_\_\_\_  
                  Typed or Printed Name

Date: \_\_\_\_\_

**APPENDIX F: SAMPLE MAINTENANCE AGREEMENT LETTER  
(PLEASE PLACE ON OFFICIAL LETTERHEAD)**

Ohio Emergency Management Agency  
Mitigation Branch  
2855 West Dublin Granville Rd.  
Columbus, OH 43235

The City of Anywhere Parks Department will maintain the property acquired through the Hazard Mitigation Grant Program, title of project. The property will be maintained as open space in perpetuity. It is understood the property shall be used only for purposes compatible with open space, recreational or wetlands management practices, in accordance with deed restrictions.

The estimated annual cost to maintain each acquired property is \$\_\_\_\_\_.

As chief elected official(s), I/we understand the responsibilities of a sub grantee in maintaining the project sites in accordance Hazard Mitigation Grant Program (HMGP) guidance.

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date



## **APPENDIX G: CREATING A FIRMette**

A FIRMette is a full-scale section of a FEMA Flood Insurance Rate Map (FIRM) that you create yourself online by selecting the desired area from an image of a Flood Insurance Rate Map. The FIRMette also includes the map title block, north arrow, and scale bar. There is no charge for making a FIRMette. And because a FIRMette is a full-scale section of an official FEMA Flood Insurance Rate Map, it can be used in all aspects of the NFIP, including floodplain management, flood insurance, and enforcement of mandatory flood insurance purchase requirements.

FIRMette Web Address:

**<https://msc.fema.gov/portal/>**

The Ohio Department of Natural Resources – Floodplain Management Program can assist you with locating the FIRM map for your project area. They can be contacted at 614-265-6750 or through their website at:

<http://water.ohiodnr.gov/water-use-planning/floodplain-management>.

## APPENDIX H: FLOOD ZONE DESIGNATION DEFINITIONS

Flood zones are geographic areas that the FEMA has defined according to varying levels of flood risk. These zones are depicted on a community's Flood Insurance Rate Map (FIRM) or Flood Hazard Boundary Map. Each zone reflects the severity or type of flooding in the area.

### Moderate to Low Risk Areas

In communities that participate in the NFIP, flood insurance is available to all property owners and renters in these zones:

ZONE	DESCRIPTION
<b>B and X (shaded)</b>	Area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. B Zones are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
<b>C and X (unshaded)</b>	Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone C may have ponding and local drainage problems that don't warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood.

### High Risk Areas

In communities that participate in the NFIP, mandatory flood insurance purchase requirements apply to all of these zones:

ZONE	DESCRIPTION
<b>A</b>	Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
<b>AE</b>	The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.
<b>A1-30</b>	These are known as numbered A Zones (e.g., A7 or A14). This is the base floodplain where the FIRM shows a BFE (old format).
<b>AH</b>	Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.

<b>AO</b>	River or stream flood hazard areas, and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Average flood depths derived from detailed analyses are shown within these zones.
<b>AR</b>	Areas with a temporarily increased flood risk due to the building or restoration of a flood control system (such as a levee or a dam). Mandatory flood insurance purchase requirements will apply, but rates will not exceed the rates for unnumbered A zones if the structure is built or restored in compliance with Zone AR floodplain management regulations.
<b>A99</b>	Areas with a 1% annual chance of flooding that will be protected by a Federal flood control system where construction has reached specified legal requirements. No depths or base flood elevations are shown within these zones.

#### Undetermined Risk Areas

<b>ZONE</b>	<b>DESCRIPTION</b>
<b>D</b>	Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk.



# Hazard Mitigation Assistance Grant Program Application Scoring

Applicant:  County:

Federal Amount Requested:  Score:  Rank:

**Project Types (Select One):**

Acquisition   
  Elevation   
  Safe Room   
  Stormwater   
  Other

**Site Specifics section is completed by the Ohio EMA Mitigation Staff**

Site Specifics	Possible Points	Point Received
<b>Acquisition &amp; Elevation Projects</b>		
<b>Does the project mitigate a structure or structures which are?</b>		
Severe Repetitive Loss HMA or NFIP <span style="color: red; font-weight: bold;">CHOOSE</span>	<b>3</b>	
Repetitive Loss HMA or NFIP <span style="color: red; font-weight: bold;">ONE</span>	<b>2</b>	
Located in a Floodway (acquisition only)	<b>3</b>	
Located in a mapped Special Flood Hazard Area (< 50%)	<b>1</b>	
Substantially Damaged (determination letter required)	<b>3</b>	
Critical facilities (per HMA guidance definition)	<b>1</b>	
Impacted by two or more flood events in the past 10 years	<b>1</b>	
<b>Does the project?</b>		
Reduce the need for emergency services during disasters	<b>1</b>	
Provide a permanent solution to flooding impacts	<b>1</b>	
Restore floodplains and/or wetlands	<b>1</b>	
Provide a plan for re-use of the property (other than vacant)	<b>1</b>	
Include structures which have flood insurance (< 50%)	<b>1</b>	
Occur in the declared area (HMGP Only)	<b>1</b>	

Site Specifics		Possible Points	Point Received
<b>Community Safe Room</b>			
<b>Does the project?</b>			
Provide protection to a large population (100+ persons)		<b>2</b>	
Provide protection for vulnerable populations i.e. schools, recreational parks, camps, mobile home parks, etc.		<b>2</b>	
Provide a safe room that is accessible 24 hours a day		<b>1</b>	
Have an identified dual-use		<b>1</b>	
Have a dual-use which is beneficial to the community		<b>1</b>	
Contain areas impacted by two or more wind events in the past ten years		<b>1</b>	
Occur in the declared area (HMGP Only)		<b>1</b>	
<b>Stormwater</b>			
<b>Does the project?</b>			
Have an identified maintenance schedule		<b>1</b>	
Include area impacted by two or more flood events in the past 10 years		<b>1</b>	
Protect critical facilities (per HMA guidance definition)		<b>1</b>	
Protect 10 or less structures <b>Choose</b>		<b>1</b>	
Protect 10 or greater structures <b>One</b>		<b>2</b>	
Occur in the declared area (HMGP Only)		<b>1</b>	
Restore floodplains and/or wetlands		<b>1</b>	
Have multiple objectives such as flood damage reduction, environmental enhancement, or economic recovery		<b>1</b>	
<b>Other (Soil Stabilization, Flood proofing, Retrofit, Etc.)</b>			
<b>Does the project?</b>			
Protect critical facilities (per HMA guidance definition)		<b>2</b>	
Occur in the declared area (HMGP Only)		<b>1</b>	
Restore floodplains and/or wetlands		<b>2</b>	
<b>SUB-TOTAL</b>			

# Project Benefits

## State Hazard Mitigation Team Scoring

The following scoring is based upon the expertise of and discussion by the State Hazard Mitigation Team members. The SHMT will discuss and score the proposed projects using a .5 point scale using the following criteria as a guide.

### Societal Factors (Maximum 2 points)

1. The reduction of the overall risk to people and structures.
2. The use of innovative approaches or measures to accomplish mitigation.

### Economic Factors (Maximum 2 points)

1. The amount of staff or resources dedicated to manage the grants.
2. Is this a good use of the existing limited funds?

### Other Factors (Maximum 2 points)

1. The leveraging partnerships with agencies or private non-profits to accomplish mitigation.
2. Does this proposed project provide additional value based upon my professional judgement?

### Factor Weights

Societal Factors Weight = 40, Economic Factors Weight = 35, Other Factors Weight = 30

**Total Weighted SHMT Score**

**Total Site Specific Score**

**Total Combined Score**

**Comments:**



**Department of  
Public Safety**

Mike DeWine, Governor  
Jon Husted, Lt. Governor

Thomas J. Stickrath, Director  
Sima S. Merick, Executive Director



August 19, 2021

Mr. Robert Fonte  
Stark County Park District  
5300 Tyner Street NW  
Canton, OH 44708

Dear Mr. Fonte:

On August 5, 2019 FEMA notified Ohio EMA the Stark County Park District Acquisition/Demolition Project is eligible under the Hazard Mitigation Grant Program (HMGP) as result of federal declaration FEMA-DR-4507-OH.

This project is for the acquisition and demolition of up to nineteen residential structures located along Zimber Ditch/Nimishillen Creek. The project will be awarded in increments 1 and 2. Federal funding for increment 1 in the amount of \$556,781.00 has been obligated. The local cost share for increment 1 of this grant is \$185,593.00 and is being met with \$92,797.00 in state funds and \$92,797.00 in local funds. Steve Ferryman, State Hazard Mitigation Officer, will be contacting you to schedule a meeting to explain the program implementation requirements.

I congratulate Stark County Park District for its commitment to hazard mitigation projects. I wish you success in your mitigation efforts to reduce or eliminate future losses from natural hazards.

Sincerely,

**SIMA S. MERICK**  
Executive Director

SSM/sr

cc: Representative Kirk Schuring  
Sarah Buell, Project Manager, Stark County Park District  
Kristine Griffith, Project Coordinator, Stark County Park District  
Dan Kolcum, Assistant Director, Ohio EMA  
Steve Ferryman, Ohio EMA, State Hazard Mitigation Officer  
Tim Wartsler, Director, Stark County EMA



STATE-LOCAL GRANT AGREEMENT  
HAZARD MITIGATION GRANT PROGRAM - CFDA 97.039  
FEMA-DR-4507-OH  
DECLARED (03/31/20)  
**(7% HMGP PLANNING GRANT)**

This Grant Agreement (the “Agreement”) is made and entered into by, and between, the **State of Ohio, Department of Public Safety, Ohio Emergency Management Agency**, located at 2855 West Dublin-Granville Road, Columbus, Ohio 43235-2712 (herein referred to as the “Recipient”); and, the [Name of Subrecipient], [County Name], located at [Enter Full Address] (herein referred to as the “Subrecipient”).

**This agreement will be in effect for the period beginning [Enter Date and Year] and ending [Enter Date and Year NOT TO EXCEED 24 MONTHS].**

1. Pursuant to section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 United States Code 5121, et, seq., as amended, and 44 Code of Federal Regulations Part 206 local governments are required to develop a hazard mitigation plan as a prerequisite for receiving Hazard Mitigation Grant Program funding for project development.
2. Pursuant to the provisions of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 USC 5121, et. seq. (“Stafford Act”) as amended, the Federal Emergency Management Agency (“FEMA”) has been authorized by Congress to make grants to states to mitigate natural disasters. The Ohio Emergency Management Agency (“Ohio EMA”), has received grant funds for that purpose.
3. The Ohio Emergency Management Agency has been designated as the Recipient to receive, administer, and disburse FEMA mitigation funds for local government mitigation activities in areas of Ohio and to provide technical assistance with the Hazard Mitigation Grant Program (HMGP). The HMGP is authorized by Section 404 of the Stafford Act, Public Law 93-288. Recipient shall monitor and evaluate the implementation of mitigation activities and control the disbursement of HMGP funds from FEMA.
4. **[ENTER NAME OF SUBRECIPIENT]**, is the Subrecipient and has submitted an application, which is incorporated herein by reference, to the Recipient setting forth a list of activities (herein referred to individually as “Project”). The Recipient and FEMA have approved the Project along with any exceptions that have been made prior to signing of this agreement. The Subrecipient agrees to complete the Project within two years of FEMA approval, unless a time extension is granted by the Recipient.
5. Subrecipient shall participate in the development of, and shall coordinate and monitor the implementation of the local hazard mitigation measures; and shall regulate and control development within hazard areas.



6. Subrecipient has the legal authority to accept mitigation funds and shall provide all necessary financial and managerial resources to meet the terms and conditions of receiving federal and state mitigation funds. The financial management system must comply with 2 Code of Federal Regulations (CFR) Part 200 and Auditor of State Bulletin 99-05.
7. Subrecipient hereby agrees that grant funds shall be used solely for undertaking and completing a hazard mitigation plan and that the expenditure of grant funds shall be supported by contracts, invoices, vouchers, paid receipts and other documentation, as appropriate, evidencing the actual costs incurred by the Subrecipient. Cost incurred prior to the complete execution of this Agreement are not allowable, unless specifically authorized by the Recipient. Only those costs, which are allowable as defined in 2 CFR Part 200, will be paid. All fund funds received by the Subrecipient pursuant to this Agreement shall be deposited in a separate, non-interest bearing account specifically designed for this Project or accounted for separately by the Subrecipient:
  - a. This Grant Agreement in the amount of **\$(Enter Total Amount)**  
  
("Funds") will serve as the contract between the Recipient, Ohio EMA and the Subrecipient for the purpose of the approved project. This grant amount represents the total Federal, State and Local share of the cost of the Project plus in-direct management cost allowance as described below.
  - b. Total estimated cost of the mitigation project is           **\$ 0.00**  
Total HMGP (Federal) contribution is:                               **\$ 0.00**  
**Total State of Ohio contribution is:                               \$ 0.00**  
Local contribution:   **\$ 0.00**
  - c. Subrecipient agrees to provide the necessary local cost share as required by 2 CFR Parts 200.306 and 200.434. The funding will be available within the specified period of time for completion of the Project. Documentation of the use of the local cost share is required.
  - d. Obligations of Recipient are subject to provisions of Section 126.07 of the Ohio Revised Code.
8. Subrecipient shall return to Recipient any HMGP funds, which are not supported by audit or other federal or state review of documentation maintained by the Subrecipient. (2 CFR Part 200-Subpart F)
9. Subrecipient shall maintain records for the period set forth in 2 CFR Part 200.333 and shall give access to said records in accordance with 2 CFR Part 200.336.
10. Subrecipient shall comply with all applicable state and local ordinances, laws, regulations, building codes and standards applicable to this Project.
11. Subrecipient shall comply with 2 CFR Part 200.318 in all procurements, including the contract provisions found in 2 CFR Parts 200.319 thru 200.326. In particular,

- a. Subrecipient shall comply, as applicable, with provisions of federal laws and regulations pertaining to labor standards, and the State of Ohio Prevailing Wages laws and regulations.
  - b. Subrecipient shall not enter into any contract with any party which is debarred or suspended from participating in federal assistance programs, or is otherwise ineligible pursuant to E.O. 12549, Debarment and Suspension, as implemented at 44 CFR Part 67.
12. Subrecipient has read, understands, and shall comply with the State of Ohio Audit Requirements/Compliance Standards (attached), and 2 CFR Part 200 Subpart F – Audit Requirements.
13. Subrecipient shall submit to the Recipient quarterly progress reports (QPR), due the 15<sup>th</sup> day of the month following the end of the quarter on the following schedule:
- a. 

January – March	Due April 15
April – June	Due July 15
July – September	Due October 15
October – December	Due January 15
  - b. Failure to provide the required reports will result in suspension of grant funds until the required reports are provided and approved by the Recipient.
14. Obligations are to be met by the Subrecipient for the payment of grant funds.
- a) Upon receipt of a fully-executed Agreement, Notice of Award, Notice of Authorized Agent, Internal Revenue Service form W-9 and a list of all persons participating as Core Group members with their associated agency or company the Recipient shall advance 10% of the Federal share of the total project cost to Subrecipient to start the Project.
  - b) Upon receipt of a completed hazard identification, risk assessment, hazard profile and analysis, loss estimate, problem identification, established goals and action plans, analysis, which is accepted by the Mitigation Branch of the Ohio EMA and which has been forwarded to the FEMA Region V, the Subrecipient shall be entitled to reimbursement of 40% of the Federal share of the total project cost. Payment shall be issued as reimbursement for actual expenses and is contingent upon receipt of quarterly financial and narrative reports and demonstration of the local matching share.
  - c) Upon receipt of a draft hazard mitigation plan which has incorporated all reviewer comments on the document previously provided, which is accepted by the Mitigation Branch of the Ohio EMA and which has been forwarded to the FEMA Region V, Subrecipient shall be entitled to reimbursement of 25% of the Federal share of the total project cost. Payment shall be issued as reimbursement for actual expenses and is contingent upon receipt of quarterly financial and narrative reports and demonstration of the local matching share.

- d) Upon receipt of a final and adopted hazard mitigation plan, which has incorporated all reviewer comments on the documents previously provided and which is accepted by the Mitigation Branch of the Ohio EMA the Mitigation Branch will forward the final plan to the FEMA for approval. Upon FEMA approval, the Subrecipient, or their designee, must update the State of Ohio Mitigation Web Portal (State Hazard Analysis Resource and Planning Portal, herein referred to as “SHARPP”) with all relevant information from the new or updated local hazard mitigation plan.
- e) The Subrecipient shall be entitled to reimbursement of the final 25% of the Federal share of the total project cost after the plan is approved by FEMA and SHARPP has been updated with pertinent information from the updated plan. Payment shall be issued as reimbursement for actual expenses and is contingent upon receipt of quarterly financial and narrative reports and demonstration of the local matching share.

15. Noncompliance (2 CFR PART 200.338)

- a. If the Subrecipient fails to comply with the terms of the award, whether stated in a federal statute or regulation, an assurance, in a state plan or application, a notice of award, or elsewhere, the awarding agency may take one or more of the following actions, as appropriate in the circumstances:
  - 1) Temporarily withhold cash payments pending correction of the deficiency;
  - 2) Disallow all or part of the cost of the activity or action not in compliance;
  - 3) Wholly or partly suspend or terminate the current award for the program;
  - 4) Withhold further awards for the program;
  - 5) Take other remedies that may be legally available.
- b. In taking an action to remedy noncompliance, the awarding agency and/or the Recipient will provide an opportunity for such hearing, appeal, or other administrative proceeding to which the Recipient or Subrecipient is entitled under any statute or regulation applicable to the action involved.
- c. Costs resulting from obligations incurred by the Subrecipient during a suspension or after termination of an award are not allowable unless the awarding agency expressly authorizes them in the notice of suspension or termination. Other costs during suspension or after termination which are necessary and not reasonably avoidable are allowable if:
  - 1) The costs result from obligations which were properly incurred before the effective date of suspension or termination, are not in anticipation of it, and, in the case of a termination, are not cancelable, and,
  - 2) The costs would be allowable if the award were not suspended or expired normally at the end of the funding period in which the termination takes place.

16. CLOSE-OUT (2 CFR PART 200.343)

- a. Subrecipient will notify the Recipient as soon as the Project has been completed, and will provide a Final Progress Report and financial report within 30 days. Recipient will conduct a final site visit within 30 days of receiving the final progress report and financial report, and provide the Subrecipient with a their findings within 30 days of the visit. The findings will outline the results of the site visit and in particular any upward or downward adjustment to allowable costs.
- b. Subrecipient will immediately refund any balance of un-obligated cash advanced that is not authorized to be retained for use on other grants.
- c. The closeout of the grant does not affect the right of the awarding agency to disallow costs and recover funds on the basis of a later audit or other review, the obligation to return any funds due as a result of later refunds, corrections, or other transactions, records retention as required in 2 CFR Part 200.333, property management requirements in Parts 200.311 and 200.312, and audit requirements in Part 200 Subpart F-Audit Requirements.
- d. Any funds not returned within a reasonable period of time after request, may result in an administrative offset against other requests for assistance, withholding advance payments otherwise due, and other action permitted by law.

17. AUDIT REQUIREMENTS (2 CFR 200 Subpart F)

In accordance with the Single Audit Act of 1984 as amended and 2 CFR 200, the following procedures will assure compliance with those standards in the administration of the HMGP to eligible Subrecipients:

- a. The Governor's Authorized Representative (GAR) will provide the Auditor of State a listing of all State agencies and local governments which have been approved to receive Federal funds under the HMGP. This will serve as notice to State field examiners to inquire about the funds at the time of the respective Subrecipients single audit, ensuring at a minimum, the inclusion of those funds in the Audit Report's "Schedule of Federal Financial Assistance".
- b. The Subrecipient has the obligation to comply with all applicable rules and regulations of the HMGP, to include 2 CFR 200. If the applicant desires copies of 2 CFR 200 they are available from the County and/or State Auditor's Office.
- c. The Single Audit Act of 1984 as amended requires local governments, state agencies/departments, and private non-profit organizations expending a total of \$750,000.00 or more in federal financial assistance in any fiscal year to have a single audit performed.

Those local governments, state agencies/departments, or private non-profit organizations expending less than \$750,000.00 in federal financial assistance must supply the GAR with a letter from a clerk/treasurer, for each fiscal year HMGP funds are received, certifying that status.

- d. Audit reports must be sent to the GAR by the Subrecipient within one (1) month of Audit Report publication. Failure to do so, without reasonable justification, could result in suspension of any further advances of funds or final reimbursement by the GAR under the HMGP.
- e. If during any single audit the Subrecipient has been informed of non-compliance findings regarding this program, the Subrecipient shall verbally notify the GAR immediately and prior to publication of the Audit Report.
- f. The Subrecipient will correct the finding(s) within thirty (30) days of written notification of non-compliance, if not sooner, and notify the GAR in writing of the actions taken.
- g. Findings against the Subrecipient remaining uncorrected by the Subrecipient will be deducted from the applicant's final reimbursement by the GAR in the amount of funds questioned in the Audit Report. If the GAR has already dispersed final settlement, and a subsequent audit report identifies non-compliance by the Subrecipient, collection proceedings will be initiated by the GAR against the Subrecipient in the amount of the questioned costs.
- h. Throughout the lifetime of the HMGP, it is the responsibility of the Subrecipient to inform the State (or private) examiner of their participation in this program at the time of their respective single audits.
- i. The GAR will receive a listing from the State Auditor's Office of any regular or single audits completed for each Subrecipients jurisdiction/organization. The audits will not be forwarded to the GAR, this is an administrative requirement for each Subrecipient to complete.
- j. The GAR will review each audit report received to assure that:
  - 1. If applicable, the grant(s) received that fiscal year are included in the "Schedule for Federal Financial Assistance" portion of the Audit Report, and that the report properly addresses the HMGP, as required under the Single Audit Act and appropriate OMB guidance;
  - 2. Any of the program activities, which may have been tested by the State Examiner are in compliance with all regulations pertaining to the HMGP and single audit requirements;
  - 3. Audit findings against the Subrecipient pertaining to this grant will be rectified within thirty (30) days of receipt of the Audit Report by the Subrecipient, either with guidance from, or, established by the State.
- k. From the onset of application approval, the GAR will work closely with the Subrecipient to include site mid-program reviews and inspections of completed, approved projects by the GAR.

STATE OF OHIO  
HAZARD MITIGATION GRANT PROGRAM (HMGP)  
GRANT AGREEMENT

IN WITNESS WHEREOF, the parties hereto have executed this Grant Agreement on the day and year set forth below:

SUBRECIPIENT – [NAME OF SUBRECIPIENT], [ENTER COUNTY]

\_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_ Date \_\_\_\_\_

RECIPIENT

\_\_\_\_\_  
Sima S. Merick, Executive Director Date \_\_\_\_\_  
Ohio Emergency Management Agency



**STATE-LOCAL GRANT AGREEMENT  
HAZARD MITIGATION GRANT PROGRAM - CFDA 97.039  
FEMA-DR-(XXXX)-OH  
DECLARED (XXXX XX, XXXX)**

This Grant Agreement (the “Agreement”) is made and entered into by, and between, the State of Ohio, Department of Public Safety, Ohio Emergency Management Agency, located at 2855 West Dublin-Granville Road, Columbus, Ohio 43235-2712 (herein referred to as the “Recipient”); and, **(Sub-recipient)**, located at **(Street Address)**, **(City)**, **(State)** **(Zip Code)** (herein referred to as the “Sub-recipient”).

**This agreement will be in effect for the period beginning (Approval Date) and ending (Date=18 months from approval date).**

1. Pursuant to the provisions of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 USC 5121, et. seq. (“Stafford Act”) as amended, the Federal Emergency Management Agency (“FEMA”) has been authorized by Congress to make grants to states to mitigate natural disasters. The Ohio Emergency Management Agency (“Ohio EMA”), has received grant funds for that purpose.
2. The Ohio Emergency Management Agency has been designated as the Recipient to receive, administer, and disburse FEMA mitigation funds for local government mitigation projects in areas of Ohio and to provide technical assistance with the Hazard Mitigation Grant Program (HMGP). The HMGP is authorized by Section 404 of the Stafford Act, Public Law 93-288. Recipient shall monitor and evaluate the implementation of mitigation projects and control the disbursement of HMGP funds from FEMA.
3. **(Sub-recipient Name)**, **(County)** is the Sub-recipient and has submitted an application, which is incorporated herein by reference, to the Recipient setting forth a list of activities (herein referred to individually as “Project”). The Recipient and FEMA have approved the Projects along with any exceptions that have been made prior to signing of this agreement. The Sub-recipient agrees to complete the Project within two years of FEMA approval, unless a time extension is granted by the Recipient.
4. Sub-recipient shall participate in the development of, and shall coordinate and monitor the implementation of the local hazard mitigation measures; and shall regulate and control development within hazardous areas.
5. Sub-recipient has the legal authority to accept mitigation funds and shall provide all necessary financial and managerial resources to meet the terms and conditions of receiving federal and state mitigation funds. The financial management system must comply with 2 Code of Federal Regulations (CFR) Part 200 and Auditor of State Bulletin 99-05.
6. Sub-recipient shall use the mitigation funds solely for the approved scope of work in the Project. Only those costs, which are allowable as defined in 2 CFR 200 will be paid:

a. This Grant Agreement for increment 1 in the amount of **[\$[Enter Total Amount]** (“Funds”) will serve as the contract between the Recipient, Ohio EMA and the Sub-recipient for the purpose of the approved project. This grant amount represents the total Federal, State and Local share of the cost of increment 1 of the Project.

b. Total estimated cost of increment 1 of the mitigation project is **\$ 000,000.00**  
Total HMGP (Federal) contribution is: **\$ 000,000.00**  
Total State of Ohio contribution is: **\$ 000,000.00**  
Local contribution: **\$ 000,000.00**

c. Sub-recipient agrees to provide the necessary local cost share as required by 2 CFR Parts 200.306 and 200.434. The funding will be available within the specified period of time for completion of the Project. Documentation of the use of the local cost share is required.

d. Obligations of Recipient are subject to provisions of Section 126.07 of the Ohio Revised Code.

7. Sub-recipient shall return to Recipient any HMGP and State funds, which are not supported by audit or other federal or state review of documentation maintained by the Sub-recipient. (2 CFR Part 200-Subpart F)

8. Sub-recipient shall maintain records for the period set forth in 2 CFR Part 200.333 and shall give access to said records in accordance with 2 CFR Part 200.336.

9. Sub-recipient shall comply with all applicable state and local ordinances, laws, regulations, building codes and standards applicable to this Project.

10. Sub-recipient agrees to maintain good standing with the National Flood Insurance Program (NFIP) and comply with local regulations pertaining to the NFIP; and agrees to bring into NFIP compliance all structures identified through Community Assistance Visits (CAV’s) to the maximum extent possible. Failure to enforce NFIP requirements for all development in identified flood hazard areas will result in the Sub-recipient repaying the HMGP and state funds related to the Project.

11. Sub-recipient shall comply with 2 CFR Part 200.318 in all procurements, including the contract provisions found in 2 CFR Parts 200.319 thru 200.326. In particular,

a. Sub-recipient shall comply, as applicable, with provisions of federal laws and regulations pertaining to labor standards, and the State of Ohio Prevailing Wages laws and regulations.

b. Sub-recipient shall not enter into any contract with any party which is debarred or suspended from participating in federal assistance programs, or is otherwise ineligible pursuant to E.O. 12549, Debarment and Suspension, as implemented at 44 CFR Part 67.

12. Sub-recipient has read, understands, and shall comply with the State of Ohio Audit Requirements/Compliance Standards (attached), and 2 CFR Part 200 Subpart F – Audit Requirements.

13. Sub-recipient shall submit to the Recipient quarterly progress reports (QPR), due the 15<sup>th</sup> day of the month following the end of the quarter on the following schedule:

a. January – March	Due April 15
April – June	Due July 15
July – September	Due October 15



October – December

Due January 15

- b. Failure to provide the required reports will result in suspension of grant funds until the required reports are provided and approved by the Recipient.

14. Prior to project close-out, the sub-recipient is responsible for entering project summary data into the State Hazard Analysis Resource and Planning Portal (SHARPP). Examples of data to be entered into SHARPP include but are not limited to: property photos, copies of deed restrictions, project financial information, latitude/longitude of mitigated properties etc. The Sub-recipient also agrees to utilize SHARPP to monitor properties acquired with Hazard Mitigation Assistance funds to ensure compliance with open space requirements.

15. DEED RESTRICTIONS

Sub-recipient agrees to the following assurance for projects, which involve acquisition and relocation:

- a. The following restrictive covenants shall be conveyed in the deed to any property acquired, accepted, or from which structures are removed:

- 1) The property shall be dedicated and maintained in perpetuity for uses compatible with open space, recreational, or wetlands management practices; and,

- 2) No new structure(s) will be built on the property except as indicated below:

- a. A public facility that is open on all sides and functionally related to a designated open space or recreational use:

- b. A rest room; or

- c. A structure that is compatible with open space, recreational, or wetland management usage and proper floodplain management policies and practices, which the FEMA V Regional Administrator approves in writing before the construction of the structure begins.

- 3) After completion of the project, no application for additional disaster assistance will be made for any purpose with respect to the property to any Federal or State entity or source, and no Federal or State entity or source will provide such assistance.

- a. In general, allowable open space, recreational, and wetland management uses include: parks for outdoor recreational activities; nature reserves; cultivation; grazing; camping except where adequate warning time is not available to allow evacuation; temporary storage in the open of wheeled vehicles which are easily movable (except mobile homes and recreational vehicles); unimproved, previous parking lots; and buffer zones.

- b. Any structures built on the property according to A. above, shall be floodproofed or elevated to the 100-year Base Flood Elevation plus one foot of freeboard.

- c. Title to the property may be transferred only to another governmental entity, with the approval of the Recipient and the FEMA V Regional Administrator. The Sub-recipient will retain all development rights to the land.

16. Sub-recipient shall comply with all applicable federal, state and local ordinance, laws, regulations, requirements, labor standards, building codes and standards as pertains to this project and identified in 2 CFR Part 200, and agrees to provide maintenance as appropriate.

17. NONCOMPLIANCE (2 CFR PART 200.338)

a. If the Sub-recipient fails to comply with the terms of the award, whether stated in a federal statute or regulation, an assurance, in a state plan or application, a notice of award, or elsewhere, the awarding agency may take one or more of the following actions, as appropriate in the circumstances:

- 1). Temporarily withhold cash payments pending correction of the deficiency;
- 2) Disallow all or part of the cost of the activity or action not in compliance;
- 3) Wholly or partly suspend or terminate the current award for the program;
- 4) Withhold further awards for the program;
- 5) Take other remedies that may be legally available.

b. In taking an enforcement action, the awarding agency and/or the Recipient will provide an opportunity for such hearing, appeal, or other administrative proceeding to which the Recipient or Sub-recipient is entitled under any statute or regulation applicable to the action involved.

c. Costs resulting from obligations incurred by the Sub-recipient during a suspension or after termination of an award are not allowable unless the awarding agency expressly authorizes them in the notice of suspension or termination. Other costs during suspension or after termination which are necessary and not reasonably avoidable are allowable if:

- 1). The costs result from obligations which were properly incurred before the effective date of suspension or termination, are not in anticipation of it, and, in the case of a termination, are not cancelable, and,
- 2) The costs would be allowable if the award were not suspended or expired normally at the end of the funding period in which the termination takes place.

18. ENVIRONMENTAL COMPLIANCE

a. Sub-recipient will comply with FEMA Directive 108-1, National Environmental Policy Act (NEPA), and other federal and state environmental laws and regulations in the implementation of the Project. The Recipient will provide the Sub-recipient with a signed copy of the Record of Environmental Considerations (REC) and supporting letters and documentation as soon as FEMA approves the project. The REC will identify any special conditions placed on the project that may impact demolition activities, the elevation of any structures, underground storage tanks, cutting of trees or removal of fences or vegetation and disposal of any materials in approved dump sites and so on.

b. Failure to comply with any environmental condition or requirement will result in the Sub-recipient reimbursing to the Recipient any federal or state funds expended on a property where environmental non-compliance has occurred.

19. CLOSE-OUT (2 CFR 200.343)

- a. Sub-recipient will notify the Recipient as soon as the Project has been completed, and will provide a Final Progress Report and financial report within 30 days. Recipient will conduct a final site visit within 30 days of receiving the final progress report and financial report, and provide the Sub-recipient with a their findings within 30 days of the visit. The findings will outline the results of the site visit and in particular any upward or downward adjustment to allowable costs.
- b. Sub-recipient will immediately refund any balance of un-obligated cash advanced that is not authorized to be retained for use on other grants.
- c. The closeout of the grant does not affect the right of the awarding agency to disallow costs and recover funds on the basis of a later audit or other review, the obligation to return any funds due as a result of later refunds, corrections, or other transactions, records retention as required in 2 CFR Part 200.333, property management requirements in Parts 200.311 and 200.312, and audit requirements in Part 200 Subpart F-Audit Requirements.
- d. Any funds not returned within a reasonable period of time after request, may result in an administrative offset against other requests for assistance, withholding advance payments otherwise due, and other action permitted by law.

## 20. AUDIT REQUIRMENTS (44 CFR 200 Subpart F)

In accordance with the Single Audit Act of 1984 as amended and 2 CFR 200, the following procedures will assure compliance with those standards in the administration of the Hazard Mitigation Grant Program (HMGP) to eligible Sub-recipients, pursuant to a Presidential Declaration of major disaster in the State of Ohio.

- a. The Governor's Authorized Representative (GAR) will provide the Auditor of State a listing of all State agencies and local governments which have been approved to receive Federal funds under the HMGP. This will serve as notice to State field examiners to inquire about the funds at the time of the respective Sub-recipients single audit, ensuring at a minimum, the inclusion of those funds in the Audit Report's "Schedule of Federal Financial Assistance".
- b. The Sub-recipient has the obligation to comply with all applicable rules and regulations of the HMGP, to include 2 CFR 200. If the applicant desires copies of 2 CFR 200 they are available from the County and/or State Auditor's Office.
- c. The Single Audit Act of 1984 as amended requires local governments, state agencies/departments, and private non-profit organizations expending a total of \$750,000.00 or more in federal financial assistance in any fiscal year to have a single audit performed.

Those local governments, state agencies/departments, or private non-profit organizations expending less than \$750,000.00 in federal financial assistance must supply the GAR with a letter from a clerk/treasurer, for each fiscal year HMGP funds are received, certifying that status.

- d. Audit reports must be sent to the GAR by the Sub-recipients within one (1) month of Audit Report publication. Failure to do so, without reasonable justification, could result in suspension of any further advances of funds or final reimbursement by the GAR under the HMGP.
- e. If during any single audit the Sub-recipient has been informed of non-compliance findings regarding this program, the Sub-recipient shall verbally notify the GAR immediately and prior to publication of the Audit Report.

- f. The Sub-recipients will correct the finding(s) within thirty (30) days of written notification of non-compliance, if not sooner, and notify the GAR in writing of the actions taken.
- g. Findings against the Sub-recipient remaining uncorrected by the Sub-recipient will be deducted from the applicant's final reimbursement by the GAR in the amount of funds questioned in the Audit Report. If the GAR has already dispersed final settlement, and a subsequent audit report identifies non-compliance by the Sub-recipient, collection proceedings will be initiated by the GAR against the Sub-recipient in the amount of the questioned costs.
- h. Throughout the lifetime of the HMGP, it is the responsibility of the Sub-recipient to inform the State (or private) examiner of their participation in this program at the time of their respective single audits.
- i. The GAR will receive a listing from the State Auditor's Office of any regular or single audits completed for each Sub-recipients jurisdiction/organization. The audits will not be forwarded to the GAR, this is an administrative requirement for each Sub-recipient to complete.
- j. The GAR will review each audit report received to assure that:
  - 1. If applicable, the grant(s) received that fiscal year are included in the "Schedule for Federal Financial Assistance" portion of the Audit Report, and that the report properly addresses the HMGP, as required under the Single Audit Act and appropriate OMB guidance;
  - 2. Any of the program activities, which may have been tested by the State Examiner are in compliance with all regulations pertaining to the HMGP and single audit requirements;
  - 3. Audit findings against the Sub-recipient pertaining to this grant will be rectified within thirty (30) days of receipt of the Audit Report by the Sub-recipient, either with guidance from, or, established by the State.
- k. From the onset of application approval, the GAR will work closely with the Sub-recipient to include site mid-program reviews and inspections of completed, approved projects by the GAR.

**STATE OF OHIO  
HAZARD MITIGATION GRANT PROGRAM (HMGP)  
GRANT AGREEMENT**

IN WITNESS WHEREOF, the parties hereto have executed this Grant Agreement on the day and year set forth below:

**SUB-RECIPIENT – (Sub-recipient Name), (County)**

\_\_\_\_\_

\_\_\_\_\_

**Date**

\_\_\_\_\_

\_\_\_\_\_

**Date**

\_\_\_\_\_

\_\_\_\_\_

**Date**

**RECIPIENT**

\_\_\_\_\_  
Sima S. Merick, Executive Director  
Ohio Emergency Management Agency

\_\_\_\_\_  
**Date**



**STATE-LOCAL GRANT AGREEMENT  
HAZARD MITIGATION GRANT PROGRAM - CFDA 97.039  
FEMA-DR-4507-OH  
DECLARED MARCH 31, 2020**

This Grant Agreement (the “Agreement”) is made and entered into by, and between, the State of Ohio, Department of Public Safety, Ohio Emergency Management Agency, located at 2855 West Dublin-Granville Road, Columbus, Ohio 43235-2712 (herein referred to as the “Recipient”); and, **Middleton Township**, located at **21745 Dixie Highway, Bowling Green, Ohio 43402** (herein referred to as the “Sub-recipient”).

**This agreement will be in effect for the period beginning July 21, 2022 and ending July 21, 2024.**

1. Pursuant to the provisions of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 USC 5121, et. seq. (“Stafford Act”) as amended, the Federal Emergency Management Agency (“FEMA”) has been authorized by Congress to make grants to states to mitigate natural disasters. The Ohio Emergency Management Agency (“Ohio EMA”), has received grant funds for that purpose.
2. The Ohio Emergency Management Agency has been designated as the Recipient to receive, administer, and disburse FEMA mitigation funds for local government mitigation projects in areas of Ohio and to provide technical assistance with the Hazard Mitigation Grant Program (HMGP). The HMGP is authorized by Section 404 of the Stafford Act, Public Law 93-288. Recipient shall monitor and evaluate the implementation of mitigation projects and control the disbursement of HMGP funds from FEMA.
3. **Middleton Township, Wood County** is the Sub-recipient and has submitted an application, which is incorporated herein by reference, to the Recipient setting forth a list of activities (herein referred to individually as “Project”). The Recipient and FEMA have approved the Projects along with any exceptions that have been made prior to signing of this agreement. The Sub-recipient agrees to complete the Project within two years of FEMA approval, unless a time extension is granted by the Recipient.
4. Sub-recipient shall participate in the development of, and shall coordinate and monitor the implementation of the local hazard mitigation measures; and shall regulate and control development within hazardous areas.
5. Sub-recipient has the legal authority to accept mitigation funds and shall provide all necessary financial and managerial resources to meet the terms and conditions of receiving federal and state mitigation funds. The financial management system must comply with 2 Code of Federal Regulations (CFR) Part 200 and Auditor of State Bulletin 99-05.
6. Sub-recipient shall use the mitigation funds solely for the approved scope of work in the Project. Only those costs, which are allowable as defined in 2 CFR 200 will be paid:
  - a. This Grant Agreement in the amount of **\$131,635.00**

("Funds") will serve as the contract between the Recipient, Ohio EMA and the Sub-recipient for the purpose of the approved project.

b.	Total estimated cost of the mitigation project is:	<b>\$ 131,635.00</b>
	Total HMGP (Federal) contribution is:	<b>\$ 118,471.50</b>
	Total State of Ohio contribution is:	<b>\$ 000,000.00</b>
	Local contribution:	<b>\$ 13,163.50</b>

c. FEMA has awarded Sub-recipient Management Costs (SRMC) in the amount up to \$0 to help off-set the costs of project implementation. These funds are 100% Federal and do not require a local match. The SRMC funds must be administered by the Recipient and Sub-Recipient in accordance with:

- i. Hazard Mitigation Assistance Guidance dated February 27, 2015
- ii. FEMA Policy #104-11-1
- iii. 2 Code of Federal Regulations Part 200, and
- iv. This grant agreement.

In order to receive these funds, the Sub-Recipient must document expenses deemed reasonable, allowable, and necessary as required by this agreement and in the guidance, policy, and regulation above. Reimbursement will be based on documented, actual eligible cost incurred up to 5% of the total project cost at the time of project completion.

d. Sub-recipient agrees to provide the necessary local cost share as required by 2 CFR Parts 200.306 and 200.434. The funding will be available within the specified period of time for completion of the Project. Documentation of the use of the local cost share is required.

e. Obligations of Recipient are subject to provisions of Section 126.07 of the Ohio Revised Code.

7. Sub-recipient shall return to Recipient any HMGP and State funds, which are not supported by audit or other federal or state review of documentation maintained by the Sub-recipient. (2 CFR Part 200-Subpart F)

8. Sub-recipient shall maintain records for the period set forth in 2 CFR Part 200.333 and shall give access to said records in accordance with 2 CFR Part 200.336.

9. Sub-recipient shall comply with all applicable state and local ordinances, laws, regulations, building codes and standards applicable to this Project.

10. Sub-recipient agrees to maintain good standing with the National Flood Insurance Program (NFIP) and comply with local regulations pertaining to the NFIP; and agrees to bring into NFIP compliance all structures identified through Community Assistance Visits (CAV's) to the maximum extent possible. Failure to enforce NFIP requirements for all development in identified flood hazard areas will result in the Sub-recipient repaying the HMGP and state funds related to the Project.

11. Sub-recipient shall comply with 2 CFR Part 200.318 in all procurements, including the contract provisions found in 2 CFR Parts 200.319 thru 200.326. In particular,

a. Sub-recipient shall comply, as applicable, with provisions of federal laws and regulations pertaining to labor standards, and the State of Ohio Prevailing Wages laws and regulations.

- b. Sub-recipient shall not enter into any contract with any party which is debarred or suspended from participating in federal assistance programs, or is otherwise ineligible pursuant to E.O. 12549, Debarment and Suspension, as implemented at 2 CFR Part 200.213.
12. Sub-recipient has read, understands, and shall comply with the State of Ohio Audit Requirements/Compliance Standards (attached), and 2 CFR Part 200 Subpart F – Audit Requirements.
13. Sub-recipient shall submit to the Recipient quarterly progress reports (QPR), due the 15<sup>th</sup> day of the month following the end of the quarter on the following schedule:
- a.
 

January – March	Due April 15
April – June	Due July 15
July – September	Due October 15
October – December	Due January 15
  - b. Failure to provide the required reports will result in suspension of grant funds until the required reports are provided and approved by the Recipient.
14. Prior to project close-out, the sub-recipient is responsible for entering project summary data into the State Hazard Analysis Resource and Planning Portal (SHARPP). Examples of data to be entered into SHARPP include but are not limited to: property photos, copies of deed restrictions, project financial information, latitude/longitude of mitigated properties etc. The Sub-recipient also agrees to utilize SHARPP to monitor properties acquired with Hazard Mitigation Assistance funds to ensure compliance with open space requirements.

15. DEED RESTRICTIONS

Sub-recipient agrees to the following assurance for projects, which involve acquisition and relocation:

- a. The following restrictive covenants shall be conveyed in the deed to any property acquired, accepted, or from which structures are removed:
  - 1) The property shall be dedicated and maintained in perpetuity for uses compatible with open space, recreational, or wetlands management practices; and,
  - 2) No new structure(s) will be built on the property except as indicated below:
    - a. A public facility that is open on all sides and functionally related to a designated open space or recreational use:
    - b. A rest room; or
    - c. A structure that is compatible with open space, recreational, or wetland management usage and proper floodplain management policies and practices, which the FEMA V Regional Administrator approves in writing before the construction of the structure begins.
  - 3) After completion of the project, no application for additional disaster assistance will be made for any purpose with respect to the property to any Federal or State entity or source, and no Federal or State entity or source will provide such assistance.



- a. In general, allowable open space, recreational, and wetland management uses include: parks for outdoor recreational activities; nature reserves; cultivation; grazing; camping except where adequate warning time is not available to allow evacuation; temporary storage in the open of wheeled vehicles which are easily movable (except mobile homes and recreational vehicles); unimproved, previous parking lots; and buffer zones.
  - b. Any structures built on the property according to A. above, shall be floodproofed or elevated to the 100-year Base Flood Elevation plus one foot of freeboard.
  - c. Title to the property may be transferred only to another governmental entity, with the approval of the Recipient and the FEMA V Regional Administrator. The Sub-recipient will retain all development rights to the land.
16. Sub-recipient shall comply with all applicable federal, state and local ordinance, laws, regulations, requirements, labor standards, building codes and standards as pertains to this project and identified in 2 CFR Part 200, and agrees to provide maintenance as appropriate.
17. NONCOMPLIANCE (2 CFR PART 200.338)
- a. If the Sub-recipient fails to comply with the terms of the award, whether stated in a federal statute or regulation, an assurance, in a state plan or application, a notice of award, or elsewhere, the awarding agency may take one or more of the following actions, as appropriate in the circumstances:
    - 1). Temporarily withhold cash payments pending correction of the deficiency;
    - 2) Disallow all or part of the cost of the activity or action not in compliance;
    - 3) Wholly or partly suspend or terminate the current award for the program;
    - 4) Withhold further awards for the program;
    - 5) Take other remedies that may be legally available.
  - b. In taking an enforcement action, the awarding agency and/or the Recipient will provide an opportunity for such hearing, appeal, or other administrative proceeding to which the Recipient or Sub-recipient is entitled under any statute or regulation applicable to the action involved.
  - c. Costs resulting from obligations incurred by the Sub-recipient during a suspension or after termination of an award are not allowable unless the awarding agency expressly authorizes them in the notice of suspension or termination. Other costs during suspension or after termination which are necessary and not reasonably avoidable are allowable if:
    - 1). The costs result from obligations which were properly incurred before the effective date of suspension or termination, are not in anticipation of it, and, in the case of a termination, are not cancelable, and,
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- a. Sub-recipient will comply with FEMA Directive 108-1,, National Environmental Policy Act (NEPA), and other federal and state environmental laws and regulations in the implementation of the Project. The Recipient will provide the Sub-recipient with a signed copy of the Record

of Environmental Considerations (REC) and supporting letters and documentation as soon as FEMA approves the project. The REC will identify any special conditions placed on the project that may impact demolition activities, the elevation of any structures, underground storage tanks, cutting of trees or removal of fences or vegetation and disposal of any materials in approved dump sites and so on.

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- a. Sub-recipient will notify the Recipient as soon as the Project has been completed, and will provide a Final Progress Report and financial report within 30 days. Recipient will conduct a final site visit within 30 days of receiving the final progress report and financial report, and provide the Sub-recipient with a their findings within 30 days of the visit. The findings will outline the results of the site visit and in particular any upward or downward adjustment to allowable costs.
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- b. The Sub-recipient has the obligation to comply with all applicable rules and regulations of the HMGP, to include 2 CFR 200. If the applicant desires copies of 2 CFR 200 they are available from the County and/or State Auditor's Office.
- c. The Single Audit Act of 1984 as amended requires local governments, state agencies/departments, and private non-profit organizations expending a total of \$750,000.00 or more in federal financial assistance in any fiscal year to have a single audit performed.

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- f. The Sub-recipients will correct the finding(s) within thirty (30) days of written notification of non-compliance, if not sooner, and notify the GAR in writing of the actions taken.
- g. Findings against the Sub-recipient remaining uncorrected by the Sub-recipient will be deducted from the applicant's final reimbursement by the GAR in the amount of funds questioned in the Audit Report. If the GAR has already dispersed final settlement, and a subsequent audit report identifies non-compliance by the Sub-recipient, collection proceedings will be initiated by the GAR against the Sub-recipient in the amount of the questioned costs.
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- j. The GAR will review each audit report received to assure that:
  - 1. If applicable, the grant(s) received that fiscal year are included in the "Schedule for Federal Financial Assistance" portion of the Audit Report, and that the report properly addresses the HMGP, as required under the Single Audit Act and appropriate OMB guidance;
  - 2. Any of the program activities, which may have been tested by the State Examiner are in compliance with all regulations pertaining to the HMGP and single audit requirements;
  - 3. Audit findings against the Sub-recipient pertaining to this grant will be rectified within thirty (30) days of receipt of the Audit Report by the Sub-recipient, either with guidance from, or, established by the State.
- k. From the onset of application approval, the GAR will work closely with the Sub-recipient to include site mid-program reviews and inspections of completed, approved projects by the GAR.

**STATE OF OHIO  
HAZARD MITIGATION GRANT PROGRAM (HMGP)  
GRANT AGREEMENT**

IN WITNESS WHEREOF, the parties hereto have executed this Grant Agreement on the day and year set forth below:

**SUB-RECIPIENT – Middleton Township, Wood County**

\_\_\_\_\_

\_\_\_\_\_ **Date**

\_\_\_\_\_

\_\_\_\_\_ **Date**

\_\_\_\_\_

\_\_\_\_\_ **Date**

**RECIPIENT**

\_\_\_\_\_  
Sima S. Merick, Executive Director  
Ohio Emergency Management Agency

\_\_\_\_\_ **Date**



**Department of  
Public Safety**

Mike DeWine, Governor  
Jon Husted, Lt. Governor

Thomas J. Stickrath, Director  
Sima S. Merick, Executive Director



August ??, 2022  
**FEMA-DR-4507.??-OH**

Mr. Robert Fonte  
Stark County Park District  
5300 Tyner Street NW  
Canton, OH 44708

Dear Mr. Fonte:

Congratulations! You were recently notified the mitigation project to acquire and demolish up to nineteen residential properties along Zimber Ditch/Nimishillen Creek was awarded by FEMA under the Hazard Mitigation Grant Program. Before the project can be started and funds disbursed, you must complete the following forms and return to my attention at the address above within 30 days of receipt of this letter.

1. State and Local Grant Agreement (enclosed)
2. W-9 Form (enclosed)
3. Sub-award Financial Management Form (enclosed)
4. Resolution designating the person or organization responsible for implementing the mitigation project (sample enclosed)

The State and Local Agreement must be signed by the Chief Official and the Executive Director of the Ohio EMA before funds can be disbursed. The Project Manager is responsible for all activities related to the project and must be able to act on behalf of the community. The enclosed sample designation of Applicant's Agent is for your reference and information. A meeting to explain how the project shall be implemented will be scheduled with you and the Project Manager as soon as the above forms are returned.

If you have questions concerning this project, contact me at 614/799-3539 or Sharon Rolf of my staff at 614/799-3530.

Sincerely,

STEVE FERRYMAN, CFM  
State Hazard Mitigation Officer  
Mitigation Branch Chief

Enclosures as stated

Cc: Sarah Buell, Project Manager  
Kristine Griffith, Project Coordinator

DESIGNATION OF APPLICANT'S AGENT

RESOLUTION

BE IT RESOLVED BY \_\_\_\_\_ OF \_\_\_\_\_  
(Governing Body) (Public Entity)

THAT \_\_\_\_\_,  
(Name of Incumbent) (Official Position)

is hereby authorized to execute for and in behalf of \_\_\_\_\_  
\_\_\_\_\_, a public entity established under the laws of the State of Ohio

this application and to file it in the appropriate State office for the purpose of obtaining certain Federal financial assistance under the Disaster Relief Act (Public Law 288, 23rd Congress) or otherwise available from the President's Disaster Relief Fund.

THAT \_\_\_\_\_, a public entity established under the laws of the State of Ohio, hereby authorized its agent to provide to the State and to the Federal Emergency Management Agency (FEMA) for all matters pertaining to such Federal disaster assistance the assurances and agreements as listed in the Grant Agreement.

Passed and approved this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
(Name and Title)

\_\_\_\_\_  
(Name and Title)

\_\_\_\_\_  
(Name and Title)

CERTIFICATION

I, \_\_\_\_\_, duly appointed and \_\_\_\_\_ of  
(Title)  
\_\_\_\_\_, do hereby certify that the above is a true and correct copy of a resolution passed and approved by the \_\_\_\_\_ of \_\_\_\_\_  
(Governing Body) (Public Entity)

on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Date: \_\_\_\_\_

\_\_\_\_\_  
(Official Position)

\_\_\_\_\_  
(Signature)

\*Name of Incumbent need not be provided in those cases where the governing body of the public entity desires to authorize any incumbent of the designated official position to represent it.





# Hazard Mitigation Grant Program (HMGP) Briefing

**DR-4507**

Declared March 31, 2020

**Presented by:**

The Ohio Emergency Management Agency  
Mitigation Branch





# HMGP Briefing

- The primary purpose of today's presentation is to provide an overview of the Hazard Mitigation Grant Program (HMGP) and the application process.
- The information presented will also better inform you on whether this program will benefit your community.





# HMGP Agenda Overview

- What is “Hazard Mitigation”?
- Hazard Mitigation Grant Program (HMGP)
- Hazard Mitigation Project Types / Ideas
- Minimum Project Eligibility Issues
- HMGP Application Process
- Questions & Answers



# The Problem



**Disasters can impact anywhere**



# The Problem



**and anyone!**







# Disaster Response

## Damage-Repair Cycle

**DAMAGE**

**REPAIR**





# A Solution: Hazard Mitigation

## Break-the-Cycle





# Hazard Mitigation

Just what exactly is “Hazard Mitigation” anyway?



# Hazard Mitigation

## Definition

- Hazard mitigation is any sustained action taken to reduce or eliminate long-term risk to people and property from natural and man-made hazards and their effects.












# Importance of Mitigation

- Save lives
- Decrease property damage
- Losses reduced
- Societal disruptions minimized
- Legal liability reduced
- Protect critical infrastructure
- Positive political ramification



# NIBS 2017 Interim Report: Natural Hazard Mitigation Saves

<b>National Benefit-Cost Ratio Per Peril</b> <i>*BCR numbers in this study have been rounded</i>		<b>Federally Funded</b>	<b>Beyond Code Requirements</b>
<b>Overall Hazard Benefit-Cost Ratio</b>		<b>6:1</b>	<b>4:1</b>
 <b>Riverine Flood</b>		<b>7:1</b>	<b>5:1</b>
 <b>Hurricane Surge</b>		Too few grants	<b>7:1</b>
 <b>Wind</b>		<b>5:1</b>	<b>5:1</b>
 <b>Earthquake</b>		<b>3:1</b>	<b>4:1</b>
 <b>Wildland-Urban Interface Fire</b>		<b>3:1</b>	<b>4:1</b>



# PA vs. HMGP

	Public Assistance Program	Hazard Mitigation Grant Program
<b>Geographic funding restriction?</b>	Declared counties only	Open statewide
<b>Can be used on private property?</b>	No	Yes
<b>Damage caused by disaster event?</b>	Yes - Only damage caused by the disaster event are eligible.	No - Mitigation activity does NOT need to be tied to disaster event damage.

**Don't forget to ask your FEMA PA Program Delivery Manager about 406 mitigation.**



# Hazard Mitigation Grant Program (HMGP)

- Authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act
- Provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration
- The purpose of the program is to reduce the loss of life and property as well as lessen the impact to local communities due to natural disasters and to enable the long term recovery from a disaster



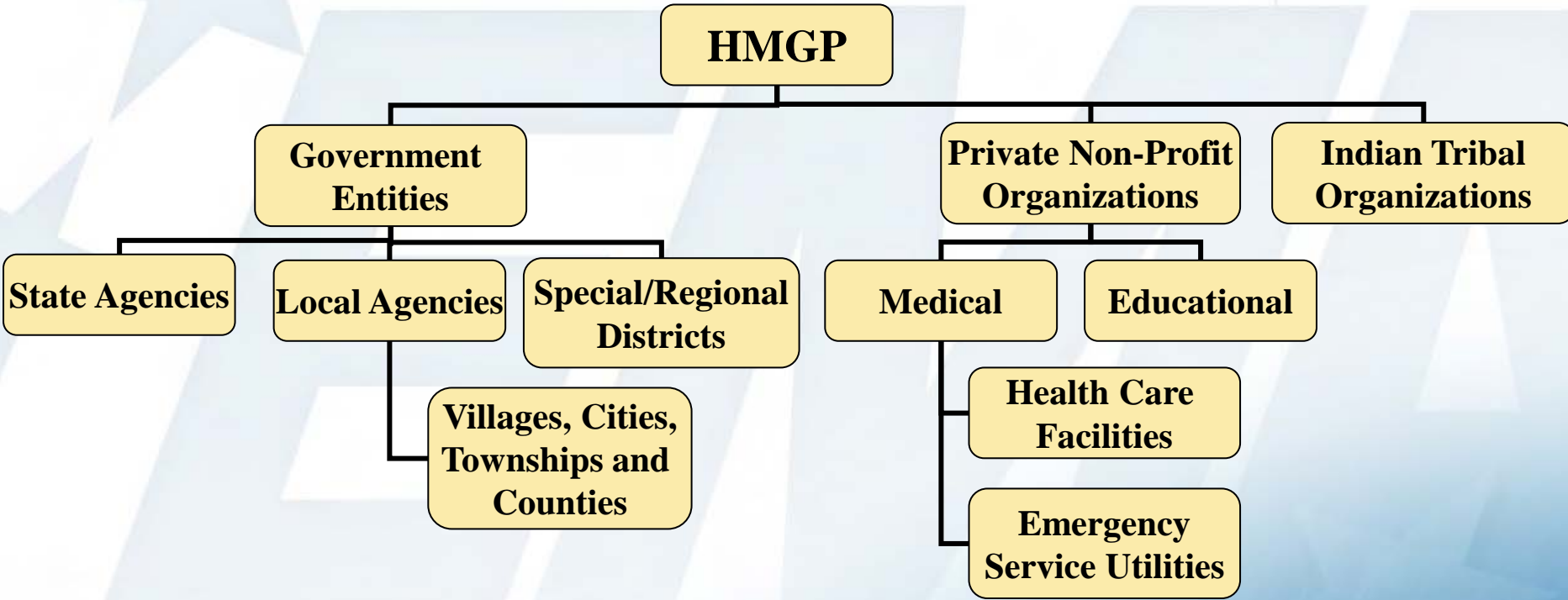
# Program Funding & Cost Share

- Ohio is eligible for HMGP funding equal to 4% of the total estimated Federal grant assistance
- FEMA funds up to 75% of eligible costs of each project
- The State will provide 12.5% of match
- The Community must provide a 12.5% non-Federal match which can be cash, in-kind, or a combination
  - CDBG Funds can be utilized as non-Federal match
  - Clean Ohio Funds
  - Conservancy District
- Management cost up to 5% for awarded projects





# Who is Eligible?





# Other Community Requirements

- For all disasters declared after November 1, 2004, applicants must have a FEMA approved local mitigation plan as a condition of receiving a project grant under HMGP
- Participate in and be in good standing with the NFIP (communities suspended from the NFIP are not eligible)





# Eligible Types of Projects

- **Flood Mitigation**
  - Acquisition and Demolition
  - Elevation-In-Place
  - Retrofitting
  - Relocation
  - Storm water management
  - Minor structural flood control projects
- **Wind Mitigation:**
  - Safe Rooms
- **Other:**
  - Vegetative management/Soil stabilization
  - Infrastructure protection measures
  - Post-disaster code enforcement activities





# Eligible Types of Projects

## Flood Mitigation: Acquisition and Demolition

- Pays owner market value for building and property – does not pay business value
- Acquisition of hazard prone property and conversion to open space
- Only permanent flood mitigation





# Eligible Types of Projects

## Flood Mitigation: Elevation-In-Place

- Elevation of flood prone structures
- Still risk of flooding from bigger events
- Reduced flood insurance rates







# Eligible Types of Projects

## Flood Mitigation: Retrofitting

- Retrofitting existing buildings and facilities
- Good for minor flooding





# Eligible Types of Projects

## Flood Mitigation: Retrofitting







# Eligible Types of Projects

## Wind Mitigation: Safe Rooms

- Tornado safe rooms
  - Built to FEMA guidelines







# Eligible Types of Projects

## Flood Mitigation: Stormwater Management

- Good for widespread shallow flooding
- Requires technical data upfront





# Ineligible Types of Projects

- Communication systems
- Emergency support equipment
- Vehicles
- Projects already in progress
- Stream clearing and dredging



# What Makes An Eligible Project?

- Conforms with the State and Local Mitigation Plan
- Has a beneficial impact upon the designated disaster area, whether or not located in the designated area
- In conformance with Federal regulations concerning environmental review and cost effectiveness
- Solve a problem independently or constitute a functional portion of a solution where there is assurance that the project as a whole will be completed
- Technically feasible
- Meet all applicable state and local codes and standards





# Minimum Project Eligibility Criteria

## Environmental and Historic Preservation Compliance

- The HMGP is federally funded. Any project with federal funding involvement is legally required to undergo review in accordance with the National Environmental Policy Act (NEPA) as well as be in concurrence w/ other federal laws which apply including:
  - National Historic Preservation Act
  - Endangered Species Act
  - Coastal Zone Management Act
  - Clean Water Act
  - Executive Orders 11988, 11990, 12898
- Projects must also meet applicable state laws and local codes.



# Minimum Project Eligibility Criteria

## Cost Effectiveness

“The Grantee must demonstrate (that the project is cost effective) by documenting that the project...will not cost more than anticipated value of the reduction in both direct damages and subsequent negative impacts to the area if future disasters were to occur. Both costs and benefits will be computed on a net present value basis”.

$$\frac{\text{Benefits}}{\text{Costs}} = 1.0 \text{ or Greater}$$

FEMA BCA Software Training:

<https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis/training>



# Advance Assistance

- Funding can be used to develop mitigation strategies and obtain data to prioritize, select, and develop applications
- Pre-application must identify
  - Proposed use of funds
  - Detailed cost of study
  - Milestones for study completion



# HMGP Application Process



- HMGP Briefing
- Pre-application deadline **October 8, 2021**
- State Hazard Mitigation Team (SHMT) meeting
  - Selects pre-applications to be developed into full project applications
- Full applications developed and submitted to Ohio EMA by **November 22, 2021**
- State reviews projects to ensure eligibility & completeness
- FINAL applications due to Ohio EMA **January 17, 2022**
- Applications are selected (if there are more applications than \$) by SHMT
- State submits local applications to FEMA within 12 months of the disaster declaration
- FEMA obligates all funds within 24 months of disaster declaration



# Next Steps

- Visit Ohio EMA Website for HMA Guidance:  
[https://www.ema.ohio.gov/mip/grants\\_hma-app-info.aspx](https://www.ema.ohio.gov/mip/grants_hma-app-info.aspx)
- Complete HMGP Pre-Application
- Watch out for FEMA BCA Training in mid-Oct
- Deadline for sending HMGP Pre-application to OEMA Mitigation Branch is **October 8, 2021**
- Ask for help – contact our staff for assistance!





# 2021 BRIC and FMA Notice of Funding Opportunity

- August - NOFO posted
- September 30 – Pre-applications due to Ohio EMA
- November 15 – DRAFT applications due to Ohio EMA
- January 3, 2022 – Final applications due to FEMA
- August 2022 – FEMA announces applications selected for further review
- Fall2022/Winter 2023 – FEMA awards grants
- **BRIC \$1 Billion and FMA \$160 M**

[https://www.ema.ohio.gov/mip/grants\\_app-info.aspx](https://www.ema.ohio.gov/mip/grants_app-info.aspx)



# Summary

## Before Mitigation



## After Mitigation





# OEMA Mitigation Branch Contacts

Web: <https://www.ema.ohio.gov/mip/>

**FAX 614 799 3526**

**Steve Ferryman, CFM**  
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Tel. (614) 799-3539  
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[srolf@dps.state.ohio.gov](mailto:srolf@dps.state.ohio.gov)





# QUESTIONS

# STATE OF OHIO HMA QUARTERLY REPORT

Sub-grantee:	County:	Project Number:
Project Approval Date:	Project Completion Date:	Date Of Report:
Reporting Period: _____ 1 <sup>st</sup> Qtr (Oct 1-Dec 31)      3 <sup>rd</sup> Qtr (Apr 1-June 30) 2 <sup>nd</sup> Qtr (Jan 1-Mar 30)      4 <sup>th</sup> Qtr (Jul 1-Sept 30)	Funding Source: _____ HMGP (Hazard Mitigation Grant Program) FMA (Flood Mitigation Assist Program) PDM (Pre Disaster Mitigation Program)	Total Project Cost:
Percent Completion: _____ %	Status of Costs: _____ (insert appropriate status)	
Is completion of work on schedule:    Y    N	1. Unchanged 2. Overrun 3. Underrun	

FEDERAL Funds Awarded:	FEDERAL Funds Expended Qtr:	Total FEDERAL Funds Expended:
STATE Funds Awarded:	STATE Funds Expended Qtr:	Total STATE Funds Expended:
LOCAL Share Committed: *	LOCAL Share Expended Qtr:	Total LOCAL Share Expended:
Subrecipient Management Costs Awarded:	Subrecipient Management Costs Expended Qtr:	Subrecipient Management Costs Expended:

\*Local Share Commitment =

ACQUISITION PROJECT		
Total Structures to be Acquired:	Structures Acquired This Qtr:	Total Structures Acquired To Date:
Demolitions this Qtr:	Total Demolitions To Date:	Total Not Participating:
Offers to purchase this Qtr:	Closings this Qtr:	Total Closings To Date:

Significant activities & developments that have occurred or shown progress <b>during the quarter</b> including a comparison of actual accomplishments to the work schedule objectives established in the application:
---

# STATE OF OHIO HMA QUARTERLY REPORT

List addresses of structures and parcels that have had an offer to purchase:

List addresses of structures and parcels that have been acquired:

List addresses of structures that have been demolished:

List addresses of structures and parcels not participating in the project:

Narrative discussing any problems, delays or adverse conditions that will impair the ability to meet the performance period identified in the Grant Agreement:

Report Submitted by: (Print Name)

Title:

Signature:

Date:

FINAL CLOSEOUT REPORT  
 VILLAGE OF XXXXX  
 (XXXXX COUNTY)  
 FEMA-DR-XXXX.XX-OH  
 3/5/2024

**DRAFT**

**DRAFT**

**DRAFT**

**DRAFT**

Disaster #	Award	Advanced	Expended	= Adv - Exp	Revised Award	Need to Change
HMGP Federal - Grant #				0.00		0.00
HMGP State-Grant #				0.00		0.00
<b>Sub-Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Local Share				0.00		0.00
In-direct Managment Costs - Grant #				0.00		0.00
<b>Sub-Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Minus In-direct Management Costs			0.00			
	<b>Project Cost</b>		<b>0.00</b>			
	Federal Share		#DIV/0!		#DIV/0!	
	State Share		#DIV/0!		#DIV/0!	
	Local Share		#DIV/0!		#DIV/0!	

FINAL CLOSEOUT REPORT  
VILLAGE OF XXXXX  
(XXXXX COUNTY)  
FEMA-DR-XXXX.XX-OH  
3/5/2024

**HAZARD MITIGATION GRANT PROGRAM  
STATE OF OHIO  
MONITORING REPORT**

**“COMMUNITY”**

**FEMA-DR-0000-OH**

**Project Number 0000.0000**

**Conducted on 00/00/00**

**PREPARED BY**

**“STAFF NAMES”**

**OHIO EMERGENCY MANAGEMENT AGENCY  
MITIGATION BRANCH  
2855 W. DUBLIN-GRANVILLE ROAD  
COLUMBUS, OHIO 43235**

# INDIVIDUAL FILE REVIEW

Complete: \_\_\_\_\_

Incomplete: \_\_\_\_\_

## ACQUISITION

Homeowner Name(s):

Project Address:

City:

Zip Code:

County:

<u>Action</u>		<u>Date</u>	<u>Reviewer</u>
Review Property Appraisal(s)		_____	_____
<u>Date of Appraisal</u>	_____	<u>Appraisal Amount</u>	\$_____
<u>Parcel Number(s)</u>	_____		
<u>Reviewed by the State</u>	Y    N	<u>Date</u>	_____
<u>Cost of Appraisal</u>	\$_____		
<b>APPEAL:</b>	Y    N		
<u>Date of Appeal</u>	_____		
<u>Second Appraisal Completed</u>	Y    N	<u>Date</u>	_____
<u>Appraised Amount</u>	\$_____	<u>Reviewed by the State</u>	Y    N
<u>Comments</u>			

Review Offer to Purchase Letter (Community)	_____	_____	
<u>Date of Letter</u>	_____	<u>Amount of Offer</u>	\$_____
<u>Comments</u>			

Review Offer Acceptance/Denial Letter	_____	_____	
<u>Date of Letter</u>	_____	Accepted	Denied
<u>Comments</u>			

**Action**

**Date**

**Reviewer**

**Review Voluntary Participation Agreement**

\_\_\_\_\_

\_\_\_\_\_

Date of Agreement \_\_\_\_\_

Signed by Property Owner and Local Official

Y

N

**Comments**

**Review Duplication of Benefit documents**

\_\_\_\_\_

\_\_\_\_\_

Benefits Received \$\_\_\_\_\_

Receipts Provided Y N

Amount Verified \$\_\_\_\_\_

Amount Deducted from Offer \$\_\_\_\_\_

Other Deductions from Offer \$\_\_\_\_\_

**Comments**

**Review Hazardous Materials Form  
(Business/Industry only)**

\_\_\_\_\_

\_\_\_\_\_

Signed Y N Date \_\_\_\_\_

Is there an identified impact? Y N

**Comments**

**Review Warranty Deed**

\_\_\_\_\_

\_\_\_\_\_

Date Deed Recorded \_\_\_\_\_

Reviewed Deed Restrictions Y N

Deed Restrictions Language Complete Y N

**Comments**



**Action**

**Date**

**Reviewer**

**Review Closing Documents**

\_\_\_\_\_

\_\_\_\_\_

Date of Closing \_\_\_\_\_

Amount of Purchase \$ \_\_\_\_\_

Amount of Closing Costs \$ \_\_\_\_\_

Amount of Legal Fees (if separate) \$ \_\_\_\_\_

Amount of Title Search (if separate) \$ \_\_\_\_\_

Amount to Seller after deductions \$ \_\_\_\_\_

**Comments**

**Review demolition or removal of structures**

\_\_\_\_\_

\_\_\_\_\_

Structure Demolished            Y     N

Expected date of Demolition if NO \_\_\_\_\_

Cost of Demolition/Removal        \$ \_\_\_\_\_

**Comments**

**Review Uniform Relocation Act**

\_\_\_\_\_

\_\_\_\_\_

Rental Property                    Y     N                    (If No, do not continue)

Name of Renter \_\_\_\_\_

Amount of URA Benefit                \$ \_\_\_\_\_

Formula Calculation

**Comments**

# INDIVIDUAL FILE REVIEW

Complete: \_\_\_\_\_

Incomplete: \_\_\_\_\_

## ELEVATION

Homeowner Name(s):

Address:

City:

Zip Code:

County:

---

<u>Action</u>		<u>Date</u>	<u>Reviewer</u>
<b>Review Property Appraisal</b>		_____	_____
<u>Date of Appraisal</u>	_____	<u>Appraisal Amount</u>	\$_____
<u>Parcel Number</u>	_____		
<u>Reviewed by the State</u>	Y    N	<u>Date</u>	_____
<u>Cost of Appraisal</u>	\$_____		
<b><u>Comments</u></b>			
<b>Review Contract/Elevation Documents</b>		_____	_____
<u>Date of Offer/Contract</u>	_____	<u>Date Owner Responded</u>	_____
<u>Did Owner Appeal?</u>	Yes    No	<u>Date of Appeal</u>	_____
<u>Date of Elevation</u>	_____		
<u>Cost of Elevation</u>	\$_____	<u>Date of Payment</u>	_____
<u>Cost of Elevation is less than appraised value</u>		Y    N	
	<u>If NO, amount greater than appraisal</u>	\$_____	
<u>Review Elevation Certificate</u>	Y    N	<u>Date</u>	_____
Elevation of Structure	_____		
BFE	_____		
<u>Verification of flood insurance for elevated structure on file</u>		Y    N	
<u>Copy of recorded deed amendment requiring flood insurance for elevated structure</u>		Y    N	



# INDIVIDUAL FILE REVIEW

<b>Complete:</b> _____
<b>Incomplete:</b> _____

## OTHER RETROFITTING

---

Homeowner Name(s):

Address:

City:

Zip Code:

County:

---

<u>Action</u>	<u>Date</u>	<u>Reviewer</u>	
Review Contracts/Specifications	_____	_____	
<u>Describe Action</u>	Floodproofing	Elevation/Utilities	Other
<u>Date of Offer/Contract</u>	_____		
<u>Date Owner Responded</u>	_____		
<u>Did Owner Appeal?</u>	Yes No	<u>Date of Appeal</u>	_____
<u>Cost of Action</u>	\$_____	<u>Date of Payment</u>	_____
<u>Date Started</u>	_____	<u>Date Completed</u>	_____
<u>Relocation Costs</u>	Y N	<u>Amount</u>	\$_____
<u>Comments</u>			

# INDIVIDUAL FILE REVIEW

Complete: \_\_\_\_\_

Incomplete: \_\_\_\_\_

## STRUCTURAL RELOCATION

---

Homeowner Name(s):

Address:

City:

Zip Code:

County:

---

Action

Date

Reviewer

**Review Property Appraisal**

Date of Appraisal

\_\_\_\_\_

Appraisal Amount

\$\_\_\_\_\_

Parcel Number

\_\_\_\_\_

Reviewed by State

Y    N

Date

\_\_\_\_\_

Cost of Appraisal

\$\_\_\_\_\_

Comments

**Review Contract/Specifications**

Date of Relocation

\_\_\_\_\_ to \_\_\_\_\_

Cost of Relocation

\$\_\_\_\_\_

Relocated to same property

Y    N

New Address

\_\_\_\_\_

Relocated outside of the floodplain

Y    N

Comments

# INDIVIDUAL FILE REVIEW

Complete: \_\_\_\_\_

Incomplete: \_\_\_\_\_

## COMMUNITY SAFE ROOM

---

### Date of Monitoring Visits

4/2/18 \_\_\_\_\_

### Bid Process

Bid process is well documented and meets 2 CFR 200 and local procurement requirements Y N

Contract contains only items in approved SOW and within budgeted amount Y N

### Site Visit

Local project manager has documented regular site visits Y N

Ohio EMA staff conducted Final Site Visit and verified scope of work compliance Y N

Detailed photographs of completed project on file Y N

### Scope of Work and Budget

Cost documentation reviewed and meets approved scope of work and budget Y N

Project Record of Environmental Consideration conditions Y N

Environmental Closeout Declaration form signed by local official Y N

### Construction Permits

State and/or local building permits on file Y N

Certificate of Occupancy or similar "as-built" documentation on file Y N

### Operations and Maintenance Plan

Operations and maintenance plan meets FEMA criteria in P-361 and HMA Guidance Y N

Operations and maintenance plan approved by FEMA Y N

# INDIVIDUAL FILE REVIEW

Complete: \_\_\_\_\_

Incomplete: \_\_\_\_\_

## SUBRECIPIENT MANAGEMENT COST

---

### Date of Monitoring Visits and Reviewers Initials

4/2/18 - SAF                      \_\_\_\_\_

### Contracts

Procurement process is well documented and meets 2 CFR 200 and local procurement requirements                      Y                      N

Contract contains only items in approved SOW and within budgeted amount                      Y                      N

Payments to contractors verified                      Y                      N

### Subrecipient Time and Effort

All claimed costs are reasonable and eligible                      Y                      N

Subrecipient time and effort cost claims supported by signed time sheets indicating grant related task performed                      Y                      N

If indirect costs are claimed, the subrecipient has an indirect cost rate plan approved by FEMA  
Y                      N

### Purchase of Equipment

Cost documentation reviewed and meets approved scope of work and budget                      Y                      N

Equipment used for the intended purpose                      Y                      N

Property records for equipment available and meet requirements in 2 CFR 200.313(d)                      Y                      N

### Purchase of Supplies

Supply costs were reviewed and are reasonable for SOW being performed                      Y                      N

### Training/Travel

Costs claimed for training are eligible and supported by cost documentation                      Y                      N

Any claimed costs for training comply with 2 CFR 200.474                      Y                      N

**STATE OF OHIO**  
**Property Information Sheet**

PROJECT AND PROPERTY INFORMATION			
Community Name:		Project number:	Record Number:
Property Owner Name:		Subgrantee:	
Address:		Community Tax_ID_No:	
City:	Zip Code:	County:	Mitigation Action:
Parcel Number(s):			
Latitude:	Longitude:	Flood Source:	
Funding Programs:		Match Source:	

STRUCTURE INFORMATION		
Base Flood Elevation:	Structure Type:	After Property Use:
Year Built:	Elevation Type:	Floodway:
Square Feet:	Foundation Type:	Flood Zone:
Lot Size:	Foundation Material:	

DUPLICATION OF BENEFITS INFORMATION			
Duplication of Benefits		Subgrantee to complete Financial Information at Closing	
FEMA Disaster Housing/Minimal Repair	\$	Duplication of Benefits sub-total:	\$
IFG Real Property	\$	Eligible Receipts:	\$
IFG Mitigation	\$	Total DOB minus receipts:	\$
Insurance payment/home repair:	\$	Purchase price/Fair Market Value	\$
Other home repair funds:	\$	Minus all deductions	\$
=DOB SUBTOTAL	\$	Total purchase price	\$

<b>Comments:</b>		
Date of Offer:	Date of Acceptance:	Closing Date:
Amount to seller after loan payoff and Duplication of Benefit deduction:		



**STATE OF OHIO  
Mitigation Grant Program  
REQUEST FOR PAYMENT**

**Section One: Sub-recipient Information**

<b>Submit to:</b> Ohio Emergency Management Agency Mitigation Branch 2855 W. Dublin Granville Road Columbus, Ohio 43235	<b>Name and Address of Subgrantee:</b> Flood County Commissioners 111 Water Street Flood City, Ohio 44444
---	--

<b>Contact Person and Phone</b>	<b>Subrecipient Federal Tax ID No:</b>	<b>Amount Requested:</b>
Joe Smith 614-555-5555	34-1111111	\$86,915.00

<b>Grant ID No:</b> FEMA-DR-43 -OH CFDA 97.039	<b>Project Name:</b> Flood County Main St. Acquisition Project	<b>Request No:</b> 1
--	---	-------------------------

**Program Type >> (Circle one)**                      HMGP                      FMA                      PDM

**Section Two: Itemization of Expenditures**

Fund Type	Total Award	Activity	Amount of this draw	Total Draw to Date	Award Balance Remaining
Project Funds (Federal)	\$200,000.00	Appraisals, Acquisition, Closing Costs, Proj. Mgmt	\$86,600.00	\$86,600.00	\$113,400.00
Management Cost (100% Fed)	\$1,000.00	Copier Supplies, Postage	\$315.00	\$315.00	\$685.00

<b>Total of this Draw: \$ 86,915.00</b>	<b>Local Match to Date: \$26,000.00</b>
	<b>Local Match Required: \$66,667.00</b>

**Section Three: Certification**

I certify that this request for payment has been drawn in accordance with the terms and conditions of the grant agreement cited above and that the amount drawn is proper for payment to the drawer. I also certify the data reported above is correct and the amount of the Request for Payment is not in excess of current needs.

<b>Date:</b>	<b>Signature:</b>	<b>Title:</b>
<b>Date:</b>	<b>Countersignature:</b>	<b>Title:</b>

**FOR STATE USE ONLY BELOW**

Received by: _____	Date: _____
Most recent QPR report received?    Y    N	Date of Report: _____

## INSTRUCTIONS FOR COMPLETING THE REQUEST FOR PAYMENT FORM

This form will be used to request an advance or reimbursement of funds from the Ohio Emergency Management Agency (EMA) Mitigation Branch for all FEMA Hazard Mitigation Assistance (HMA) grant programs. Requests for an advance must be made no less than 40 days before funds are needed for payment.

### Section One: Subgrantee Information

<u>Name and Address of Sub-recipient:</u>	Self-explanatory.
<u>Contact Person and Phone:</u>	Enter name of person to be contacted with any questions related to the the payment request.
<u>Sub--recipient Federal Tax ID Number:</u>	Enter the community tax identification #.
<u>Amount Requested:</u>	Enter the total amount of funds requested (should equal "Total of this Draw" block below.
<u>Grant Identification Number:</u>	Enter the project identification information. (i.e.: FEMA-DR-1805.2R-OH.)
<u>Project Name:</u>	Enter descriptive name (i.e., Clinton Buyout)
<u>Request Number:</u>	Enter the number of the request being made. (i.e.: for the third payment request being made - enter the number 3)
<u>Program Type:</u>	The program under which funds are available.

### Section Two: Itemization of Expenditures

<u>Fund Type:</u>	These are the categories of funding that have been awarded to the sub grantee.
<u>Total Award:</u>	Award amount for each funding source award for the project.
<u>Activity:</u>	Enter the budget item(s) the funds are being requested for (i.e.: appraisal, acquisition, etc.)
<u>Amount of this Draw:</u>	Enter the total amount of funds requested for each fund type.
<u>Total draw to date:</u>	Enter the amount of funds requested for each fund type to date, <b>including</b> the amount of this draw that has been requested.
<u>Balance Remaining:</u>	Enter the balance of funds.
<u>Total of this Draw:</u>	Enter the total funds being requested.
<u>Local Share to Date:</u>	Enter the total amount of the local share expended for the project to date.

### Section Three: Certification

<u>Date:</u>	Self explanatory
<u>Signature:</u>	Project Manager signature
<u>Counter-signature:</u>	Signature of person with financial responsibility for funds.

# Hazard Identification and Risk Assessment (HIRA)

---

State of Ohio  
2023 Edition



## Ohio Emergency Management Agency

2855 West Dublin Granville Road  
Columbus, Ohio 43235

**Mission:**

To coordinate activities to mitigate, prepare for, respond to, and recover from disasters.

**Vision:**

A safer future through effective partnerships committed to saving lives and reducing the impact of disasters.

## Foreword

July 1<sup>st</sup>, 2023

The 2023 edition of the State of Ohio Hazard Identification and Risk Assessment (HIRA) provides current research and updates on natural, technological, and human-caused hazards to which the State of Ohio is most vulnerable. Knowledge of these hazards, their frequency, and the state's overall vulnerability to them allows state and local government officials and our partners to better assess their risks and plan and prepare for the consequences.

This revision is an update and expansion to the 2018 version of the HIRA. The HIRA has been reviewed in its entirety, with all information evaluated and updated as necessary. This document was prepared by the Planning Training and Exercise Branch at the Ohio Emergency Management Agency (Ohio EMA) with the assistance of all branches within the agency and other state and federal partners. The information contained in this HIRA is a compilation of research from local, state, and federal government sources as well as from public sources and interviews with government officials and subject matter experts.



SIMA S. MERICK  
Executive Director  
Ohio Emergency Management Agency

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## Introduction

The intent of this document is to be a useful tool for local and state emergency management officials and partners to rate the risk, determine vulnerability, and predict the adverse impact of identified hazards in the state. The Hazard Identification and Risk Assessment (HIRA) does not provide policy or action-based recommendations to manage hazards. This document is one element of a comprehensive emergency management program that incorporates mitigation, preparedness, response, and recovery. The HIRA, the State of Ohio Emergency Operations Plan, as well as standard operating procedures, round-out a comprehensive program to manage hazards.

The HIRA, State of Ohio Hazard Mitigation Plan, and the Threat and Hazard Identification and Risk Assessment/Stakeholder Preparedness Review (THIRA/SPR) all involve the identification of hazards, but each document serves a different purpose. The HIRA identifies and ranks hazards to serve as a toolkit for partners to use in their planning efforts. The State of Ohio Hazard Mitigation Plan outlines potential actions partners may take to mitigate the risk and effects of hazards on the state, and there are specific hazards that are reflected in both the HIRA and the state's mitigation plan. The THIRA/SPR outlines impacts and establishes capability targets to aid communities in identifying capability gaps that should be addressed and potential funding sources for building and sustaining capabilities.<sup>1</sup> In the State of Ohio, the HIRA is published online and is openly available to the general public, while the THIRA/SPR is maintained internally due to containing sensitive information.

Emergency management in Ohio is governed by Ohio Revised Code (ORC) 5502. Section 5502.22 mandates that the state emergency management agency (EMA), a division of the Ohio Department of Public Safety, is the primary coordinating agency for statewide emergency readiness activities to meet the threats posed by various hazards.<sup>2</sup> In cooperation with other state departments and agencies, Ohio EMA has developed this analysis of the primary hazards that may threaten both lives and property.

'Hazards' in Chapter 5502.21 of the ORC are defined as: "... any actual or imminent threat to the survival or overall health, safety, or welfare of the civilian population that is caused by any natural, human-caused, or technological event."<sup>3</sup>

As defined by the ORC, "Hazard identification means an identification, historical analysis, inventory, or spatial distribution of risks that could affect a specific geographical area and that would cause a threat to the survival, health, safety, or welfare of the civilian population, the property of that population, or the environment."<sup>4</sup>

In updating the 2023 HIRA, hazards that were identified in the 2018 version were re-analyzed using the latest data, information, and discussions with subject matter experts. Knowledge gained through this process has allowed for the re-ranking and combining of specific hazards that will allow for a better understanding of the risks and vulnerabilities of hazards impacting the State of Ohio. New hazards have been included in this version of the HIRA that had not been previously identified based on the latest information and analysis of threats and hazards in an ever-evolving world. New hazard profiles are included as appendices for each of the 41 hazards identified in this version of the HIRA that provide detailed information as to the potential impacts and implications for each respective hazard to further assist partners in their planning efforts. While every effort was made to identify and rank hazards that pose a risk to the State of Ohio, we acknowledge that there are some hazards that are not germane to Ohio and/or not likely enough a scenario to warrant consideration in the state's HIRA.



## State of Ohio Profile

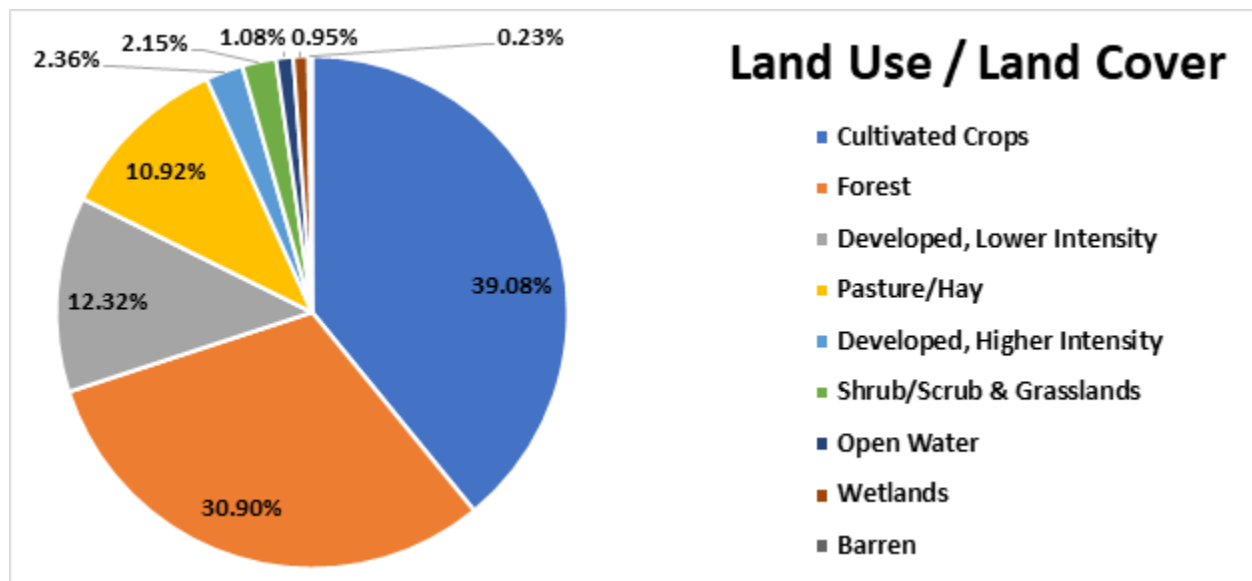
All geographical and political subdivisions of the state are vulnerable to some form of natural, technological, or human-caused hazard. The effects of these hazards, regardless of their type or size, will vary due to geography, climate, or land use. Examination of the state’s characteristics provides a better understanding of these hazards and their associated risks.

### Geography, Land Use, and Climate

With a total land area of 44,825 square miles, and an estimated population of 11,756,058 as of July 2022 (a gain of approximately 97,450 persons since the last risk assessment in 2018), nationally, Ohio ranks 34th in total area, and 7th in population.<sup>5,6</sup>

Topographically, the state presents a varied combination of landforms, which are diagonally divided across the state between the flat, glaciated, areas of the north-northwest, to the unglaciated highlands in the south and southeast. The steeply incised landforms in the south and east often contribute to flooding, mudslides, and other effects via rapid runoff from heavy rains and melt water. In the north and west, the level topography is subject to flooding when heavy snowstorms are followed by rapid melt water discharges.

The following graphic provides an overview of the land use and cover for the state:<sup>7</sup>



The state has a continental climate ranging through the year from cold, damp winters, to warm, humid summers with prevailing westerly wind patterns throughout the year. The average temperature in Ohio is 52.5 degrees Fahrenheit with an average monthly high of 86 degrees Fahrenheit (July) and average monthly low of 19 degrees Fahrenheit (January). The average annual rainfall is 40.16 inches.

### Ohio’s Economy

Ohio has a diversified economic portfolio, and ranks seventh in the nation in terms of economy.<sup>8</sup> Ohio’s nearly \$10 billion agricultural industry is dependent on the state having some of the most fertile and ideal farming conditions in the country.<sup>9</sup> The west and northwest sections of the state are

characterized by glaciated plains, with large deposits (up to 400 feet-deep) of fertile soil and wide expanses of lands that were flattened by glacial retreat, which make these rich lands ideal for agricultural production with modern, heavy farm machinery.

Major service industries/trade, such as utilities, healthcare, finance/insurance, and business services contribute another \$163 billion to the state's growing economy.

The State of Ohio is strategically located within the United States, allowing the state to have access to a significant proportion of the U.S. market within a reasonable distance. There is an estimated make-up of sixty percent of established manufacturing, fifty-five percent of established wholesale, and sixty percent of established retail within a 600-mile radius of Ohio.<sup>10</sup>

An extensive transportation network of roads, rail lines, waterways, and air travel support the state's economy. State, federal, and interstate highways form connecting links to, or around, major metropolitan areas. The state's large and medium-sized cities host commercial air traffic carriers. Ohio's railway infrastructure ranks fourth nationally in rail route mileage and eighth overall in carloads carried. Waterborne commerce (via barge or ship) contributes to local economies along the Ohio River and along the Lake Erie shore.

## Cascading Impacts and Emerging Hazards

Individual hazards have the capability to impact numerous geographical areas, functions, and systems. Furthermore, there are emerging hazards that are not able to be accurately identified and defined as its own specific hazard, yet have cascading impacts that are imperative to conceptualize and understand to better prepare and plan for these potential impacts.

Identified emerging hazards include climate adaptation, artificial intelligence, unmanned aerial systems, and misinformation/disinformation. Shortage of critical materials is not a new hazard; however, real-world events that have transpired since the last publication of the state's HIRA does necessitate the need to describe its potential impacts.

Cascading impacts of the identified and ranked hazards in the HIRA are included in their respective hazard profile located in Appendix 3 of this document. Please reference the hazard profile of the respective hazard you would like to learn more about.

## Climate Adaptation

Climate adaptation in and of itself cannot be easily defined as its own specific hazard. A changing climate has the potential of generating and increasing the risk of multiple natural hazards, and the numerous cascading impacts that this may create warrants an analysis.

The Federal Emergency Management Agency (FEMA) 2022 National Preparedness Report (NPR) specifically names climate adaptation (terminology used in the 2022 NPR is climate change) as being "...the most significant contributor to the change in risk for weather-related natural hazards..."<sup>11</sup> Changes in climate increases the risk of floods, high winds/windstorms, severe weather, drought, and wild fires.<sup>12</sup> The National Preparedness Report states that over the course of the last five years that weather phenomenon caused by changes in climate have cost the nation \$600 billion in damages to the economy and physical structures, and that the impacts of increased duration and occurrence of climate adaptation-related events have placed immense strain on our emergency responders and delays in recovery efforts.<sup>13</sup>

Climate adaptation has had direct impacts on the State of Ohio and its weather patterns. Between 1895 – 2020, Ohio has seen a trend of increasing in temperature by 0.1 degrees Fahrenheit and 0.31 inches in precipitation. Of the top ten warmest and wettest years in the state, six of those years have taken place after the year 2005. The changes affect disaster events such as urban and rural flooding, drought, and extreme temperature. Floods can have adverse effects on our transportation infrastructure, agriculture, and water treatment facilities. Droughts may lead to the increase in risk and occurrences of fires. Changes in temperature, more specifically in terms of heat, can create “heat islands” within urban areas and decrease air quality that can cause negative health effects on humans.<sup>14</sup>

Human mental and behavioral health is also impacted by changes in climate. The cascading impacts and adverse effects caused by climate adaptation brings with it the increase in risk of straining social relationships, substance abuse as a means of coping, post-traumatic stress disorder (PTSD), and anxiety and depression.<sup>15</sup>

Based on climate trends, Ohio is likely to witness changes in its average temperature and precipitation. Winters and night-time temperatures may be warmer. By mid-century the state could be 3-5 degrees warmer than today, and 4-8 degrees warmer by the late-century. Changes in precipitation cycles may cause wetter cool seasons and drier summer months, which in effect has the potential of more severe drought events.<sup>16</sup>

## Artificial Intelligence

The quickly evolving and advancing of technology over the past several decades has given rise to the use of artificial intelligence within society. Artificial intelligence is being used, or has the potential of being used, for numerous purposes to include decision making and problem solving, interpreting information, understanding and responding to written and verbal language, driving vehicles, and social media monitoring.<sup>17 18</sup> Furthermore, this technology has been used across multiple disciplines to include agriculture, commerce/marketing, education, and healthcare.<sup>19</sup> A recent product of artificial intelligence that has gained popularity is that of ChatGPT, a chatbot that allows users to input questions and the artificial intelligence software answers the inputted questions.<sup>20 21</sup>

While artificial intelligence has perceived benefits, there are potential adverse effects that may pose as a hazard to the state and its residents. Job losses due to artificial intelligence automation may correlate to higher levels of unemployment and a weakening economy in the state.<sup>22</sup> This may cascade into placing further socioeconomic burdens on society, increasing the risk of civil disobedience and criminal activity.<sup>23</sup> Safety and security of Ohioans may also be threatened, as there is a potential for artificial intelligence to be used for social surveillance, weapons automatization, and cyber intrusion into an individual’s personal information online.<sup>24 25</sup>

While modern artificial intelligence software is incapable of human-level thought processes at this time, as this form of technology continues to advance and its purposes and uses encompass more aspects of modern society, it is critical to understand, prepare, and plan for the potential impacts of this technology.

## Unmanned Aerial Systems

Unmanned Aerial Systems (UAS) encompass the small, in-expensive recreational drones that members of the general public are able to purchase and use to that of the multi-million dollar unmanned aerial vehicles (UAVs) used by the nation's armed services to carry out military operations. While UAS does have its benefits (traffic monitoring, critical infrastructure inspections in hard-to-reach areas, search and rescue operations, etc.), these systems also pose risks that categorize UAS as an emerging hazard.

Just as easily as members of the general public can purchase drones for recreational purchases, so to can criminals and terrorist agents who want to use UAS with malicious intent. UAS may be weaponized with an explosive, chemical, biological, and/or radiological material and used against large gatherings of people at open-air venues such as concerts and sporting events or inflict harm on physical structures, to include critical infrastructure systems.<sup>26 27</sup>

The devices can be used to deliver illegal substances (such as drugs) and weapons to areas that otherwise would be challenging or impossible to do without the use of UAS (i.e. prisons and across national borders).<sup>28</sup> Invasion of privacy is also a potential impact, as UAS may be utilized for surveillance, reconnaissance, and stalking.<sup>29</sup>

Disruption of life-safety operations is also a concern. In 2014, an event took place in Springfield, OH whereby a drone being operated by a hobbyist who was using a drone to photograph and record a traffic incident disrupted the ability of a medical helicopter to land and respond to the scene.<sup>30</sup>

## Misinformation/Disinformation

Misinformation is defined as "incorrect or misleading information," whereas disinformation is defined as "false information deliberately and often covertly spread in order to influence public opinion or obscure the truth".<sup>31 32</sup> Both misinformation and disinformation may cause cascading impacts based upon reactions to the information that are important to plan and prepare for.

With the increasing popularity of social media and video sharing websites, and the ease for which information can be posted and shared on a global scale, this creates a heightened risk of the spread of misinformation and disinformation.

The term often used to describe this type of information is "fake news," which can be described as fabricated or manipulated content that is shared to the general public.<sup>33 34</sup> Information classified as "fake news" may be considered accurate and true by a significant subset of a population, creating a false reality that may cause harm to others and destabilize norms of society.<sup>35</sup> This may further affect the ability of government to carry out essential services due to a decrease in trust, public health, financial markets, elections, and critical infrastructure.<sup>36 37</sup> The term "fake news" may also be used to classify content that is accurate, but due to the content being perceived as going against an individual's values or beliefs, it is considered to be fake information.

The challenges in accurately identifying misinformation/disinformation also raises concerns. The content may be sophisticated enough that it may be exceptionally difficult to discern the information as being inaccurate. Therefore, it is possible to unknowingly accept the information as being fact. Furthermore, the information may be presented in a way that aligns with an individual's values and beliefs, thereby causing people to accept the information without questioning the accuracy of the content.

In a recent Pew Research Center survey, seventy percent of the respondents in the countries that were surveyed stated that the “spread of false information online” was a “major threat”, outranking other categories on the survey such as cyberattacks, the condition of the global economy, and the spreading of infectious diseases.<sup>38</sup> Narrowing the scope to just analyzing U.S. residents in the same survey, the “spread of false information online” is deemed as a “major threat” by seventy percent by those who were surveyed.<sup>39</sup> In a survey conducted by the Pew Research Center in 2016, the results showed that sixty-four percent of American adults believe that fake news articles create significant confusion, with twenty-three percent stating they had shared fabricated news stories themselves (whether intentionally or unintentionally).<sup>40</sup>

There are means to potentially address the impacts associated with misinformation/disinformation. Consumers of the information can verify the information by finding original sources and checking the authenticity of the author of the information.<sup>41</sup> However, this would require time and effort made by those consuming the information to conduct the research. Online transparency and accountability regulations may also help address the impacts of misinformation/disinformation, but at this time there are little to no regulations in place.<sup>42</sup>

## Shortage of Critical Materials

Shortage of critical materials is not a new or emerging hazard, but the recent coronavirus pandemic (also known as COVID-19) demonstrated the fragility of the nation’s supply chain and its impacts on critical materials throughout the supply chain process.

Shortages or disruptions of the supply chain and of critical materials can result in adverse impacts on our national security, which includes the economy, public health, and critical infrastructure.<sup>43</sup> Shortages cause increases in consumer products and basic necessities, which may increase the cost of living and disproportionately affect impoverished or vulnerable populations.<sup>44</sup> This may inevitably increase the risk of conflict between the general public and government, with the potential of increasing instances of civil disobedience and/or criminal activity.<sup>45</sup>

## Impact on State Emergency Operations

Emergency managers have the task of coordinating mitigation, preparedness, response, and recovery efforts for the threats and hazards that Ohioans face. The State Emergency Operations Center (EOC) and the emergency management staff coordinating its operations require all available information, tools, and expertise in their efforts to reduce the impact of disasters and to ensure a rapid return to normal operations as soon as possible.

In this version of the HIRA, Ohio EMA analyzed the consequences of all hazards (natural, technological, and human-caused) for their effect on the state’s emergency operations. The most likely hazards determined to affect state emergency operations are those which impact the community lifelines of energy, communications, transportation, and food, water, shelter.

Ohio EMA maintains and regularly updates all-hazards plans and the agency’s continuity of operations plan (COOP) that provide operational procedures in the event of a disaster. Each respective all-hazard plan and the COOP assess the risk and vulnerability to the state’s emergency management activities resulting from identified natural, technological, and human-caused hazards.

The State EOC has vulnerabilities attributed to its proximity to an active airport (The Ohio State

University Airport) to the south of the property and an active rail line to the east, which results in substantial risk for egress to/from the facility as well as the potential for hazardous materials accidents which would require evacuation and relocation. Furthermore, State Route 161 / West Dublin-Granville Rd. is the only public roadway connected to the street that the Ohio EMA/EOC facility is situated, thereby creating challenges associated with accessing the Ohio EMA/EOC facility should State Route 161 / West Dublin-Granville Rd. be closed or obstructed for any reason. These vulnerabilities and how to address them have been considered in the agency’s COOP.

## Risk Assessment: The Analysis and Scoring Process

### Methodology

A hazard identification and risk assessment consist of an analysis of quantitative and qualitative information obtained throughout the hazard identification process.

The 2018 HIRA risk values, information obtained via conducting research into historical and statistical data, and/or internal discussions amongst members of Ohio EMA formed the baseline values of the identified hazards. Interviews were held with subject matter experts representing various disciplines at the local, state, and federal level to revise and confirm the baseline values to become the official risk values used in calculating the risk of the hazards.

Risk values are categorized into three categories: threat and hazard profiles, vulnerability, and consequence analysis. Each category is broken down into their own set of factors that are defined and numerically coded to create the value. The following sections are broken down by category, with each section illustrating by means of a series of charts as to their set of factors, how each factor is defined, and how each factor is coded in order to create the numerical data necessary for the formula calculations (explained under the “Formulas and Value Calculations” section).

### Factors for Threat and Hazard Profiles

**Frequency.** A key factor in the risk of a particular hazard is the frequency with which it occurs. Some hazards have been relatively frequent in this state while others were only sporadic. For this hazard analysis, the frequency with which an event occurs is based on historical reports and query of subject matter experts from various state and local authorities as well as the number of Gubernatorial Declarations associated with the hazard agent. Using these criteria provides a wider variety of hazards than utilizing presidential declarations alone. State declaration records from Ohio’s Secretary of State date back to 1991.

4	Highly Likely	Near 100% probability in next year. Many state declarations have occurred.
3	Likely	Between 10 and 100% probability in next year, or at least one chance in 10 years. Some state declarations have occurred.
2	Possible	Between 1 to 10% probability in the next year, or at least 1 in the next 100 years. Very few state declarations have occurred.
1	Unlikely	<1% probability in next 100 years. No state declarations are likely.

**Duration** may be defined as “time on the ground” or the time-period of response to a hazard or event. Transportation accidents may last a few hours whereas a tire fire may last a week and a flood several weeks. Duration, therefore, may not always be indicative of the degree of damage, but it remains an important planning factor.

5	Excessive	More than 30 days
4	Long	7 to 30 days
3	Medium	1 to 7 days
2	Short	12 to 24 hours
1	Minimal	Less than half a day

**Speed of Onset** may affect all other factors due to lack of warning or time to prepare for impact. The lead-time required protecting lives and property varies greatly with each event. For instance, a slow-rising Ohio River flood may allow time to evacuate residents and begin flood fight measures, but flash floods can occur with little warning.

4	Short-None	Minimal to no warning
3	Short	6 to 12 hours
2	Medium	12 to 24 hours
1	Extended	More than 24 hours

**Magnitude** is the geographic dispersion of the hazard. For instance, comparing the number of counties impacted by a flood on the Ohio River versus a transportation accident involving hazardous materials.

4	Catastrophic	More than 50 counties impacted
3	Critical	25 to 50 counties impacted
2	Limited	10-25 counties impacted
1	Localized	Less than 10 counties impacted

## Factors for Vulnerability

**Impact on Business** refers to enduring economic impact of the hazard on the community by an event.

4	Complete shutdown of critical facilities for 30 days or more
3	Complete shutdown of critical facilities for at least two weeks
2	Complete shutdown of critical facilities for one week
1	Shutdown of critical facilities for less than 24 hours



**Impact on Humans.** This factor relates to the number of lives potentially lost to a particular hazard.

4	High	Multiple deaths
3	Medium	Multiple severe injuries
2	Low	Some injuries
1	Minimum	Minor injuries

**Impact on Property.** This factor relates to the amount of property potentially lost to a particular hazard agent. This factor can vary between jurisdictions based on economics, geographic amount owned, and demographics of the particular populations.

4	High	More than 50% of property severely damaged
3	Medium	More than 25% of property severely damaged
2	Low	More than 10% of property severely damaged
1	Minimum	Less than 10% of property severely damaged

**Impact on Environment.** This factor considers the impacts from the hazard event to the air, water, land, and biota.

4	High	Catastrophic Impacts to the environment as a result of the event and/or cascading effects. Environmental impacts would have immediate and long term health effects to people. Significant resources required for remediation.
3	Medium	Localized and temporary Impacts to the environment as a result of the event and/or cascading effects. No immediate health threat to people and environmental remediation would restore the environment to acceptable limits.
2	Low	Impact to the environment would be minimal and only require a local response.
1	Minimum	Impact to the environment would not require remediation.

## Factors for Consequence Analysis

**Public.** This category considers the overall impact to the citizens of the State caused by the hazard. The short- and long-term impacts caused by the hazard were considered in addition to efforts at the State and local level to mitigate, prepare for, respond to and recover from the event. The ranking is a general reflection of the State's resilience to the hazard being evaluated.

3	High	Impacts to the public would likely exceed State resources and necessitate Federal assistance. Impacts would include multiple casualties.
2	Medium	Impacts to the public would likely not exceed State resources. Some casualties and injuries would occur.
1	Low	Impacts to the public would be managed at the local level.



**First Responders.** This category considers the impact of the hazard event to police, fire, EMT, emergency management and other State and local officials that respond to the event. The threats to the health and safety of first responders posed by the hazard were considered in addition to staffing, training, and overall preparedness of first responders.

3	High	Extreme threat posed to first responders, which would likely exceed local and State resources.
2	Medium	Significant threat posed to first responders, but would likely not exceed State and local resources.
1	Low	Threat posed by hazard would be managed at the local level.

**Continuity of Operations.** This category considers the impact of the hazard event to State government’s ability to continue or reestablish essential services.

3	High	Impacts to essential functions as a result of the hazard event and/or cascading effects would be catastrophic. This failure would have an immediate cascading effect to public health and safety.
2	Medium	Impacts to essential functions as the result of the hazard event and/or cascading effects would be significant, but localized and temporary. This impact would create delayed response to public health and safety, but no immediate concerns.
1	Low	Impact to essential functions would be minimal and only require a local response.

**Facilities/Infrastructure (i.e., Property).** This category considers the impacts of the hazard event to the built environment.

3	High	The hazard event would result in catastrophic damages to the built environment. Damage to the built environment would have cascading and long-term effects. Impacts would strain Federal resources and require extensive long term recovery efforts.
2	Medium	The hazard event would result in significant damages to the built environment and likely require the need for Federal resources to effectively recover.
1	Low	Effects to the built environment would be limited and likely not exceed the response and recovery efforts at the State and local level.

**Economy.** This category considers the impact to the State economy from the hazard event.

3	High	Cost to respond and recover from the event would quickly exceed the amount budgeted in the State Disaster Relief Fund requiring federal resources.
2	Medium	Cost to respond and recover from the event would likely not exceed the amount budgeted in the State Disaster Relief Fund.
1	Low	Cost to respond and recover from the event would likely not exceed local resources.

**Environment (est. remediation).** This category considers the overall impact to the citizens of the State caused by the hazard. The short- and long-term impacts caused by the hazard were considered in addition to efforts at the State and local level to mitigate, prepare for, respond to and recover from the event. The ranking is a general reflection of the State's resilience to the hazard being evaluated.

3	High	Impacts to the environment as the result of the hazard event and/or cascading effects would be catastrophic. Environmental impacts would have immediate and long-term health effects to people. Significant resources would be required for environmental remediation.
2	Medium	Impacts to the environment as the result of the hazard event and/or cascading effects would be localized and temporary. There would be no immediate health threat to people and environmental remediation would restore the environment to acceptable limits.
1	Low	Impact to the environment would be minimal and only require a local response.

**Public Confidence.** This category considers the impact a hazard event of each type could have on the public's confidence in the government and emergency management community.

3	High	Significant negative impact. Downturn in public trust for the government's ability to respond to or recover from disaster.
2	Medium	Some negative impact. Public trust is eroded but recoverable as the recovery ensues.
1	Low	Little or no impact on the public trust.

## Formulas and Value Calculations

When determining the values based off the definitions and coding of the factors, it was often necessary for the subject matter experts to consider the average or most often occurrence of the hazard. It is important to note that outside variables and case-by-case situations may cause a hazard to not align with the risk values that were confirmed and decided upon for the calculations. Once the values were confirmed by subject matter experts for each identified hazard in the HIRA, the values were inputted into a series of formulas that created values for threat/hazard value, vulnerability rating, consequence

value, and probability. Ultimately, through these calculations a total risk value was able to be determined and was used in the ranking of the hazards within the HIRA. The following are the formulas used in the HIRA:

**Threat/Hazard Value (T)** = (Duration + Speed of Onset + Frequency + Magnitude)/1.7

Where 1.7 is a normalizing factor to adjust the scores to the model used in the FEMA Critical Asset Risk Management MGT-315, October 2016

**Vulnerability Score** = (Business + Human + Property + Environment) x 2.2

Where 2.2 is a normalizing factor to adjust scores to the 35-point scale for vulnerability ratings in FEMA Critical Asset Risk Management MGT-315, October 2016.

**Vulnerability Rating (V)** – Compare the calculated vulnerability score to the table provided by FEMA (below) to determine the vulnerability rating, which is used for final calculation and plotting on the risk graph.

<i>Vulnerability Score</i>	<i>Rating</i>
0-2	1
3-5	2
6-8	3
9-11	4
12-14	5
15-17	6
18-20	7
21-23	8
24-26	9
27-29	10
30-32	11
33-35	12

**Consequence Value (C)** = sum of scores for each of the seven factors described in the Consequence Analysis section above divided by 2 to adjust scoring of six Ohio factors vs three factors used in FEMA Critical Asset Risk Management MGT-315, October 2016.

Hazard and vulnerability are used to calculate an overall Probability (P), which is then multiplied by Consequence to assign a Total Risk Value.

**Probability (P)** = T x V

**Total Risk** = P x C

## Hazard Ranking and Total Risk Values

The following chart lists all 41 identified hazards, in categorical order, based upon the calculated total risk value.

RANK	HAZARD	TOTAL RISK VALUE
1	NUCLEAR FACILITY INCIDENT	951
2	TERRORISM, RADIOLOGICAL/NUCLEAR	883
3	TERRORISM, CHEMICAL	883
4	AGRICULTURAL INCIDENT	782
5	ANIMAL DISEASE	770
6	TERRORISM, BIOLOGICAL	726
7	ELECTRO MAGNETIC PULSE (EMP)	704
8	HAZARDOUS MATERIAL INCIDENT	667
9	PUBLIC HEALTH EMERGENCY	664
10	STRUCTURE COLLAPSE	585
11	FLOODING	562
12	SEVERE WINTER STORMS	529
13	LONG TERM POWER OUTAGE	520
14	SEVERE SUMMER STORMS	519
15	URBAN FIRE	495
16	CYBER INCIDENT	486
17	TORNADO	476
18	ELECTRICAL GRID FAILURE	469
19	DROUGHT	466
20	EARTHQUAKE	450

21	SOLAR FLARE	450
22	WATER SUPPLY FAILURE	440
23	MASS CASUALTY INCIDENT (MEDICAL)	433
24	FUEL SHORTAGE	408
25	DAM/LEVEE FAILURE	405
26	TEMPERATURE EXTREMES	395
27	NATURAL GAS FAILURE	388
28	MASS COMMUNICATIONS FAILURE	367
29	HIGH WINDS	362
30	INVASIVE SPECIES	334
31	RADIOLOGICAL INCIDENT (NON-TERRORISM, NON-NUCLEAR)	311
32	LANDSLIDE	296
33	LAND SUBSIDENCE	282
34	MASS CASUALTY INCIDENT (TRAUMA)	276
35	WILD FIRE	262
36	CIVIL DISTURBANCE	222
37	CRIMINAL ACTIVITY	214
38	TRANSPORTATION INCIDENT / ACCIDENT	176
39	TRANSPORTATION INFRASTRUCTURE SYSTEM FAILURE	155
40	COASTAL EROSION	113
41	SEICHE / COASTAL FLOODING	99

## Hazard Grouping

Hazards identified within the HIRA fall within the hazard categories of natural, technological, and human-caused. The three categories are defined as follows<sup>46</sup>:

**Natural:** Result by acts of nature.

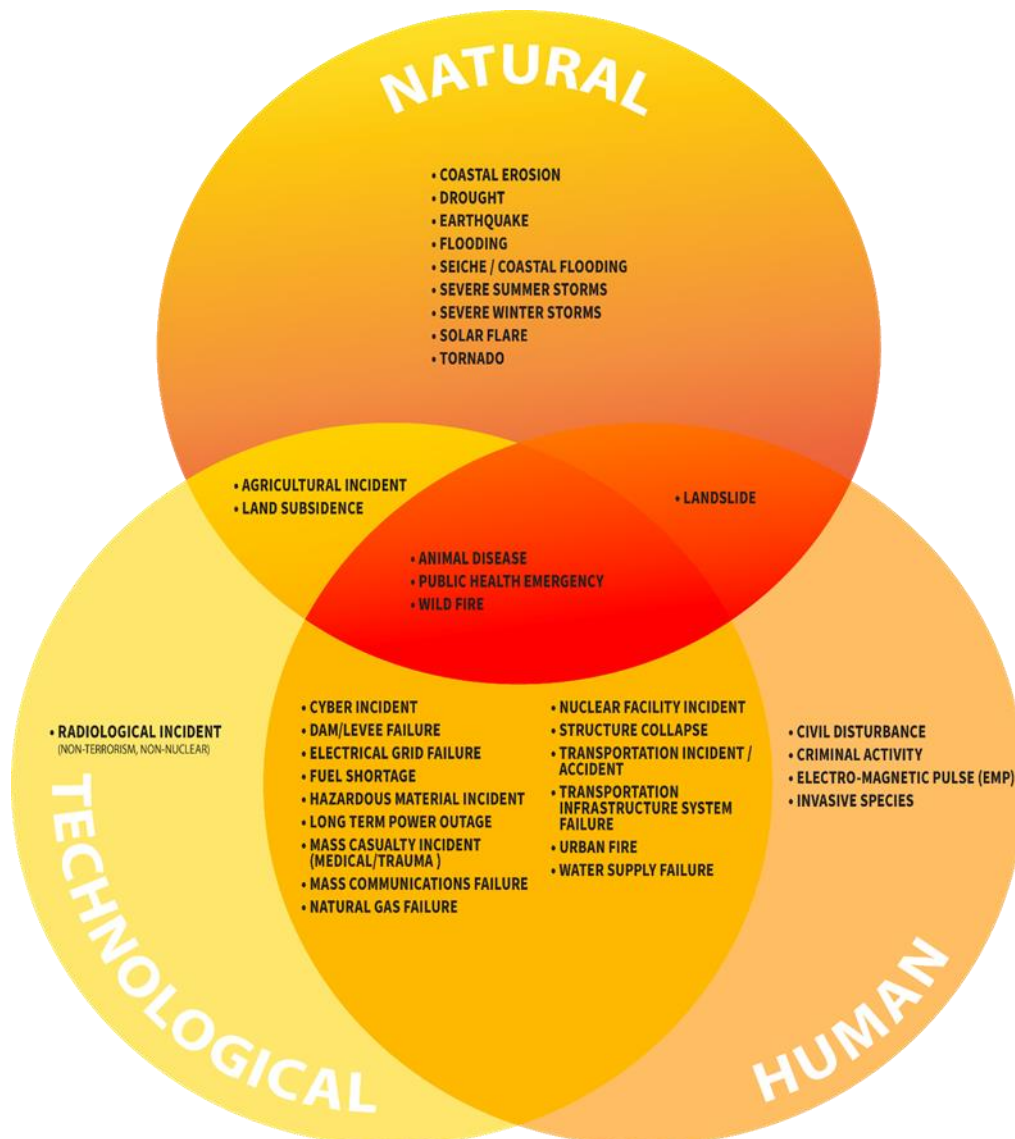
**Technological:** Result from accidents or system and structure failure.

**Human-Caused:** Result from intentional actions of an adversary.

While there are identified hazards that strictly only fall within one category, there are several identified hazards that fall under multiple categories. This is due to there being multiple causes and variables that can lead to the result of a single hazard.

Example: Cyber incident is grouped as falling within the technological and human-caused categories. An unintentional error in computer coding may result in the loss of access to a cyber program creating a technological cyber incident, just as a hacker may install ransomware in a cyber network creating a human-caused cyber incident.

Below is a venn diagram that illustrates how all 41 identified hazards in the HIRA are grouped based upon the three categories:





## Method and Schedule for Review, Maintenance, and Revision

The HIRA is reviewed informally by the public via its availability on Ohio EMA’s website and is distributed, upon request, to any interested party. Formally, the HIRA is reviewed by planning partners representing the whole community who are identified for their subject matter expertise and support of core capabilities for emergency management. Effective with this version, the HIRA is now included as Step 1 (Identification of Threats and Hazards) of the THIRA process.

As part of routine maintenance of this document, any reviews and changes must be verified to conform to the current, approved Emergency Management Accreditation Program (EMAP) standard, and primarily to sections 4.1.1 to 4.1.3.

The HIRA will be revised as needed to remain current or correct typographical errors. Formal publication and re-approval will be completed at least once every five years. Significant revisions will be recorded in the Record of Changes section of this document.

## Record of Changes

Change Number	Description of Change	Date	Authorized by
001	Section added on Assessing Risk and Vulnerability to the Environment for Building Collapse and Terrorism...	July 2008	Ted Filer
002	Added Record of Changes	July 2008	Patrick Sheehan
003	HIRA Update Change from Human-Caused Hazard to Manmade / Adversarial	December 2011	Portia Pulsifer
004	HIRA Update <ul style="list-style-type: none"> <li>• Formatting changes and updates</li> <li>• Update Data in Tables</li> <li>• Update Environmental Impacts Analysis Statements and Scoring</li> <li>• Update footnotes and references that have changed</li> <li>• Added consequence analysis</li> </ul>	Spring / Summer 2013	Pulsifer, Sheehan, Dragani, Ferryman, Little, Merick
005	Reviewed and added analysis of risk and vulnerability State of Ohio Emergency Management Operations	Summer 2013	Sheehan

006	<p>HIRA Update</p> <ul style="list-style-type: none"> <li>• Formatting changes and updates</li> <li>• Update data tables, analysis statements and scoring for consistency with FEMA Critical Asset Risk Management formula</li> <li>• Update footnotes and references that have changed</li> <li>• Incorporated consequence analysis as part of total risk valuation</li> <li>• Updated analysis of risk and vulnerability to State of Ohio Emergency Management Operations</li> </ul>	December 2018	Susan Wyatt
007	Added Disease, Human supporting data collected according to the methodology to Figure 11 and ranked hazards table; updated document release to reflect December 2018, version 1	February 2019	Susan Wyatt
008	Added specificity to the EMP scenario to indicate high-altitude nature of the attack and the size of the impact zone.	June 2019	Susan Wyatt
009	Removed “disease - human”; incorporated into public health emergency	October 2020	Dan Baker
010	Updated Figure 1. Historical Events and Impacts to include events since last rendition of this document. See page 10	March 2021	Matt Jaksetic
011	<p>HIRA Update</p> <ul style="list-style-type: none"> <li>• Formatting changes and updates</li> <li>• Updated references to information that have changed</li> <li>• Updated, removed, and created data tables charts, graphics, and visuals</li> <li>• Updated hazard grouping</li> <li>• Deleted the sections “General Overview of Hazards in Ohio” and “Annex 2 – Detailed Hazard Overview”.</li> <li>• Added “Factors for Vulnerability – Emergency Management Considerations”</li> <li>• Changed “Endnotes” section header to “References and Resources”</li> <li>• Updated “Impact on State Emergency Operations” Section</li> <li>• Updated formulas in methodology section</li> <li>• Updated “Presidential Major and Emergency Disaster Declarations in Ohio with Costs, by County” chart</li> <li>• Inclusion of hazard profiles as an annex</li> </ul>	Winter 2022 – Spring 2023	Jordan Sanderson



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## Appendix 1 – Historical Review of Disasters

For almost 200 years, the State of Ohio has recorded casualties (injuries and fatalities) associated with disasters varying in origins and effects. The more noteworthy of these, which resulted in loss of life or economic damages, are listed in the chart below.

Name of Disaster	Year	Hazard/Event Type	Location	Casualties
Cholera Epidemic	1849/50	Bio/Epidemiological	Statewide	5,000 +
Rail Bridge Collapse	1876	Transportation	Ashtabula	92
Collinwood School Fire	1908	Fire	Cleveland	17
Easter Flood	1913	Flood	S/SW Ohio	467
Influenza Epidemic	1918	Bio/Epidemiological	Statewide	Multiple Thousands
Sandusky/Lorain Tornado	1924	Tornadoes	Lorain and Sandusky	85
Cleveland Clinic Fire	1929	Fire	Cuyahoga	123
Millwood Mine Disaster	1930	Mine Fire – Collapse	Athens Co.	82
Penitentiary Fire - Columbus	1930	Prison Fire	Franklin Co.	322
Extreme Heat	1934	Heat Wave	Statewide	160
Winter Flood	1937	Flood	Statewide	250
Gas Explosion & Fire	1944	Technological + Fire	Cleveland	130
Blizzard	1950	Winter Storm	Statewide	Unknown
Penitentiary Fire - Columbus	1952	Prison Fire	Franklin Co.	0
Winter/Spring Floods	1959	Flood	Statewide	Unknown
Nursing Home Fire	1963	Fire	Marietta	95
Tornado	1965	Tornadoes	Toledo, Lima, Strongsville. Delaware, Mercer, Seneca, and Shelby counties	55
Lake Central/TWA Crashes	1967	Transportation	N&W Ohio	70 + (Combined)
Prison Riot - Columbus	1968	Other (Prison Riot)	Franklin Co.	5
Xenia Tornadoes	1974	Tornadoes	Greene Co.	30; 1150 injured
Blizzard	1978	Winter Storm	Statewide	51
Explosion/Fire - Miamisburg	1986	Technological + Fire	Butler Co.	0
Train wreck-HAZMAT Spill	1986	Transportation	Miamisburg	0
Flash Flood – Shadyside	1990	Flash Flood	Belmont Co.	26
Prison Riot – Lucasville	1993	Other (Prison Riot)	Scioto Co.	11

<b>Name of Disaster</b>	<b>Year</b>	<b>Hazard/Event Type</b>	<b>Location</b>	<b>Casualties</b>
Floods (from snow runoff)	1996	Flood	Statewide	0
Severe Storms/Floods	1997	Flood	Southern Ohio	5
Severe Storms/Floods	1998	Flash Flood	Central/east central & SE	12
Xenia Tornadoes	2000	Tornadoes	Greene Co.	1; 100 injured
Van Wert Tornado	2002	Tornadoes	Van Wert (1 of 83 tornadoes in 17 states)	5
Winter Storms	2004-05	Severe Winter Weather	Statewide	0
Severe Winter Weather	2005	Ice Storm	Statewide	0
Severe Storms	2007	Flooding	Statewide	0
Wind Storm	2008	High Wind Storm	Statewide	7
H1N1	2009/10	Pandemic	Statewide	119 (total influenza deaths, including H1N1)
Severe Weather & Tornadoes	2010	Tornado	Wood, Fulton, Ottawa & Lucas counties	6
Severe Weather; Flooding	2011	Flooding	Ohio River	0
Winter Storm	2012	Blizzard	NW Ohio	0
Severe Weather (Derecho)	2012	High Wind	From NW Ohio to SE Ohio	1 (subsequent heatwave may have caused other deaths)
Hurricane Sandy	2012	Hurricane; High Wind	Northern Ohio	0
Train Derailment/Explosion	2012	Technological - HazMat	Franklin	
Severe Weather and Tornadoes	2012	Tornado; Severe Thunderstorms	Clermont, Hamilton, Highland, Pike, Adams, Lawrence, Athens	4
Cridersville Tornado	2013	High Wind, Flooding	Auglaize, Perry, Morrow	0

Name of Disaster	Year	Hazard/Event Type	Location	Casualties
Traffic Accidents (90 car pileup)	2013	Winter Storm	SW Ohio	1; 28 injured
Flooding	2014	Flooding	Summit, Clark, Highland	0
Toledo Water	2014	Harmful Algal Bloom	Lucas	0
Severe Weather	2014	Power Outage, Propane Shortage	Summit	0
Ebola Response	2014	Public Health Emergency	Summit	0
Severe Weather	2014	Tornado, High Wind	Mahoning, Highland	0
Winter Storm	2014	Winter Storm, Power Outage	Gallia, Darke, Warren, Highland	0
Akron Plane Crash	2015	Aircraft	Summit	9
Argo Shipwreck	2015	HazMat	Lake Erie	0
Kettering Tornado	2015	Tornado	Montgomery	0
Stark County Radium Response	2016	Radiological	Stark	0
Tornadoes	2016	Tornado	Statewide (24)	0
Tornadoes	2017	Tornado	Statewide (39)	0
Cincinnati Fifth Third Bank Shooting	2018	Active Aggressor	Hamilton	4 (incl. shooter)/2 injured
Flooding	2018	Flood	SE Ohio and Ohio River	1
Ross Correctional Facility Unknown Substance	2018	Public Health Emergency	Ross	0
Memorial Day Weather Event	2019	Tornado	West Central Ohio	~131 (1 death; 130 injuries) <sup>47</sup>
Dayton Oregon District	2019	Active Aggressor	Montgomery County	9 (incl. shooter) 17 injured
COVID-19 Pandemic	2020 – 2023	Pandemic	Statewide	42, 000 + <sup>48</sup>
High Path Avian Influenza (HPAI)	2022 – 2023	Disease, Animal	Statewide	0 Human ~4+ million poultry <sup>49</sup>

Source: *Ohio Almanac/Contributing agencies/Ohio EMA*

The above chart shows some of the historically serious events occurring since 1849 and mortality statistics, but not property damages or other costs.

Since 1964, many events have received a Declaration of Disaster by the President of the United States as

shown in Appendix 2. The chart in Appendix 2 provides a breakdown as to the federally declared disasters between 1964-2023 in counties throughout the state, the type of federal assistance provided for each disaster, incident type, and funding provided.

These incidents have affected both people and property. Gubernatorial declarations have often been used for a number of other events, not qualifying for federal assistance via presidential declarations, as “Emergencies” or “Disasters.” This process serves to initiate coordinated state response efforts for areas requiring assistance beyond local capabilities.

## Appendix 2 – Presidential Major and Emergency Disaster Declarations in Ohio with Costs, by County (1964-2023)

DISASTER DECLARATION NUMBER	DATE DECLARED	FEDERAL DISASTER PROGRAMS	INCIDENT TYPE	COUNTIES DECLARED	FUNDS PROVIDED
DR- 167	March 24, 1964	PA	Heavy rains and flooding	Adams, Athens, Auglaize Belmont, Brown, Butler, Carroll, Clermont, Clinton, Columbiana, Coshocton, Cuyahoga, Delaware, Fairfield, Franklin, Gallia, Geauga, Guernsey, Greene, Hamilton, Harrison, Hocking, Jackson, Jefferson, Lake, Lawrence, Licking, Medina, Meigs, Miami, Monroe, Morgan, Muskingum, Noble, Perry , Pickaway, Pike, Preble, Richland, Ross, Scioto, Summit, Trumbull, Tuscarawas, Vinton, Warren, Washington,	\$571,482 (P)
DR- 191	April 14, 1965	PA	Tornadoes and high winds	Allen, Cuyahoga, Delaware, Hancock, Harrison, Highland, Lorain, Lucas, Medina, Mercer, Morrow, Pickaway, Seneca, Shelby, Van Wert	\$275,248 (P)
DR- 238	May 4, 1968	PA	Tornadoes	Brown, Clermont, Gallia, Licking, Scioto	\$270,000 (P)
DR- 243	June 5, 1968	PA	Heavy rains and flooding	Adams, Athens, Brown, Butler, Clermont, Clinton, Fairfield, Franklin, Fayette, Gallia, Greene, Guernsey, Hamilton, Hocking, Jackson, Lawrence, Licking, Meigs, Monroe, Montgomery, Morgan, Noble, Perry, Pickaway, Pike, Ross, Scioto, Vinton, Warren, Washington	\$600,000 (P)
DR- 266	July 15, 1969	PA	Heavy storms and floods	Ashland, Ashtabula, Coshocton, Cuyahoga, Erie, Harrison, Holmes, Huron, Lake, Lorain, Lucas, Medina, Morgan, Muskingum, Ottawa, Richland, Sandusky, Seneca, Stark, Trumbull, Tuscarawas, Wayne, Wood	\$1,000,000 (P)

DR- 345	July 19, 1972	PA	Storms and flooding	Ashtabula, Belmont, Cuyahoga, Jefferson, Lake, Lorain, Monroe	\$1,328,098 (P)
DR- 362	November 24, 1972	PA	Storms and flooding	Erie, Lake, Lorain, Lucas, Ottawa	\$615,863 (P)
DR- 377	April 27, 1973	PA	Storms and flooding	Ashtabula, Cuyahoga, Erie, Lake, Lorain, Lucas, Ottawa, Sandusky	\$1,417,975 (P)
DR- 390	June 4, 1973	PA	Mudslides	Hamilton, Washington	\$1,434,684 (P)



DISASTER DECLARATION NUMBER	DATE DECLARED	FEDERAL DISASTER PROGRAMS	INCIDENT TYPE	COUNTIES DECLARED	FUNDS PROVIDED
DR- 421	April 4, 1974	PA/IFG	Tornadoes and high winds	Adams, Butler, Clark, Delaware, Fayette, Franklin, Greene, Hamilton, Madison, Paulding, Pickaway, Putnam, Summit, Warren,	\$10,250,454 (P) \$1,945,833 (I)
DR- 436	May 31, 1974	PA	Heavy rains and flooding	Lucas, Ottawa, Sandusky	\$858,824 (P)
DR- 445	July 11, 1974	PA	Heavy rains and flooding	Warren	\$507,364 (P)
DR- 480	September 11, 1975	PA	Floods	Belmont, Cuyahoga, Jefferson, Lake,	\$3,320,493 (P)
DR- 3055-EM	January 26, 1978	PA	Severe blizzard conditions	All 88 counties	\$3,546,669 (P)
DR- 630	August 23, 1980	PA/IFG	Heavy rains and flooding	Belmont, Columbiana, Guernsey, Jefferson, Monroe, Muskingum, Noble	\$1,653,327 (P) \$669,820 (I)
DR- 642	June 16, 1981	PA/IFG	Tornado, high winds and flooding	Hancock, Morrow, Putnam, Wyandot (IA) Morrow (PA)	\$346,950 (P) \$47,382 (SCB)** \$515,593 (I)
DR- 653	March 26, 1982	PA/IFG	Flood	Defiance, Fulton, Henry, City of Toledo (Lucas), Paulding, Wood County (IA) Defiance, Paulding, Village of Grand Rapids (Wood only) (PA)	\$157,390 (P) \$268,187 (I)
DR- 738	June 3, 1985	PA/IFG	Tornadoes	Ashtabula, Columbiana, Coshocton, Licking, Portage, Trumbull (IA) Trumbull (PA)	\$1,556,950 (P) \$419,751 (SCB)** \$424,893 (I)
DR-796	1987	IFG	Floods	Crawford, Marion, Morrow, Richland	\$1,066,258 (I) \$266,564 (SCB)**
DR- 831	June 10, 1989	IFG	Severe storms and flooding	Butler, Coshocton, Cuyahoga, Franklin, Geauga, Greene, Lake, Licking, Lorain, Mercer, Montgomery, Preble, Warren	\$2,363,868 (I) \$590,967 (SCB)**

DISASTER DECLARATION NUMBER	DATE DECLARED	FEDERAL DISASTER PROGRAMS	INCIDENT TYPE	COUNTIES DECLARED	FUNDS PROVIDED
DR- 870	June 6, 1990	PA/IFG/HMG P *	Severe storm, tornadoes, and flooding	Athens, Belmont, Butler, Columbiana, Fairfield, Hamilton, Harrison, Hocking, Jackson, Jefferson, Lawrence, Licking, Monroe, Muskingum, Perry, Pike, Richland, Vinton (PA/IA) Clermont, Franklin, Mahoning, Morrow, Madison, Ross, Trumbull (IA only)	\$10,847,075 (P) \$4,331,497 (I) \$3,849,783 (SCB)** \$630,000 (M) \$630,000 (S)
DR- 951	August 4, 1992 (IA) August 14, 1992 (PA/HMGP)	PA/IFG/HMG P *	Severe storms, tornadoes, flooding	Cuyahoga, Franklin, Logan, Mahoning, Medina, Mercer, Ross, Shelby, Summit, Trumbull, Van Wert (PA/IA) Auglaize, Belmont, Columbiana, Erie, Fairfield, Fulton, Geauga, Jefferson, Lorain, Lucas, Ottawa, Portage, Wood (PA only)	\$8,308,334 (P) \$2,081,117 (I) \$2,474,083 (SCB)** \$250,000 (M) \$350,000 (CDBG)+
DR-1065	August 25, 1995	IFG/HMGP	Severe storms and flooding	Champaign, Erie, Logan, Lorain, Licking, Marion, Mercer, Miami, Scioto, Shelby, Washington	\$3,493,319 (I) \$81,731 (SCB)** \$721,500 (M)
DR-1097	January 27, 1996	PA/IFG/ HMGP	Ohio River flooding	Adams, Belmont, Columbiana, Gallia, Jefferson, Lawrence, Meigs, Monroe, Scioto, Washington (PA/IA) Brown, Clermont, Hamilton (IA)	\$4,335,000 (P) \$1,822,056 (I) \$1,617,991 (SCB)** \$1,721,655 (M)
DR-1122	June 24, 1996	PA/HMGP	Severe storms and flooding	Adams, Belmont, Brown, Butler, Clermont, Gallia, Hamilton, Hocking, Jefferson, Lawrence, Meigs, Monroe, Paulding, Scioto, Vinton, Williams	\$10,811,838 (P) \$2,702,960 (S) \$1,137,951 (M)
DR-1164	March 4, 1997	IA/PA/HMGP	Flash flooding on inland rivers/streams and Ohio River flooding	Adams, Athens, Brown, Clermont, Gallia, Hamilton, Highland, Hocking, Jackson, Lawrence, Meigs, Monroe, Pike, Ross, Scioto, Vinton, Washington (IA/PA/HMGP) and Morgan (PA/HMGP)	\$29,666,825 (P) \$22,196,350 (I) \$9,821,524 (M) \$9,821,524 (S) \$9,740,294 (NRCS)*+

DR-1227	June 30, 1998	IA/PA/MIT	Flash flooding, flooding, high winds and tornadoes.	Athens, Belmont, Coshocton, Guernsey, Harrison, Jackson, Jefferson, Knox, Meigs, Monroe, Morgan, Morrow, Muskingum, Noble, Ottawa, Perry, Pickaway, Richland, Tuscarawas, Washington; (IA only) Franklin, Sandusky (PA only) Holmes	\$21,803,771 (P) \$14,312,348 (I) \$9,000,000 (M) \$9,000,000 (S) \$10,410,817 (NRCS)*+
DR-1321	March 7, 2000	IA/MIT	Flash flooding, flooding	Adams, Gallia, Jackson, Lawrence, Meigs, Pike and Scioto	\$1,914,189 (I) \$297,310 (M) \$297,310 (S)
DR-1339	August 25, 2000	IA/MIT	Flooding	Lucas	\$7,898,840 (I) \$1,132,279 (M) \$1,132,279 (S)
DR-1343	September 26, 2000	IA/PA/MIT	High winds and tornadoes	Greene	\$189,051 (I) \$3,430,810 (P) \$558,025 (M) \$558,025 (S)
DR-1390	August 8, 2001	PA/MIT	Flooding	Brown, Butler, Clermont and Hamilton	\$ 7,712,456 (P) \$ 876,439 (M) \$ 876,439 (S)
DR-1444	November 18, 2002	IA/MIT	Tornados, Severe Storms	Ashland, Auglaize, Coshocton, Cuyahoga, Franklin, Hancock, Henry, Huron, Lorain, Medina, Ottawa, Paulding, Putnam, Sandusky, Seneca, Summit, Union, Van Wert, Wayne and Wood	\$ 11,668,849 (I) \$ 139,068 (M) – \$ 48,409 (S) \$ 2,297,222 (SDRP)
DR-1453*	March 24, 2003	IA/PA/MIT	Ice/Snow Storm	Adams, Gallia, Jackson, Lawrence, Meigs, Pike and Scioto (IA/PA); Athens, Belmont, Darke, Delaware, Fayette, Franklin, Greene, Guernsey, Harrison, Hocking, Licking, Madison, Miami, Monroe, Morgan, Montgomery, Muskingum, Noble, Perry, Preble, Ross , Union, Vinton and Washington (PA)	\$ 16,689,841 (I) \$ 39,621,605 (P) * \$ 2,415,899 (M) \$ 2,415,899 (S) -
DR-1478*	July 15, 2003	IA/MIT	Severe Storms, flooding	Auglaize, Columbiana, Crawford, Darke, Logan, Mahoning, Mercer, Pike, Shelby and Van Wert (IA/MIT); Adams, Auglaize, Darke, Logan, Mercer, Pike, Shelby and Van Wert (SDRP)	\$ 6,451,793 (I) \$ 145,762 (M)* \$ 13,721 (S) \$ 2,976,949 (SDRP)

DR-1484*	August 1, 2003	IA/PA/MIT	Severe storms, tornadoes and flooding	Carroll, Columbiana, Cuyahoga, Franklin, Jefferson, Mahoning, Medina, Portage, Richland, Stark, Summit and Trumbull (IA/MIT); Adams, Columbiana, Carroll, Jefferson, Mahoning, Medina, Monroe, Portage, Stark, Summit, Trumbull and Vinton (PA)	\$ 135,723,395 (I) \$ 13,160,834 (P)* \$ 6,016,488 (M) \$ 162,790 (S) -
EM-3187*	August 23, 2003	PA Only	Power Outage	Ashland, Ashtabula, Cuyahoga, Erie, Geauga, Huron, Knox, Lake, Lorain, Lucas, Portage, Summit and Trumbull	\$ 2,067,222 (P)*
DR-1507*	January 26, 2004	IA/PA/MIT	Landslide, severe storms and landslides	Belmont, Jefferson, Morgan, Ross, Tuscarawas and Washington (IA/PA/MIT); Franklin, Licking (IA/MIT); Athens, Guernsey, Harrison, Monroe, Noble and Perry (PA/MIT)	\$ 3,408,934 (I) \$ 14,811,923(P*) \$ 875,265 (M)* \$ 164,804 (S) -
DR-1519*	June 3, 2004	IA/PA/MIT	Severe storms and flooding	Athens, Carroll, Columbiana, Cuyahoga, Delaware, Guernsey, Harrison, Hocking, Holmes, Medina, Noble, Perry, Portage, Summit and Tuscarawas (IA/PA/MIT); Crawford, Geauga, Licking, Logan, Lorain, Mahoning, Richland and Stark (IA/MIT) and Knox and Jefferson (PA/MIT)	\$ 30,238,921 (I)* \$ 14,060,750 (P) * \$ 2,305,560 (M) \$ 748,426 (S) -
DR-1556*	September 19, 2004	IA/PA/Mit	Severe storms and flooding	Athens, Belmont, Carroll, Columbiana, Gallia, Guernsey, Harrison, Jefferson, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Tuscarawas, Vinton and Washington (IA/PA/MIT); Lawrence, Mahoning, Stark and Trumbull (IA/MIT)	\$ 47,455,690 (I) \$ 35,597,480 (P)* \$ 3,948,349 (M)* \$ 2,300,000 (S)
EM-3198*	January 11, 2005	PA Only	Snow Removal and Response	Butler, Champaign, Clark, Crawford, Darke, Delaware, Erie, Franklin, Greene, Hamilton, Hardin, Huron, Logan, Madison, Marion, Miami, Montgomery, Morrow, Preble, Richland, Sandusky, Seneca, Shelby, Union, Warren and Wyandot	\$ 11,116,398 (P)*

DR-1580*	February 15, 2005	IA/PA/MIT	Severe winter storms, ice and mudslides	Clark, Sandusky, Warren and Miami (IA/MIT); Ashland, Auglaize, Athens, Belmont, Coshocton, Crawford, Delaware, Fairfield, Franklin, Guernsey, Henry, Hocking, Holmes, Huron, Jefferson, Licking, Logan, Morgan, Muskingum, Pickaway, Pike, Richland, Ross, Scioto, Stark, Tuscarawas, Washington and Wyandot (IA/PA/MIT); Adams, Allen, Brown, Carroll, Champaign, Clermont, Columbiana, Darke, Fayette, Hancock, Hardin, Harrison, Highland, Knox, Lorain, Marion, Medina, Meigs, Mercer, Monroe, Montgomery, Morrow, Noble, Paulding, Perry, Putnam, Seneca, Shelby, Union, Van Wert and Wayne (PA/MIT)	\$ 13,823,757 (I)* \$123,935,836 (P)* \$7,534,746 (M)* \$1,500,000 (S) -
EM-3250	September 13, 2005	PA	Hurricane Katrina Emergency Shelter Operations	All 88 Counties were included in the federal declaration	\$2,499,103 (P)*
DR-1651*	July 2, 2006	IA/MIT	Severe storms and flooding	Cuyahoga, Erie, Huron, Lucas, Sandusky and Stark	\$25,001,761 (I)* \$1,798,019 (M) \$593,090 (S)
DR-1656*	August 1, 2006	IA/PA/MIT	Severe storms and flooding	Ashtabula, Geauga and Lake	\$25,895,531 (I)* \$9,282,843 (P)* \$3,411,736 (M) \$1,137,245 (S)
DR-1720	August 28, 2007	IA/PA/MIT	Severe storms and flooding	Allen, Crawford, Hancock, Hardin, Putnam, Richland, Wyandot (IA/PA/MIT); Seneca (IA/MIT)	\$45,452,363 (I) \$12,688,139 (P) \$6,630,799 (M) \$1,984,493 (S)
EM-3286	April 24, 2008	PA	Snow	Ashtabula, Brown, Clermont, Clinton, Crawford, Delaware, Fairfield, Franklin, Geauga, Greene, Hardin, Huron, Lake, Morrow, Richland, Union and Wyandot	\$9,481,809 (P) est.

DR-1805	October 24, 2008	PA/MIT	Wind Event	Ashland, Brown, Butler, Carroll, Champaign, Clark, Clermont, Clinton, Coshocton, Delaware, Fairfield, Franklin, Greene, Guernsey, Hamilton, Harrison, Highland, Hocking, Holmes, Knox, Licking, Madison, Miami, Montgomery, Morrow, Perry, Pickaway, Preble, Shelby, Summit, Tuscarawas, Union, and Warren	\$47,968,724 (P) \$6,507,249 (M)
DR-4002	July 13, 2011	PA/MIT	Severe storms, landslides	Adams, Athens, Belmont, Brown, Clermont, Gallia, Guernsey, Hamilton, Hocking, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Noble, Pike, Ross, Scioto, Vinton, Washington	\$45.8 Million (P) \$5,046,137 (M)
EM-3346	June 30, 2012	PA (for Direct Assistance only)	Severe storms, straight-line winds (derecho)	All 88 counties	PA was for Direct Assistance only, no financial assistance
DR-4077	August 20, 2012	PA/MIT		Adams, Allen, Athens, Auglaize, Belmont, Champaign, Clark, Coshocton, Fairfield, Franklin, Gallia, Guernsey, Hancock, Hardin, Harrison, Highland, Hocking, Jackson, Knox, Lawrence, Licking, Logan, Meigs, Miami, Monroe, Morgan, Morrow, Muskingum, Noble, Paulding, Perry, Pickaway, Pike, Putnam, Shelby, Van Wert, Vinton, Washington, Wyandot	Initial Estimates of: \$22,018,335 (P) \$3.4 Million (M) est.
DR-4098	January 3, 2013	PA/MIT	Severe storms, flooding	Ashtabula, Cuyahoga	Initial Estimates of: \$23,355,813 (P) \$2.7 Million (M) est.
DR-4360	April 17, 2018	PA/MIT	Severe storms, flooding, landslides	Adams, Athens, Belmont, Brown, Columbiana, Coshocton, Gallia, Hamilton, Harrison, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Scioto, Vinton, Washington	Initial Estimates of: \$120 Million (P) est. \$9.75 Million (M) est.

DR-4424	April 8, 2019	PA/MIT	Severe storms, flooding, landslides	Adams, Athens, Belmont, Brown, Gallia, Guernsey, Hocking, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Scioto, Vinton, Washington	Initial estimates of: \$80 Million (P) est. \$12.2 Million (M) est.
DR-4447	June 18, 2019	IA/PA/MIT	Severe storms, tornados, straight-line winds, flooding, landslides	Greene, Mercer, Montgomery (IA/PA/MIT); Auglaize, Darke, Hocking, Mahoning, Miami, Muskingum, Perry, Pickaway (IA/MIT); Columbiana (PA/MIT)	Initial estimates of: \$27 Million (I) \$17.8 Million (P) est. \$4.1 Million (M) est.
DR-4507	March 31, 2020	PA (IA - FEMA Crisis Counsel Program)	COVID-19	All 88 counties	Initial estimates of: \$220 Million (P) est.

(M) – Hazard Mitigation Grant

(S) – State Match to Federal Hazard Mitigation funds

(P) – Public Assistance

(I) Individual Assistance includes FEMA Disaster Housing, SBA loans for homes, personal property and businesses and FEMA/State Other Needs Assistance grants for families and individuals

(NRCS)\*+ - Natural Resources Conservation Service

\* Indicates the disaster is not officially closed.

HMGP first available with disaster declared after 1987.

(SCB)\*\* - State Controlling Board funds

(SDRP)\*\*State Disaster Relief Program

(CDBG)+ - Community Block Grant funds provided by the Ohio Department of Development

EM 3187 is an Emergency Declaration for Public Assistance

## Appendix 3 – Hazard Profiles

The hazard profiles provide supplemental information on each of the 41 identified hazards. These brief, but detailed profiles are meant to assist in further understanding each respective identified hazard and be used as planning aids when developing hazard plans.

Each hazard profile is broken down into six sub-sections. The six sub-sections, and a brief description of the type of content contained in the sub-sections, are the following:

**Hazard Profile** - Brief description and overview of what the hazard is / how it is defined within the HIRA.

**Historical Data** - Historical information on the hazard. This may include any data/statistics about the hazard and/or information about a real-world event that dealt with the named hazard. Every attempt was made to have the data and information be Ohio-centric.

**Sample Planning Scenario** - A hypothetical situation (usually draws on real-world events) to assist partners and stakeholders with placing the hazard in context and how they may respond to and address the impacts of the named hazard.

**Potential Cascading Impacts** - List of the potential cascading impacts caused by a hazard event.

**Community Lifeline Implications** - Provides a visual as to the potential community lifelines that may be impacted should a hazard event occur for that specific hazard.

**References** - Reference as to where the information was gathered from so that those utilizing the hazard profiles know where the information is coming from, and if it's open source they are able to go to the original content.

The hazard profiles are in the same order in which they are ranked within the HIRA (please reference the "Hazard Ranking and Total Risk Values" section for a chart that lists the hazards in order by their rank).





## OHIO EMERGENCY MANAGEMENT AGENCY

# Nuclear Facility Incident

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

## Hazard Profile

A nuclear facility incident is any event by which an emergency situation at a nuclear facility causes an activation (either partial or full) of the state's emergency operations center (EOC).

Per the State of Ohio Radiological Emergency Preparedness (REP) Plan, the emergency classification system utilized includes the levels of unusual event, alert, site area emergency (SAE), and general emergency (GE). If viewed in a strict order of succession, starting at the alert level there would typically be a partial activation of the state EOC, with a typical full activation of the state EOC being at the SAE and GE levels. Depending on the case-by-case details of events and situations, there may not be a linear progression of emergency classification system levels (i.e. a GE may be issued without first issuing an unusual event, alert, and SAE); furthermore, it is important to note that state EOC actions may not be performed in any particular order.



For more information as to the emergency classification system and the state EOC's activities for each level, please reference the State of Ohio REP Plan published on the Ohio EMA website.

## Historical Data

On March 28<sup>th</sup>, 1979, there was a nuclear facility incident at Three Mile Island located near Middletown, PA. What is still the most significant accident in the history of U.S. commercial nuclear power plants, the Unit 2 reactor suffered a partial meltdown following the failure of one of the pumps used to send water to the steam generators in order to remove heat from the reactor core.<sup>1,2</sup> A series of cascading events and factors following the failure of the pump ultimately led to the accident.<sup>3,4</sup> While government studies did not find any direct adverse health effects nor environmental impacts as a result of the incident, the accident did lead to increases in public fear and distrust of nuclear power as a whole as well as changes to the nation's nuclear power plant regulations.<sup>5,6</sup>

## Sample Planning Scenario

A nuclear power plant facility suffers a catastrophic equipment failure, creating conditions of an imminent meltdown. Due to the situation and rapidly deteriorating conditions, a GE is issued. This activates numerous emergency nuclear facility plans, and the state EOC is fully activated. Mass

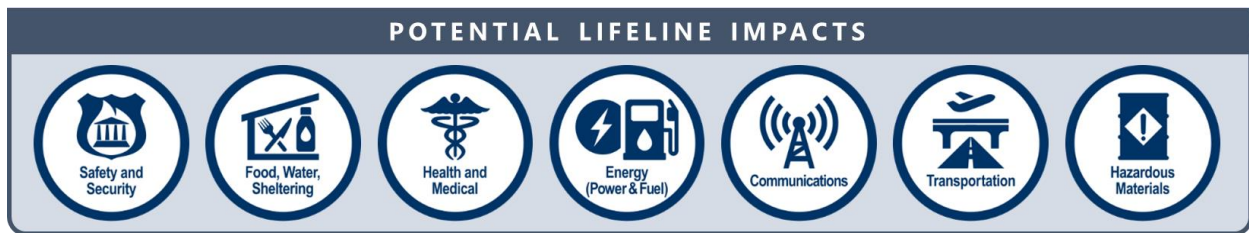
evacuation orders are issued to everyone residing/located within the 50-mile Emergency Planning Zone (EPZ). First responders are dispatched to assist with evacuation efforts. Multiple transportation accidents are simultaneously being reported as people try to evacuate from the area, creating significant demands on first responders and also creating numerous blocked roadways. Multiple shelters are stood up, and decontamination efforts are underway.

## Potential Cascading Impacts

Radioactive material release  
 Agricultural & environmental loss  
 Fear / panic  
 Medical service disruption  
 Operational and service disruption

Evacuation  
 Traffic disruption  
 Contamination  
 Illness / death  
 Displaced persons

## Community Lifeline Implications



## References

- <sup>1</sup> “Backgrounder on the Three Mile Island Accident.” United States Nuclear Regulatory Commission. <https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/3mile-isle.html>
- <sup>2</sup> Cusick, Marie. “40 Years After A Partial Nuclear Meltdown, A New Push To Keep Three Mile Island Open.” NPR. March 28, 2019. <https://www.npr.org/2019/03/28/707000226/40-years-after-a-partial-nuclear-meltdown-a-new-push-to-keep-three-mile-island-o>
- <sup>3</sup> “Backgrounder on the Three Mile Island Accident.” United States Nuclear Regulatory Commission. <https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/3mile-isle.html>
- <sup>4</sup> Cusick, Marie. “40 Years After A Partial Nuclear Meltdown, A New Push To Keep Three Mile Island Open.” NPR. March 28, 2019. <https://www.npr.org/2019/03/28/707000226/40-years-after-a-partial-nuclear-meltdown-a-new-push-to-keep-three-mile-island-o>
- <sup>5</sup> “Backgrounder on the Three Mile Island Accident.” United States Nuclear Regulatory Commission. <https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/3mile-isle.html>
- <sup>6</sup> “5 Facts to Know About Three Mile Island.” U.S. Department of Energy – Office of Nuclear Energy. May 4, 2022. <https://www.energy.gov/ne/articles/5-facts-know-about-three-mile-island>

OHIO EMERGENCY MANAGEMENT AGENCY



# Terrorism, Radiological/Nuclear

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Terrorism, radiological / nuclear is the intentional release of radiological or nuclear material with the intention of killing or causing physical harm to humans and animals, and /or adverse effects on the environment, in order to instill panic or fear and / or for political motives.

### Historical Data

No historical data is available on this hazard.

### Sample Planning Scenario

A terrorist organization sets off a nuclear device downtown of a major metropolitan area in the state. The device releases radioactive material in the air and over a significant geographical area. Numerous physical structures are destroyed, and countless individuals within the affected area are killed and /or have life threatening injuries. Due to the high levels of radiation, first responders are unable to get in close proximity to “ground zero”. Furthermore, resources are quickly diminished, and federal resources are in the process of being mobilized to assist in the response. Mass evacuation and decontamination efforts are commenced. Hospitals throughout the region are quickly overwhelmed with the surge of patients with physical injuries as a result of the blast and those who are experiencing radiation poisoning.

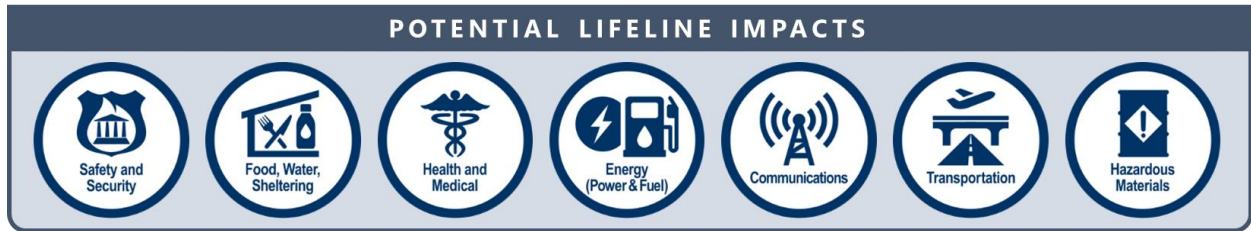


### Potential Cascading Impacts

- Radioactive material release
- Agricultural & environmental loss
- Fear / panic
- Medical service disruption
- Operational and service disruption
- First responder demands

- Evacuation
- Traffic disruption
- Contamination
- Illness / death
- Displaced persons

## Community Lifeline Implications



OHIO EMERGENCY MANAGEMENT AGENCY



# Terrorism, Chemical

HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

## Hazard Profile

Terrorism, chemical is the intentional use of chemical agents in order to physically injure or kill humans and animals and /or have an adverse effect on the environment for the purpose of generating panic and fear. Chemical agents may be released as a vapor/aerosol, liquid, and / or a solid.<sup>1</sup>



## Historical Data

No historical data is available on this hazard.

## Sample Planning Scenario

Individuals aligned with a domestic terrorist organization release nerve agents at several transportation hubs (bus stations, airports, etc.) throughout the state. Hundreds of individuals become incapacitated, and first responders throughout the state begin evacuating areas affected by the nerve agents. Even with personal protective equipment (PPE), first responder safety is a concern. Dozens of individuals are transported to area hospitals for treatment.

## Potential Cascading Impacts

- |                         |                                   |
|-------------------------|-----------------------------------|
| First responder demands | Injury / death                    |
| Medical service demands | Food / water contamination        |
| Fear / panic            | Agricultural / environmental loss |
| Toxic airborne gases    |                                   |

## Community Lifeline Implications

POTENTIAL LIFELINE IMPACTS

## References

<sup>1</sup>“Understanding the Bioterrorism Terminology.” UPMC. <https://www.upmc.com/services/poison-center/biological-chemical-terrorism/terminology#:~:text=Chemical%20terrorism%20agents%20are%20poisonous,to%20people%20and%20the%20environment>



OHIO EMERGENCY MANAGEMENT AGENCY



# Agricultural Incident

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Agricultural incident is defined as being any incident that adversely impacts crops and livestock (non-disease event) in the state. A specific example that is common to take place in Ohio is that of drought. Acts of biological/chemical terrorism / criminal intent also does not fall under the category of an agricultural incident.



### Historical Data

Agricultural products sold in the state in 2017 was over \$9 billion in market value. Ohio has a reported 77,805 farms and 13,965,295 acres in farmland.<sup>1</sup>

The Ohio Department of Agriculture’s website provides information on any agricultural incidents that may be impacting the state. Please visit <https://agri.ohio.gov/> for more information.

### Sample Planning Scenario

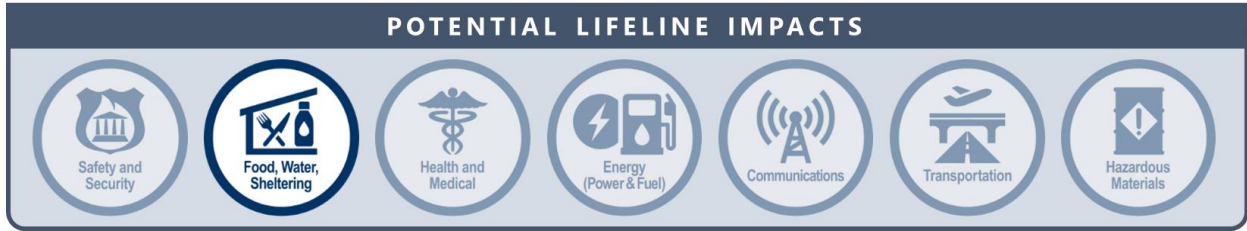
Multiple months of less-than-seasonal precipitation has led to exceptional agricultural drought that impacts the entire state, leading to a category D4 condition per Ohio’s emergency operations plan - drought incident specific annex. The extremely dry conditions cause brush fires to generate in fields and in some areas “dustbowl” like conditions reminiscent of what took place in the United States in the 1930s. Large swaths of agricultural crops die off, creating an impact on food supply and the state’s economy. Furthermore, the loss of vegetation adversely impacts livestock whom are no longer able to graze in open fields.

### Potential Cascading Impacts

Environmental loss  
Dried vegetation  
Wildfire

Crop damage / loss  
Food chain / production disruption  
Economic loss

## Community Lifeline Implications



## References

<sup>1</sup>“Tab A-1-1: Ohio State Profile”. FEMA Region 5 All-Hazards Plan. Pg. 10. PDF



## OHIO EMERGENCY MANAGEMENT AGENCY



# Animal Disease

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Animal disease is defined as any biological contagion that infects and / or has a high probability of infecting a large population of domestic and wild animals, to include livestock, and has an adverse effect on their health. Diseases can be those spread animal-to-animal and /or animal-to- human.



### Historical Data

Beginning in September 2022, confirmed cases of High Path Avian Influenza (HPAI), a highly infectious disease that affects birds/poultry, were reported in the state. Cases would end up being reported at multiple locations in multiple counties, with an estimated total of poultry affected by the HPAI outbreak being close to 3.75 million (as of January 2023). The response to the HPAI outbreak was the decontamination and depopulation of all poultry infected by the contagion.<sup>1</sup>

The Ohio Department of Agriculture's Division of Animal Health is responsible for protecting and promoting the health of the state's livestock.<sup>2</sup> For more information and resources that the Division provides on animal diseases, please visit <https://agri.ohio.gov/divisions/animal-health> .

### Sample Planning Scenario

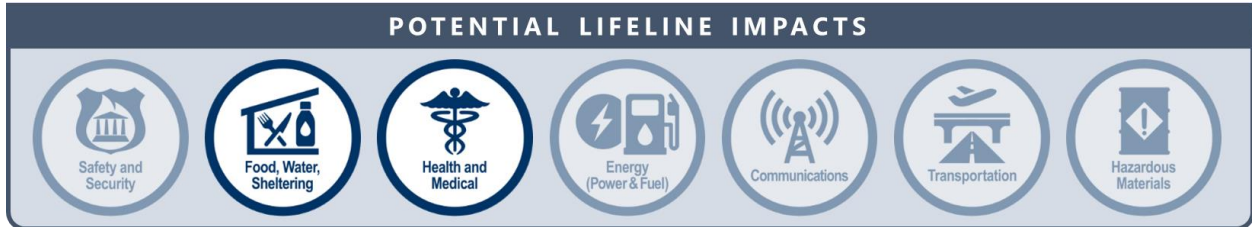
A presumptive case of HPAI is reported in a county in northwest Ohio. While in the process of responding to the facility and testing the possibly infected poultry, three more cases are reported. One case is in the adjacent county, while another is in southeast Ohio. Within a span of three weeks, multiple cases have been reported across seven counties in the state. For every case reported, response personnel are required to put on personal protective equipment (PPE), use testing kits, send samples to a lab for testing, and if a positive test is confirmed, the bird/poultry facilities must undergo depopulation and decontamination of their entire livestock.

## Potential Cascading Impacts

Illness  
Spread of disease  
Loss of livestock

Food chain / production disruption  
Death

## Community Lifeline Implications



## References

- <sup>1</sup>“HPAI: Biosecurity, Reporting, Resources”. Ohio Department of Agriculture.  
<https://agri.ohio.gov/divisions/animal-health/resources/02.25.2022hpaiupdate>
- <sup>2</sup>“Welcome to the Division of Animal Health”. Ohio Department of Agriculture.  
<https://agri.ohio.gov/divisions/animal-health>



**OHIO EMERGENCY MANAGEMENT AGENCY**

# Terrorism, Biological

**HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)**

## Hazard Profile

Terrorism, biological is any intentional release of biological agents to cause illness or death in humans and animals, and /or adverse effects on the environment. These agents may include bacteria, fungi, toxins, or viruses.<sup>1,2</sup>

## Historical Data

In 2001, anthrax-laced letters/mail were delivered to news media offices and the U.S Congress.<sup>3</sup>



## Sample Planning Scenario

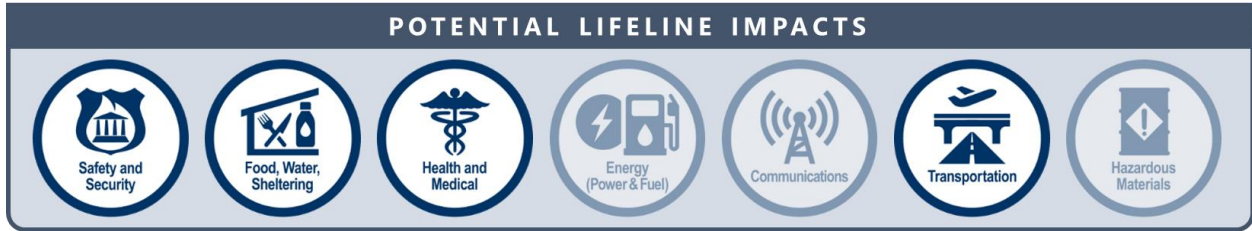
A commercial airliner carrying passengers is forced to make an emergency landing at an international airport in the state. Prior to landing, the flight crew had to assist multiple passengers with sudden medical problems that weren't present when they boarded the aircraft. First responders arrive at the scene and realize more passengers are showing signs of illness. The passengers are quarantined at a local hospital where it is determined all occupants on the aircraft were exposed to anthrax. Law enforcement begin a traceback investigation, and is found that the anthrax was intentionally released due to political motives that ultimately forces the closure of several major airports throughout the United States.

## Potential Cascading Impacts

Biological spread / exposure  
 Medical service demands / disruptions  
 First responder demands  
 Operational and service disruptions  
 Fear / panic

Illness / death  
 Evacuation  
 Transportation disruption  
 Quarantine / isolation  
 Economic loss

## Community Lifeline Implications



## References

<sup>1</sup> Information provided by law enforcement partners.

<sup>2</sup> Williams, Mollie, Lisa Armstrong, and Daniel C. Sizemore. "Biologic, Chemical, and Radiation Terrorism Review". National Library of Medicine – National Center for Biotechnology Information. August 22, 2022. <https://www.ncbi.nlm.nih.gov/books/NBK493217/>

<sup>3</sup> Information provided by law enforcement partners.

OHIO EMERGENCY MANAGEMENT AGENCY



# Electro-Magnetic Pulse (EMP)

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

An electro-magnetic pulse (EMP) is a short burst of electro-magnetic energy causing a disturbance.<sup>1</sup>

When an EMP is detonated, the pulse of energy produced has the potential to damage or destroy any and all electronic devices (to include power systems) over a significant geographical area.<sup>2</sup>



### Historical Data

In 1962, an atmospheric test of a nuclear weapon took place over Johnston Island (small island in the Pacific Ocean). The EMP generated by the explosion affected Hawaii, which was 800 miles away from the detonation. Streetlights, electronic fuses, and phone services either failed or were disrupted as a result of the EMP wave.<sup>3</sup>

### Sample Planning Scenario

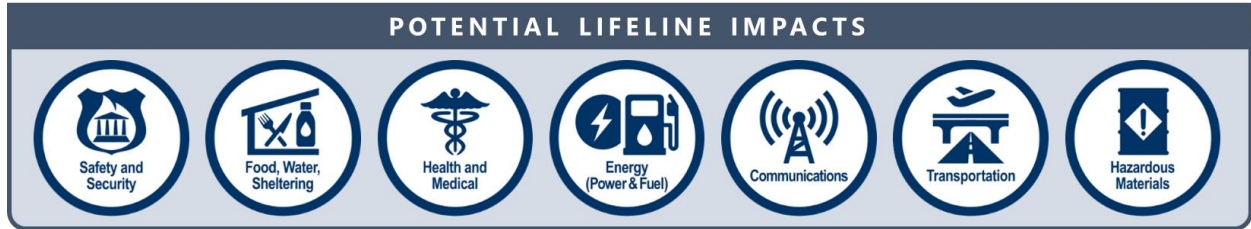
A state actor detonates an EMP device over Washington D.C., with the energy burst reaching significant portions of the eastern half of the State of Ohio. All electric devices located within the affected geographical area, to include power and communication systems, are disrupted and /or fail. The state emergency operations center (EOC) is activated, but due to the state EOC being located within the affected zone, Ohio EMA implements its continuity of operations plan (COOP). Resources, to include personnel and equipment, in the western portion of the state not affected by the EMP begin to mobilize in order to assist those who were affected, and operational and tactical plans are discussed and implemented in response to the incident. Panic and fear begin to consume those in the affected area of the state, and first responders attempt to provide emergency assistance without the means of transportation and communication.

### Potential Cascading Impacts

Operational and service disruption  
Communication systems disruption / damage  
First responder demands / disruption  
Injury / death  
Government / business essential functions disruption

Economic loss  
Energy systems disruption / damage  
Supply chain disruption  
Transportation disruption  
Panic / fear

## Community Lifeline Implications



## References

<sup>1</sup> Information provided by law enforcement partners

<sup>2</sup> "Electromagnetic Pulse (EMP)". Washington State Department of Health – Division of Environmental Health – Office of Radiation Protection. September 2003. PDF.

<sup>3</sup> "Electromagnetic Pulse (EMP)". Washington State Department of Health – Division of Environmental Health – Office of Radiation Protection. September 2003. PDF.



OHIO EMERGENCY MANAGEMENT AGENCY



# Hazardous Material Incident

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

A hazardous material incident is defined as any occurrence, event, or disaster by which a material that is identified as being hazardous by a regulatory and/or governmental entity is released in such a manner that adversely affects the health and safety of the environment, animals, and humans.

### Historical Data

Hazardous material incidents have a high frequency of occurring throughout the state.

One example is that of an incident taking place in February 2020 in Cleveland, OH. Two workers at a chemical transportation company were in the process of cleaning a tanker truck, where they both became overwhelmed by hazardous chemical fumes and later died as a result of their injuries.<sup>1</sup>



### Sample Planning Scenario

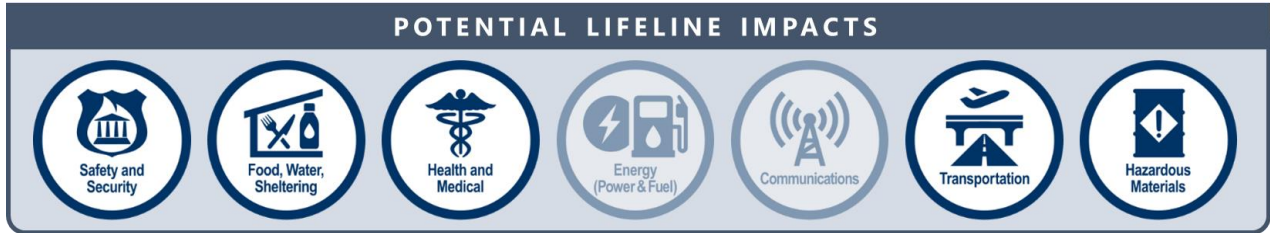
A tanker truck hauling a hazardous material is traveling on a major highway in the state and becomes involved in a transportation accident, causing the hazardous material stored in the tank to tip over and spill onto the highway. The hazardous material is highly flammable, and shortly ignites. The flames pose a significant danger to individuals who are stopped on the highway as a result of the accident, and who have no means of easily escaping the rapidly spreading flames. Toxic fumes are being carried by the wind in the direction of a sports stadium, in which a major sporting event is simultaneously taking place. First responders are dispatched to both the scene of the accident to put out the fire and rescue those stranded on the highway, and to the sports stadium to begin evacuating the stadium due to the toxic fumes.

### Potential Cascading Impacts

Agricultural / environmental loss  
 Property damage  
 Food / water contamination  
 Transportation disruption

Illness / injury / death  
 Toxic airborne gases  
 First responder demands  
 Medical service demands

## Community Lifeline Implications



## References

<sup>1</sup> Anderson, Chris. "Both victims die following hazmat incident at Cleveland chemical transport company." Fox19. February 21, 2020. <https://www.fox19.com/2020/02/21/both-victims-die-following-hazmat-incident-cleveland-chemical-transport-company/>



## OHIO EMERGENCY MANAGEMENT AGENCY



# Public Health Emergency

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

A public health emergency describes any health-related incident whereby a local, state, or federal public health emergency / state of emergency is declared.

Emergency declarations may be made when there is the occurrence or imminent threat of an illness / health condition caused by an infectious agent, biological toxin, and / or a threat that poses significant risk to humans that may cause a large number of fatalities or permanent / long-term disability.

### Historical Data

The coronavirus that was first detected in 2019 (COVID-19) had significant impacts across the world. In Ohio, the governor declared a state of emergency in March 2020. Shortly after the declaration, schools suspended classes or closed, businesses and restaurants closed, and residents were told to stay home. The COVID-19 pandemic resulted in over 3.4 million total cases in the state, with an estimated 42,000 Ohio residents dying as a result of the virus (as of April 13, 2023).<sup>1,2,3</sup>



The first wave of the opioid epidemic occurred in the 1990s, and was declared a public health emergency in 2017. The public health emergency was most recently renewed in 2023. The primary cause of the declaration and renewals are the increased opioid-related deaths and the opioid use disorder. The number of drug overdose deaths increased by almost 30% from 2019 to 2020 and has quintupled since 1999.<sup>4</sup>

### Sample Planning Scenario

An unknown pathogen begins to make people ill. People begin reporting to hospitals with symptoms, with numbers increasing at an alarming rate. Hospitals and public health systems rapidly become overrun and are unable to keep up with the demand for personnel and equipment necessary to treat the patients. A state of emergency is declared, and all non-essential services and businesses are shut down. The public is told to stay home. First responders must contend with an increasing demand on their services while also protecting their own personal health. There is significant economic loss, and small business owners are unsure if they will be able to re-open their business following the public health emergency. Thousands of people are instantly without a job, and fear and anxiety significantly increases.

## Potential Cascading Impacts

Medical service demands  
Panic / fear  
Injury / death  
Supply chain disruption  
Pollution

Adverse psychological effects  
Isolation / quarantine  
Service disruption  
Economic loss  
First responder health & safety

## Community Lifeline Implications



## References

<sup>1</sup> "Ohio's Coronavirus Pandemic: A Timeline." Ideastream Public Media.

<https://www.ideastream.org/ohios-coronavirus-pandemic-a-timeline>

<sup>2</sup> "COVID-19 pandemic in Ohio." Health Policy Institute of Ohio.

<https://www.healthpolicyohio.org/coronavirus-covid-19-in-ohio/>

<sup>3</sup> "Coronavirus (COVID-19)." Ohio Department of Health. <https://coronavirus.ohio.gov/home>

<sup>4</sup> Information provided by public health partners.

OHIO EMERGENCY MANAGEMENT AGENCY



# Structure Collapse

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Structure collapse is the destruction of a physical structure (does not include transportation related structures, such as bridges). The collapse can be caused accidentally (technological) or deliberately with malicious intent (human-caused).

\*Note: does not include the planned detonation/tear-down of a structure



### Historical Data

On December 23<sup>rd</sup>, 2021, an underground parking garage adjacent to an apartment building in Cleveland, OH, collapsed as a result of construction work being done on the support beams. The collapse resulted in dozens of damaged vehicles, but no reported injuries or fatalities.<sup>1 2</sup>

During the early morning hours of June 24<sup>th</sup>, 2021, a portion of Champlain Towers, a condominium located in Surfside, FL, collapsed. The cause of the collapse is reported as being from construction flaws and corrosion. The collapse resulted in 98 fatalities and an extensive search and rescue operation.<sup>3 4</sup>

### Sample Planning Scenario

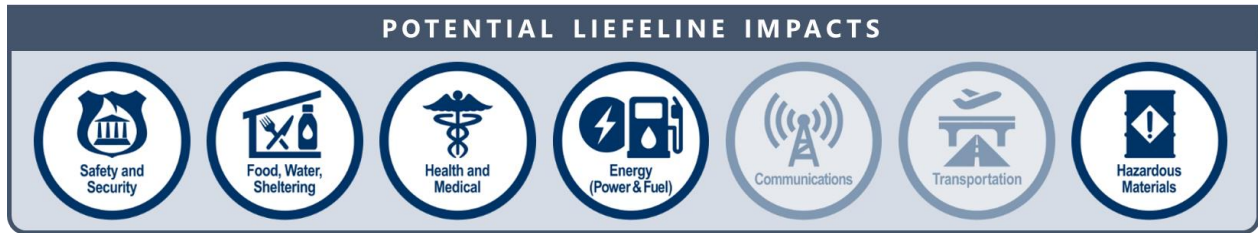
An apartment building in an urban area collapses. The collapse takes place during the late-night hours while most residents of the building are asleep. Half the building collapses; trapping, injuring, and killing dozens of individuals. Those residents who were in the part of the building that did not collapse are trapped as significant portions of the emergency stairwell had collapsed as well. First responders reach the scene and assess the situation. Search and rescue operations commence for those trapped under the debris and rubble. Meanwhile, those who managed to escape are in need of first aid and shelter.

### Potential Cascading Impacts

Evacuation  
 Displaced & trapped persons  
 Injury / death  
 Service disruption

Search and Rescue demands  
 Damaged water / electrical lines  
 Fire  
 Spread of hazardous materials

## Community Lifeline Implications



## References

<sup>1</sup> Benson, John. "Lakewood examining building codes after Marine Towers West parking garage collapse." Cleveland.com. January 24, 2022.

<https://www.cleveland.com/community/2022/01/lakewood-examining-building-codes-after-marine-towers-west-parking-garage-collapse.html>

<sup>2</sup> "Charges filed for Lakewood Marine Towers West parking garage collapse." News 5 Cleveland. May 18, 2022. <https://www.news5cleveland.com/news/local-news/oh-cuyahoga/charges-filed-for-lakewood-marine-towers-west-parking-garage-collapse>

<sup>3</sup> "Investigations into 2021 Surfside, Florida, condo collapse far from over." CBS News. November 12, 2022. <https://www.cbsnews.com/news/surfside-florida-condo-collapse-investigation-60-minutes-2022-11-13/>

<sup>4</sup> Schuppe, Jon. "Surfside collapse exposes an overlooked threat: Saltwater rising from underground." NBC News. February 17, 2022. <https://www.nbcnews.com/news/us-news/surfside-condo-collapse-salt-groundwater-rcna16473>

OHIO EMERGENCY MANAGEMENT AGENCY



# Flooding

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Floods occur when water ways overflow their banks and spill onto the adjoining land surface (i.e. floodplain). Numerous factors can cause or exacerbate flooding in the state to include, but are not limited to, heavy and prolonged periods of precipitation, soil saturation, snow melt, and inadequate drainage systems. Every year, floods cause damage to private and public property and infrastructure. Flooding is the most frequently occurring natural disaster in Ohio and the United States.<sup>1</sup>



### Historical Data

Historically, significant floods in Ohio occurred in 1913, 1937, 1959, and 1969. Flooding that occurred during these years caused hundreds of deaths, tens of thousands of damaged or destroyed structures (to include residential facilities), and hundreds of millions of dollars in damages.

One of the more notable flooding events to take place in the state was in Shadyside on June 14th, 1990. An estimated 3-4 inches of rain fell in a little over an hour near Pipe Creek and Wegee Creek, with total estimates being at 5.5 inches in just three hours. Flooding began at 9:30 PM and was over in 30 minutes, causing a wall of water six feet high (20 feet in some areas) to move through the valley at seven to ten miles-per-hour. Approximately 80 homes were destroyed, 250 were damaged, and killed 26 people.<sup>2</sup>

### Sample Planning Scenario

Three to four inches of rain fall in a little over one hour causing a flash flood in southeastern Ohio. Saturated soil from previous rains and narrow, steep-sided valleys causes the water to rise quickly in nearby water ways. Flooding begins to occur in floodplains, damaging and destroying several structures and injuring individuals who were unable to escape the flooding conditions.

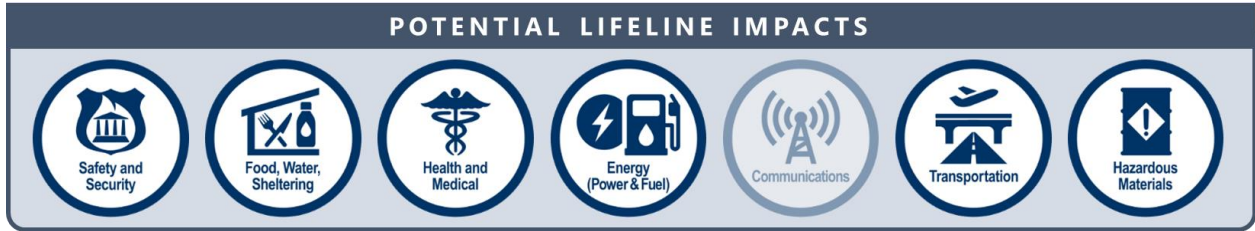
### Potential Cascading Impacts

Evacuation  
Erosion  
Debris spread

Dam / levee failure  
Stranded / trapped persons  
Road and property damage



## Community Lifeline Implications



## References

<sup>1</sup> "2.2 Flood." State of Ohio Hazard Mitigation Plan 2019. Pg. 2-12

<sup>2</sup> "2.2 Flood." State of Ohio Hazard Mitigation Plan 2019. Pg. 2-21

OHIO EMERGENCY MANAGEMENT AGENCY



# Severe Winter Storms

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Severe winter weather affects all parts of Ohio. A winter storm occurs when precipitation (snow or sleet) forms at cold temperatures or when the ground temperature is cold enough where ice forms (freezing rain). Accumulations of snow, ice, and sleet often make conditions hazardous to motorists and pedestrians.



Northeast Ohio experiences lake-effect snow, by which weather systems absorb moisture from Lake

Erie and may cause heavy snowfalls in communities and geological areas close to the lake.<sup>1</sup>

### Historical Data

Ohio experienced 341 severe winter storms between January 1, 2019 and December 31, 2022.<sup>2</sup>

The Great Blizzard of 1978 (January of that year) was one of the deadliest winter storms to hit the state with 51 fatalities, and closed homes and businesses for an entire week. Wind gusts of 70 mph caused blowing and drifting snow that covered vehicles and houses, blocked roadways and railways, and closed airports.<sup>3</sup>

### Sample Planning Scenario

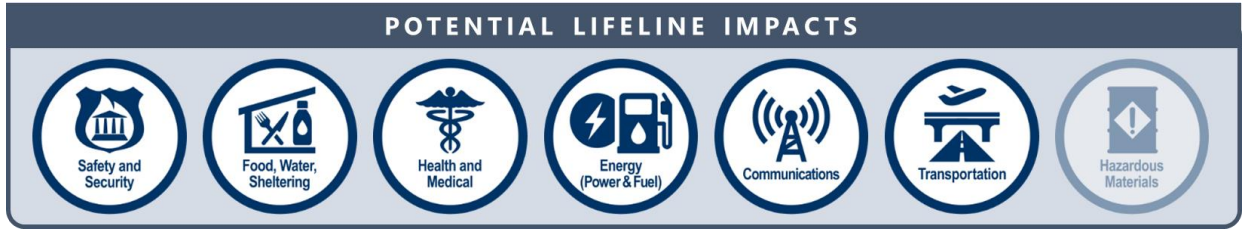
A February storm produces heavy snowfall across the majority of the state with freezing rain and ice along the Ohio River and lake-effect snow in northeast Ohio. The storm causes widespread power outages, road closures, business, and school closures. Households are isolated and people are without heat and communication systems have been damaged. First responders are severely delayed or unable to reach individuals in need of emergency services due to the snow-covered roadways.

### Potential Cascading Impacts

Roof failure / collapse  
Broken water lines  
Power disruption

Disruption of transportation systems  
Workforce reduction  
Delayed emergency response

## Community Lifeline Implications



## References

<sup>1</sup> "2.4 Winter Storm." State of Ohio Hazard Mitigation Plan 2019. Pg. 2-66

<sup>2</sup> "Storm Events Database." NOAA National Centers for Environmental Information.

<https://www.ncdc.noaa.gov/stormevents/>

<sup>3</sup> "2.4 Winter Storm." State of Ohio Hazard Mitigation Plan 2019. Pg. 2-69





# Long Term Power Outage

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Long term power outage is the loss of electric power generation output and/or distribution of power that adversely impacts the output of electric power across all sectors and general public for a period of 72 hours or more.

### Historical Data

While there is no historical data available for the State of Ohio regarding long term power outages, data from recent world events is available.

In September 2017, Hurricane Maria made landfall in Puerto Rico. The category 4 hurricane impacted the entire island nation, causing close to 3,000 deaths and destroying much of the country's infrastructure, to include its power generation. Power was not restored to all electric customers until after 328 days (about 11 months) after Hurricane Maria impacted the country. Billions of dollars in federal funding were allocated to rebuild Puerto Rico's power grid, but the grid remained fragile years after Hurricane Maria, with the residents of Puerto Rico facing intermittent power outages.<sup>1,2</sup>



### Sample Planning Scenario

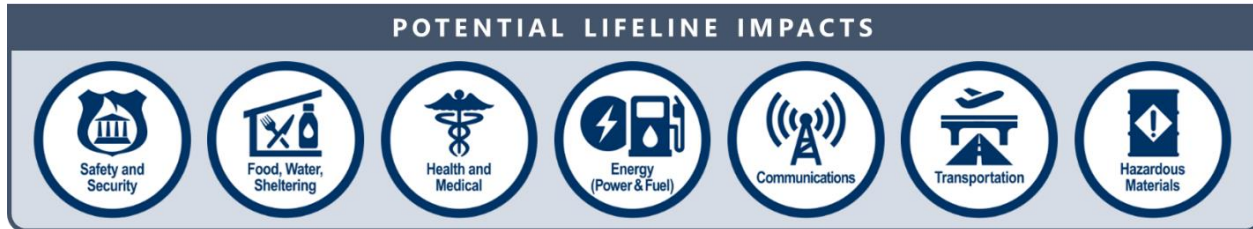
Temperatures throughout the state are in the high 90s. A severe summer storm system moves throughout the state, to include a derecho. The combination of high temperatures and the extreme weather phenomenon causes widespread damage to electrical power stations, utility poles, and transmission lines. Due to the extent of the damage being state-wide, the overtaxed personnel and resources necessary to restore power creates a situation whereby a majority of electric customers throughout the state will not have their power restored until well after 72 hours following the weather event. People are without air conditioning in the summer heat. The debris left behind by the storms have left several roads to be impassable, causing people to be unable to travel to seek shelter and food. The blocked roadways also impact emergency responders who are attempting to respond to calls for help. Multiple hospitals are without power and are facing backup generator failure, thus creating a situation of patients not being able to receive lifesaving and life sustaining medical care for a prolonged period of time.

## Potential Cascading Impacts

Loss of heat / cooling  
Operational and service disruptions  
Infrastructure disruptions / failure  
Emergency / medical service disruption & increase demand

Communications disruption  
Traffic disruption  
Injury / death

## Community Lifeline Implications



## References

<sup>1</sup> Zahn, Max. "Puerto Rico's power grid is struggling 5 years after Hurricane Maria. Here's why." ABC News. September 22, 2022. <https://abcnews.go.com/Technology/puerto-ricos-power-grid-struggling-years-hurricane-maria/story?id=90151141#:~:text=It%20took%20328%20days%2C%20or,even%20before%20Maria%2C%20said%20Sanzillo.>

<sup>2</sup> "Major Hurricane Maria – September 20, 2017." National Weather Service. <https://www.weather.gov/sju/maria2017>



# Severe Summer Storms

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Severe summer storms typically precede an approaching cold air mass, with the key components for the formation of severe storms being low- and high-pressure zones, and a jet stream to carry the pressure zones across the continent. The interaction and significant differences between the pressure zones create storms.<sup>1</sup>

### Historical Data

According to the National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information – Storm Events Database, between the dates of January 1, 2018 through December 31, 2022, there were over 3,400 identified thunderstorm wind events in the state, causing property and crop damage with estimated costs over \$17 million dollars.<sup>2</sup>



### Sample Planning Scenario

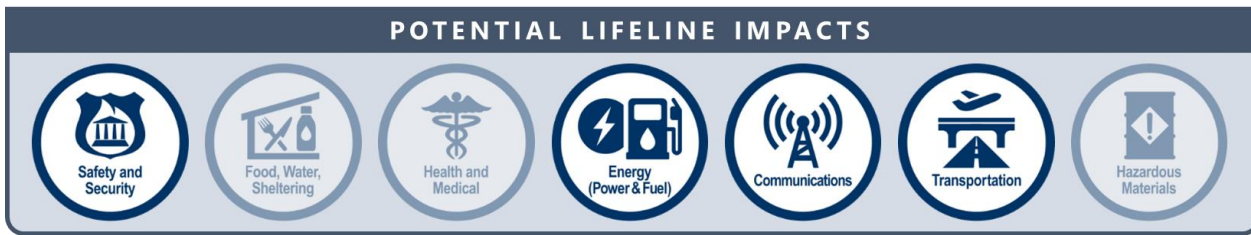
The local National Weather Service office is forecasting heavy rains today that will continue for the next three days in the northwest region of the state. High winds have been blowing over the past two days causing many fallen trees in the streets resulting in traffic congestion and lack of vehicle access to some areas. Local officials predict flash floods and local flooding. Many communities in the northwest portion of the state have lost power with unknown time estimates for restoration of service.

### Potential Cascading Impacts

Hail  
Flooding  
Power disruption

Property / structural damage  
Spread of debris  
Erosion

## Community Lifeline Implications



## References

<sup>1</sup>“2.12 Severe Summer Storms.” State of Ohio Hazard Mitigation Plan 2019. Pg. 2-182

<sup>2</sup>“Storm Events Database.” NOAA National Centers for Environmental Information.

<https://www.ncdc.noaa.gov/stormevents/>



# Urban Fire

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Urban fires are those that take place within an urban area that cannot be easily contained and results in the damage and destruction of multiple structures due to the fire's spread.

### Historical Data

There is no historical data available on urban fire events that have taken place in the State of Ohio.

The "Great Chicago Fire," which began on October 8<sup>th</sup>, 1871, started out as a barn fire in Chicago, IL. The fire quickly spread into the city center, where it burned down a 4 by 1 mile area of the city. In all, 17,500 structures were burned down, 90,000 residents of Chicago (which was equal to one third of the city's population at that time) became homeless, and it is estimated that 300 people died as a result of the fire. Rain that moved into the area more than a day later is what ultimately put out the fire.<sup>1</sup>



### Sample Planning Scenario

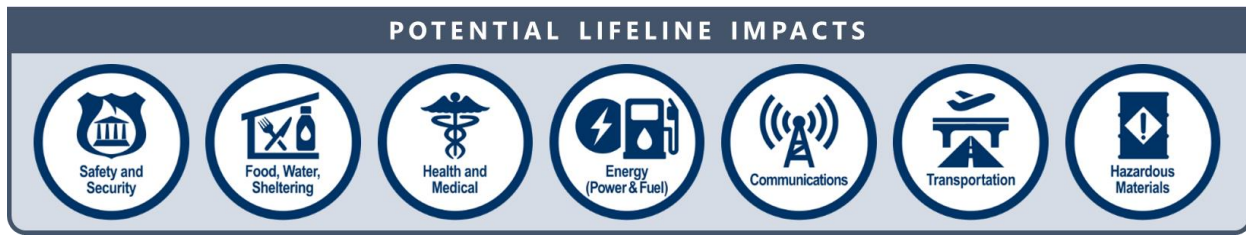
A fire breaks out at an industrial facility in an urban area in the state. Due to the chemicals stored at the facility which acts as fuel to the fire, the fire quickly gains in intensity and begins to spread to adjacent structures. Due to the intense heat of the fire and its rapidly increasing spread to nearby structures, fire fighters are unable to stop and contain it. After several hours, the fire begins to lose its intensity and the fire is able to be contained and eventually put out. In all, several residential and business facilities are severely damaged or destroyed, with multiple injuries and possible fatalities. Nearby hospitals become inundated with the sudden increase in people arriving to the hospital for respiratory issues / smoke inhalation.

### Potential Cascading Impacts

Smoke / toxic gases  
Impeded emergency response  
Property / structural damage

Injury / death  
Trapped & displaced persons  
Reduced visibility

## Community Lifeline Implications



## References

<sup>1</sup>“The Chicago Fire of 1871 and the ‘Great Rebuilding’”. National Geographic.

<https://education.nationalgeographic.org/resource/chicago-fire-1871-and-great-rebuilding/>





# Cyber Incident

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Cyber incidents can be described as any incident, whether it be technological or human-caused, that adversely impacts the ability to access software, files, and /or any other information stored or saved on an electronic device.

The theft of private, financial, or other sensitive data and cyber-attacks that damage computer systems are capable of causing lasting harm to anyone engaged in personal or commercial online transactions. Such risks are increasingly faced by businesses, consumers, and all other users of the internet.<sup>1</sup>



### Historical Data

On December 18<sup>th</sup>, 2022, Dynamic Networks (an information technology (IT) company) was hacked into. The City of Johnstown, OH is one of Dynamic Networks' clients for its IT systems, and was directly impacted as a result. The city's police department was unable to access all of its electronic data following the incident.<sup>2</sup>

On January 31<sup>st</sup>, 2017, Licking County was affected by a cyber-attack that included a ransomware demand. The county did not pay the ransom, but the cyber incident forced the county government to shut down all of their computer and phone systems. The incident also cost the county government \$50,000 due to a combination of overtime and insurance payments.<sup>3</sup>

### Sample Planning Scenario

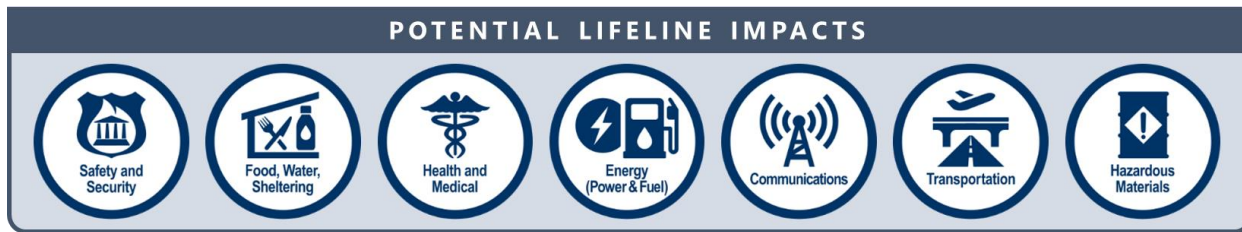
A human-caused cyber incident adversely impacts a chemical facility in the state, causing the loss of operational control. A ransomware demand is made in order to restore operational control of the facility, and law enforcement is notified of the situation. As an effect of the incident, the volatile hazardous liquids stored at the facility begin to experience a rapid increase in temperature due to the loss of being able to monitor and control the cooling system. The situation creates the potential risk of an explosion that could severely injure or kill hundreds of people within the vicinity of the facility. First responders are notified of the situation, and evacuation efforts begin.

## Potential Cascading Impacts

Operation and service disruption  
Economic loss  
Supply chain disruption  
First responder disruption  
Transportation disruption

Critical infrastructure disruption / damage  
Panic  
Communication disruption  
Medical service disruption

## Community Lifeline Implications



## References

<sup>1</sup> Information provided by law enforcement partners.

<sup>2</sup> Mallett, Kent. "City of Johnstown computer system hacked; policy department most affected." Newark Advocate. January 8, 2023. <https://www.newarkadvocate.com/story/news/2023/01/08/johnstown-computer-system-hacked-police-department-most-affected/69782802007/>

<sup>3</sup> Mallett, Kent. "City of Johnstown computer system hacked; policy department most affected." Newark Advocate. January 8, 2023. <https://www.newarkadvocate.com/story/news/2023/01/08/johnstown-computer-system-hacked-police-department-most-affected/69782802007/>





# Tornado

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

According to the National Atmospheric Association (NOAA), a tornado is a “narrow, violently rotating column of air that extends from the base of a thunderstorm to the ground.” Tornadoes have the capability to damage/destroy homes, businesses, and natural landscapes, and can generate wind speeds of over 200 mph.

Tornadoes are measured using the Enhanced Fujita (F) scale, which uses the original F-scale of 1 – 5 but also classifies tornadoes using damage indicators that takes into account the strengths and weaknesses of construction types used on impacted facilities when measuring the strength of the tornado.<sup>1</sup>



### Historical Data

Ohio ranks within the top twenty states in terms of fatalities/injuries and costs incurred due to tornado events, with the frequency of tornadic activity varying across the state.<sup>2</sup>

The Memorial Day 2019 tornado event saw a total of 19 confirmed tornadoes in southwest Ohio, with the tornadoes touching down in the late night/early morning hours between the 27<sup>th</sup> and 28<sup>th</sup> of May. One of the more notable of these tornadoes was the one that went through the Trotwood/Dayton area, which was confirmed as a EF-4 tornado. The tornado caused significant damage and destruction to homes, apartment complexes, and businesses in the region.<sup>3</sup>

### Sample Planning Scenario

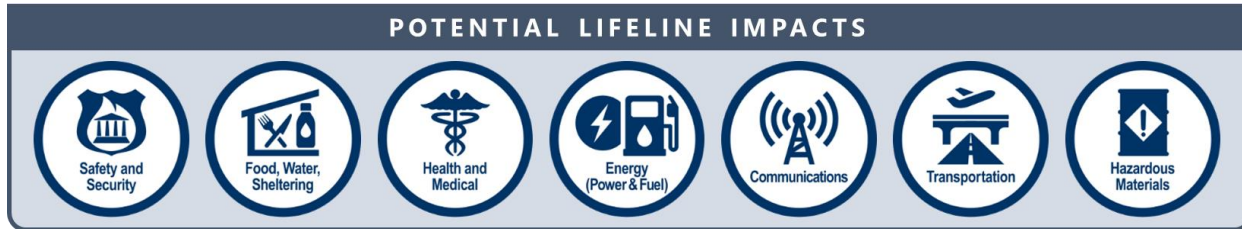
In the early morning hours while most residents were still asleep, an EF-3 tornado moves across a rural community. Due to the time of day, a majority of the residents did not hear the outside tornado warnings sounding off. Dozens of residents have been reported missing, injured, or dead. Power is out and the sewer system is unable to keep up with the amount of rain that has fallen with the storm system. Debris is blocking the roadways within and into the affected community, making it difficult for first responders to respond to any calls for assistance.

## Potential Cascading Impacts

Wind damage  
Power disruption  
Search and rescue

Property / structural damage  
Debris

## Community Lifeline Implications



## References

<sup>1</sup>“2.3 Tornado.” State of Ohio Hazard Mitigation Plan 2019. Pg. 2-43, 44.

<sup>2</sup>“2.3 Tornado.” State of Ohio Hazard Mitigation Plan 2019. Pg. 2-43, 44.

<sup>3</sup>“Tornado Outbreak – May 27-28, 2019.” National Weather Service. <https://www.weather.gov/iln/20190527>



# Electrical Grid Failure

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Electrical grid failure refers to any disruption of electrical energy/power output due to the tampering or destruction of equipment that make up the components of the electrical grid. These components include, but are not limited to, sub-stations, transformers, and power transmission lines.

### Historical Data

On August 14<sup>th</sup> – 15<sup>th</sup>, 2003, a power blackout affected nearly 50 million people in the northeastern United States and southern Canada, to include the State of Ohio.<sup>1</sup> What would become the largest power outage in

U.S. history started when a brush fire outside of Columbus, OH damaged a transmission line. Other transmission lines in the area began to fail, and as more lines overloaded and disconnected from the electrical grid, it led to the cascading effect of causing blackouts in several states and Canada.<sup>2</sup>



### Sample Planning Scenario

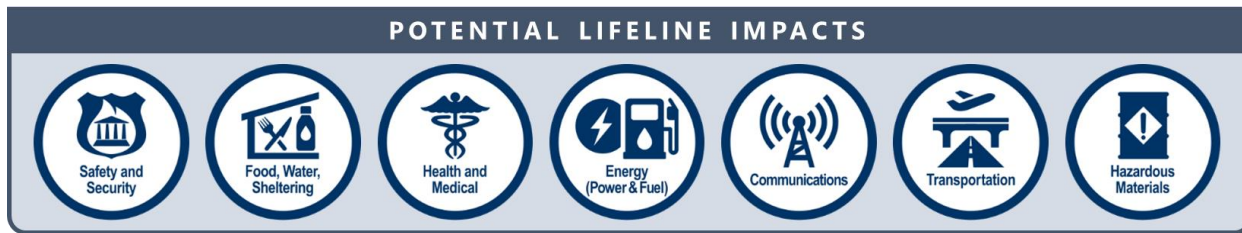
A large metropolitan area in the state is experiencing a heat wave that is currently in its fourth day and is forecasted to last at least another three days. With a heat index of nearly 100 degrees Fahrenheit, residents within the city are utilizing their AC units on their highest setting in order to stay cool. The significant electrical demand caused by the AC units, and an aging electrical system, causes the transmission lines and local transformers to become overloaded, thus creating a failure of the electrical grid. The failure cascades to affect the electrical grid that supplies nearly half of the metropolitan area's power. Significant personnel and resources are necessary to restore power, with an estimated time of restoration time being 48 hours. Meanwhile, residents are without power and unable to stay cool in the heat wave. Some residents have functional needs in which prolonged exposure to excessive heat may become life threatening.

### Potential Cascading Impacts

Loss of heat / cooling  
Operational and service disruptions  
Infrastructure disruptions / failure  
Emergency / medical service disruption & increase demand

Communications disruption  
Traffic disruption  
Injury

## Community Lifeline Implications



## References

<sup>1</sup> “August 2003 Blackout.” U.S. Department of Energy – Office of Electricity. <https://www.energy.gov/oe/august-2003-blackout>

<sup>2</sup> “Public Roads – September/October 2004.” U.S. Department of Transportation – Federal Highway Administration. <https://highways.dot.gov/public-roads/septemberoctober-2004/learning-2003-blackout>



# Drought

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Within the State of Ohio, the potential for drought to occur is equal in all sections of the state and occurs when there is a deficiency of precipitation over an extended period of time. However, the effects of drought vary from farming difficulties to water consumption in different parts of Ohio.<sup>1</sup>

### Historical Data

The U.S. Drought Monitor started in 2000. Since the year 2000, the longest duration of drought in the state lasted for 44 weeks, spanning from July 2002 – May 2003. In terms of drought intensity, the most intense period occurred during the first week of September 2007, whereby D3 drought conditions affected 11.45% of Ohio land. Historical and current drought conditions in Ohio can be found by going to [Drought.gov](http://Drought.gov).<sup>2</sup>



### Sample Planning Scenario

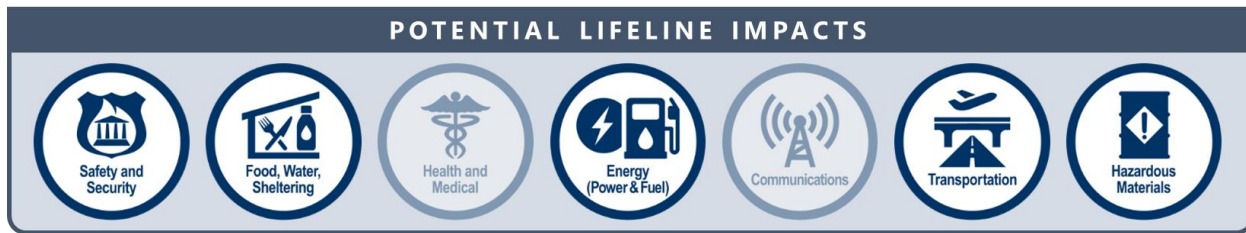
Higher than normal temperatures and dry vegetation for two straight weeks create extreme drought conditions in multiple southern Ohio counties. Crops are adversely affected, as well as lawns, gardens, and other landscapes. Many municipalities mandate water-use restrictions as water supplies approach critically low levels.

### Potential Cascading Impacts

Dried vegetation – plant water stress  
 Decrease in water resources  
 Wildfire

Crop damage  
 Decrease in water recycling and reuse  
 Disruption of public water services

## Community Lifeline Implications



## References

<sup>1</sup> “2.11 Drought.” State of Ohio Hazard Mitigation Plan 2019. Pg. 2-168

<sup>2</sup> “Drought in Ohio from 2000 – Present.” National Integrated Drought Information System.

<https://www.drought.gov/states/ohio#historical-conditions>





# Earthquake

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Although most earthquakes are unnoticeable in Ohio, there have been numerous quakes with a magnitude of 2.0 or higher over the last several years. Earthquakes in the state are primarily geologically located in the northeast and far west-central portion, and historically have not exceeded 5.4 in magnitude.

An earthquake results from a release of energy from the Earth creating seismic waves. Earthquakes are caused mostly by tectonic plate movement known as geologic faults, but also by volcanic activity and landslides.<sup>1</sup>



### Historical Data

In terms of magnitude, of the top ten earthquakes that have occurred in Ohio, five have occurred in Shelby County, two in Ashtabula County, and one occurrence in the counties of Auglaize, Coshocton, Allen, and Lake. Shelby County is considered to be one of the most geologically active areas in the state for seismic activity, and has experienced more than 39 earthquakes averaging a magnitude of 2.8. The most damaging earthquake to occur in the state had a recorded magnitude of 5.4.<sup>2</sup>

Ohio EMA maintains a “Earthquakes in Ohio” GIS dashboard of earthquakes that have occurred in the state. The dashboard can be found by going to Ohio EMA’s website at [ema.ohio.gov](http://ema.ohio.gov).

### Sample Planning Scenario

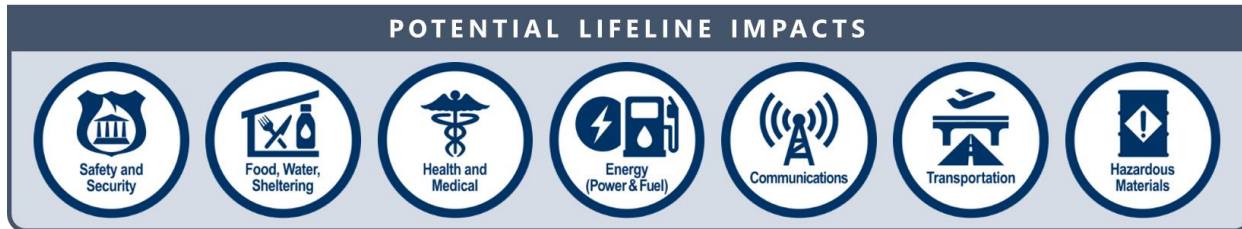
A 5.4 magnitude earthquake occurs at 5:00 PM on a weekday near the border of two counties in northern Ohio. Several communities are heavily impacted. Damage to buildings varies depending on the quality of building construction. Some older buildings near the epicenter are destroyed and many other older buildings sustained damage. Several transportation accidents are reported in the area.

## Potential Cascading Impacts

Landslide  
Broken pipelines  
Service disruption

Impeded emergency response  
Search & rescue  
Property / structure damage

## Community Lifeline Implications



## References

<sup>1</sup> "2.9 Earthquake." State of Ohio Hazard Mitigation Plan 2019. Pg. 2-141,143

<sup>2</sup> "2.9 Earthquake." State of Ohio Hazard Mitigation Plan 2019. Pg. 2-145,146





# Solar Flare

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

A solar flare is electromagnetic radiation that erupts from the sun (usually in active regions associated with sunspots) and interacts with the Earth's atmosphere.<sup>1</sup>

### Historical Data

On March 10<sup>th</sup>, 1989, a large solar flare was detected that was heading straight towards Earth. The event immediately caused short-wave radio interference, and on March 13<sup>th</sup> caused an electrical blackout throughout Quebec, Canada. The blackout lasted for twelve hours, impacting millions of people in the province that closed down schools, businesses, airports, and public transportation. The U.S. was also impacted, with over 200 power grids losing megawattage as a result of the effects of the solar flare, but no reported blackouts.<sup>2</sup>



### Sample Planning Scenario

A large solar flare hits the Earth, with a direct impact on the mid-western, eastern United States (to include Ohio). The significant amount of electrical currents caused by the solar flare event adversely impacts the communication and power systems utilized by the state. A majority of the state suffers a blackout, causing millions to lose power. Due to disruptions in communication systems, there are difficulties in communicating emergency information to the public. Furthermore, there are disruptions in people trying to dial 911, and emergency responders are having difficulty in communicating with each other.

### Potential Cascading Impacts

- Communications disruption
- Transportation disruption
- Energy disruption (power)

## Community Lifeline Implications



## References

<sup>1</sup> “Solar Flares (Radio Blackouts).” NOAA-Space Weather Prediction Center.

<https://www.swpc.noaa.gov/phenomena/solar-flares-radio-blackouts>

<sup>2</sup> Odenwald, Sten. “The Day the Sun Brought Darkness.” NASA.

[https://www.nasa.gov/topics/earth/features/sun\\_darkness.html](https://www.nasa.gov/topics/earth/features/sun_darkness.html)



# Water Supply Failure

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Water supply failure is any disruption to water systems used in the collection, transportation, and distribution of water that adversely affects any living or non-living entities or structures that utilize water.

### Historical Data

At 5:30am on February 16<sup>th</sup>, 2017, the City of Athens, Ohio suffered a significant water outage due to a water main rupture. The outage affected an estimated 75% of the city's residents, to include patients at O'Bleness hospital. Two water trailers were dispatched to the City of Athens for use by the residents. Repairs and re-pressurization of the water system was completed the evening of the 16<sup>th</sup>, but the boil advisory was not lifted until February 18<sup>th</sup>.<sup>1</sup>



### Sample Planning Scenario

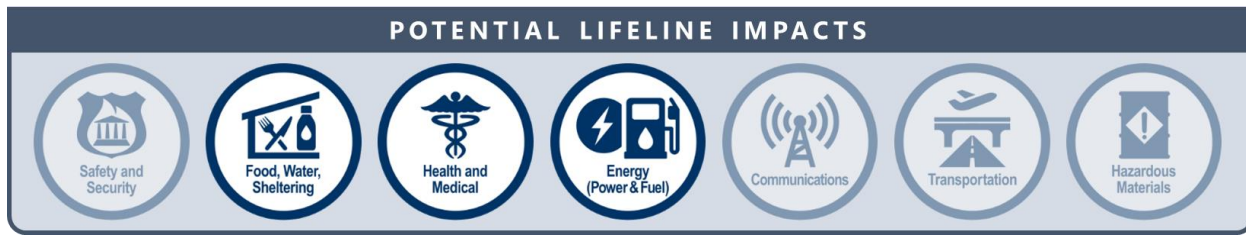
A critical water main for a major metropolitan area in the state breaks, creating an outage that affects nearly 95% of the residents in the city. The outage forces residents to be unable to access water for drinking and hygiene purposes, and forces businesses and schools in the city to close. During the response to the water main break, a fire breaks out at a high-rise apartment complex. Due to the water supply failure impacting the city, fire hydrants surrounding the apartment complex are unable to be used to extinguish the fire. The water supply failure event also takes place in the middle of a heat wave, whereby the heat index in the city is over 100 degrees Fahrenheit.

### Potential Cascading Impacts

Disruption of public water services  
Infrastructure failure  
Environmental loss  
Power disruption

Crop damage / destruction  
Illness and disease  
Death

## Community Lifeline Implications



## Resources

<sup>1</sup> City of Athens Water Outage – After Action Summary Memorandum. Ohio Emergency Management Agency. February 27, 2017. PDF.



# Mass Casualty - Medical Incident

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

A mass casualty – medical incident involves a significantly large number of casualties as a consequence of an event that does, or has the strong potential to, overwhelm the health care demands of a specific area/community.

A mass casualty – medical incident may vary in its intensity based upon the geographical area (i.e. rural vs. urban) the event takes place, and is dependent upon the preparedness and size of the health care facility(ies) involved in the response to the incident.



### Historical Data

In August 2022, at least 14 people in the state had fallen ill due to an outbreak of E. coli (CDC believes this number may be higher and went unreported). No deaths were reported from the outbreak, but at least nine people were hospitalized. E. coli can vary person-to-person and often includes severe stomach cramps, diarrhea, vomiting, and a fever. Symptoms typically begin within three-to-four days after the bacteria is ingested, and some people may have an increased risk of infection. Those who have an increased risk of infection include adults who are 65 years old or older, children younger than 5 years of age, individuals with weakened immune systems, pregnant women, and people who travel to certain countries.<sup>1</sup>

In the winter of 2022/2023, Ohio faced a “triple-demic” that resulted from the overlapping of flu, Respiratory Syncytial Virus (RSV), and COVID-19 outbreaks that were infecting children. The surge of all three illnesses at one time resulted in surges in the pediatric hospitals and medical providers throughout the state. Furthermore, there was an increased risk of picking up multiple infections at once or within a short time of one another. With the increase in pediatric patients falling ill, there was also a supply chain shortage of critical medication.<sup>2</sup>

### Sample Planning Scenario

A county fair is taking place in a rural part of state, whereby thousands are attending. A few days after the start of the festivities, hundreds of people begin to exhibit signs and symptoms of food borne illness that could be traced back to the food being served at the fair. There is only one hospital in the county, and dozens begin to arrive at the hospital within a short period of time, all exhibiting symptoms of food borne illness. The hospital quickly becomes overrun and places a temporary hold on elective procedures/surgeries in order to focus and preserve

personnel and medical supplies in treating the patients who have a food borne illness. Necessary medical supplies are beginning to become extremely low, with multiple doctors and nurses beginning to show signs of fatigue.

## Potential Cascading Impacts

Medical service demands & disruption  
Panic / fear  
Illness / death  
First responder health & safety

Mortuary service demands  
Adverse psychological effects  
Isolation / quarantine  
Medical supply shortages

## Community Lifeline Implications



## References

- <sup>1</sup> Information provided by public health partners.
- <sup>2</sup> Information provided by public health partners.





# Fuel Shortage

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Fuel shortage is defined as any disruption to the creation, output, and/or distribution of fuel for a prolonged period of time that adversely affects the operations of daily life, to include the execution of essential public and private services.

\*Note: this does not include natural gas

### Historical Data

While there is no historical data in the State of Ohio regarding fuel shortages, there have been recent fuel shortage events that have taken place in other parts of the United States.



On September 9<sup>th</sup>, 2016, a gas leak was detected from a gas line operated by Colonial Pipeline, forcing a shutdown of the line. The affected gas line ran from Houston, TX up to the state of New Jersey, and provided fuel for an estimated 50 million people along the East Coast. Alabama, Georgia, Tennessee, and the Carolinas were severely affected by the incident, with multiple of these states declaring a state of emergency which caused gasoline prices to surge. Panic buying led to long lines and gas shortages at gas stations.<sup>1,2,3</sup>

### Sample Planning Scenario

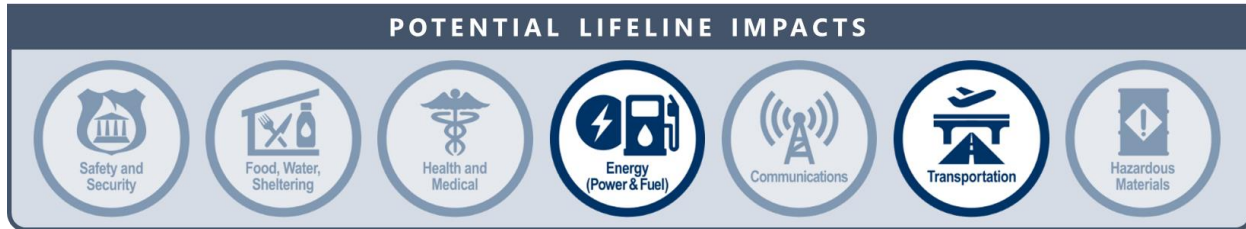
Social media posts begin spreading disinformation of an impending shutdown of a gas line will cause gasoline prices to surge and fuel shortages at gas stations. While the information is not true, this generates fear among the public, who begin to rush to gas stations to fuel their vehicles, thus creating long lines and an actual gasoline fuel shortage.

## Potential Cascading Impacts

Operation and service disruption  
Decrease in fuel supply  
Panic / fear

Transportation disruptions  
Emergency response disruptions

## Community Lifeline Implications



## References

<sup>1</sup> Graham, David A. “There’s Nothing Left in the Tank in the Southeast.” The Atlantic. September 20, 2016.

<https://www.theatlantic.com/news/archive/2016/09/southeastern-gas-shortage/500873/>

<sup>2</sup> Riley, Charles. “East Coast faces gas shortages, price hikes after pipeline leak.” CNN. September 16, 2016.

<https://money.cnn.com/2016/09/16/investing/gasoline-prices-shortage-pipeline-leak/>

<sup>3</sup> Schmitt, Brad and Melanie Balakit. “Worries lead to long gas lines in Nashville – again.” The Tennessean.

September 17, 2016. <https://www.tennessean.com/story/money/2016/09/17/panic-leads-long-gas-lines-nashville-again/90575330/>





# Dam / Levee Failure

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Dam failure is defined as an uncontrolled release of impounded water, while a levee failure occurs when a portion of the levee breaks away allowing water to flood the landward side of the levee structure. Dams in Ohio have been divided into four classes; I, II, III, IV, based upon a downstream threat potential.<sup>1</sup>

The Ohio Department of Natural Resources has identified most dams in the state and categorized each by their impact to residents in the event of failure.



### Historical Data

Based on available data, Ohio has recorded minimal property damage as a result of a dam failure and no documentation of instances by which a levee failure resulted in structure or property damage in the state. However, this observation may be due to an issue of incomplete historical data and records not being kept on these instances.<sup>2</sup>

### Sample Planning Scenario

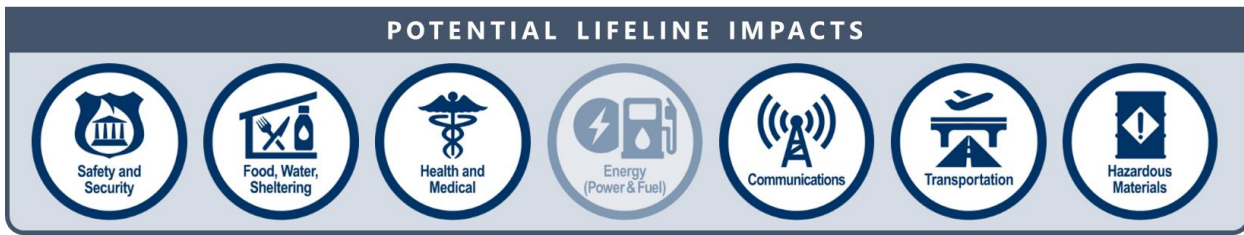
Near record spring precipitation, compounded by a series of spring storms, lead to a Class I dam failure upstream of a highly populated area in central Ohio. The inundation area downstream of the dam contains business, residential, commercial, and other uses. There are hundreds of casualties, and property and infrastructure damage totals in the hundreds of millions of dollars. Bridges, culverts, and other stream crossings are destroyed 20 miles downstream of the dam. The event causes significant environmental contamination downstream of the dam and habitat degradation in the reservoir and surrounding park.

### Potential Cascading Impacts

Flooding  
Search & rescue

Evacuation  
Property / structural damage

## Community Lifeline Implications



## References

<sup>1</sup> "2.6 Dam/Levee Failure." State of Ohio Hazard Mitigation Plan 2019. Pg. 1-91,92,93

<sup>2</sup> "2.6 Dam/Levee Failure." State of Ohio Hazard Mitigation Plan 2019. Pg. 1-98,99



# Temperature Extremes

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Temperature extremes includes any event by which the temperatures are considered to be significantly higher or lower (hotter or colder) than what is considered to be “normal” based on the time of year/season.

While no defined temperature range is used to define a temperature extreme, an indicator that can be used is for extreme heat it is those conditions that are considered to be a “heat wave,” while for extreme cold it is those conditions that are considered to be a “polar vortex”.

### Historical Data

On December 23<sup>rd</sup>, 2022, a major winter storm impacted the State of Ohio. One of the conditions of this storm was the extreme cold, where temperatures in much of the state were zero or sub-zero, with wind chills being as low as -35 degrees Fahrenheit.<sup>1</sup>



### Sample Planning Scenario

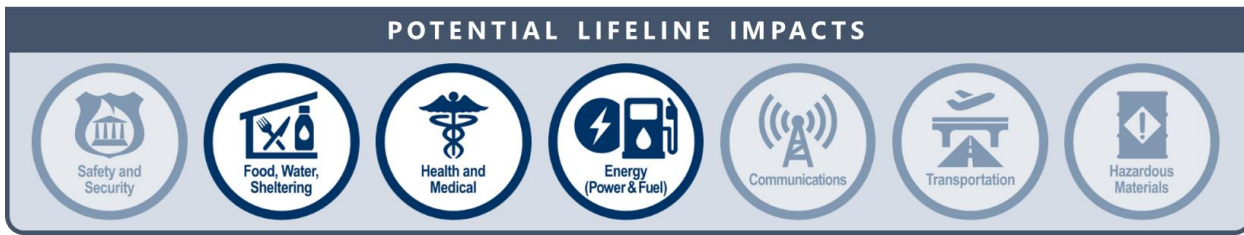
A heat wave is impacting significant portions of the state during the month of May. Temperatures are measuring 100 degrees Fahrenheit, with a heat index of 110 degrees Fahrenheit. Several schools that do not have AC units in their buildings close, and there are multiple reports of heat stroke from those who are unable to find shelter from the extreme heat. Cooling centers are stood up, and organizations have begun handing out bottled water to anyone in need. The weather conditions are also fueling forecasted severe storms, where it is reported Ohio is in a moderate to high risk of severe storms that can generate tornados, strong wind, and hail.

### Potential Cascading Impacts

Power disruption  
Illness / death  
Equipment failure / malfunction

Operational and service disruption  
Shelter demands  
Medical service demands

## Community Lifeline Implications



## References

<sup>1</sup> “A Major Winter Storm System Impacted The Region In The Days Leading Up to Christmas 2022, Resulting In Blizzard Conditions Across Northeast Ohio.” National Weather Service.

[https://www.weather.gov/cle/event\\_Christmas\\_Blizzard\\_2022](https://www.weather.gov/cle/event_Christmas_Blizzard_2022)



# Natural Gas Failure

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Natural gas failure is defined as any disruption to the creation, output, and/or distribution of natural gas for a prolonged period of time that adversely affects the operations of daily life, to include the execution of essential public and private sector services.

\*Note: this does not include fuel

### Historical Data

In January 2014 (likely beginning in late 2013) a combination of events, to include record-breaking cold temperatures and propane used to dry out corn harvests that caused low inventories of stored propane, led to a propane shortage in multiple states that affected millions of Americans.<sup>1,2</sup> In Ohio, specifically, the propane shortage was the worst in 25 years, causing propane price hikes and caused the rationing and delivery restrictions of propane for homeowners.<sup>3</sup> Propane costs for residential use reached its peak in February 2014 with propane costing \$3.73 per gallon, a 31 percent increase from the same time period in 2013.<sup>4</sup> On Saturday, January 18<sup>th</sup>, 2014, Ohio Governor John Kasich issued a state of emergency declaration to create conditions necessary for the speeding-up of shipments and deliveries in an attempt to ease the burdens on Ohioans who use propane in their homes.<sup>5,6,7</sup>



### Sample Planning Scenario

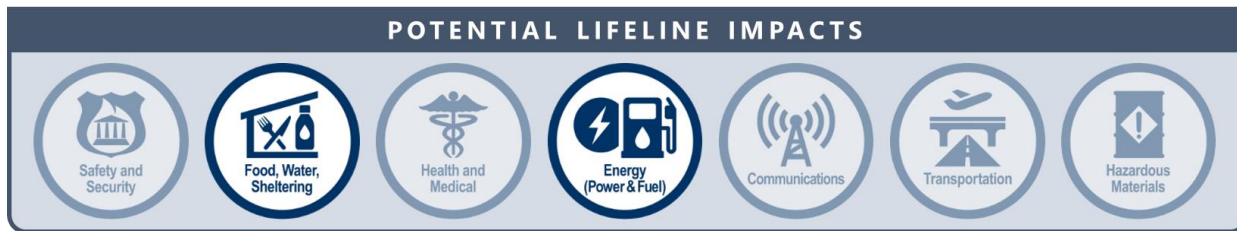
A major natural gas line in northwest Ohio burst in the middle of January, forcing a shutdown of the natural gas line. Repairs to the natural gas line are estimated to take at least a week. The shutdown has caused hundreds of homes and businesses to be unable to use natural gas to heat their homes and stoves for cooking. Heating centers and shelters are opened in the region to allow those affected to stay warm.

### Potential Cascading Impacts

Loss of heat  
Panic / fear

Loss of electricity

## Community Lifeline Implications



## References

- <sup>1</sup> Zawadzki, Sabina and Edward McAllister. "U.S. propane shortage hits millions during brutal freeze." Reuters. January 24, 2014. <https://www.reuters.com/article/us-energy-propane-shortage/u-s-propane-shortage-hits-millions-during-brutal-freeze-idUSBREA0NOAB20140124>
- <sup>2</sup> "The Cause Of The 2014 Propane Shortage And What It Means For You." GASTEC: Propane-Sales & Services. February 12, 2014. <https://www.gasteconline.com/cause-2014-propane-shortage-means-2/>
- <sup>3</sup> Larsen, Dave. "Propane shortage was the worst in past 25 years." Dayton Daily News. April 7, 2014. <https://www.daytondailynews.com/news/propane-shortage-was-the-worst-past-years/lf4hge4KWzqXOmZlmmxYXO/>
- <sup>4</sup> Larsen, Dave. "Propane shortage was the worst in past 25 years." Dayton Daily News. April 7, 2014. <https://www.daytondailynews.com/news/propane-shortage-was-the-worst-past-years/lf4hge4KWzqXOmZlmmxYXO/>
- <sup>5</sup> Anderson, Kristin. "Ohio propane shortage raises concerns." WKYC Studios. January 20, 2014. <https://www.wkyc.com/article/news/local/ohio/ohio-propane-shortage-raises-concerns/95-241866479>
- <sup>6</sup> Gearino, Dan. "Propane users in Ohio face shortage as cold returns." The Columbus Dispatch. January 19, 2014. <https://www.dispatch.com/story/news/environment/2014/01/20/propane-users-in-ohio-face/23773584007/>
- <sup>7</sup> Tweh, Bowdeya. "State declaration aims to ease propane gas shortage." Cincinnati.com | The Enquirer. January 18, 2014. <https://www.cincinnati.com/story/news/2014/01/18/state-declaration-aims-to-ease-propane-gas-shortage/4642109/>





# Mass Communications Failure

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Mass communications failure encompasses the failure of any communications system that significantly impacts the daily activities or operations of government, businesses, organizations, and society as a whole.

\*Note: does not include temporary interruptions of communication systems, such as internet connectivity issues of a small sub-set of a population



### Historical Data

No historical data is available on this hazard.

### Sample Planning Scenario

An error in the communications system of cellular towers in central Ohio causes the communications towers to become inoperable. This impacts the ability of thousands of individuals, businesses, and organizations that utilize mobile devices in making phone calls, to include emergency calls. Cellular on wheels (COWs) are dispatched to the impacted area, but due to the limited number of COWs available to be used and the geographic region impacted there are still countless individuals and businesses who are unable to communicate.


### Potential Cascading Impacts

Operation and service disruption  
 Supply chain disruption  
 Emergency response disruption


Alarm systems disruption  
 Economic loss  
 Civil unrest

### Community Lifeline Implications


**POTENTIAL LIFELINE IMPACTS**




Safety and Security




Food, Water, Sheltering




Health and Medical




Energy (Power & Fuel)



Communications



Transportation



Hazardous Materials



# High Winds

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

High winds are described as any wind event (excluding tornados) that causes severe or extensive damage to the natural environment and/or physical infrastructure.

An example of what may fall within this hazard is a derecho event.

### Historical Data

On June 29<sup>th</sup>, 2012, virtually the entire state of Ohio was impacted by a derecho event. Wind speeds of over 60 to 80 mph damaged or destroyed trees, power lines, homes, and businesses. Over a million residents in the state lost power as a result of the event, and for many it took over a week before their power was restored. There were reports of injuries due to downed trees and wind-blown debris.<sup>1,2</sup>



### Sample Planning Scenario

A derecho enters the state from the southwest, heading northeast. Wind speeds of over 70 mph are recorded in multiple counties that cause extensive damage to the roofs and sidings of homes and barns, trees are uprooted with some falling onto homes and businesses, and power utility poles are blown over that cause power outages to hundreds of thousands of people. Communication towers are also damaged, which impacts the ability of those who may need emergency assistance to dial 911. Due to the extent of the damage and having impacted multiple counties, resource scarcity in response to the incident becomes an issue.

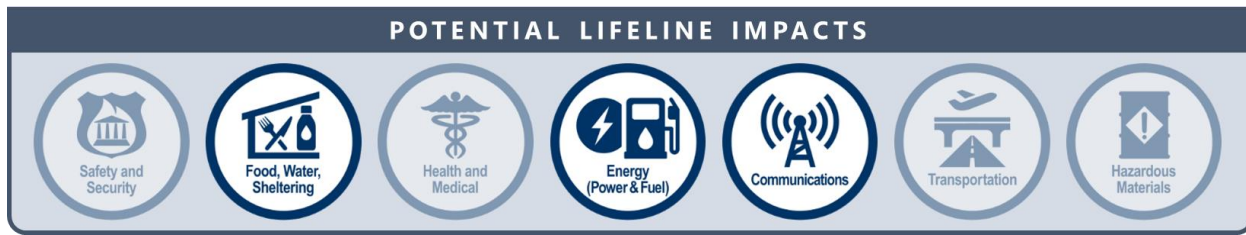
### Potential Cascading Impacts

Emergency services demands  
Property / structural damage  
Loss of power / communications

Environmental damage  
Injury



## Community Lifeline Implications



## References

<sup>1</sup> "Derecho Event of June 29<sup>th</sup>, 2012." National Weather Service. <https://www.weather.gov/rlx/SVR062912>

<sup>2</sup> "The Ohio Valley / Mid-Atlantic Derecho of June 2012." National Oceanic and Atmospheric Administration. <https://www.spc.noaa.gov/misc/AbtDerechos/casepages/jun292012page.htm>



# Invasive Species

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

An invasive species is defined as any living organism that is not native to an ecosystem and causes an adverse effect on the environment, economy, and public health. Furthermore, invasive species are capable of reproducing quickly and rapidly increasing their potential to cause harm.<sup>1</sup>

### Historical Data

Of the approximately 2,300 species of plants known to grow in the wild in Ohio, about 78% are native and the other 22% of species (more than 500 in total) are invasive.<sup>2</sup>



An invasive animal species that directly impacts the State of Ohio is that of feral swine. Feral swine are a combination of Eurasian wild boar and domestic swine, and cause damage to natural resources and agricultural crops and property. Feral swine may also carry diseases that impact native wildlife, domestic animals (pets), and humans.<sup>3</sup>

### Sample Planning Scenario

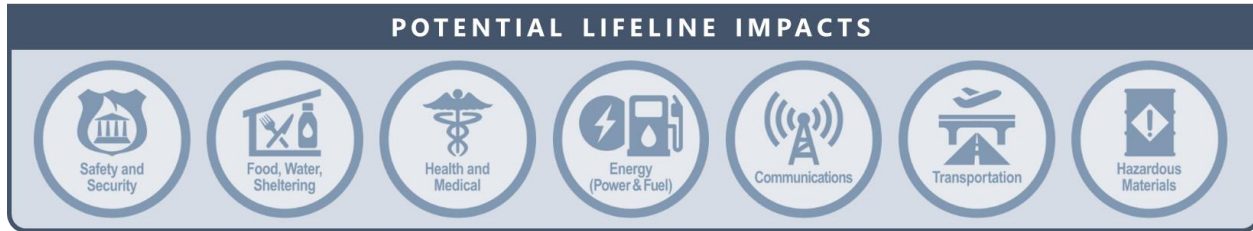
An invasive insect from another country is accidentally introduced into the environment in the State of Ohio due to being inside containers involved in the state's trade and commerce. The insect feeds on the agricultural crops in the state, and having no known predators, quickly reproduces. The significant increase in the population of the invasive species directly correlates to the significant rise in agriculture crop damage, adversely impacting the state's agriculture economy and food resources.

### Potential Cascading Impacts

Agricultural property / crop damage  
Economic loss  
Environmental loss

Illness / disease

## Community Lifeline Implications



Overall impacts to the community lifelines will be minimal depending on the area affected by an invasive species.

## References

<sup>1</sup> "Invasive Species." The National Wildlife Federation. <https://www.nwf.org/Educational-Resources/Wildlife-Guide/Threats-to-Wildlife/Invasive-Species>

<sup>2</sup> "Invasive Plants." Ohio Department of Natural Resources. <https://ohiodnr.gov/discover-and-learn/plants-trees/invasive-plants>

<sup>3</sup> "Invasive Species: Feral Swine in Ohio." Ohio Department of Natural Resources. <https://ohiodnr.gov/discover-and-learn/safety-conservation/wildlife-management/invasive-species/feral-swine>



# Radiological Incident (non-terrorism; non-nuclear)

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

A radiological incident is classified as any event by which there is a release of radiological material that is non-nuclear nor released as an act of terrorism.

Orphan sources, which are small volumes of radioactive material that are uncontrolled or improperly controlled or dispositioned, are illustrative of what may cause a radiological incident to occur.<sup>1</sup>

### Historical Data

On May 15<sup>th</sup>, 1929, an exposed light bulb ignited nitro-cellulose x-ray film on fire in the main Cleveland Clinic facility. The resulting fire caused 123 deaths, with the cause of death of the majority of the victims being the inhaling of radioactive material of the burning x-ray film.<sup>2</sup>



### Sample Planning Scenario

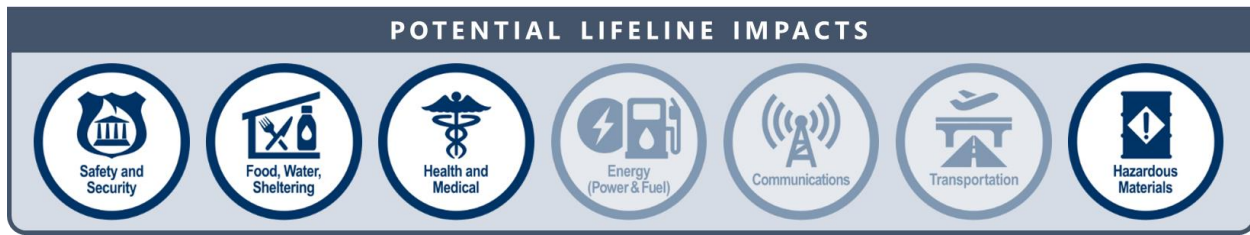
A hospital in the state recently closed, with several pieces of medical equipment still being located inside of the abandoned facility. People break into the abandoned hospital in the hopes of stealing some of the left behind items and equipment to sell as scrap metal. Medical equipment that utilizes radioactive material in their operations are stolen, with the radioactive material contained inside the equipment improperly handled. Several individuals begin to show signs of radiation poisoning at varying degrees. Some seek medical attention, while others do not due to being unaware as to the cause of their ailments. Over the course of several days and weeks, people begin to die or have permanent injuries as a result of the improper handling of radioactive material.

### Potential Cascading Impacts

Spread of radioactive debris  
Environmental damage / loss  
Medical service demands

Injury / death  
Panic / fear

## Community Lifeline Implications



## References

- <sup>1</sup> "Orphan Sources." United States Nuclear Regulatory Commission. <https://www.nrc.gov/materials/miau/miau-reg-initiatives/orphan.html>
- <sup>2</sup> "Cleveland Clinic Fire." Ohio History Connection. [https://ohiohistorycentral.org/w/Cleveland\\_Clinic\\_Fire](https://ohiohistorycentral.org/w/Cleveland_Clinic_Fire)





# Landslide

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

A landslide occurs when there is downward movement of land material (soil and rock) on a slope. In Ohio, there are three main types of landslides that occur: rotational slump, earthflow, and rockfall. Factors in Ohio that may impact slope stability and contribute to landslides include: groundwater pressure, soil structure, stream erosion, saturation (snow melt, heavy rains), and earthquakes.<sup>1</sup>

While landslides are virtually non-existent throughout much of the state due to the lack of geological slopes, there are areas of the state, mainly the southern and eastern portions, that do have the geological conditions necessary for landslides to occur.<sup>2</sup>



### Historical Data

According to reports, the Cincinnati metropolitan area has one of the highest per capita costs of landslide damage of any metropolitan area in the United States with the city spending half a million dollars annually on emergency repairs caused by landslides.<sup>3</sup>

There has only been one recorded fatality in the state due to a landslide. On December 24<sup>th</sup>, 1986, the driver of a vehicle traveling on U.S. Route 52 in Lawrence County was killed by falling rock.<sup>4</sup>

### Sample Planning Scenario

Above normal rainfall amounts were recorded in Hamilton County throughout the month of April. Soil moisture as a result of the significant rainfall causes the shale landscape to lose strength and generates landslides on high-grade slopes. The landslides cause damage to roadways and bridges in the area, along with homes that were situated at the base of the affected slopes.

### Potential Cascading Impacts

Altered landscape

Property / structure damage

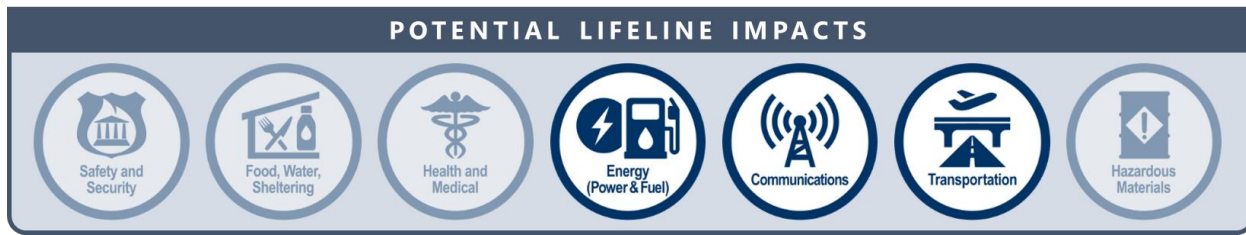
Disruption of infrastructure operations

Environmental loss

Road damage

Debris spread

## Community Lifeline Implications



## References

<sup>1</sup>“2.5 Landslide.” State of Ohio Hazard Mitigation Plan 2019. Pg. 2-79,80

<sup>2</sup>“Landslides.” Ohio Department of Natural Resources. <https://ohiodnr.gov/discover-and-learn/safety-conservation/geologic-hazards/landslides>

<sup>3</sup>“2.5 Landslide.” State of Ohio Hazard Mitigation Plan 2019. Pg. 2-83

<sup>4</sup>“Landslides in Ohio.” GeoFacts No. 8. Ohio Department of Natural Resources. <https://ohiodnr.gov/discover-and-learn/safety-conservation/geologic-hazards/landslides>



# Land Subsidence

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Subsidence is the downward shift of the land surface relative to a geological benchmark of the surrounding terrain. While there are several causes for this, in the State of Ohio it is primarily due to abandoned underground mines and karst.

Abandoned underground mines located in the state create open voids under the surface, and factors such as depth of the mine, geological material that makes up both the abandoned mine and land surface, and the mining techniques that were used, may cause the mine to collapse, thus generating a land subsidence.



Karst encompasses terrain such as sinkholes and caves that form natural voids underground that are vulnerable to collapse. When it comes to Ohio, sinkholes are the most prevalent when it comes to karst-induced land subsidence. There are thousands of sinkholes located throughout the state.<sup>1</sup>

### Historical Data

According to the Ohio Department of Natural Resources there are 3,606 abandoned underground mines (that are known of), and over thirty active underground mines. Coal mines can range in depth from less than 100 feet from the surface all the way to over 1,000 feet.

Karst terrain encompasses a vast portion of the western third of the state due to glaciers that were moving in the region tens of thousands of years ago. The counties with the most probable karst areas are Brown, Adams, Highland, Seneca, Huron, Erie, Sandusky, and Ottawa.<sup>2</sup>

### Sample Planning Scenario

Due to years of erosion and landscape changes, the ground above an abandoned underground mine in southeast Ohio collapses. The collapse causes the roadway that was sitting upon the ground to crumble into the newly created sinkhole. First responders respond to the scene whereby the roadway is closed and motorists are diverted to alternate routes.

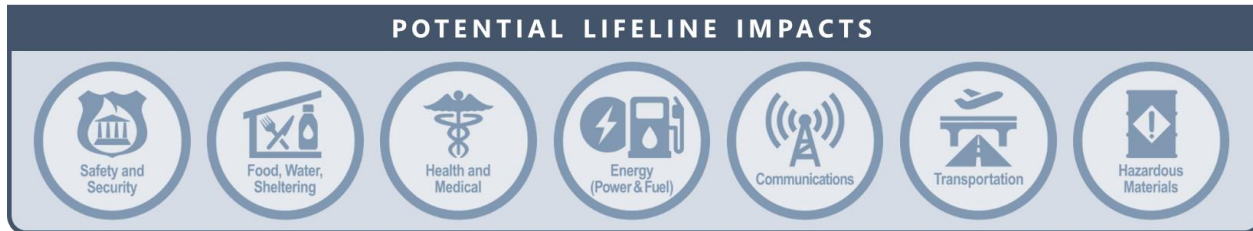


## Potential Cascading Impacts

Altered landscape  
Property / structure damage  
Disruption in infrastructure operations

Injury  
Roadway damage

## Community Lifeline Implications



Overall impacts to the community lifelines will be minimal depending on the area affected by land subsidence and manmade structures in that area.

## References

<sup>1</sup> "2.14 Land Subsidence." State of Ohio Hazard Mitigation Plan 2019. Pg. 2-201

<sup>2</sup> "2.14 Land Subsidence." State of Ohio Hazard Mitigation Plan 2019. Pg. 2-201, 203



# Mass Casualty - Trauma Incident

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

A mass casualty – trauma incident involves a sufficiently large number of individuals with severe physical injuries as a consequence of an event that does, or has the strong potential to, overwhelm the health care demands of a specific area/community.

A mass casualty – trauma incident may vary in its intensity based upon the geographical area (i.e. rural vs. urban) the event takes place, and is dependent upon the preparedness and size of the health care facility(ies) involved in the response to the incident.

### Historical Data

On December 23rd, 2022, a severe winter weather event caused several vehicles to lose control due to low visibility and icy road conditions. The incident resulted in a 51-vehicle accident on the Ohio Turnpike, resulting in 4 deaths and 73 injuries. The immediate response took several hours to respond to as the pile-up blocked the eastbound lanes of the Turnpike, and took over 24 hours to clear and reopen the turnpike.<sup>1</sup>



### Sample Planning Scenario

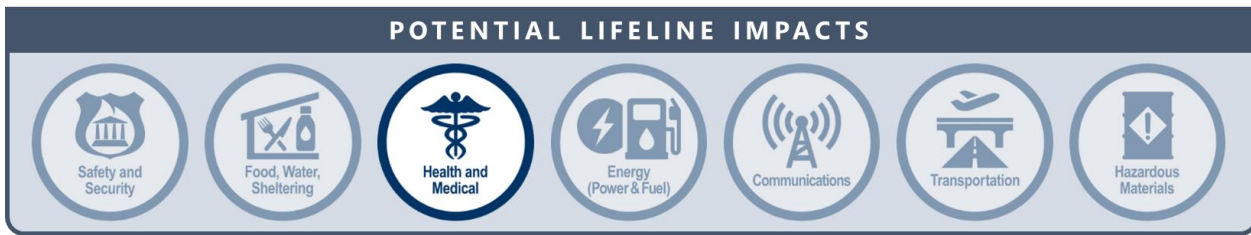
During a sold-out college football game, an announcement is made over the public announcement system of a possible active shooter in the area. Immediately after the announcement is made, panic ensues amongst the attendees. Hundreds of people begin to attempt to evacuate the stadium in a disorderly fashion through narrow corridors and stairwells. People are shoved and tripped onto the ground, where they are unable to get back up while people run on top of them. Several people are killed or severely injured as a result of being trampled.

### Potential Cascading Impacts

Medical service demands & disruption  
Panic / fear  
Injury

Mortuary service demands  
Adverse psychological effects  
Medical supply shortages

## Community Lifeline Implications



## References

<sup>1</sup> Information provided by public health partners.



# Wildfire

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

A wildfire is any uncontrolled fire with extensive size and speed in a combustible vegetative area. In Ohio, wildfire season typically starts in the spring before vegetation has “greened-up”, and in the fall due to a buildup of dead foliage on the ground. The danger of wildfires is that they are unpredictable, especially when weather conditions are warm, dry, and windy and the topography of the area is uneven.<sup>1</sup>

The Ohio Department of Natural Resources - Division of Forestry has a “Fire Management Program” webpage, whereby information such as open burning regulations, online wildfire reporting, and wildfire prevention can be found. The link to the webpage is <https://ohiodnr.gov/discover-and-learn/safety-conservation/about-ODNR/forestry/fire-management-program>.



### Historical Data

There is an annual average of 800 wildfires that burn 4,000 to 5,000 acres of forest and grassland within the Ohio Department of Natural Resources (ODNR), Division of Forestry’s forest fire protection district. The forest fire protection district corresponds mostly to the state’s unglaciated hill country (southern and eastern Ohio), and also encompasses a section of northwest Ohio.<sup>2</sup>

### Sample Planning Scenario

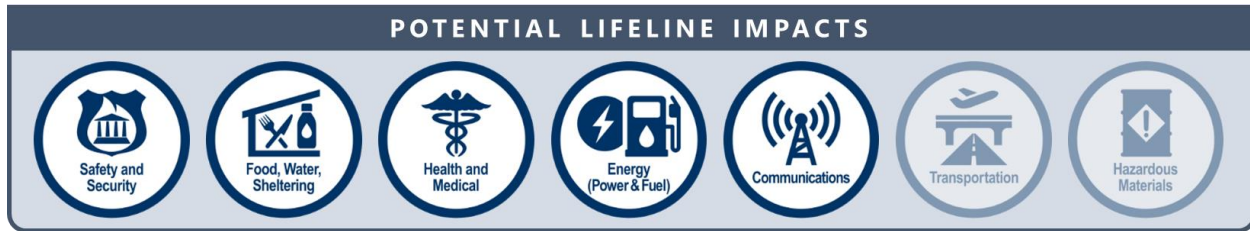
At a campsite in southeast Ohio during the autumn months, a campfire that was not properly extinguished catches the surrounding forested area on fire. Lower-than-average precipitation, drought conditions, and the collection of dead leaves allows for the fire to consume over 500 acres of land in a short period of time. The fire moves through private and state-managed lands, resulting in local fire departments and ODNR fire personnel to respond to the scene of the wild fire. One firefighter suffers severe dehydration, and another firefighter suffers a shoulder injury as a result of a heavy tree branch falling on them. In total, hundreds of acres of forested land, several residential and commercial facilities, and public and private parks are damaged or destroyed.

## Potential Cascading Impacts

Smoke  
Structure damage  
Evacuation

Crop damage  
Infrastructure damage

## Community Lifeline Implications



## References

<sup>1</sup> "2.7 Wildfire." State of Ohio Hazard Mitigation Plan 2019. Pg. 2-114

<sup>2</sup> "2.7 Wildfire." State of Ohio Hazard Mitigation Plan 2019. Pg. 2-114



# Civil Disturbance

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

A civil disturbance is any event in which acts of violence and / or disregard for established laws, codes, and statutes are carried out by a mass group of individuals. Examples of what would classify as a civil disturbance incident are riots, public nuisances, and illegal demonstrations.

\*Note: Civil disturbance does not include public demonstrations / protests that are carried out in-line with established laws, codes, and statutes, to include the First Amendment of the United States Constitution.



### Historical Data

Starting in May 2020, civil disturbance activities commenced in Columbus, OH as an extension of civil unrest events taking place nationwide. The activities were centered primarily in downtown Columbus (to include Capitol Square), the Short North, and the South Side. Dozens of businesses, residential complexes, and government facilities were vandalized and looted. The civil unrest was met with a significant police presence in attempting to restore public order.<sup>1</sup>

### Sample Planning Scenario

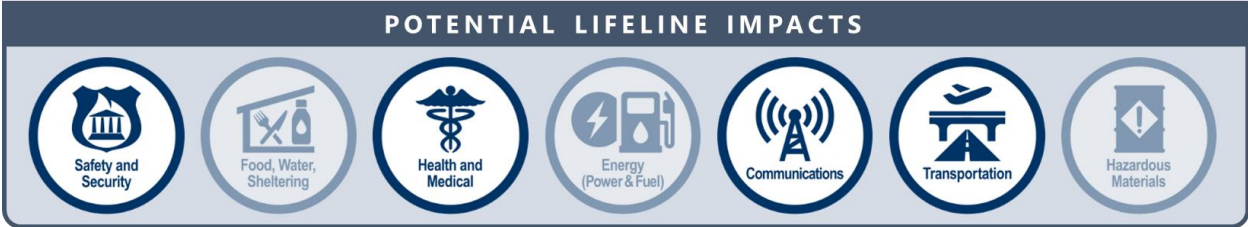
A large demonstration is being held in a major metropolitan area in the state, whereby over a thousand individuals are present for the protest. What began as a lawful protest quickly becomes a civil disturbance event, as some of the individuals present begin vandalizing buildings and property. Law enforcement respond to the scene of the protest in riot gear, and cordon off the area in an attempt to limit the spread of the illegal activities and protect the general public. The city government issues an evening curfew as a means to curtail the civil unrest, but this only escalates tensions further.

### Potential Cascading Impacts

First responder demands  
Injury  
Fear / panic  
Property damage

Social media response  
Medical service demands  
Communications / transportation disruption  
Increases in public distrust of government

# Community Lifeline Implications



## References

<sup>1</sup> Information provided by law enforcement partners.





# Criminal Activity

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Criminal activity is any criminal act that violates local, state, or federal law. Criminal offenses can range from shoplifting to murder.

For the purposes of the HIRA, the scope of criminal activity will be focused on crimes that effect multiple victims and / or threaten to impact multiple victims.<sup>1</sup>

### Historical Data

An active shooter event occurred on August 4<sup>th</sup>, 2019 in the Oregon District located within Dayton, OH. The shooter, Connor Betts, fired over 41 times near the entrance of Ned Peppers Bar, killing nine people and wounding 27 others. Betts was fatally shot by responding police officers 32 seconds after the first shots were fired.<sup>2 3 4</sup>



### Sample Planning Scenario

A dispatch center begins receiving multiple emergency calls reporting an active shooter at a large, popular mall located within a major metropolitan area in the state. Dispatchers filter numerous calls, some reporting multiple shooters, some reporting a single shooter. Police officers from multiple law enforcement agencies respond and begin entering the mall to eliminate the threat and protect the public. A single gunman is located on the second floor of the mall and is neutralized. Law enforcement personnel begin to secure the rest of the mall for possible additional threats as well as evacuating multiple wounded.

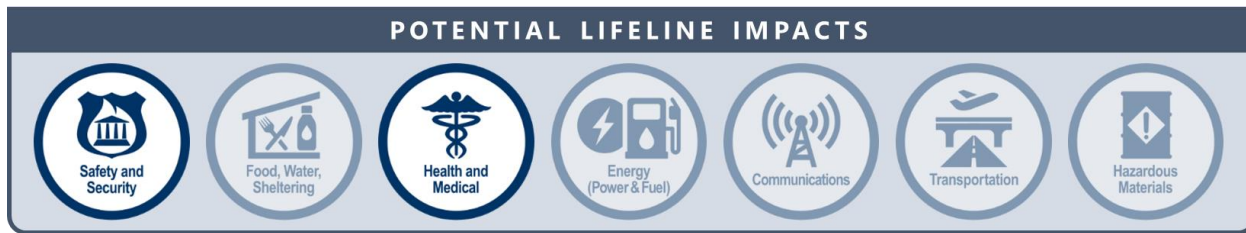
### Potential Cascading Impacts

First responder demands  
Injury / death  
Property / structure damage

Service disruptions  
Medical service demands  
Panic



## Community Lifeline Implications



## References

<sup>1</sup> Information provided by law enforcement partners.

<sup>2</sup> Sewell, Dan and John Seewer. "Police Divided on Whether Dayton Gunman Targeted Sister." NBC. August 13, 2019. <https://www.nbcbayarea.com/news/national-international/dayton-gunman-deadly-mass-shooting/150723/>

<sup>3</sup> "Police: Dayton gunman fired at least 41 shots in 30 seconds, killing 9." WLWT5. August 6, 2019. <https://www.wlwt.com/article/police-dayton-gunman-fired-at-least-41-shots-in-30-seconds-killing-9/28599430>

<sup>4</sup> Morse, Caroline. "Dayton police stopped Oregon District shooting in 32 seconds." WDTN-2News. August 3, 2022. <https://www.wdtn.com/news/oregon-district-shooting/dayton-police-stopped-oregon-district-shooting-in-32-seconds/>



# Transportation Incident / Accident

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

A transportation incident / accident involves any mode of transportation, which includes, but is not limited to, motor vehicles, rail, aircraft, and boats/ships, that is involved in an accident due to a natural, technological, or human-caused event.

Events classified as a transportation incident / accident do not have to cause casualties/fatalities, only so long as the mode of transportation is damaged or destroyed as a result of the incident.

### Historical Data

Transportation incidents / accidents are a common occurrence in the State of Ohio.



A notable historical event was the November 10<sup>th</sup>, 2015 plane crash that took place in Akron, OH. A corporate jet was on approach into Akron Fulton International Airport, where it lost control and crashed into power lines and an apartment building. All nine passengers and crew of the aircraft were killed in the crash, but due to none of the tenants of the apartment being in the building at the time of the crash there were no injuries or fatalities from those who may have been in the building. Due to the destruction of the apartment building, the tenants lost all of their personal belongings.<sup>1</sup>

### Sample Planning Scenario

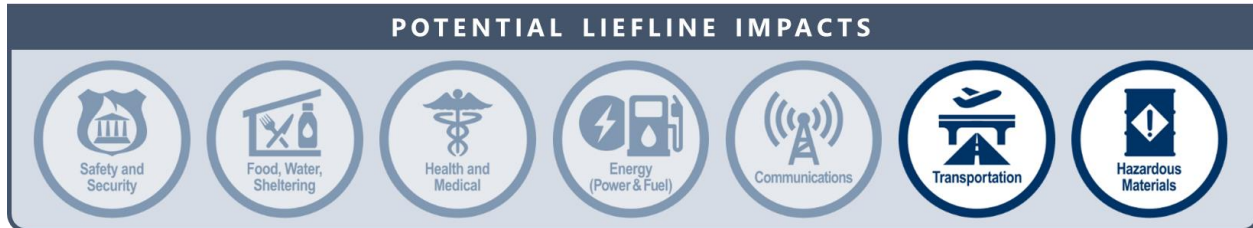
A severe winter storm impacts the state. There are white-out conditions and ice-covered roadways on a major highway. The conditions cause a 30-vehicle pile-up, causing an extensive traffic jam on the highway and the closure of the roadway. First responders are having difficulty in reaching the accident scene due to the weather conditions and the traffic jam. There are individuals who were involved in the multi-vehicle incident who are injured and are being subjected to the extreme cold and heavy snowfall. Vehicles who are stuck on the roadway begin to run out of fuel, thus causing people to be unable to stay warm in their vehicle.

## Potential Cascading Impacts

Traffic disruption  
Impeded emergency response

Stranded persons / vehicles  
Injury / death

## Community Lifeline Implications



## References

<sup>1</sup> Botelho, Greg and Steve Almasy. "Akron plane crash: Shock, horror after plane slams into apartment building." CNN. November 12, 2015. <https://www.cnn.com/2015/11/11/us/akron-ohio-plane-crash/index.html>



# Transportation Infrastructure System Failure

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Transportation infrastructure systems are defined as those by which modes of transportation utilize, which includes, but not limited to, roadways, airstrips, and waterways. Failure of bridges located throughout the state would also fall under this hazard.

### Historical Data

At approximately 5pm on December 15<sup>th</sup>, 1967, the Silver Bridge collapsed into the Ohio River, causing 31 vehicles to fall into the river and killing 46 people. The 2,200-foot bridge connected Gallipolis, OH to Point Pleasant, WV, and when it opened in 1928 it was the first bridge to utilize an eyebar-link suspension system.<sup>1,2</sup>



The design of the bridge utilized a single chain on each side of the bridge's span, as opposed to multiple for redundancy. Following the collapse, it was found that there was a stress fracture in one of the links that cascaded into the entire failure of the bridge.<sup>3</sup>

### Sample Planning Scenario

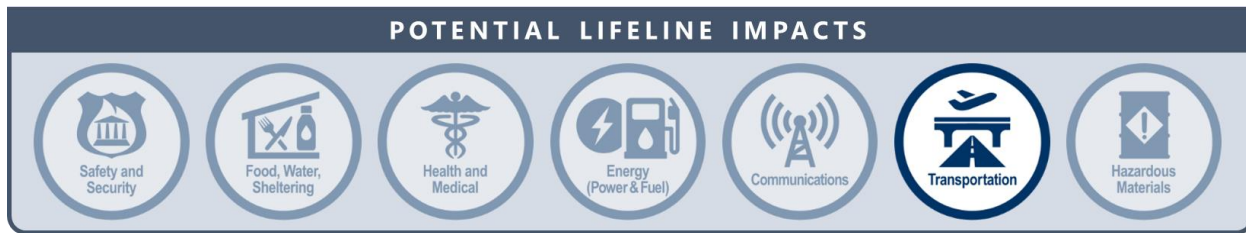
A decades-old roadway bridge near an urban area encounters a structure failure and collapses. Multiple vehicles were on the bridge at the time of the collapse and fall nearly 50 feet into the river below. First responders are dispatched to the scene, whereby the roadway on either side of where the bridge was located is closed off and traffic is diverted away from the area. Search and rescue teams attempt to reach those individuals trapped in their vehicles in the river. Multiple injuries and fatalities are reported.

### Potential Cascading Impacts

Infrastructure operation disruption  
Traffic disruption  
Supply chain disruption

Economic loss  
Vehicle accidents  
Injury / death

## Community Lifeline Implications



## References

<sup>1</sup> “WVDOT marks 55<sup>th</sup> anniversary of the Silver Bridge collapse, remembers those who lost their lives.” West Virginia Department of Transportation. December 15, 2022.

[https://transportation.wv.gov/communications/PressRelease/Pages/WVDOT\\_marks\\_55th\\_anniversary\\_of\\_the\\_Silver\\_Bridge\\_collapse\\_remembers\\_those\\_who\\_lost\\_their\\_lives.aspx#:~:text=Fifty%2Dfive%20years%20ago%20to%20day,hour%20traffic%2C%20killing%2046%20people](https://transportation.wv.gov/communications/PressRelease/Pages/WVDOT_marks_55th_anniversary_of_the_Silver_Bridge_collapse_remembers_those_who_lost_their_lives.aspx#:~:text=Fifty%2Dfive%20years%20ago%20to%20day,hour%20traffic%2C%20killing%2046%20people).

<sup>2</sup> “The Silver Bridge Collapses Killing 46: December 15, 1967.” West Virginia Public Broadcasting. December 15, 2020. <https://wvpublic.org/the-silver-bridge-collapses-killing-46-december-15-1967/>

<sup>3</sup> “WVDOT marks 55<sup>th</sup> anniversary of the Silver Bridge collapse, remembers those who lost their lives.” West Virginia Department of Transportation. December 15, 2022.

[https://transportation.wv.gov/communications/PressRelease/Pages/WVDOT\\_marks\\_55th\\_anniversary\\_of\\_the\\_Silver\\_Bridge\\_collapse\\_remembers\\_those\\_who\\_lost\\_their\\_lives.aspx#:~:text=Fifty%2Dfive%20years%20ago%20to%20day,hour%20traffic%2C%20killing%2046%20people](https://transportation.wv.gov/communications/PressRelease/Pages/WVDOT_marks_55th_anniversary_of_the_Silver_Bridge_collapse_remembers_those_who_lost_their_lives.aspx#:~:text=Fifty%2Dfive%20years%20ago%20to%20day,hour%20traffic%2C%20killing%2046%20people)





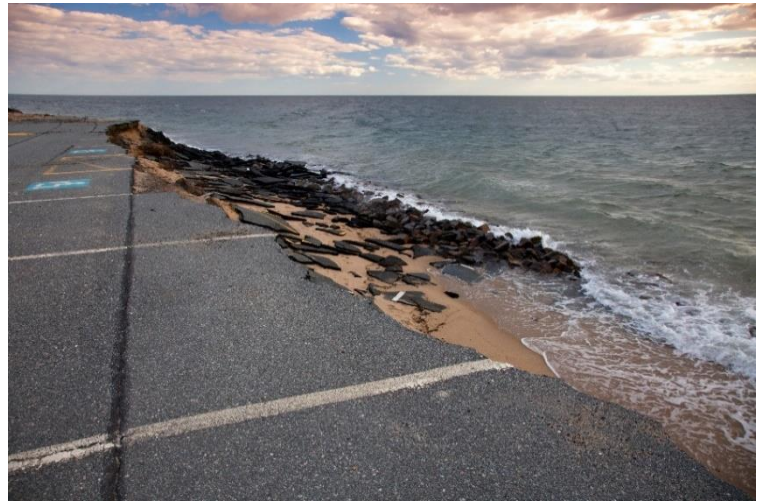
# Coastal Erosion

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Coastal regions are continually being reshaped due to waves, ice, and gravity continually reshaping the land-water interface. The erosion of the shore is a natural process, and the rate by which erosion takes place is influenced by multiple factors to included, but not limited to, geological material, fluctuations in the water level, duration of storms and precipitation, the orientation of the shoreline, and mitigative protective measures implemented.

When it comes to the State of Ohio, the land surrounding Lake Erie is affected by coastal erosion. Erosion that takes place is site-specific depending on local conditions and weather patterns and are impacted by different processes and rates.



While the process of coastal erosion cannot be stopped entirely, mitigative efforts can be implemented to alleviate the rate and impacts of erosion.<sup>1</sup>

### Historical Data

No historical information is available for his hazard.

### Sample Planning Scenario

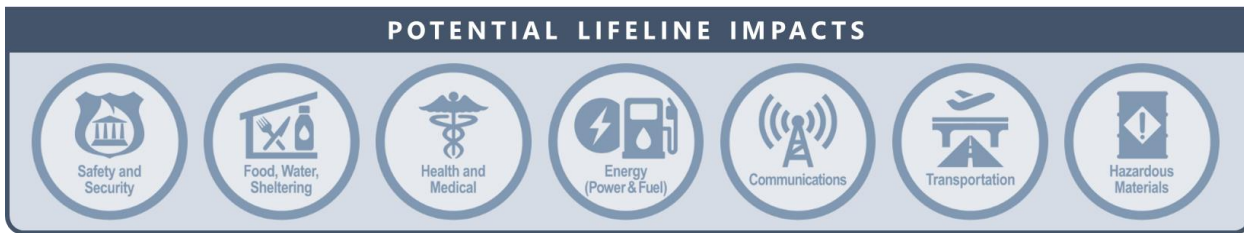
Erosion has gradually taken place along the Lake Erie shoreline near a historical building located on a bluff. Over time, the bluff is gradually washed away as a result of heavy rain events, lake water level fluctuations, and storm waves. The historical building is at risk of falling into Lake Erie if protective measures aren't taken.

### Potential Cascading Impacts

Change in landscape  
Road damage

Property / structural damage  
Environmental loss

## Community Lifeline Implications



Overall impacts to the community lifelines will be minimal depending on the area affected by coastal erosion and manmade structures in that area.

## References

<sup>1</sup> "Lake Erie Erosion." Ohio Department of Natural Resources. <https://ohiodnr.gov/discover-and-learn/land-water/lake-erie-watershed/le-coastal-erosion>



# Seiche/Coastal Flooding

## HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

### Hazard Profile

Seiches are standing waves in a body of water that may result in coastal flooding. In the State of Ohio, the most common cause of a seiche is a strong and constant wind blowing over a water's surface that forces the water to accumulate at the down-wind shore. When the wind diminishes, the water level will begin to return to its original equilibrium across the entire body of water. Often referred to as the "bathtub effect", seiches cause the water levels to rise and fall along the shorelines until equilibrium is restored.



Areas surrounding Lake Erie are highly susceptible to seiche / coastal flooding, with the counties that sit along the lake (Lucas, Ottawa, Sandusky, Erie, Lorain, Cuyahoga, Lake, and Ashtabula) being impacted the most from this hazard.<sup>1</sup>

### Historical Data

On December 23<sup>rd</sup>, 2022 a severe winter storm impacted the State of Ohio. Sustained winds of over 50 knots occurred over the surface of Lake Erie, creating historic low water levels on the western portion of the lake (i.e. Toledo) while the eastern side of the lake (i.e. Buffalo, NY) encountered damaging coastal flooding and large waves. Based on data from the National Weather Service, the water level in Toledo was as low as 7 to 8 feet below that of the low water datum (over one foot below the previous record), and the water level in Buffalo, NY was as high as 10 to 11 feet above the low water datum.<sup>2</sup>

### Sample Planning Scenario

A severe summer storm impacts northern portions of Ohio, bringing with it high wind conditions. Strong and consistent winds over a period of several hours over Lake Erie causes the development of a seiche. Water is pulled from the western portion of the lake towards its eastern portion, causing significant and damaging coastal flooding along the shoreline in the eastern portions of the lake.

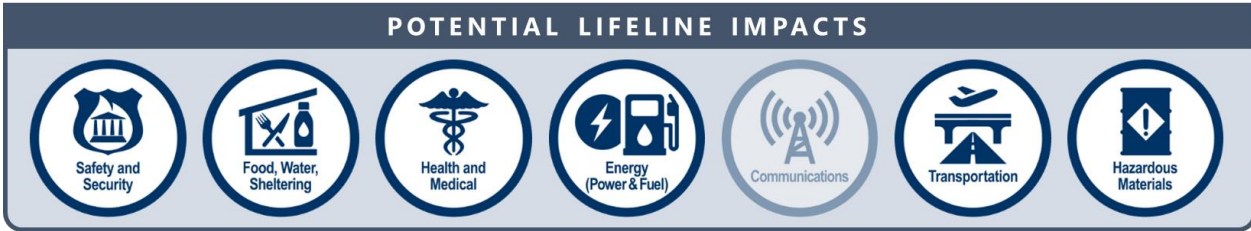
### Potential Cascading Impacts

Change in landscape  
Road damage

Property / structural damage  
Environmental loss



# Community Lifeline Implications



## References

<sup>1</sup>“2.8 Storm Surge / Seiche / Coastal Flooding”. State of Ohio Mitigation Plan 2019. Pg. 2-131, 132

<sup>2</sup>“A Major Winter Storm System Impacted the Region in the Days Leading Up to Christmas 2022, Resulting in Blizzard Conditions Across Northeast Ohio.” National Weather Service.

[https://www.weather.gov/cle/event\\_Christmas\\_Blizzard\\_2022](https://www.weather.gov/cle/event_Christmas_Blizzard_2022)

Ohio Department of Natural Resources  
Division of Water Resources, Dam Safety Program

State Administrative Plan  
for the

High Hazard Potential Dam (HHPD) Rehabilitation Grant

Created June 2019  
Revised June 2020  
Revised June 2021 and July 15, 2021  
Revised July 7, 2022  
Revised February 2024  
Revised April 2024

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## **I. STATEMENT OF PURPOSE**

National Dam Safety Program Act (Pub. L. 92–367), as amended, 33 U.S.C. 467f-2 establishes a national dam safety program whereby the Federal Emergency Management Agency (FEMA) administers a program in consultation with State dam safety agencies and Interagency Committee on Dam Safety (ICODS), which authorizes this program. The appropriation authority for the Rehabilitation of High Hazard Potential Dams (HHPD) program comes from the Infrastructure Investment and Jobs Act, Division J, Title V, Protection, Preparedness, Response, and Recovery, Federal Emergency Management Agency, Federal Assistance (Public Law No. 117-58).

The State of Ohio has a State Dam Safety Program, housed in the Department of Natural Resources, Division of Water Resources. The purpose of this document is to delineate the general organization, staffing, policies, and procedures that the State of Ohio will use when administering the FY 2024 Fall Rehabilitation of High Hazard Potential Dams (HHPD) Grant. The State Administrative Agency (SAA) for the purposes of the HHPD Grant will be the Department of Natural Resources, Division of Water Resources (OH-DNR). The State Official responsible for the High Hazard Potential Dam Grant will be a Program Manager with the Ohio Department of Natural Resources, Division of Water Resources, Dam Safety Program.

## **II. REFERENCES AND AUTHORITIES**

- A. National Dam Safety Program Act (Pub. L. 92–367), as amended, 33 U.S.C. 467f-2 and related authorities
- B. 44 Code of Federal Regulations
  - 1. Part 7, Nondiscrimination in Federally assisted Programs
  - 2. Part 9, Floodplain Management and Protection of Wetlands
  - 3. Part 80, Property Acquisition and Relocation for Open Space
  - 4. Part 201, Mitigation Planning
  - 5. Part 206, Federal Disaster Assistance
- C. 2 CFR Part 200 and 3002
- D. Disaster Mitigation Act of 200 (Public Law 106-390; 114 Stat. 1552)
- E. Ohio Revised Code, Chapter 1521
- F. Ohio Administrative Code 1501:21-3
- G. Ohio Emergency Operations Plan
- H. State of Ohio Hazard Mitigation Plan, 2019
- I. National Historic Preservation Act and the National Environmental Policy Act

(NEPA)

J. Infrastructure Investment and Jobs Act (IIJA) (Pub. L. No. 117-58)

### III. DEFINITIONS

44 CFR Part 201 Mitigation Planning and Part 206 Hazard Mitigation Grant Program – These rules contain the requirements to have a FEMA approved state and local natural hazard mitigation plans in order to be eligible for HMGP funds.

APPLICANT – A state agency, local government, or eligible non-profit organization submitting an application to the grantee for assistance under HHPD.

DAM – As defined by 33 USC 467 3. (A) Any artificial barrier that has the ability to impound water, wastewater, or any liquid-born material, for the purpose of storage or control of water that- (i) is 25 feet or more in height from – (I) the natural bed of the stream channel or watercourse measured at the downstream toe of the barrier; or (II) if the barrier is not across a stream channel or watercourse, from the lowest elevation of the outside limit of the barrier; to the maximum water storage elevation of the outside limit of the barrier; to the maximum water storage elevation; or (ii) has an impounding capacity for the maximum storage elevation of 50- acre- feet or more; but (B) does not include- (i) a levee; or (ii) a barrier described in subparagraph (A) that - (I) is 6 ft or less in height regardless of storage capacity; or (II) has a storage capacity at the maximum water storage elevation that is 15-acre-feet or less regardless of height; unless the barrier, because of the location of the barrier or another physical characteristic of the barrier, is likely to pose a significant threat to human life or property if the barrier fails.

DAM SAFETY DEFICIENCY – (Source: NID) the load capacity limit or other issues that can result in a failure of the dam or appurtenant structure. It is characteristic of condition that does not meet the applicable minimum regulatory criteria.

ELIGIBLE HIGH HAZARD POTENTIAL DAM – (Source: 33 USC 467 (4)(A)) a non-federal dam that (i) is located in a state with a state dam safety program; (ii) is classified as “high hazard potential” by the state dam safety agency in the state which the dam is located; (iii) has an emergency action plan that – (I) is approved by the relevant state dam safety agency; or (II) is in conformance with State law and pending approval by the relevant State dam safety agency; (iv) fails to meet minimum dam safety standards of the state; and (v) poses an unacceptable risk to the public. (B) Exclusion: the term “eligible hazard potential dam” does not include – (i) a licensed hydroelectric dam under hydropower project with an authorized installed capacity of greater than 1.5 megawatts; or (ii) a dam built under the authority of the Secretary of Agriculture.

FAIR – (Source: NID Condition Assessment definition) No existing dam safety deficiencies are recognized for normal operating conditions. Rare or extreme hydrologic and/or seismic events may result in a dam safety deficiency. Risk may be in the range to take further action. Note: Rare or extreme event is defined by the regulatory agency based on their minimum applicable state of federal criteria.

GRANT – An award of financial assistance.

GRANTEE – The government entity to which a grant is awarded and, which is accountable for the use of the funds provided. The grantee is the entire legal entity even if only a particular component of the entity is designated in the grant award document.

INTERIM RISK REDUCTION MEASURES – Effective, interim actions taken to reduce flood risk while longer term solutions are planned and implemented. Interim risk reduction measures are a critical part of responsible, adaptive flood risk management.

MANAGEMENT COST – Any indirect cost, any direct administrative cost, and any other administrative expense associated with a specific project under a major disaster, emergency or disaster preparedness or mitigation activity or measure.

MEASURE – Any mitigation measure, project, or action proposed to reduce risk of future damage, hardship, loss or suffering from disasters. The term “measure” is used interchangeably with the terms “project” and “action” in FEMA regulations.

NON-FEDERAL ENTITY – A state or local government, institution of higher education (IHE), or non-profit organization that carries out a Federal award as a recipient or sub-recipient.

NOT RATED – (Source: NID Condition Assessment definition). The dam has not been inspected, is not under state or federal jurisdiction, or has been inspected but, for whatever reason, has not been rated.

OFFICIAL REGULATORY NOTICE – A specific Dam Safety Deficiency (meeting the NID definition) is recognized and cannot be resolved with routine maintenance. The state dam safety agency has issued an official regulatory notice to the dam owner that includes all of the following elements: 1) The dam owner is notified of the specific deficiency and a regulatory requirement to immediately implement risk-reduction measures. 2) The regulatory notice indicates whether temporary risk-reduction measures (such as reservoir restrictions) are required. 3) The regulatory notice indicates a specific time allowance for the completion of the risk-reduction measures.

POOR – (Source: NID Condition Assessment definition) – A dam safety deficiency is recognized for normal operation conditions which may realistically occur. Remedial action is necessary. POOR may also be used when uncertainties exist as to critical analysis parameters which identify a potential dam safety deficiency. Investigations and studies are necessary.

Other Circumstances:

- Dam has multiple deficiencies or a significant deficiency that requires remedial work.
- Lack of maintenance (erosion, sinkholes, settlement, cracking, unwanted vegetation, animal burrows, inoperable outlet gates) has affected the

integrity of operation of the dam under normal operational conditions and requires remedial action to resolve.

- Critical design information is needed to evaluate the potential performance of the dam. For example, a field observation or a review of the dam's performance history has identified a question that can only be answered by review of the design and construction history for the dam. Uncertainty arises when there is no design and/or construction documentation available for review and additional analysis is needed to better understand the risk associated with the operation under normal operational conditions.
- Interim or permanent risk reduction measures may be under consideration.

POPULATION AT RISK (PAR) – (Source: USACE ER 1110-2-1156) – The population downstream of a dam that would be subject to risk from flooding in the instance of a potential dam failure, usually documented in numbers of persons at risk.

PROJECT – Any mitigation measure, project, or action proposed to reduce risk of future damage, hardship, loss or suffering from disasters. The term “project” is used interchangeably with the terms “measure” and “action” in FEMA regulations.

RECIPIENT – means a non-Federal entity that receives a Federal award directly from a Federal awarding agency to carry out an activity under a Federal program.

REHABILITATION – (Source: 33 U.S.C. 467(12)) – The repair, replacement, reconstruction, or removal of a dam that is carried out to meet applicable state dam safety and security standards.

ROUTINE OPERATION AND MAINTENANCE – Activities performed to prevent deterioration of structures and equipment to keep a dam in a safe and functional condition through the expected life of the dam. These activities can be a scheduled or recurring action outlined in the operation and maintenance plan or performed after an inspection reveals an unusual observation that requires corrective restoration. Identifying and correcting problems before they become serious is an important part of routine operation and maintenance activities can include (but are not limited to) mowing, removal of woody vegetation, addressing erosion, repairing concrete structures, replacement of equipment and gates, and servicing gates.

RESIDUAL RISK – (Source: ER 1110-2-1156) – The risk that remains after all mitigation actions and risk reduction actions have been completed. With respect to dams, FEMA defines residual risk as, “risk remaining at any time” (FEMA, 2015, p A-2). It is the risk that remains after decisions related to specific dam safety issues are made and prudent actions have been taken to address the risk. It is the remote risk associated with a condition that was judged to not be a credible dam safety issue.

RISK – The product of the likelihood of a structure being loaded, adverse structural performance, (e.g. dam failure), and the magnitude of the resulting consequences.

**SATISFACTORY** – (Source: NID Condition Assessment definition) No existing or potential dam safety deficiencies are recognized. Acceptable performance is expected under all loading conditions (static, hydrologic, seismic) in accordance with the minimum applicable state or federal regulatory criteria or tolerable risk guidelines. Typical Circumstances:

- No existing deficiencies or potentially unsafe conditions are recognized, with the exception of minor operational and maintenance items that require attention.
- Safe performance is expected under all loading condition including the design earthquake and design flood.
- Permanent risk reduction measures (reservoir restrictions, spillway modification, operating procedures, etc.) have been implemented to eliminate identified deficiencies.

**SUB-AWARD** – An award provided by a pass-through entity to a subrecipient for the subrecipient to carry out part of a Federal award received by the pass through entity.

**SUB-RECIPIENT** – a non-Federal entity that receives a sub-award from a pass-through entity to carry out part of a Federal program; but does not include an individual that is a beneficiary of such program.

**Unacceptable Risk to the Public** – For purposes of the HHPD, the determination of ***unacceptable risk to the public*** is to be made by the state dam safety program, the agency of the state that is authorized by state statute to manage the state participation in the National Dam Safety Program.

A dam poses ***unacceptable risk to the public*** when the dam requires remediation or risk reduction measures due to deficiencies caused by inadequate dam design, construction methods, or the results of inadequate operation and maintenance.

For a dam to be considered an ***unacceptable risk to the public*** for funding under the HHPD, it must meet all the following conditions:

1. Does not meet the minimum dam safety standards of the state (not including routine operations and maintenance actions)
2. State dam safety program has documented the deficiencies at the dam that must be reduced, eliminated, or mitigated
3. Official Regulatory Notice (see definition) of the determination of the documented deficiency (s) has been communicated to the dam owner to address the ***unacceptable risk to the public*** to implement interim risk reduction measures until permanent risk reduction measures are implemented in a manner that is acceptable to the state. Official Regulatory Notice must be on official state or state dam safety program letterhead and may include official citations issued from the state dam safety program to the dam owner.

**UNSATISFACTORY** – (Source: NID Condition Assessment definition) - A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution.

Typical Circumstances:



- A critical component of the dam has deteriorated to unacceptable condition or failed.
- A safety inspection indicates major structural distress (excessive uncontrolled seepage, cracks, slides, sinkholes, severe deterioration, etc.), advanced deterioration, or operational deficiencies which could lead to failure of the dam or its appurtenant structures under normal operating conditions.
- Reservoir restrictions or other interim risk reduction measures are required.
- A partial or complete reservoir drawdown may be mandated by the state or federal regulatory agency.

#### **IV. CONCEPT OF ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES**

##### **A. ORGANIZATION**

The Ohio Department of Natural Resources Division of Water Resources (DWR) and various State agencies will provide personnel who will perform the following functions:

1. Chief of the Division of Water Resources – responsible for grant application to Federal Emergency management Agency (FEMA), on behalf of the State of Ohio, including state agencies, local governments, and private-non-profit organization.
2. Dam Safety Program Manager(s) (DSPM) –
  - a. Prepare program material for distribution to eligible dam owners.
  - b. Train and provide direction to staff.
  - c. Disseminate program information, initial application forms, and other program material.
  - d. Work with local Points-of-Contact as related to the HHPD.
  - e. Ensure all required reports and correspondence are prepared and distributed.
  - f. Ensure project development and technical assistance is provided to interested (and eligible) dam owners.
  - g. Ensure project selection is in compliance with administrative plan guidelines.
  - h. Submit projects selected to FEMA for review and approval.
  - i. Ensure proper grant management of HHPD projects are approved by FEMA.
  - j. Monitor status of projects.
  - k. Ensure projects are completed in a timely manner and within federal rules and regulations governing the HHPD.
  - l. Ensure projects are closed properly and in a timely manner.
3. Fiscal Officer
  - a. Performing disbursements and financial revisions;
  - b. Preparing appropriate forms for closeout of projects; and,
  - c. Providing timely status reports on expenditures to program

- managers.
  - d. Processing, or supervising the processing, of HHPD checks or the transfer of funds to Sub-recipients, recording disbursements, determining correct mailing addresses for checks, and entering disbursements into the state financial management system.
  - e. Maintaining records of administrative expenses and state management costs eligible for reimbursement for each open grant.
4. Grant Specialist (s)
    - a. Assist program manager with duties associated with grant projects.
  5. Project Managers, Project Engineers, and Construction Technician
    - a. Provide expert judgement based on conducting periodic dam safety inspections at dams under consideration for the HHPD grant.
    - b. Perform technical reviews of projects selected.
  6. State Hazard Mitigation Officer –
    - a. Responsible for the State’s Mitigation Program, as well as other mitigation programs. Will coordinate with ODNR as needed.
  7. Other Division of Water Resource Staff
    - a. Provide subject matter expertise as needed, such as floodplain management processes.

## V. FUNDING

- A. FEMA will make the HHPD monies available to the State of Ohio per the Infrastructure Investment and Jobs Act (IIJA) (Pub. L. No. 117-58)

### **Award Amounts, Important Dates, and Extensions**

Available Funding for the NOFO: \$185,120,000. The allocation of available HHPD grant funds is determined by Infrastructure Investment and Jobs Act, Division J, Title V, Protection, Preparedness, Response, and Recovery, Federal Emergency Management Agency, Federal Assistance (Public Law No. 117-58). The allocation of the HHPD funds will be calculated as follows:

- (i) One-third of the available funding will be distributed equally among states in which the projects for which eligible applications are submitted are located.
- (ii) Two-thirds of the available funding will be distributed among states in which the projects for which eligible applications are submitted are located based on the proportion that:
  - a. the number of eligible high hazard potential dams in the state; bears to
  - b. the number of eligible high hazard potential dams in all such states.

The maximum amount of funding any sub-recipient can receive under HHPD is

statutorily limited. The maximum sub-recipient funding cannot exceed the lesser of 12.5 percent of the total amount of funds made available. For the FY 2024 Fall program, Congress made available \$185,120,000; therefore, no subrecipient may receive an award for more than \$7,500,000.

## VI. ELIGIBILITY

### A. Applicants

1. Applicant eligibility criteria will be in accordance with federal regulations and the current fiscal year NOFO.
2. The dam must be classified as a Class I dam per ODNR Dam Safety Program (DSP).
3. The dam must have an EAP approved by the ODNR Dam Safety Program.
4. The dam cannot be a licensed hydroelectric dam, or a dam built under the authority of the Secretary of Agriculture.
5. Eligible projects must meet non-federal cost-share requirements.

### B. Projects

1. Eligible Project Types. Allowable activities may include risk assessments, engineering analysis, specifications development, repair, removal or any other structural or nonstructural measures to rehabilitate an eligible high hazard potential dam. For FY 2024 Fall, the HHPD will provide assistance for planning, design, and construction:
  - Administrative
    - Administrative actions associated with grants management, not to exceed 5% of the project cost.
  - Preparedness (planning)
    - Development of evacuation plans for the flood fighting, or community response plans to include in the floodplain management plan.
    - Coordination of the EAP and Emergency Operation Plans (EOPs) for different release conditions.
  - Planning
    - Activities and studies that determine risk associated with eligible dams.
    - Environmental studies for NEPA compliance.
    - Developing of floodplain management plans (including evacuation plans, plans for flood fighting, or community response plans, and coordination of EAP and EOPs for different release conditions as part of the floodplain management plan)
    - Development of operation and maintenance plans.
  - Outreach and Communication (Planning)
    - Public education and awareness of flood risks associated with the eligible dam project.

- Preliminary Engineering (Planning)
  - Dam risk and consequences assessments.
  - Feasibility studies.
  - Preliminary engineering studies.
  - Alternative analysis.
  - Mapping, engineering survey, and inundation modelling.
- Design
  - Engineering design.
  - Development of specifications.
- Construction
  - Repair or rehabilitation of the dam.
  - Dam removal
  - Construction monitoring.
  - Installation of early warning systems associated with the eligible dam project.
- Other Nonstructural Activities
  - Removing/ relocating the downstream hazard.
  - Other activities determined eligible by FEMA.

## 2. Minimum Project Eligibility Criteria

- a. Federal Criteria. To be eligible for the HHPD, a project must meet the minimum project criteria established by FEMA:
  1. Participate in, and comply with, all applicable federal flood insurance programs.
  2. Commit to provide operation and maintenance of the project for the 50-year period following completion of rehabilitation (or the expected life of the dam) and provide assurance that the owner of the dam has developed and will carry out a plan for maintenance of the dam during the expected life of the dam.
  3. Comply with FEMA's minimum eligibility requirements to ensure that each owner and operator of a dam that receives HHPD assistance acts in accordance with the state dam safety program.
  4. Have a floodplain management plan (or will be developed not later than 2 years after the date of execution of a dam rehabilitation or removal project agreement and implemented not later than 2 years after the date of completion of a project) to reduce the impacts of future flood events in the area protected by the project.
  5. Provide and comply with all assurance statements required.
  6. Be able to secure non-federal cost-sharing amount of not less than 35 percent of the total application costs.
  7. Have in place (by the application deadline and at the time of obligation of grant funds) a FEMA-approved hazard mitigation plan that includes all dam risks and complies with the Disaster Mitigation Act of 2000 (Public Law 106–390; 114 Stat. 1552). Nonprofit organizations that are subapplicants must be located in a local jurisdiction with a FEMA-

approved hazard mitigation plan that includes all dam risks and complies with the Disaster Mitigation Act of 2000 (Public Law 106–390; 114 Stat. 1552). If an HHPD sub-applicant does not have a local mitigation plan that includes all dam risks, the sub-applicant may request an extension to meet this requirement.

## **VII. APPLICATION PROCESS / PROJECT DEVELOPMENT**

### **A. Concept of Operations**

After the NOFO for the HHPD Grant is released, a DSPM will disseminate the information to the eligible dam owners, specifying a due date for pre-applications for subapplicants with interest in eligible projects. This pre-application will include a budget estimate for each project. Having this information for the first part of the HHPD application process will allow ODNR DSP to gauge level of interest and compile a realistic application for the first part of the HHPD application process.

Once ODNR-DSP submits the first round of the application to FEMA, the Dam Safety Review Team (DSRT) will begin using FEMA’s risk prioritization tool and the USACE Dam Screening Tool to prepare the materials to review and rank the projects.

During this first year of using the FEMA Risk Prioritization Tool and the USACE Dam Screening Tool, ODNR DSP will likely also run Safety Level Evaluation System for Dams to compare the two methodologies.

After the projects have been ranked and FEMA has indicated if/ how much funding the State of Ohio has received for the HHPD program, a Program Manager for the DSP will then notify chosen dam owners to work with the ODNR to complete the second phase of the application submittal process. Eligible and complete full project applications will then be submitted to FEMA for approval. Additional application cycles may be required to ensure that a sufficient number of applications are developed.

## **VIII. PROJECT REVIEW, RANKING, AND SELECTION**

### **B. Review Process**

1. The DSRT will perform the initial review of project pre-applications to ensure all information and documentation is provided.
2. A Dam Safety Program Manager will chair the DSRT. Representatives from the following agencies/organizations will serve as members of this team:
  - a. ODNR, Division of Water Resources, Dam Safety Program Manager(s)
  - b. ODNR, Division of Water Resources, Project Manager
  - c. ODNR, Division of Water Resources, Grant Specialist
  - d. ODNR, Division of Water Resources, Chief, if needed

- e. Ohio Emergency Management Agency (OH-EMA), if needed
- 3. Additional State Agency representatives will be determined by the nature of the projects for which HHPD funds have been requested. Appropriate Federal agencies may also be asked to help review the merits of certain types of projects.

#### C. Evaluation and Ranking of Projects

- 1. The DSRT will review all applications according to established criteria. following:
  - 1. Consistency with state and local mitigation plans,
  - 2. The community's ability to manage a grant,
  - 3. Implementation of regular operation, maintenance, and inspection of the dam outside of HHPD,
  - 4. Team members will complete FEMA's Risk Prioritization Tool and USACE Dam Screening Tool per the 2024 Fall NOFO.
  - 5. Safe Level Evaluation System for Dams (SLESD) – see Appendix D for further discussion on this method,
  - 6. Other criteria as necessary.

Projects are ranked according to their total evaluation score, highest to the lowest.

#### D. Environmental and Floodplain Management Reviews

- 1. National Environmental Policy Act (NEPA) coordination and review are FEMA responsibilities. During future projects, ODNR will update guidance related to NEPA.
- 2. Communities that participate in the National Flood Insurance Program and/or that adopt local regulations governing development in identified flood hazard areas are responsible for ensuring that proposed mitigation projects in these areas meet applicable floodplain management criteria. Copies of this documentation should be maintained with the local project files and be available for review during monitoring visits.

#### E. Selection

- 1. For project applications, following the evaluation and ranking of projects, the Dam Safety Program Manager(s) will make the following recommendations to the Chief:

- a. Projects recommended for approval, and,
  - b. The order in which projects should be funded (i.e., a listing of the projects by priority).
  - c. In the event two or more projects are tied in rank, they will be listed according to their SLESD score.
3. The Chief will make the final decision regarding the selection, level of funding for, and ranking of projects by priority. Those projects not selected for funding will be forwarded to FEMA for approval as zero funded projects. This means that if additional funds become available, or if cost-underruns occur in other projects, the zero funded projects can receive funding if approved by FEMA.
  4. The Dam Safety Program Manager will notify all applicants of the decision made by the state relative to their proposed project.
  5. Following notification by the applicant, the projects will have a final environmental, cost-effectiveness, and completeness review. The Dam Safety Program Manager will then submit the applications to the FEMA Regional Administrator for approval. Submittal will be done in FEMA GO. The application materials, which the Dam Safety Program Manager will forward to FEMA, will include the following:
    - a. A SF 424 (Application for Federal Assistance).
    - b. A SF 424D (Assurances for Construction Programs), if appropriate.
    - c. A Project Summary that includes:
      - Community point of contact, address, phone, and e-mail address
      - Applicant name
      - Location of the project
      - Scope of Work
      - Budget
      - Environmental and Historic Preservation Check List

#### F. Award

1. After FEMA approval of a project has been received by the Division of Water Resources, the Chief will send a congratulatory letter followed by the State/Local Agreement and other administrative forms.

### IX. PROJECT INITIATION

#### A. General

1. ODNR will serve as the Recipient for project management and accountability of funds in accordance with 2 CFR Part 200. (Sub-recipients are accountable to the Recipient for funds that have been awarded to them and will utilize the same resources).

2. Process for Submitting Revisions or Amendments – ODNR-DSP will submit to FEMA for approval revisions or amendments including any changes in the budget and project scope for each subrecipient, in accordance with pass through requirements.
3. Administrative & Audit Requirements - ODNR-DSP will comply with the Uniform Administrative Requirements, Cost Principles, and audit requirements as outlined in 2 CFR part 200 and Part 3002.
4. The DSPM will provide the sub-recipient with all needed forms. The Chief Elected Official (CEO) or equivalent must sign the agreement and return to the ODNR within thirty (30) days of receipt. If a problem should arise with the agreement, the DSPM should be notified as soon as possible to avoid any delays in beginning the project.
5. Following the ODNR Contract Routing guidance, the DWR Chief/ Deputy Director/ ODNR Director must sign the agreement, and the DSPM will provide the Sub-recipient with a copy of the executed document, along with program requirements and information during the Implementation Meeting.
6. The designated local Project Manager will meet with the DSPM, Grant Specialist, and Fiscal Officer within thirty (30) days of submission of the signed acceptance forms.
7. Based upon the approved project application and work schedule for the project, both the ODNR and sub-recipient will implement a record keeping and financial system relative to the project.
8. Sub-recipients will submit quarterly progress reports to the DSPM. Program regulations and this Administrative Plan identify specific due dates for these reports (see Section XIII – Reports.). The DSPM will submit quarterly progress reports to FEMA. The final report will be a complete assessment of project accomplishments and will meet 44 CFR Part 206 requirements.
9. The Grant Specialist will monitor and evaluate project accomplishments and adherence to the work schedule. Problems will be reported to the DSPM, Chief, and FEMA as soon as identified (see Section XIV).
10. The Grant Specialist, DSPM, Chief, and Fiscal Officer will review advance of funds requests, time extension requests, and cost overruns.
11. The DSPM will coordinate individual project close out and the DSPM will coordinate the overall grant closeout.

## B. Request for Funds



1. After the Subrecipient Grant Agreement has been signed by both parties, an encumbrance record number will be obtained by the fiscal officer for future reimbursement to the subrecipient.
2. A request for reimbursement of funds must be submitted in writing to the DSPM along with record of bill payment/ invoice.
3. If the request is denied, the sub-recipient will be advised and given the reason for the denial. Requests will be denied if the sub-recipient is not up to date in submitting quarterly reports.

### C. Time Limits and Extensions

#### 1. Time Limits

- a. As a general rule, projects must be initiated within ninety (90) days of the approval date. When FEMA approves a project, the initial performance period is no later than (3) three years from the close of the application period.

#### 2. Time Extensions

- a. If a sub-recipient determines that the project cannot be completed by the time specified in the state-local grant agreement, the sub-recipient must immediately notify the DSPM, and request a time extension. Formal requests for a time extension must be submitted by letter and the sub-recipient must:

1. Explain why the project cannot be completed by the deadline.
2. Explain the outstanding project work.
3. Explain when it anticipates the project will be completed; and
4. Provide a signed request for extension by the appropriate local authority.

Upon receipt of the time extension request, the DSPM will review the request for appropriateness and determine whether the extension request is necessary for the state-local agreement, for the FEMA approval, or both. The DSPM will send the extension request form (for a state-local agreement extension request) to the sub-recipient for signature. If a FEMA extension request is needed, the DSPM will complete the extension request form and prepare the request letter for the Chief's signature. Extension requests to the FEMA period of performance must be submitted to the FEMA Regional Office no later than 60 days prior to the expiration of the period of performance.

- b. The DSPM will then forward the request, signed form(s) and prepared letters

(if necessary) with a recommendation to the DSPM who will then forward the request to the Chief and/or FEMA (if necessary), along with a recommendation for approval or disapproval.

- c. The Grant Specialist is responsible for ensuring that projects are operational within approved timeframes.

#### D. Cost Overruns/Under-runs

1. Sub-recipients will be required to notify the Grant Specialist in writing as soon as they determine that they will have a project cost overrun. The letter should include the dollar amount of the overrun, the reason for the overrun, and an appropriate justification and documentation (invoices, copies of contracts, pictures, and so on) to support the additional costs.
2. The DSPM in consultation with the Grant Specialist will evaluate each cost overrun. If the evaluation indicates that the cost overrun is justified, and if funds are available, the DSPM may recommend to the Chief approval of cost overruns. Cost overruns will be approved only if funds are available in the grant program to support the additional amount requested.
3. The Chief will forward all such cost overruns, along with a recommendation for approval, to the FEMA Region V, Regional Administrator. The Regional Administrator will notify the Chief of the final determination made on the overrun.
4. The sub-recipient must notify the DSPM as soon as possible if a cost under run will occur.
5. Any request for deviation from an approved project must be consistent with and approved in accordance with current FEMA policy guidance as it relates to a change of project scope. This may trigger the need to review environmental compliance. Project amendments must be sent to the FEMA Regional Office for approval prior to commencement of work related to the change in scope of the project. The Grant Specialist will be responsible for ensuring project amendments comply with all rules that may be needed as a result.

#### X. APPEALS

- A. An eligible sub-recipient may appeal a decision made by the DSRT regarding projects submitted for funding under the HHPD. The appeal must be in writing and contain enough additional information beyond that submitted with the original application, to warrant consideration.

Appeals relating to state decisions based on state policies such as determinations made by the DSRT, priorities, state/local agreement issues, reasonable and necessary costs associated with project management, etc. are

usually state appeals. For issues regarding program eligibility, time extensions beyond the FEMA approved time for the grant overall, determination of allowable project management costs, allowable project costs, and other project implementation requirements, or the state's interpretation of any Federal policy related to these issues is usually a federal appeal.

- B. State Appeals (i.e. – eligible sub-recipient disagrees with the funding choices made by the DSRT). The Chief with responsibility for oversight of the Division of Water Resources is the decision-maker for these appeals.
- C. Federal Appeals (i.e. – eligible sub-recipient disputes a FEMA decision). The applicant or sub-recipient has the option of appealing to FEMA for a decision relating to Federal policy.
  - 1. Federal appeals must be submitted in writing to the DWR. All Federal appeals on behalf of the applicant or state are made by the Chief of the Division of Water Resources to FEMA.
  - 2. The Division of Water Resources may prepare materials and information including a summary and staff recommendation related to the issue being appealed to be forwarded to FEMA.

## **XI. TECHNICAL ASSISTANCE**

As a general rule, applicants for HHPD funds will be responsible for obtaining any technical assistance they may need in order to develop a project proposal or to carry out a hazard mitigation project. Technical assistance will be available from the Ohio DNR, Division of Water Resources Dam Safety Program, the Ohio Emergency Management Agency Mitigation staff, and FEMA Region V, Mitigation Division. Applicants may also request assistance from Regional Planning Councils and State agencies. Applicants who want such assistance are advised to notify the DSPM.

## **XII. REPORTS**

- A. Sub-recipients will submit a Quarterly Progress Report (QPR) to the DSPM within fifteen (15) days of the end of the quarter, on the following schedule:

<u>Quarter</u>	<u>Months</u>	<u>Report Due</u>
1 <sup>st</sup>	Aug 1. – Sept. 30.	Oct. 15
2 <sup>nd</sup>	Oct 1. – Dec. 31	Jan. 15
3 <sup>rd</sup>	Jan 1. – March 31	April 15
4 <sup>th</sup>	April 1 – June 30	July 15
Final	July 1 – Sept. 30	Oct. 15

- B. QPRs will be used to monitor and follow-up on projects. Failure to submit reports

may result in suspension of HHPD funds. Copies of QPRs will be maintained by the State. The DSPM will submit a quarterly report to FEMA on the status of all mitigation projects by the end of the month following the end of the quarter.

### **XIII. PROGRAM MONITORING**

#### **1. Purpose of Project Monitoring**

- a. As the Recipient for federal High Hazard Potential Dam (HHPD) funds, the Ohio Department of Natural Resources (ODNR), Division of Water Resources (DWR) is responsible for managing the day-to-day operations of Recipient and Sub-recipient activities. ODNR-DWR must monitor Recipient and Sub-recipient activities to assure compliance with applicable Federal requirements and that performance goals are being achieved. Monitoring must cover each program, function, or activity.

#### **2. Role of Division of Water Resource Staff**

- a. The DWR will be responsible for reviewing and documenting the community's ability to implement the project according to their project application, grant agreement, program requirements, and federal regulations. This is accomplished through the review of quarterly progress reports, on-site review of the project & fiscal records, and the project area to ensure the scope of work as outlined in the project application is being fulfilled and all funds are expended and accounted for properly.
- b. The DWR will be notified either by the sub-recipient or by FEMA as soon as possible of any significant issues related to the above.
- c. Reporting requirements are discussed under Section XIII Reports of the State Administrative Plan and are excerpted in this policy guide.

#### **3. Pre-award Risk Assessment and Contract Preparation**

- a. Prior to requesting additional Scope of Work information from an interested sub-application, the DWR Grants Coordinator will ask that the Sub-recipient complete the Program Risk Management checklist list and review their answers. The Grants Coordinator will also review either the previous two year fiscal audit findings from the Ohio Auditor: (<https://ohioauditor.gov/auditsearch/Search.aspx>) or any single audit findings. If there are minimal or no issues presented in the reports, DWR may continue in developing the scope of work with the sub-recipient. However, if any adverse options or other issues are documented, the Grants Coordinator will work with the Fiscal Officer to determine if the scope of work development should be abandoned until there is less fiscal risk associated with the potential sub-recipient.
- b. After FEMA has conducted any Environmental and Historic Preservation reviews and provided ODNR and the sub-recipients with a Record of

Environmental Consideration, ODNR will initiate drafting a contract with the sub-recipient. As part of the contract process the Grant Coordinator will conduct preliminary party searches which will entail:

- i. A Secretary of State Business Search (<https://businesssearch.ohiosos.gov/#>) to ensure they are registered and active status with the Secretary of State's Office. Typically, eligible sub-recipients of the HHPD Grant Program would not be required to register with Ohio Secretary of State because this is not required for state agencies, local government offices, and entities such as volunteer fire departments. However, it will remain the best practice to do this search as part of the contract development process.
- ii. Ohio Auditor of State Findings for Recovery Search (<http://ffr.ohioauditor.gov/>). This will check and ensure that a contract is not awarded to persons or entities for which a Finding For Recovery has been issued and remains unsolved.
- iii. Sam.gov Search (<https://www.sam.gov/SAM/>). This will check that the entity has a Unique Entity Identifier, and it is active to receive any federal funds.

#### 4. Kick-off Meeting & Monitoring/Site Visits

- a. Kick-off Meeting. An on-site meeting or conference call will be conducted no later than one (1) month after the grant agreement has been signed by the sub-recipient.
- b. Following the implementation meeting, monitoring meetings will be conducted as needed.
- c. Additional monitoring visits may be scheduled by assigned DWR Staff in communities displaying an inability to manage the HHPD grant properly. Determination of an inability to manage the grant would include, but not be limited to, the following inconsistencies in project implementation.
  - i. The project is not on schedule for completion within the grant agreement.
  - ii. Project/program activities are not being documented properly.
  - iii. Quarterly progress reports are not being provided each quarter or are not complete.
  - iv. The community does not appear to be meeting their local cost share responsibility.
  - v. More than one instance of a failure to follow guidance on issues related to the project.
- d. The DWR Dam Safety Program Manager or immediate supervisor will determine if additional monitoring/site visits are needed after discussion with the Grant Coordinator and or the Engineering Project Manager.
- e. The local Project Manager will be notified in writing, within ten (10) days of a monitoring visit, of any corrective actions and the date of the next monitoring visit.

- f. A sub-recipient's failure to comply with requested corrective actions may result in enforcement actions as outlined in 2 CFR Parts 200.207 and 200.338.
5. Scheduling the Kick-off Meeting and Monitoring/Site Visit(s)
- a. The scheduling of the implementation meeting should be done through the local Project Manager. Minimally, local officials, the local Project Manager, and whoever is responsible for fiscal management in the community should attend.
  - b. The first monitoring visit will be scheduled during the Kick-off meeting. Other monitoring visits should be scheduled during each subsequent visit.
  - c. A letter or email to the local Project Manager will be used to confirm any meetings or visits. Visits may be combined with site visits to inspect construction progress.
6. Conducting the Monitoring Visit
- a. The DSP Representative shall review the project application prior to the monitoring visit and take the project files/ binder to the monitoring visit.
  - b. The project must be implemented according to program guidance and the scope of work outlined in the project application. Discrepancies should be discussed with the local Project Manager. If needed, clarification will be required from community officials responsible for the project success.
  - c. Quarterly Progress Reports (QPRs) are required to document the progress of the project. The QPR should reflect the amount of funds expended, and the steps taken with each structure in the project (e.g. property closing, demolition, etc.).
  - d. QPR should be used in the review of project files.
  - e. The DSP Representative shall review the fiscal information and spreadsheet.
    - i. The fiscal documentation should be compared to the last QPR and/ or spread sheet.
    - ii. Use the final closeout report to determine the amount of the local share of the project.
    - iii. Verify the exact percentage of local share budgeted in the project. The federal funds contributed will never be greater than 65%.
  - f. The DSP Representative shall discuss corrective actions with the local Project Manager at the time of the monitoring visit. The local Project Manager can begin working on the corrections before the follow-up letter is sent to the appropriate community officials.
7. Progress and Construction Site Inspection
- a. A vital component of any construction or dam decommissioning project is to ensure that the construction aligns with the approved plans and specifications. To that end, for any construction project ODNR Dam Safety Program's Construction Technician plays a critical role.
  - b. For large construction projects the Construction Technician will be on site at

least once a week. This will be more frequent for critical components of the project such as pouring a concrete spillway, setting a spillway pipe in place, installing a sand diaphragm, or ensuring soil compaction is done in an appropriate manner. All of ODNR's Dam Safety Project Managers and Project Engineers are versed in construction site inspection. This cross training allows adequate coverage in case of illness or vacation.

- c. The Construction Technician will also be on site for any progress meetings and work closely with the ODNR Project Manager assigned to the project to ensure any issues are addressed in a timely manner.

8. Reporting Requirements and Follow-up

- a. After the implementation meeting, the DSP Representative will follow-up on specific issues with the local Project Manager.
- b. Following monitoring visits, a follow-up letter will be sent by the DSP Representative within 14 days of the visit. The letter will outline the results of the visit and any corrective actions required. The local Project Manager will be given 45 days to complete the corrective actions.

9. Domestic Preferences (Build America, Buy America) Verification

- a. The Infrastructure Investment and Jobs Act (IIJA), signed into law in November 2021, includes the Build America, Buy America Act (BABAA), which applies a new purchasing preference for American made products. In accordance with BABAA, FEMA must ensure that no federal financial assistance for "infrastructure" projects are awarded "unless all the iron, steel, manufactured products, and construction materials used in the project are produced in the United States,"
- b. Language in the contract will be required. Pending approval by ODNR's legal review the following is suggested language that will be included moving forward:
  - i. Contractors and their subcontractors who apply or bid for an award for an infrastructure project subject to the domestic preference requirement in the Build America, Buy America Act (BABAA) shall file the required certification to the non-federal entity with each bid or offer for an infrastructure project, unless a domestic preference requirement is waived by FEMA. Contractors and subcontractors certify that no federal financial assistance funding for infrastructure projects will be provided unless all the iron, steel, manufactured products, and construction materials used in the project are produced in the United States. BABAA, Pub. L. No. 117-58, §§ 70901-52. Contractors and subcontractors shall also disclose any use of federal financial assistance for infrastructure projects that do not ensure compliance with BABAA domestic preference requirement. Such disclosures shall be forwarded to the grant recipient who in turn will forward the disclosures to FEMA, the federal awarding agency; subrecipients will forward disclosures to the pass-through entity, who will in turn forward the disclosures to FEMA.
  - ii. DWR will also provide the following suggested language for self-certification:

1. The undersigned certifies, to the best of their knowledge and belief, that:
  2. The Build America, Buy America Act (BABAA) requires that no federal financial assistance for “infrastructure” projects is provided “unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States.” Section 70914 of Public Law No. 117-58, §§ 70901-52.
  3. The undersigned certifies that for the \_\_\_\_\_ (Project Name and Location) \_\_\_\_\_ the iron, steel, manufactured products, and construction materials used in this contract are in full compliance with the BABAA requirements including:
    - a. 1. All iron and steel used in the project are produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
    - b. 2. All manufactured products purchased with FEMA financial assistance must be produced in the United States. For a manufactured product to be considered produced in the United States, the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55% of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.
    - c. 3. All construction materials are manufactured in the United States. This means that all manufacturing processes for the construction material occurred in the United States.
  4. “The, \_\_\_\_\_ [Contractor or Subcontractor] \_\_\_, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the [Contractor or Subcontractor] understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.”
  5. \_\_\_\_\_ Signature of [Contractor’s or Subcontractor’s] Authorized Official
  6. \_\_\_\_\_ Name and Title of [Contractor’s or Subcontractor’s] Authorized Official
  7. \_\_\_\_\_ Date
- iii. DWR will be requesting that the sub-recipient provide step certification for each handler (supplier, fabricator, manufacturer, processor, etc.) that certifies that their step in the process was domestically performed.



- iv. If for some reason step certification is not possible, DWR will be requesting a final manufacturer certification letter from the sub-recipient.

#### **XIV. PROJECT COMPLETION AND CLOSE OUT**

- A. ODNR and Sub-recipient will ensure that all project completion and close out materials are provided in a timely fashion to FEMA.

- B. Project Completion by Sub-recipient

1. The local Project Manager **must** notify the ODNR, DWR, DSP within ten (10) days of the completion of **all** work on the project. This contact may be by phone with a follow-up written notification by email or by letter.
2. The notification should be accompanied by a Final Progress Report (which is a quarterly report modified to indicate that it is a final report) and fiscal documentation including a completed Record of Grant Activity.
3. Upon receiving this notification, the DSP Representative will schedule a final monitoring visit to review all program and fiscal records related to the project. All project funds are suspended at the time of completion of the project unless approval to spend is given in writing by the Chief of the Division of Water Resources.

- C. Final Monitoring Meeting - Programmatic Closeout

1. At the time of closeout all files not previously reviewed or complete will be reviewed to ensure all appropriate documents are included. The Project Monitoring Form will be utilized for the review. At closeout, the DSP Representative must be able to fully complete a monitoring form for each property in the project.

#### **XV. PLAN REVIEW AND UPDATING**

- A. This document will be reviewed and updated noting any changes in policy, guidance, or operations.

**XVI. Appendices**  
**A. Example Quarterly Report Documents**

**STATE OF OHIO**  
**HHPD QUARTERLY REPORT**

Sub-grantee:	County:	Project Number:
Project Approval Date:	Project Completion Date:	Date Of Report:
Reporting Period: _____ 1 <sup>st</sup> Qtr (Oct 1-Dec 31)      3 <sup>rd</sup> Qtr (April 1-June 30) 2 <sup>nd</sup> Qtr (Jan 1 – March 31)      4 <sup>th</sup> Qtr (July 1-Oct 31) Final (July 1 – Sept 30)	Funding Source: <u>HHPD</u>	Total Project Cost:
Percent Completion: _____ %	Status of Costs: _____ (insert appropriate status) 1. Unchanged 2. Overrun 3. Underrun	
Is completion of work on schedule:    Y    N		

FEDERAL Funds Awarded:	FEDERAL Funds Expended Qtr:	Total FEDERAL Funds Expended:
LOCAL Share Committed:	LOCAL Share Expended Qtr:	Total LOCAL Share Expended:
*		
Subrecipient Management Costs Awarded:	Subrecipient Management Costs Expended Qtr:	Subrecipient Management Costs Expended:

\*Local Share Commitment =

Significant activities & developments that have occurred or shown progress during the quarter including a comparison of actual accomplishments to the work schedule objectives established in the application:

**STATE OF OHIO  
HHPD QUARTERLY REPORT**

Narrative discussing any problems, delays or adverse conditions that will impair the ability to meet the performance period identified in the Grant Agreement:

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Report Submitted by: (Print Name)	
Title:	
Signature:	Date:

**STATE OF OHIO  
High Hazard Potential Dam Grant  
REQUEST FOR PAYMENT**

**Section One: Sub-recipient Information**

<b>Submit to:</b> Ohio Department of Natural Resources Division of Water Resources 2045 Morse Road B-3 Columbus, OH 42329		<b>Name and Address of Subgrantee:</b> Dam Owner 1234 Embankment Dr Flood City, Ohio 44444	
<b>Contact Person and Phone</b> Joe Smith 614-555-5555	<b>Subrecipient Federal Tax ID No:</b> 34-1111111	<b>Amount Requested:</b> \$45,000.00	
<b>Grant ID No:</b> FEMA-HHPD-2019	<b>Project Name:</b> Preliminary Design	<b>Request No:</b> 1	

**Section Two: Itemization of Expenditures**

Fund Type	Total Award	Activity	Amount of this draw	Total Draw to Date	Award Balance Remaining
Project Funds (Federal)	\$50,000.00	Analysis of Alternatives	\$30,000.00	\$30,000.00	\$20,000.00
		Design	\$15,000.00	\$45,000.00	\$5,000.00
<b>Total of this draw:</b>	<b>\$45,000.00</b>				
				<b>Local Match to Date: \$15,750</b>	
				<b>Local Match Required: \$17,500</b>	

**Section Three: Certification**

I certify that this request for payment has been drawn in accordance with the terms and conditions of the grant agreement cited above and that the amount drawn is proper for payment to the drawer. I also certify the data reported above is correct and the amount of the Request for Payment is not in excess of current needs.

<b>Date:</b>	<b>Signature:</b>	<b>Title:</b>
<b>Date:</b>	<b>Countersignature:</b>	<b>Title:</b>

**FOR STATE USE ONLY BELOW**

Received by:	Date:
Most recent QPR report received?    Y    N	Date of Report:

## B. Program Risk Management

### OHIO DNR DIVISION OF WATER RESOUR DAM SAFETY PROGRAM

#### PROGRAM RISK MANAGEMENT

Title: High Hazard Potential Dam (HHPD) Grant	CFDA Number 97.041
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#### SUB-APPLICANT ORGANIZATION INFORMATION

SUB-APPLICANT ORGANIZATION NAME AND COUNTY
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#### AUTHORITY

The purpose of this assessment is to evaluate the risk of the sub-applicant's organization. Limited program experience, results of previous audits, changes in personnel / systems and/or results of prior monitoring/site visits protocols may increase an applicant's degree of risk but will not preclude the applicant from becoming an applicant. The applicant's degree of risk may require additional monitoring during the grant period of performance, in accordance with 2 CFR, 200.331.

#### QUESTIONS

<p>1. How many prior HHPD or Public Assistance Program or similar federal grants has your organization managed during the past 10 years?</p> <p><input type="checkbox"/> Three (3) or more grants</p> <p><input type="checkbox"/> Two (2) grants</p> <p><input type="checkbox"/> One (1) grant</p> <p><input type="checkbox"/> Zero (0) grants</p> <p>2. What types of findings has your organization received in audits during the past 10 years?</p> <p><input type="checkbox"/> No significant findings</p> <p><input type="checkbox"/> Some minor findings</p> <p><input type="checkbox"/> Some moderate findings (corrective action must be made)</p> <p><input type="checkbox"/> Significant findings (funding must be returned)</p> <p>3. Have the personnel or systems your organization uses to manage grants changed during the past 10 years?</p> <p><input type="checkbox"/> No significant changes</p> <p><input type="checkbox"/> Some minor changes</p> <p><input type="checkbox"/> Some moderate changes (personnel or systems)</p> <p><input type="checkbox"/> Significant changes (personnel and systems)</p> <p>4. What types of findings has your organization received in monitoring or site visits during the past 10 years?</p> <p><input type="checkbox"/> No significant findings</p> <p><input type="checkbox"/> Some minor findings</p> <p><input type="checkbox"/> Some moderate findings (corrective action must be made)</p> <p><input type="checkbox"/> Significant findings (funding must be returned)</p>
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#### CERTIFICATION

I certify the information provided in this assessment is true and accurate, and that all occurrences of prior grant non-compliance have been disclosed.

AUTHORIZED REPRESENTATIVE SIGNATURE <b>X</b>	DATE
AUTHORIZED REPRESENTATIVE PRINTED	TITLE

**D. High Hazard Potential Dams Project Prioritization Tools  
Factsheet**

# FEMA Releases the High Hazard Potential Dams Project Prioritization Tools to the States for Training Purposes

In support of the Rehabilitation of High Hazard Potential Dams (HHPD) grant program, FEMA is releasing an initial version of the HHPD Project Prioritization Tool, and the supporting US Army Corps of Engineers' Dam Screening Tool (DST). Starting in mid-January 2024 and continuing until April 2024, FEMA will conduct webinars and training of the tools as well as host "office hours" for users of the tools to ask the subject matter experts specific questions. Details of the outreach and training activities are not yet finalized but will be provided in January 2024.

The initial release of these tools is being made to help states become acquainted with tool data input requirements and functionality. The tools are only being released to a representative of the state dam safety program in states that participate in the National Dam Safety Program. The tools are not being released to the general public; states are restricted to only share the tool with their staff and consultants.

## Definition (Source: 33 USC § 467(13))

The term "state" means each of the several states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any other territory or possession of the United States.

## Background

The HHPD grant program was authorized by Congress in the "Water Infrastructure Improvements for the Nation Act" or the "WIIN Act" and signed into law by the President on December 16, 2016. The law added a new grant program under FEMA's National Dam Safety Program (33USC 467f-2) which provides technical, planning, design, and construction assistance in the form of grants to eligible subrecipients for rehabilitation or removal of eligible high hazard potential dams.

The legislation requires that FEMA develop a priority system, in consultation with the National Dam Safety Review Board (NDSRB), for use by states in identifying eligible high hazard potential dams that fail to meet minimum dam safety standards of the State in which the dam is located and poses an unacceptable risk to the public, as determined by the State.

### 33 USC § 467f-2 (f) Priority System

The Administrator, in consultation with the Board, shall develop a risk-based priority system for use in identifying eligible high hazard potential dams for which grants may be made under this section.

In 2021, the NDSRB assigned a team that included the five state voting members of the Board and federal partners to recommend the project priority system for the HHPD. The NDSRB team met over 30 times to discuss the priority system and considered input collected from several “listening sessions” FEMA coordinated with states and the general public. On April 26, 2023, the NDSRB confirmed the recommendation.

## Prioritization and the HHPD Application Process

The HHPD grant program application process consists of two parts:

- Part 1 of the application process establishes the funding states will receive by successfully submitting an application for that grant period.
- Part 2 is performed by the states after they receive notification of successful application. During Part 2 of the process, States prioritize and document how the funds will be allocated to eligible subrecipients.

For Part 1 of the application process, states that apply for HHPD grants will be required to identify eligible high hazard potential dams in their state that meet the Act definition of Eligible High Hazard Potential Dam.

### **Eligible High Hazard Potential Dam** (Source: 33 USC § 467(4)(A))

(A) In general, The term “eligible high hazard potential dam” means a non-Federal dam that—

- (i) is located in a State with a State dam safety program;
- (ii) is classified as “high hazard potential” by the State dam safety agency in the State in which the dam is located;
- (iii) has an emergency action plan that—
  - (I) is approved by the relevant State dam safety agency; or
  - (II) is in conformance with State law and pending approval by the relevant State dam safety agency;
- (iv) fails to meet minimum dam safety standards of the State in which the dam is located, as determined by the State; and
- (v) poses an unacceptable risk to the public, as determined by the Administrator, in consultation with the Board.

(B) Exclusion The term “eligible high hazard potential dam” does not include—

- (i) a licensed hydroelectric dam under a hydropower project with an authorized installed capacity of greater than 1.5 megawatts; or
- (ii) a dam built under the authority of the Secretary of Agriculture.

Dams listed in the National Inventory of Dams (NID) that meet the definition above and have a condition assessment of POOR or UNSATISFACTORY without regard to population at risk (PAR) are eligible for HHPD. States will also be asked to identify dams that meet the definition above and have a FAIR condition assessment with a PAR greater than 1000. FEMA has used a simplified screening method to identify eligible dams with a NID FAIR condition assessment for which FEMA has estimated a PAR greater than 1000<sup>1</sup>. FEMA will use the list to confirm the lists provided by the states in the Part 1 application. The list of eligible dams provided by the states must only include dams with a documented dam safety deficiency that results in the dam not complying with state standards. Deficiencies that result from deferred maintenance are not eligible for consideration. Once the list of eligible dams is

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<sup>1</sup> FEMA estimation of PAR based on NID data assuming a sunny day failure with a volume at top of dam.



reconciled, NDSP will use the number of eligible dams in the states making successful application to calculate state allocations based on the funding formula specified by law.

### **33 U.S.C § 467f-2 (g)(2) Allocation of Funds**

The total amount of funds made available to carry out this section for each fiscal year shall be distributed as follows:

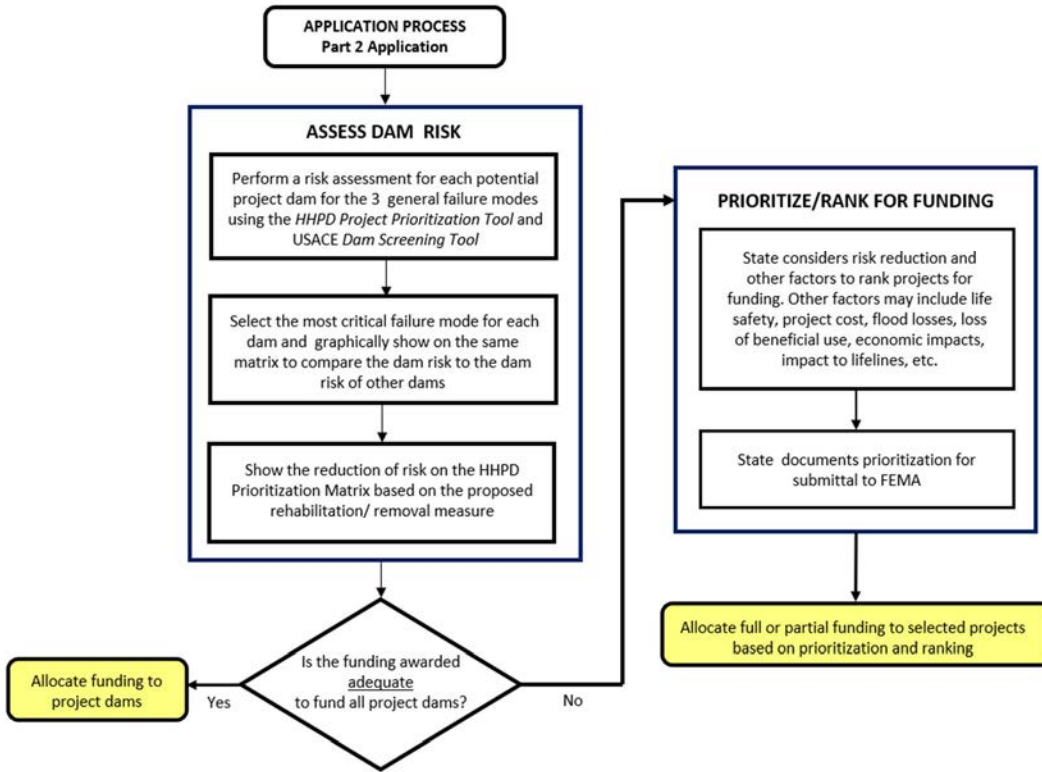
(A) Equal distribution:  $\frac{1}{3}$  shall be distributed equally among the States in which the projects for which applications are submitted under subsection (c)(1) are located.

(B) Need-based:  $\frac{2}{3}$  shall be distributed among the States in which the projects for which applications are submitted under subsection (c)(1) are located based on the proportion that—

- (i) the number of eligible high hazard potential dams in the State; bears to
- (ii) the number of eligible high hazard potential dams in all such States.

After FEMA notifies states of their successful Part 1 application and their funding allocation, and as states are required to use the HHPD priority system process for Part 2 applications, to prioritize dams that will receive HHPD funding. The process workflow for the Part 2 application is shown below. If the HHPD funding received by the state is adequate to fund all eligible subrecipients projects, the state must first use the HHPD Project Prioritization Tool and the DST to document the risk reduction and then can award the grant funds without further prioritization. FEMA will use the results from the tools to document the risk reduction.

If the HHPD funding received by the state is less than adequate to fund all eligible subrecipients projects, states are required to prioritize funding using the HHPD Project Prioritization Tool and the DST. Using results from the tools, dams are plotted on the HHPD matrix and compared for risk and risk reduction. The most at-risk dams with the highest PAR and the greatest risk reduction to bring the dam in compliance with state regulations are rated highest by the state. After the first prioritization is completed, states may also choose to conduct a secondary prioritization based on other risk-based factors determined by the state as a better indicator of risk reduction than simple PAR.



## HHPD Project Prioritization Tools and Use

The HHPD Project Prioritization Tool is an Excel-based tool developed specifically for the HHPD grants. This screening-level tool requires input from the NID and data available from other state sources such as inspection reports. The tool assists in the estimation of the likelihood of failure for static, hydrologic, and seismic failure modes based on existing deficiencies and the change in likelihood of failure by removing the deficiencies and bringing the dam in compliance with state standards.

The DST is a web-based tool used to estimate consequences. The DST estimates PAR in the dam breach flood inundation zone, economic losses to buildings in the flood inundation area, and the tool has a simplified version of the USACE LifeSIM program to estimate potential loss of life.

The HHPD prioritization process requires that dams under consideration for HHPD funding be plotted on the HHPD Prioritization matrix (see matrix to the right) with the likelihood of failure from the HHPD Project Prioritization Tool on the vertical axis and the DST calculated consequences of the horizontal axis. Comparing the dams based on likelihood of failure and PAR consequences provide a ranking of dams consistent with the intent of the law.

**HHPD Prioritization Matrix**

Approximate/Relative Likelihood of Failure	Very High				
	High				
	Moderate				
	Low				
		Low 1 - 10	Medium 11 - 100	High 101 - 1000	Very High 1001+
		<b>Population at Risk</b>			

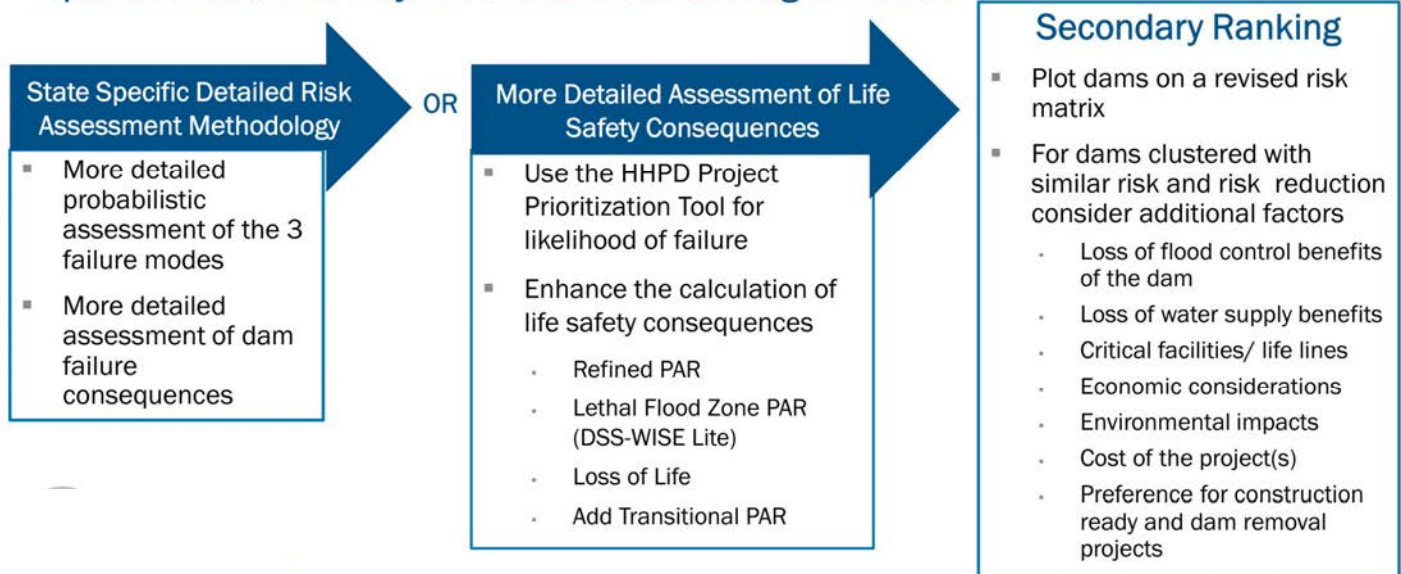
PAR is an indicator of consequences but may not be the best indicator in some states. After the initial ranking, states may conduct a secondary prioritization based on other risk-based factors determined by the state as a better indicator of risk reduction than simple PAR.

The need for secondary screening was asked for by the States during the pilot testing of the tools in VT, VA, SC, MS, OK, OH, SD, and CA where over 200 dams were evaluated. This same request came from input received during the FEMA listening sessions and at presentations to states. The need for a secondary project prioritization allows the states to consider other factors when prioritizing dams of similar risk and risk reduction on the matrix including:

- State risk assessment methods that are more detailed than the FEMA screening level methodology
- More detailed estimation for PAR including transient PAR
- Evaluation of consequences other than PAR
- Preference for shovel-ready construction projects over design or planning studies
- Preference for dam removals to reduce dam risk

The secondary project prioritization methodology is specific to that state and would be determined and applied by the state. FEMA requires the primary prioritization to be conducted first using the tools provided and after dams are prioritized using PAR, the secondary prioritization can be applied to document the final state prioritization for HHPD funding.

### Optional Enhanced Project Prioritization Ranking for Dams



## Proposed Training and Assistance

For fiscal year 2024, the HHPD Part 1 applications are due by February 29, 2024. Part 2 of the application process will begin on or around April 2024, after the states are informed by FEMA on the HHPD awards.

FEMA plans to conduct outreach and training prior to April 2024. This will include webinars, training sessions and “office hours”. Details of the outreach and training schedule will be provided in January 2024.

A final release of the tools for use with the HHPD Part 2 applications will be made prior to April 2024.

**F. Safety Level Evaluation System for Dams (SLESD)**

# **SAFETY LEVEL EVALUATION SYSTEM FOR DAMS**

*Keith R. Banachowski, P.E., Program Manager*

*Ohio Department of Natural Resources, Division of Water, Dam Safety Engineering Program*

## **Introduction**

The primary function of a dam safety program is to keep people and property downstream of dams safe from dam failures. A dam failure disaster in simple terms consists of a chain of three events: dam failure, inundation of the river valley, and negative impact to people and property. A dam safety program can work in any of these areas to interrupt the chain and avoid some or all of the negative impacts. The focus of most programs has been to keep dams from failing. A brief review of Association of State Dam Safety Officials 2004 State-by-State Statistics on Dams and State Safety Regulation shows that most states have several deficient high-hazard dams. For a program to be effective, it must routinely be able to measure the safety levels of its dams. Knowing the safety levels of dams is critical for making administrative and technical decisions.

Measuring the safety levels of dams might not seem to be as complicated as it actually is. For years programs have pursued, and often measured, compliance with safety standards based on engineering codes and principles, state laws, and administrative rules. But compliance is a black and white system; it does not readily translate into shades of gray, which are needed for effective comparisons. Consider two similar dams (in all respects) that lack adequate flood capacity. Both are considered noncompliant based on flood capacity. The first dam has 10% of its required flood capacity and the second has 95% of its required flood capacity. The first is less safe than the second, and focusing efforts to improve the safety of this dam would provide more public safety than focusing efforts on the second. But how much less safe is it? Now consider Ohio's inventory of more than 400 high-hazard dams with over 100 dams not being compliant with all safety standards. The conditions of the dams are constantly changing – dams are being repaired and periodic and emergency inspections are revealing new deficiencies. Measuring the fluctuating safety levels of dams can be overwhelming.

Many measurement systems have been used over the history of dam safety, each with unique advantages and disadvantages. A simple measurement system has the benefit of wide applicability but lacks the insight of a more complicated, in-depth system. An in-depth measurement system, although excellent in quality, can be cost prohibitive and beyond the resources of a state program. Furthermore, systems usually are static; they are fixed in time. For Ohio's dam safety program, it was determined that a specialized measurement system needed to be developed and tailored to fit into the resources and work processes of Ohio's program, and the system must be dynamic to keep the system results current.

Safety Level Evaluation System for Dams (SLESD) incorporates aspects of risk assessment, risk indexing, a knowledge-based expert system (KBES), and database application to provide an efficient, accurate tool for measuring safety. The system utilizes the logic and thoroughness of risk assessment, the ranking aspect of risk indexing, the power of a KBES, and the accessibility and flexibility of a database. The system is designed to be integrated into the program's work processes and database to ensure that the information is up-to-date. The system is designed for evaluating the safety levels of high-hazard

embankment dams in Ohio and is intended to be used by an experienced engineer. In addition, it provides the framework for collecting important program data.

## **Ohio's Dam Safety Engineering Program**

Ohio Department of Natural Resources, Division of Water, Dam Safety Engineering Program has the responsibility to ensure that human life, health, and property are protected from dam failures. The Ohio Revised Code provides the authority for the program to regulate dam safety and dictates the responsibilities of the program and dam owners. The program regulates more than 1700 dams in Ohio, more than 400 of which are high-hazard. Failure of a high-hazard dam would likely result in loss of life. The program has one central office in Columbus, Ohio, and the staff consists of an administrator, an administrative assistant, three managers, seven engineers, and a construction specialist. Staff levels and budget have changed throughout the program's existence. Since 1999, budgets have diminished, and the program has gradually lost one third of its staff.

The program's responsibilities are divided into four general areas: periodic safety inspections, repairs and modifications, construction permits, and emergency response. The program performs periodic safety inspections of the high-hazard dams once every five years. Program staff review calculations and other documentation and visually inspect the dam to determine whether the dam complies with current laws, administrative rules, and safety standards. The inspection concludes with providing to the owner with an inspection report that lists the required remedial measures for the dam. When a dam is repaired or modified, often in response to the requirements of an inspection report, the program is responsible for reviewing design reports and construction plans. Staff monitor construction to ensure proper implementation of construction plans. The program is responsible for issuing construction permits for proposed dams. The permit process includes reviewing design reports and monitoring construction. And finally, the program is responsible for responding to emergencies such as uncontrolled seepage from an embankment or a record high pool level during a flood. The program has the authority to take immediate action to correct unsafe dams during emergencies. Considering the number of jurisdictional dams, wide range of responsibilities, and limited budget and resources, the program must prioritize activities and work effectively. The program must have an accurate, efficient system for measuring the safety levels of dams to ensure resources are allocated appropriately.

Understanding how dams fail is key to keeping them safe. Dams are complicated structures, and it can be difficult to predict how they will respond to distress. "... The modes and causes of failure are varied, multiple, and often complex and interrelated, i.e., often the triggering cause may not truly have resulted in failure had the dam not had a secondary weakness. These causes illustrate the need for careful, critical review of all facets of a dam." (Safety of Existing Dams, 1983). The condition of a component of a dam must be evaluated in context, not by itself. Von Thun makes this point in his discussion of the importance of failure mode evaluation for dam safety inspections in "Dam Safety Inspections and Failure Mode Evaluations – They're Made For Each Other" (ASDSO newsletter, May/June 2002, Volume 18, No. 3) A failure mode evaluation analyzes the full chain of events that could lead to a dam failure, or an uncontrolled release of the impoundment. But review of failure modes is not only important for a dam safety inspections; it also has applications to the rest of the program, such as design review and emergency response. Lessons learned from one part of the program need to be shared with the others. Inspections provide data that is valuable during emergencies, repairs provide information for future inspections, and emergency response

provides experience to help evaluate the severity of deficiencies during inspections and the appropriateness of repair and permit designs. Understanding of failure modes is the common thread that connects technical decision-making in all parts of the program.

## **Approaches for Measuring Safety Level**

The concept of safety itself requires discussion. Haimes states “safety manifests itself in the level of risk that is acceptable to those in charge of the system.” (Risk of Extreme Events, Reliability, and the Fallacy of the Expected Value, 2004) Safety is, therefore, subjective. It becomes more subjective when risk information, which is directly dependent on probabilities, has a significant amount of uncertainty. Dam safety engineering probabilities such as the probability of the Probable Maximum Precipitation and the probability of a drain system failing fit into this category. Evaluation of the safety level of a dam is subjective venture.

Many approaches have been used to measure safety. The most basic measurement is analysis of compliance. It could be argued that dams that are compliant are safe. Engineers can analyze the features of a dam with respect to their compliance with current laws, administrative rules, and safety standards. For example, a stability analysis shows that an embankment has a factor of safety of 1.35; the design standard is a factor of safety of 1.5. The dam would be noncompliant and would, therefore, be unsafe. Is this dam very unsafe, moderately unsafe, or slightly unsafe? Review of compliance does not answer this question. Consideration of several compliance issues for comparison of several dams makes compliance even less useful as a measurement tool. It might appear that a comparison of the degree of noncompliance would provide insight, but this is not necessarily the case. Consider two dams that overtop during their design floods, the first passes 50% of its design flood while the second passes 75% of its design flood. The dams are noncompliant. One might suspect that the first is less safe because it passes less of its design flood. A closer look shows that the first overtops by 1 foot during its design flood and has a wide crest and mild downstream slope. The second overtops by 3 feet during its design flood and has a narrow crest and steep downstream slope. The second dam would likely be less safe. It is clear that simply reviewing compliance provides limited information for measuring safety levels of dams, especially when comparisons are needed.

Ohio’s dam safety program has used informal discussion along with compliance to prioritize dams for repair and emergency inspection. Discussion allows engineers familiar with a particular dam to offer insight regarding the severity of noncompliance and the resulting impact to the overall safety of the dam. While this is an improvement, it has limitations. Each engineer has a different educational background, set of experiences, and way of evaluating the safety of a dam. This makes the evaluations inconsistent and difficult to compare. Furthermore, this approach requires considerable time and personnel resources.

Risk assessment is a tool that offers a systematic, thorough way to measure the safety level of a dam. Risk assessment for a dam includes analysis of the potential failure modes, the inundation due to failure, and the consequences of inundation. A risk assessment would require several engineers to review all available data for a dam, to perform safety inspections, and to perform calculations and analyses. The engineers would need to have a high level of expertise to be able to accurately estimate probabilities. The assessment is specialized for the particular dam. The engineers would relate probability of failure with consequences to determine the risk of dam failure along with a description of uncertainty. The results of the assessment are quantitative and allow for comparison. Risk assessment undoubtedly provides excellent insight into the safety level of a dam.



Although a valuable tool, it is not feasible to perform a risk assessment for Ohio's inventory of over 400 high-hazard dams. The cost to hire consultants to perform the assessments would be excessive for the program's budget. Use of program staff could be more cost effective, but staff does not have sufficient expertise, experience, or time. Regardless of feasibility, it should be noted that risk assessment has several shortcomings. First, it has a limited timeframe of applicability. After a few years, some dams have been repaired and others have deteriorated. Typical risk assessments do not have an efficient method for updating the data. Second, the results are usually contained in a hard-copy report. A report is stored in a file cabinet where it is less accessible to staff as compared to a digital report, which can be easily retrieved. Third, the report does not capture the knowledge of the experts. The experts use their knowledge to perform analyses, review data, and draw conclusions. The report contains the results of the experts' knowledge, but does not document the knowledge. It would be useful to the program to capture the knowledge for use in other parts of the program. And finally, risk assessment is highly dependent on probability. Precise probability data is typically unavailable; therefore, results of the assessment can have limited use.

Risk indexing is an approach that utilizes some concepts of a risk assessment, but uses a more concise, standardized method to make it more feasible than a risk assessment. Risk indexing assigns scores to dams using formulas based on quantified data. The scores allow the dams to be compared to one another, which is important for prioritization. The State of Washington and the Natural Resources Conservation Service have developed and used risk indexing systems. It is faster, less dependant on probability data, more consistent, and less expensive than a full risk assessment. But risk indexing also has several shortcomings. The logic of the evaluation is not explicit; it is contained in the formulas. Therefore, it is difficult to accommodate unique situations or data that is incomplete or inexact. The score of a dam does not indicate a meaningful level of safety. For example, a risk indexing system might score dams between 0 and 100, with 0 being least safe and 100 being most safe. If dam "A" scores a 40 and dam "B" scores a 60, it is clear that dam "A" is less safe than dam "B." But what does 40 mean? Is 40 very unsafe or slightly unsafe? Although risk indexing has several benefits, it is not the best approach for measuring the safety levels of dams because its shortcomings limit its usefulness.

## **Safety Level Evaluation System for Dams**

SLESD incorporates aspects of risk assessment, risk indexing, KBES, and database application to provide an efficient tool for measuring safety. It provides the benefits of the approaches described previously while limiting the shortcomings. The system utilizes the logic and thoroughness of risk assessment, the scoring of risk indexing, the power of a KBES, and the accessibility and flexibility of a database. The system was designed for high-hazard embankment dams in Ohio and was intended to be used by an experienced engineer. The goals for this stage of development were accurate determination of overall safety level of a dam and proper framework to allow Ohio's dam safety program to implement the system. The system was designed to assess the safety level of a dam itself; the safety level does not include consideration of downstream hazard.

The overall safety level of a dam is a sum of the safety levels during various loadings and failure modes. SLESD guides the user through safety level evaluations for standardized combinations of loadings and failure modes (Figure 1). Loading conditions include normal pool,

12% PMF<sup>1</sup>, 25% PMF, 50% PMF, 75% PMF, and 100% PMF. Failure modes include overtopping, seepage, and structural collapse of spillway. The evaluation is combines qualitative and quantitative data. The system provides structure and guidance to improve consistency.

Each combination of failure mode and loading constitutes one scenario. The system requires the evaluation of twenty-one scenarios. For each scenario, the system provides one branch of a fault tree and specialized information from the database and knowledge base. The fault tree shows the general logic of how the dam would fail during a specific the failure mode. Figure 2 provides examples of fault trees and their interpretation, and Figure 3 shows the user interface. The user follows the direction from the fault tree, reviews the specialized information, makes intermediate assessments, and finally evaluates the safety level of the dam for that scenario. The system converts the safety level to a score by multiplying the pre-assigned weight for each scenario and a percentage that corresponds to the safety level. Descriptions of safety levels and their corresponding percentages are shown in Table 1. The weights and percentages that correspond to a particular safety level were established during development of the system. For example, consider that a safety level for the scenario of overtopping failure during 100% PMF is “poor.” The pre-assigned weight for this scenario is 5, and the percentage for a safety level of “poor” is 85%. Thus, the score for the scenario is  $5 \times 0.85 = 4.25$ . After the user has evaluated the safety levels for all of the scenarios (Figure 4), the system calculates the scores and determines the overall safety level of the dam. An example demonstrating all the steps in evaluating a safety level for a scenario is provided later.

The system follows the general logic of a risk assessment by evaluating failure modes. Failure modes have been grouped into three general categories: overtopping, seepage, and structural collapse of a spillway. An overtopping failure occurs when floodwater flows over the embankment crest and causes the dam to fail. This process is discussed in detail in Prediction of Embankment Dam Breach Parameters. It generally consists of eroding the grass ground cover, eroding the downstream slope and crest until the erosion connects to the reservoir, and then forming the breach. Seepage failures occur when seepage under or through the embankment progressively erodes embankment soil to form a breach. Structural collapse of the spillway occurs when spillway discharge is not properly contained in the spillway. Discharge overtopping sidewalls or flowing through open joints can erode a spillway’s foundation or embankment fill, leading to the formation of a breach. For all of these modes, the formation of the breach and subsequent uncontrolled release of the reservoir depends upon there being a sufficient amount of water in the reservoir.

SLESD uses several concepts that are incorporated in risk indexing. First, the system uses standardized data. The team determined what data (in addition to the data that is normally collected to support the National Inventory of Dams) the user would need to make intermediate and final safety level evaluations. It is more efficient to forecast data needs and then gather the data than to gather data and try to design a system at a later time. Erodibility of embankment fill and potential for spillway clogging are examples of additional data that needs to be collected and entered into the database. Use of standardized data also improves consistency. Second, the system uses a scoring system to allow for the results to be compared. However, the system goes a step further and provides interpretation of the score.

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<sup>1</sup> [The Probable Maximum Flood (PMF) “means the flood that may be expected from the most severe combination of critical meteorological and hydrologic conditions that are reasonably possible in the drainage basin under study.” (Ohio Administrative Code) The PMF is the design flood for high-hazard dams.]

Finally, the system is faster than a full risk assessment, which makes it more feasible for the program to use.

KBES is a tool that has not been used widely in dam safety. KBES is “a concept used to develop a computer program that attempts to embody the knowledge, reasoning, and decision making process of an expert(s).” (Hadipriono, CE688 Class Notes, Ohio State University) The knowledge is represented in rules (Figure 5) and pseudo-rules. Rules are used to interpret data and draw conclusions. Rules are represented as “if-then” statements that interpret data based on expert opinion. For example, the depth of overtopping of an embankment can be quantified. A rule used in the system states that if the depth of overtopping is between 3 and 6 inches, then the depth of overtopping is described as shallow. These rules take the form of look-up tables and are easily captured in a database. The rules have two main benefits. First, they convey knowledge that has been incorporated into the system, and second, they help prevent information overload. Programs can gather so much data that it becomes overwhelming for an engineer to sort through all the numbers to make sense of them. The rules filter the data and then change it into information and knowledge. Some situations are too complex to be readily represented with rules. In these cases, the system uses pseudo-rules and guidance. Pseudo-rules and guidance provide the user with an explanation of how the information should be interpreted. It is the user’s responsibility to review the pseudo-rules and guidance and draw a conclusion. For example, the damage to an earthen embankment due to floodwater overtopping, given that depth and duration are known, is dependant upon several factors including downstream slope gradient, ground cover, erodibility of the soil, and anomalies on the slope that could initiate erosion. Rather than develop complicated if-then statements to process data, the program describes the process of embankment erosion, lists important factors, and provides examples to assist the user in making the determination. The pseudo-rules and guidance allow for unique situations to be considered. Use of a database for storing rules and pseudo-rules allows the system to grow as rules are refined and added in response to additional studies and new experiences.

KBES allows for the logic of the system to be displayed. SLESD uses fault trees to show the logic of how the system guides the user. Figure 2 shows fault trees for three scenarios, each a different mode of failure. Showing the logic of the system assists the user with understanding how the system works and allows for the system to be modified in the future. Furthermore, it allows data to be better interpreted. When using a risk indexing system, one can encounter a situation where a certain parameter is required for a formula, and selection of this parameter can significantly influence the final score. A risk indexing system does not clearly show the logic of the formula, and one is left to make a best estimate. A fault tree shows the chain of events from loading to failure. This allows the user to use better judgment when the data does not perfectly fit the situation.

Use of a database in Safety Level Evaluation System for Dams provides several key elements. First, it makes the information “real-time” and accessible. All dam safety staff are connected to the database. As staff perform their day-to-day work in all parts of the program, they supply information to the database. This ensures that current data will be available. This is an improvement over other measurement approaches that require the retrieval of large amounts of data before they can be applied. Second, the database provides the user with the right information at the right time. The program stores large quantities of data about dams. The database can be designed to display pertinent data and filter extraneous information that can overwhelm the user. Third, it can perform calculations and simulate the inference engine of a KBES by employing lookup tables and filtering data. By storing the knowledge base rules in a database, the system becomes flexible because the rules and overall system can be easily

updated as new knowledge is gained. And last, a database program such as Microsoft Access has tools that increase the appeal of the user interface, an important facet for successful implementation of any system. For this stage of the project, Microsoft Excel was used to simulate a database. The system will later be transferred to Access.

## **System Development and Application**

SLESD was developed in two stages. First, the design engineer created the structure and concept of the system. The design engineer reviewed other systems, the program's database, and other available program data, and prepared the framework for developing rules. Second, the design engineer gathered a team of program experts. In this context of the project, an expert is considered a person with considerable knowledge and understanding of dam safety. The team consisted of four registered professional engineers with an average of 9 years of experience in dam safety in Ohio (the design engineer was also a team member). The engineers had a variety of backgrounds including geotechnical, construction, program management, hydraulics, and hydrology. The team reviewed the system's structure and logic and provided input to the knowledge base by creating, reviewing, and adjusting rules. The design engineer met with the team seven times for an average of two hours per meetings.

The team calibrated the system using hypothetical situations and real dams. The team evaluated several scenarios to ensure that the system was guiding the user to the best safety level assessment. Next, weights were assigned to each of the scenarios (Figure 4), and percentages were assigned to safety levels. The team reviewed and compared the scores that were generated based on the weights and percentages, and also investigated the sensitivity of the system. The team adjusted rules, pseudo-rules, guidance, weights and percentages until the system was reliable. The team developed a scale for interpreting the score as a linguistic description (Figures 3 & 4). The team adjusted the scale until the system was describing a proper safety level of the dam with respect to each failure mode and overall safety.

The team used the calibrated system to evaluate the safety levels of Cowan Lake Dam, Rupert Lake Dam, and Forked Run Lake Dam. Table 2 provides general background information about these dams. These dams had not been used in the calibration process. The team reviewed the project files and construction plans for each dam. Data from the dam safety database and additional data that was identified during system development was gathered and entered into the system. The team used the system to evaluate the safety level of each dam for each scenario. A detailed description of the safety level evaluation of Cowan Lake Dam for overtopping mode of failure during PMF is described below. More detailed information about this dam is provided in Figure 6.

### ***Example***

Evaluation began by following the fault tree on the bottom right of the user interface screen (Figure 7). The fault tree was followed from the bottom to the top, and the information to the left of the fault tree was used to assist with the intermediate evaluations. The first event on the bottom of the fault tree was occurrence of the flood event, in this case the PMF. Next, the dam responds to the flood. Each high-hazard dam has been analyzed using a flood routing model to determine maximum water surface elevation during various events. The results of the flood routing model had been entered into the system prior to the evaluation and were displayed to the left of the fault tree. The system used maximum water surface elevation during the flood and embankment crest elevation to calculate the depth of overtopping, and the

duration of overtopping was taken directly from the database. The KBES interpreted the depth as “deep” and the duration as “very long.” The system used a rule to determine if the user should have been advised to reconsider the depth and duration of overtopping. The rule was based on the amount of precipitation runoff that the dam can store at top of dam elevation, the likelihood of each of the spillways clogging, and the amount of flow that each spillway passes. For storage, the runoff in inches was a simple calculation from the database, and the KBES evaluates the number and provided an interpretation next to it. In this particular case, Cowan Lake had “medium storage” and the principal spillway has a “low” potential to clog. The system advised “no adjustment needed.” If the dam had “low storage” and the potential for clogging of the spillway was “high,” the system would have advised the user to consider modifying the flood routing with reduced flow in the spillway. This would increase the depth and duration of overtopping. The first intermediate evaluation was to describe the overtopping: “Evaluation of Overtopping.” The recommendation from the KBES was “very severe,” and the team agreed with this assessment. Next, the user must evaluate the amount of erosion that would occur due to “very severe” overtopping. The system directed the user to a pseudo-rule. The pseudo-rule was a table (viewed using a hyperlink in the program) that guided the user through what should be considered when looking at erosion: ground cover, embankment erodibility, downstream slope gradient, and crest width. Because the fill erodibility was judged to be “high” and there were not extenuating circumstances to compensate for this, such as a very mild downstream slope, the team agreed that there would be severe erosion of the downstream slope. The second intermediate evaluation, “Evaluation of Erosion Connection,” was described as “very severe.” The next evaluation was for formation of the breach given “very severe” erosion of the downstream slope. This corresponded to the final evaluation: “Evaluation of Safety Level.” The reservoir volume was described as “very high storage,” so the conclusion was that there was sufficient water in the reservoir to drive the breach. The final safety level for this scenario was “poor.”

## Results

The system performed well from a work process perspective. The system filtered the data and displayed it on the appropriate screens. The fault trees explained the logic of the system properly and guided the users through the process. The rules assisted with interpretation of the data and with guidance for evaluating the safety levels. The system performed efficiently, provided a consistent approach, and was easy to use. With some minor modifications, Ohio’s dam safety program can transfer the system to a database application and implement it successfully.

The team reviewed the results and agreed that the system determined appropriate safety levels with respect to failure mode and overall safety for each dam (Figure 8). This confirmed system accuracy. The team agreed that overall safety levels of the dams could be compared to one another. This is important for prioritizing emergency response activities and enforcement action.

Ohio’s dam safety program used a risk indexing system to prioritize 66 dams for repairs in 2000. The risk indexing system used formulas based on standardized data to generate a score for each dam between 0 and 200. The standardized data included the percentage of flood capacity and types of required engineering repairs. After reviewing the results of the risk indexing system and having personal experience with some of the dams, dams could be sorted into groups with generally similar safety levels based on their scores. Most dams with

high safety levels scored less than 12; dams with moderate safety levels scored between 12 and 40; dams with poor safety levels scored between 40 and 75; and dams with very poor safety levels scored more than 75. It is important to note that the delineation of the groups was not part of the risk indexing system; the groupings could only be determined after reviewing the results. The risk indexing results for the three dams used to validate SLESD are provided in Figure 8.

For perspective, the team compared the results of the SLESD with the results of the risk indexing system. For Rupert Lake Dam, the results were similar. This was not surprising. Both systems considered deficiencies with the dams, and Rupert Lake Dam did not have any. For Forked Run Lake Dam, the final safety levels were similar, but not for the same reasons. An investigation of how the risk indexing system created its score for the dam revealed that it had not logically reached its final safety level. More of the final score of 53 came from the inadequate flood capacity of the dam than from the very poor structural condition of the spillway. SLESD indicated that poor performance of the spillway was the main problem and inadequate flood capacity was a minor problem. Additional review confirmed that SLESD provided the more accurate evaluation.

For Cowan Lake Dam, the results of the two systems differed significantly. The main problem for Cowan Lake Dam was deterioration of the concrete spillway chute (Figure 6). The spillway chute had a deteriorated concrete section and a void under the top of a sidewall. A periodic inspection report for the dam required a registered professional engineer to investigate condition of the spillway and prescribe repairs. This was a valid requirement considering these types of problems. Most of the final score of 24 came from the spillway deficiency. However, the risk indexing system did not consider the full context of the problem. SLESD guided the user to a similar result with regard to the condition of the spillway. SLESD also guided the user through the remainder of the failure mode, and it was realized that the problem areas were relatively far downstream from the control section and the spillway rests on a rock foundation. There did not appear to be a significant risk of a large uncontrolled release because of failure of the spillway. SLESD provided a safety level of high. Additional review confirmed that SLESD provided the more accurate evaluation. It is important to note that spillway still needs to be repaired even though the safety level of the dam estimated as high.

The time to complete a dam evaluation was not specifically measured. It is estimated that it took about 30 minutes after the records had been reviewed and all of the needed information had been entered into the database. This is a significant time-savings compared to a more complicated system to measure safety such as a risk assessment. The true time-savings come from integration of SLESD into the normal work processes. The system is intended to be used at times when the engineer has already become familiar with the project records as part of normal program responsibilities, such as at the end of a repair project or at the end of a periodic inspection.

## **Limitations and Modifications**

- The system is only as strong as the user's ability to apply it and the knowledge base. The system is not a black box that will blindly take data and produce a reliable answer. The user must understand how the system works and have experience for it to work properly. In addition, the knowledge base is a reflection of the dam safety program's experience and interpretation. The knowledge base needs to continue to develop.

- Some of the pseudo-rules and guidance need more development. Due to limited time for the project, the pseudo-rules and guidance were developed in rough form. Additional work is needed to better represent them, especially for seepage.
- For making comparisons, the system works well when there is a relatively wide spread of safety levels for the dams being evaluated. It is not intended to differentiate between dams in the same safety level.
- Conceptually, omission is a potential problem. It was acknowledged during development of the system that a failure mode for earthquakes was not addressed. The system could have included this failure mode, but the amount of work that would have been necessary was beyond the resources of this project. Ohio's dam safety program currently does not have much experience with earthquakes.
- As designed, the system does not accommodate additional appurtenances. Not all dams fit into the system configuration of an embankment and two spillways. Although this modification does not require a significant redesign, it needs to be included. It should be noted that the validity of the results remains even when additional appurtenances are added.
- The user interface and database need to include comment areas. It was found that entry of brief notes in different parts of a dam's evaluation made future review much easier.

## **Conclusions**

Safety Level Evaluation System for Dams effectively incorporates aspects of risk assessment, risk indexing, KBES, and database capabilities to provide an efficient tool for measuring safety. The system is consistent and efficient. It offers insight that is useful for many parts of the program. It allows the program to assemble an archive of dam safety knowledge and to make the archive accessible to the program staff. It also has shown areas where the program needs improvement and better understanding. The system is flexible for unique conditions and has the potential to develop as the program develops. The goals for this stage of development have been met: the system accurately determines the safety level of dams and the overall structure of the system is appropriate for implementation into Ohio's dam safety program.

## **Acknowledgements**

The author would like to thank Dr. Fabian Hadipriono of the Ohio State University, the dam safety staff who assisted with development of the system, and rest of the dam safety staff for their help with this project.

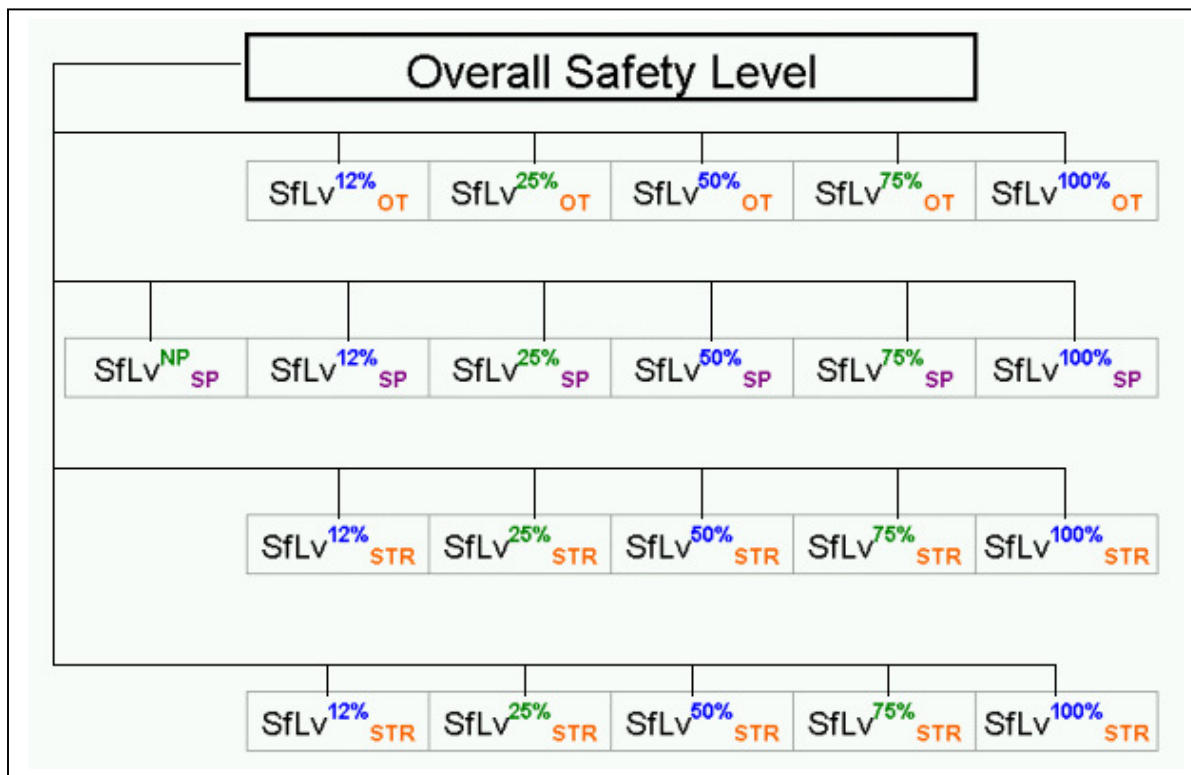
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7. Water Resources Research Laboratory, "Prediction of Embankment Breach Parameters, a Literature Review and Needs Assessment, DSO-98-004," July 1998

### Figures and Tables

Figure 1 – Matrix of Safety Level Evaluations



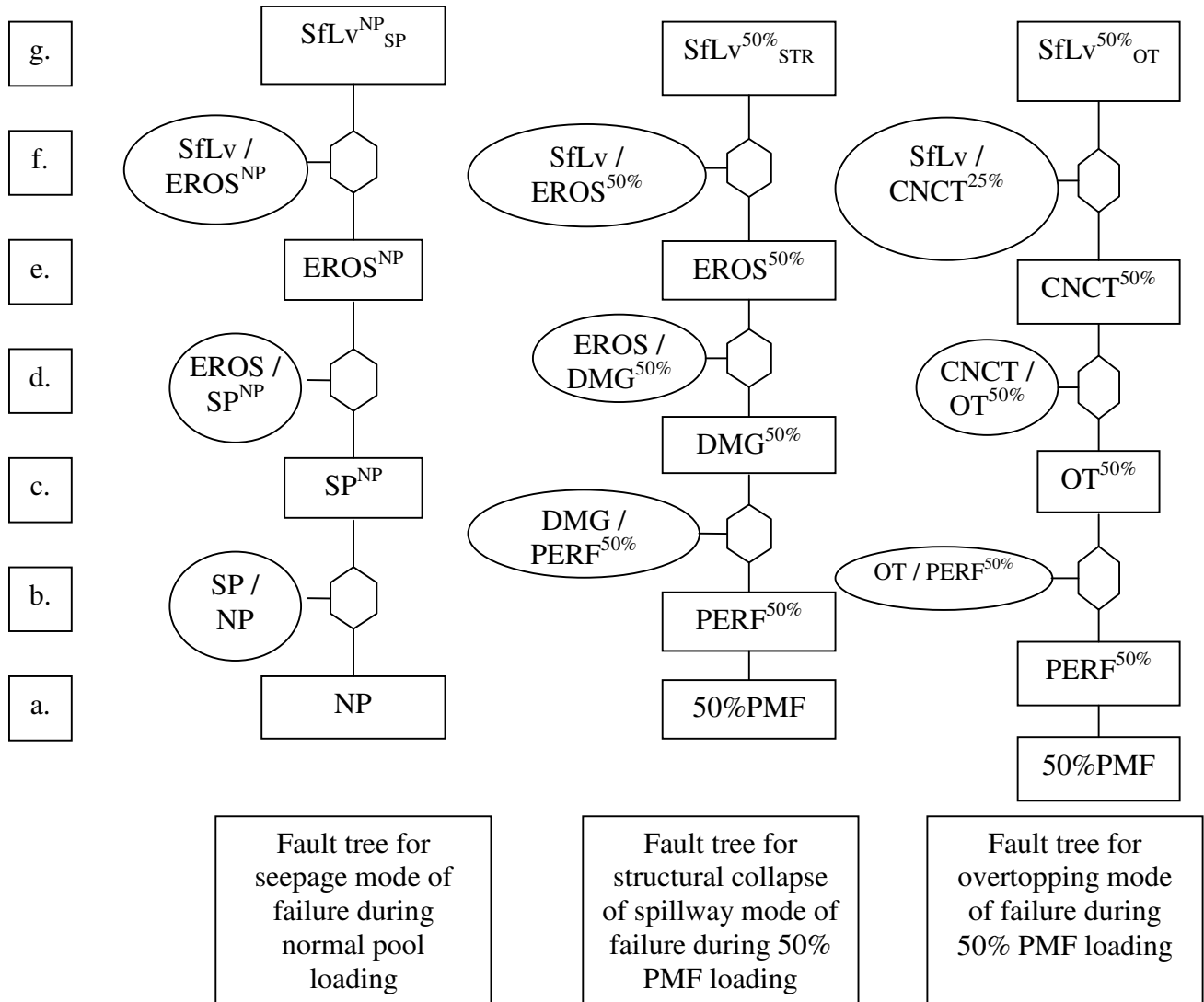
SfLV<sup>12%</sup><sub>OT</sub> represents the safety level of the dam with respect to an overtopping failure during 12%PMF; it is the safety level for one scenario.

SfLV<sup>NP</sup><sub>SP</sub> represents the safety level of the dam with respect to seepage failure during normal pool.

SfLV<sup>12%</sup><sub>STR</sub> represents the safety level of the dam with respect to structural collapse of the spillway during 12%PMF.



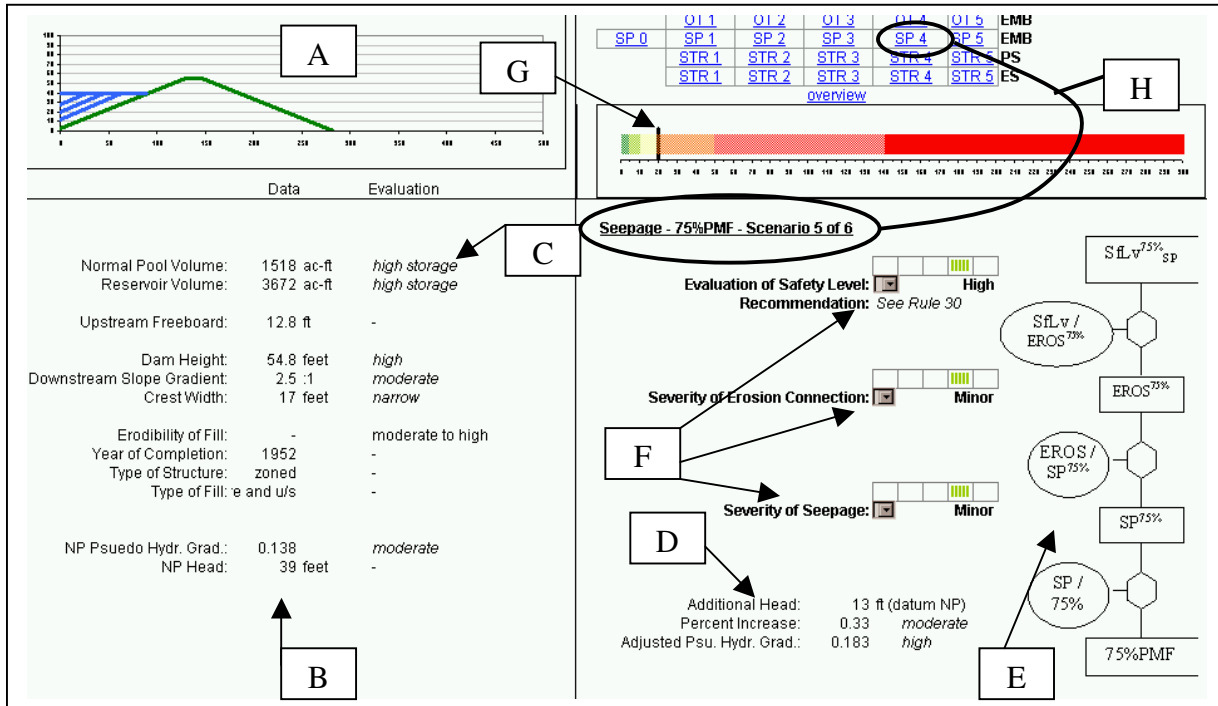
Figure 2 – Fault Trees for Modes of Failure



Interpretation of Left Fault Tree:

- a. Dam under loading – normal pool
- b. What is seepage level given loading?
- c. Intermediate evaluation: level of seepage
- d. How much erosion takes place given level of seepage?
- e. Intermediate evaluation: level of erosion
- f. What is safety level of the dam given level of erosion?
- g. Final evaluation: safety level of the dam

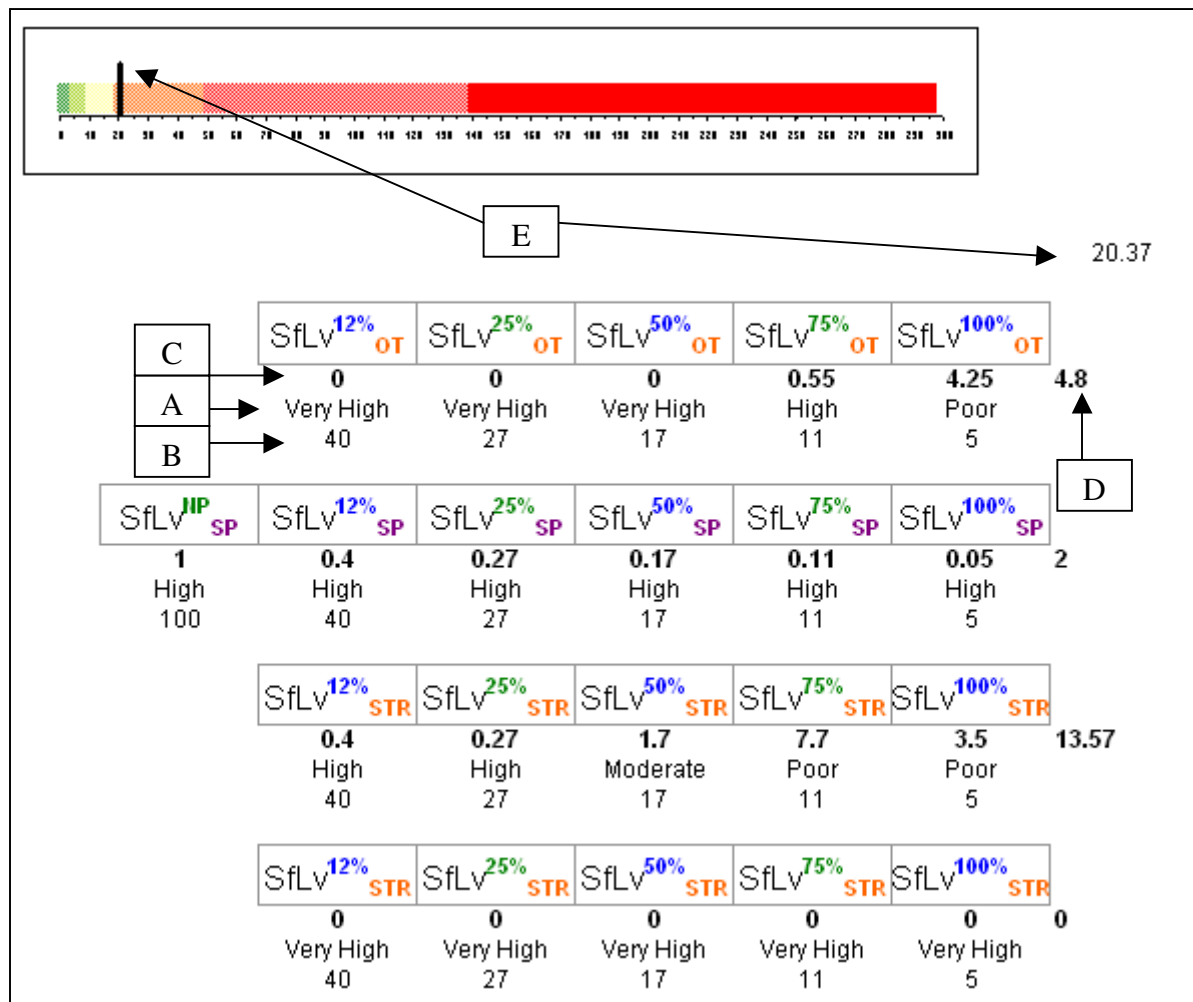
Figure 3 - User Interface for One Scenario (Seepage Mode of Failure during 75% PMF)



- A – Maximum section of dam with normal pool
- B – Information from database and calculations
- C – Information from rules
- D – Information from database, calculations, and rules
- E – Fault tree
- F – User entry of evaluations (works from the bottom to the top; bottom two are intermediate evaluation and the top is the final evaluation; top evaluation goes into the matrix – “A” on Figure 4)
- G – Overall safety level of dam (left side is higher level of safety and right side is lower level of safety)
- H – Top matrix provides navigation to all 21 scenarios using hyperlinks

Safety Level	Description of Safety Levels (for Overtopping)	Percentage
Very High	Does not overtop	0%
High	Overtops, uncontrolled release is unlikely, nominal damage to dam	10%
Moderate	Overtops with significant damage, uncontrolled release not likely but not out of the question	50%
Poor	Overtops, uncontrolled release is likely	85%
Very Poor	Overtops and failure is almost certain	100%

Figure 4 – Scoring of Safety Level Matrix



A – Safety level for each scenario as determined by user (see “F” on Figure 2)

B - Weights for each scenario (fixed in the system)

C – Score - percentage of the weight because of the safety level (calculated by system)

D – Score for overtopping mode of failure

E – Score for overall safety level, color-coded graph interprets overall safety level: dark green – very high, light green – high, yellow – moderate, orange – poor, light red – very poor, and dark red - emergency

Figure 5 - Rules

depth (in)			duration (hour)		
very shallow	-	3	very short	-	0.5
shallow	3	6	short	0.5	1
medium	6	12	medium	1	2
deep	12	24	long	2	3
very deep	24	+	very long	3	+

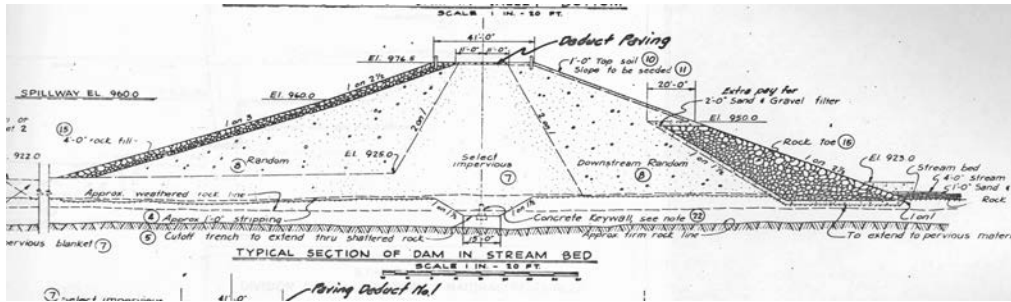
  

	very short	short	medium	long	very long
very shallow	very minor	very minor	minor	minor	medium
shallow	very minor	minor	minor	medium	medium
medium	minor	medium	medium	severe	severe
deep	medium	severe	severe	very severe	very severe
very deep	severe	severe	very severe	very severe	very severe

Example of a rule for overtopping. The rule takes numeric data about depth and duration of overtopping and provides a description of overtopping. Verbal interpretation of the rules is listed below:  
 If the depth of overtopping is between 3 and 6 inches, the depth is shallow.  
 If the duration of overtopping is between 1 and 2 hours, the duration is medium.  
 If the depth of overtopping is shallow and the duration is medium, the overtopping is minor.

	Cowan Lake Dam	Rupert Lake Dam	Forked Run Lake Dam
<b>Year Constructed</b>	1947	1968	1952
<b>Type of Structure</b>	Earthfill, Zoned	Earthfill, Homogeneous	Earthfill, Zoned
<b>Length (ft)</b>	860	1510	660
<b>Height (ft)</b>	63	40	55
<b>Crest (ft)</b>	41	15	17
<b>Upstream Slope</b>	3H:1V	3H:1V	2.5H:1V
<b>Downstream Slope</b>	2.5H:1V	3H:1V	2.5H:1V
<b>Spillway</b>	200-ft Concrete Chute	350-ft Concrete Weir and Rock Chute	100-ft Concrete Chute
<b>Freeboard (ft)</b>	16.5	12	13
<b>Drainage Area (mi<sup>2</sup>)</b>	49	22	9
<b>Flood Capacity - Percentage of PMF</b>	82%	95%	70%
<b>Normal Storage (ac-ft)</b>	10300	2200	1500
<b>Max.Storage (ac-ft)</b>	25000	7500	3700

Figure 6 – Additional Information for Cowan Lake Dam



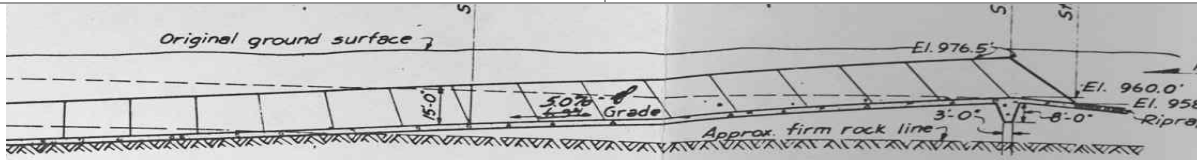
Cross section through embankment



View of upstream slope from right abutment



Downstream slope viewed from left abutment



Profile of spillway, 200 feet between control section and where chute floor meets firm rock



Spillway inlet



Spalled area, 40 feet long and 6 inches deep, 200 feet downstream of control section



Void under top of slab, 400 feet downstream of control section



End of chute, 800 feet downstream of control section

Figure 7 – Example Safety Level Evaluation of Cowan Lake Dam

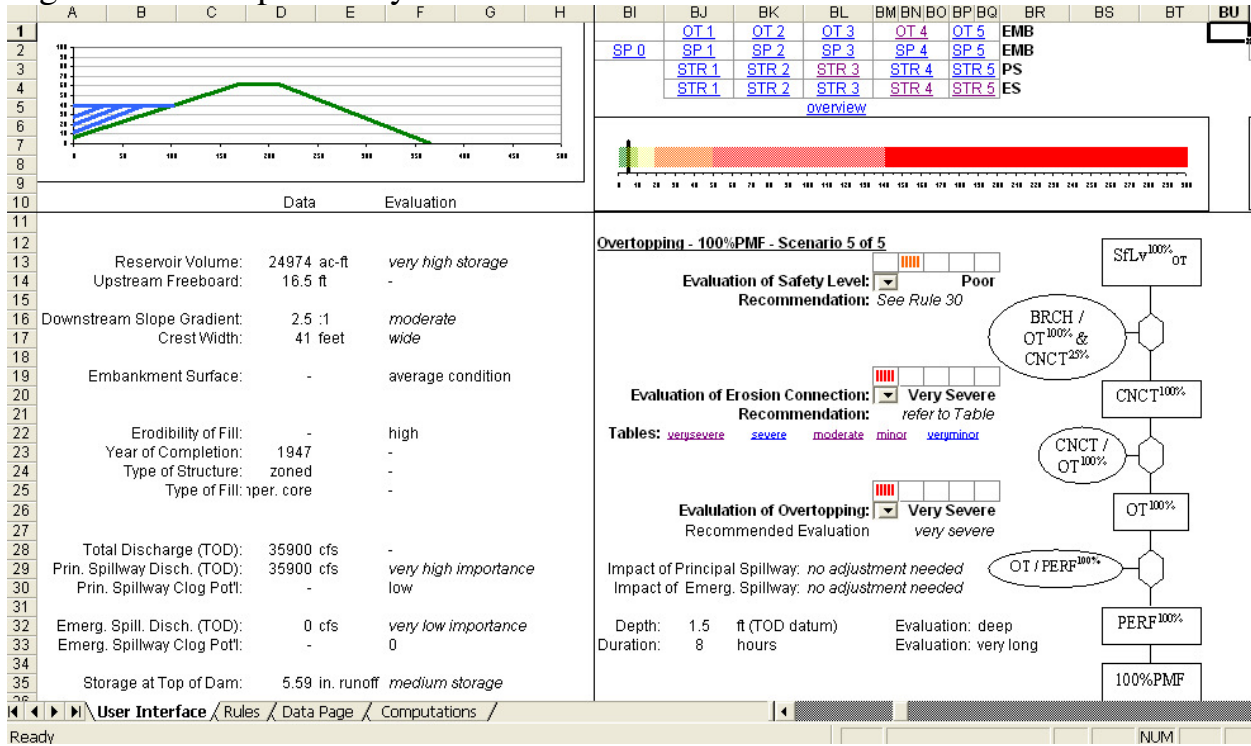


Figure 8 – Results

