Van Wert County
Natural Hazards Mitigation Plan Update
December 2021

Prepared by Great Lakes Community Action Partnership

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1.1 County Profile

Van Wert County is a predominantly rural county located in northwest Ohio, approximately 95 miles southwest of Toledo and 125 miles northwest of Columbus. The Ohio counties of Paulding, Putnam, Allen, Auglaize and Mercer and the Indiana counties of Adams and Allen form the border of Van Wert County. The county is comprised of 10 incorporated communities and 12 townships. The majority of the population resides within its municipalities.

Van Wert City, which is the county seat, forms the county's largest metropolitan area, with approximately 11,077 residents according to the 2018 ACS Estimates. Delphos is the only other city in Van Wert County and is shared between Van Wert and Allen Counties (Ohio).

Figure 1.1 Location Map of Van Wert County

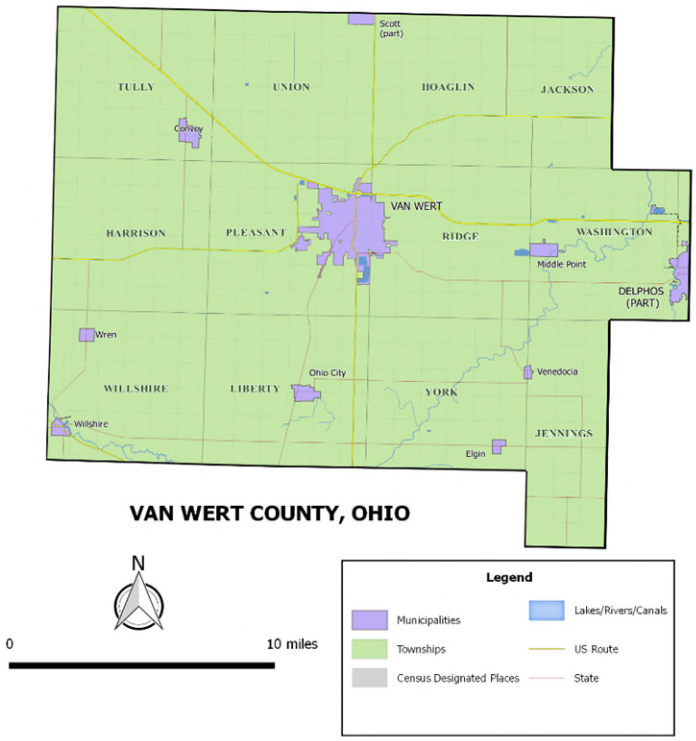


Figure 1.2 Map of Van Wert County

Source: wdcrawford - Map of Van Wert County, Ohio created with 2015 U.S. Census Bureau TIGER files (with modifications and updates) on QGIS software. CC BY-SA 4.0 (https://en.wikipedia.org/w/index.php?curid=53624914)

Villages in the county, in order of descending population, include Convoy, Ohio City, Middle Point, Willshire, Wren, Venedocia and Elgin. One village, the Village of Scott, is shared between Van Wert and Paulding counties.

Van Wert County is part of the territory lying at the southern edge of the Great Black Swamp in northwestern Ohio. Situated at the center of 3 rivers-the Maumee, the Auglaize and the St. Mary's, the original land belonged to the Shawnee, Miami and Iriquois Indians as part of the Maumee Valley Region. In 1820, these Native American hunting grounds became Van Wert County after the defeat of the Indians by General Anthony Wayne at Fallen Timbers. The County is named for Isaac Van Wert, one of 3 militia men of the Revolutionary War that were responsible for the capture of John

Andre' and exposing the deception of Benedict Arnold.

During the early years, dense forests covered Van Wert County, and the northern portion was a bog known as the Great Black Swamp. Despite the natural handicaps, pioneers, mostly of German descent with some Welsh and Irish, moved into the area. The early settlers turned to hunting and trapping to sustain their livelihood. Even when a little land was cleared for crop production, the drainage was too poor to make farming profitable.

The first white man, former sea captain James Riley, settled in Van Wert County in 1821. In 1834, James Watson Riley, Captain Riley's son, and two other men bought 240 acres of land for the location of town in the center of Van Wert County. In 1838, the General Assembly of Ohio transferred the county seat from Willshire in the southwest corner of the county, to this new location under the name of Van Wert.

The opening of the Miami Canal Extension in 1845, opened a new era marked by industry and enterprise since the forests in the area became a source of revenue. As the timber was cleared away, and the land drained, farming increased in the fertile black soil.

In 1928, concrete markers were set from coast to coast for the Lincoln Highway, a 3,000 mile highway across the United States extending from Times Square in New York to Lincoln Park in San Francisco. The twenty-six (26) mile section of Lincoln Highway (State Route 30) through Van Wert County to the Indiana State Line was once called Ridge Road, which at one time formed the southern shore of Lake Erie.

Van Wert County hosts a number of recreational and cultural resources including the Antique Fire Equipment Museum, Brumback Library, Van Wert Historical Museum, Wassenberg Art Center, Niswonger Performing Arts Center, Van Wert Civic Theater, Timberwoods and Huggy Bear Campgrounds and the Murals of Oscar Velasquez in Delphos.

Mural by Oscar Valasquex painted on 4K Tire in Delphos

Major employers in Van Wert County include Braun Industries, Central Insurance Companies, Cooper Farms, Eaton Corp, Federal-Mogul Corp, Toledo Molding and Die, Van Wert City Schools, Van Wert Health, CQT Kennedy, Van Wert Manor, Van Crest Healthcare Center and Wal-Mart Stores. All of these employers are located in the City of Van Wert, except Toledo Molding and Die which is located in Delphos.

1.2 Topography, Geography and Land Use

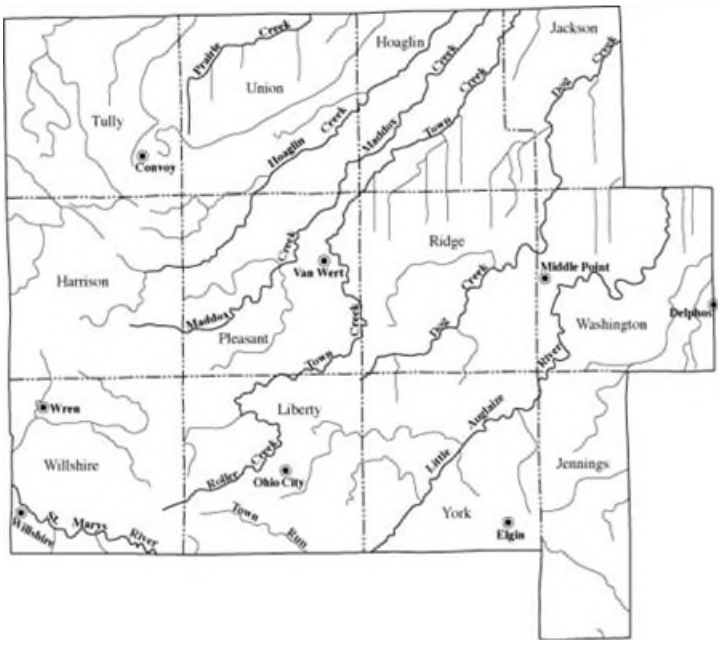
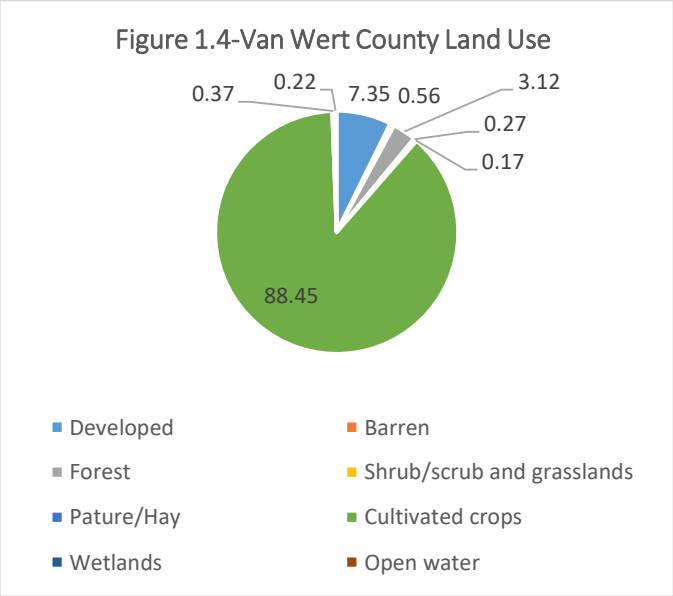


Figure 1.3: ODNR Surface Water Resources Map

All of Van Wert County drains into Lake Erie to the north and east. The largest watershed, the Little Auglaize River, drains the county from south to north. The Little Auglaize River flows to the north and joins the Auglaize River, which then joins the Maumee River in Defiance, Ohio and flows northeast to Lake Erie. Major creeks in the Little Auglaize River watershed include Prairie, Hagerman, Hoaglin, Maddox, Town, and Dog creeks which all flow to the north and east and join the Little Auglaize in Paulding County. A small portion of southeastern Van Wert County drains into the Auglaize River in Allen County by way of Jennings Creek and West Jennings Creek. The southwest corner of Van Wert County is part of the St. Mary's River Basin. Water in this watershed takes a longer route to Lake Erie, first going into Indiana. The St. Mary's flows from southeast to northwest crossing into Indiana near Willshire and joining with the St. Joseph and the Maumee Rivers in Ft. Wayne, Indiana. The Maumee then flows to the northeast crossing into Ohio in Paulding County near Antwerp. Major Van Wert County creeks in this basin are Twenty-seven Mile, Duck, and Black Creeks.

The Northwest corner of Van Wert County falls into the Upper Maumee River Basin. Most of this area drains into Blue Creek which flows to the northeast into Paulding County and flows into the Auglaize River, joining the Maumee River in Defiance. Some water in this basin flows across the Indiana/Ohio border in three areas. Water in Adams County, Indiana that drains into Flatrock Creek flows northeast into Ohio then northwest back into Indiana near the Adams/Allen County, Indiana line. Flatrock Creek then flows back to the northeast crossing into Ohio in Paulding County flowing into the Auglaize River which then flows to the Maumee River. A generalized surface-water resources map of Van Wert County (adapted from ODNR Division of Water, river basin maps; prepared by K.A. Weber) is shown in Figure 1.3 above.

Conservation practices used throughout Van Wert County help minimize soil and sediment from entering county waterways. Water availability and quality are important public concerns. Conserving water resources and protecting water supplies are high priorities for Van Wert County farmers. Technology has also enhanced farm stewardship and farm profitability through the use of integrated pest management systems coupled with satellite technology and precision farming techniques that maximize environmental protection from fertilizer and pesticide placement.



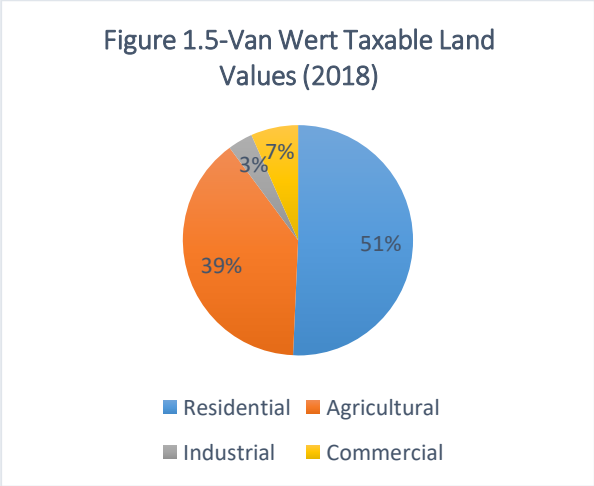
The County has a total land area of 410 square miles, of which 409 square miles is land and 1.3 square miles is water. Land use in the county is approximately 7.35% urban, 88.45% cropland, 0.17% pasture, 3.12% forest, 0.59% open water and wetlands, 0.27% shrub/scrub and grasslands and 0.56% barren land as shown in Figure 1.4.

Topography

The topography of the county is relatively flat with elevations of approximately 722 feet to 1,070 feet.

Taxable Land Values

Taxable land values for the county as reported the Ohio Development Services Agency (ODSA), County Profile reveals a total valuation of $646,429,090 with residential values being highest as shown in Figure 1.5. The County's income tax liability is reported at $11,552,698.



1.3 Demographics and Housing

The 2018 American Community Survey (ACS) estimates the total population of Van Wert County at 28,262. The majority of the population resides within the incorporated areas of the county, while only 6,693 or 23.7% of the population live within the unincorporated areas. The County's median age is 41.4, which is older than the State's median age of 38.8. Table 1.1 shows the basic demographic profile for the County.

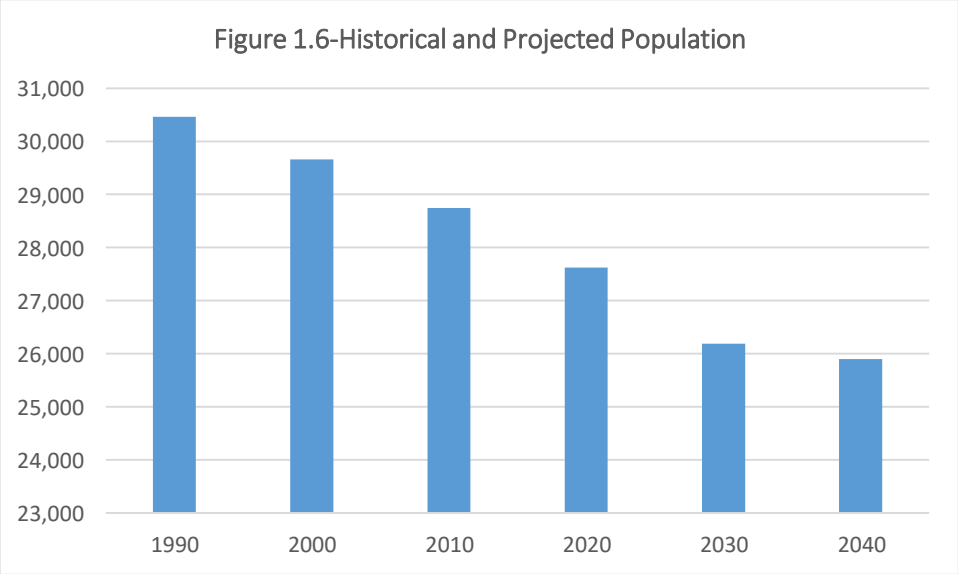
Table 1.1: Van Wert County Demographic Profile (2018)

Land Area	410 square miles
Total Population	28,281
Male	13,891
Female	14,390
Population under 18	6,646
Population over 65	5,046
Percent high school graduate or better	92.1%

Percent Bachelor's degree or higher	16.4%
Median Household Income	$50,974
Individuals below poverty	3,538 (12.7%)
Families Below Poverty Level	678 (8.3%)
Unemployment Rate	3.5%
White	27,254 (96.4%)
African American or Black	339 (1.2%)
Hispanic or Latino	856 (3.0%)
Number of Households	11,503
Average household size	2.46
Owner occupied households	8,604 (90.4%)
Median home value	$99,000
Multi-unit structures	1,107
Mobile homes	721
Homes built before 1939	3,937 (30.9%)
Median Year built	1958
Median gross rent	$678
Median cost to own	$934

Sources: American Community Survey and ODOD County Profile

Population in the county has been trending downwards in recent years with the highest recorded population numbers being in 1990 at 30,464. Over the next 20 years population is expected to continue to decline. Figure 1.6 shows the historical and projected population for Van Wert County as reported by ODSA's Office of Research.



Special Populations

Special populations include individuals with disabilities, the elderly, children, non-English speaking individuals, individuals in a nursing home and institutionalized individuals. Special accommodations need to be considered for these populations in the event of a disaster. Table 1.2 shows the percent of total population for these particular individuals.

Table 1.2: Special Populations (2018)

Individuals with a disability	4,013	14.3%
Elderly (aged 75+)	2,304	7.8%
Children (under 18)	6,646	23.6%
Non-English speaking	171	<1%
Nursing homes (2010)	248	<1%

Ethnicity

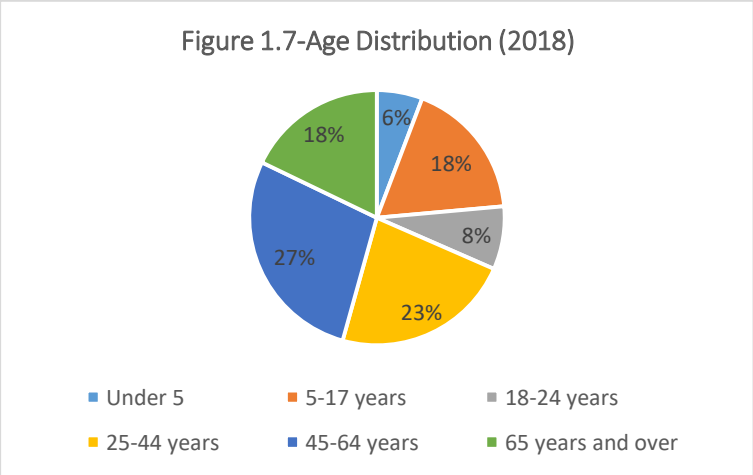
The 2018 ACS estimates reveal that 96.4% of the County's population is Caucasian. The second largest ethnic group is Hispanic or Latino at 3.0%. African-American individuals comprise just over 1% of the overall population as shown in Table 1.3. In addition, 382 (1.4%) individuals report being of 2 or more races.

Table 1.3: Total Population by Race

Race	Number	Percent
Caucasian	27,254	96.4
African-American	339	1.2
Native American	57	0.2
Asian	91	0.3
Other	139	0.5
Two or more races	382	1.4
Hispanic or Latino	856	3.0
Total Minority	1,593	5.6

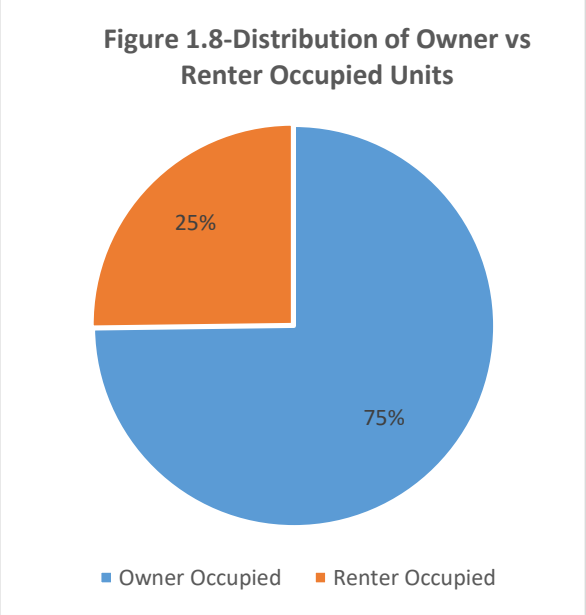
Age

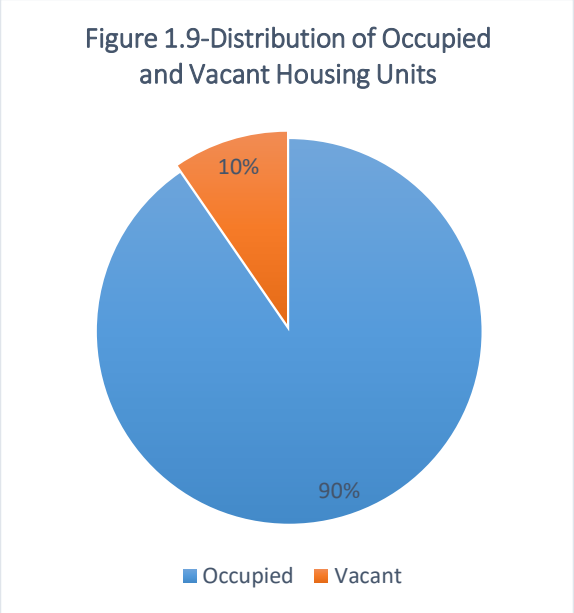
According to the (Ohio) State Hazard Mitigation Plan, the most vulnerable populations after a disaster are children under the age of 5 and individuals over 65 years of age. The percentage of children under the age of 5 in Van Wert County is 5.8% and 17.9% for individuals over 65. Figure 1.7 shows the population distribution by age for the County.



Housing

The 2018 ACS estimates that there are 12,726 total housing units in Van Wert County with a median value of $99,000. Of the total units, 11,503 (90.4%) are occupied and 1,223 are vacant, resulting in a vacancy rate of 9.6%. Of the occupied units, 8,604 (74.8%) are owner occupied and 2,899 (25.2%). Of the total occupied housing units, approximately 9,630 are single-family, 1,279 are multi-family units and 594 are mobile homes.





Housing stock in Van Wert County is relatively aged with 74% of its housing being 50 years or older. New home construction has been decreasing slightly between 2014 and 2018 from 24 to 18 new homes. During the same time period only 2 new multi-unit buildings were constructed.

Special housing facilities located in the County include 1 hospital, 3 nursing homes, 2 drug and alcohol rehabilitation facilities 5 senior living facilities and the County jail. There are 4 mobile home parks located in the County, 1 in Convoy, 1 in Ohio City and 2 in the City of Van Wert.

1.4 Income and Economy

From farm to table, the agricultural sector of Van Wert County is a leading industry and an important component of the local economy. The County has a wide array of farms – small and large, specialized and diversified, crop and livestock, part-time and full-time, integrated and independent, as well as niche and broad market producers. The progressive farming community in Van Wert County has led it to rank among the top counties across the state of Ohio in the production of soybeans, corn and wheat.

According to the 2017 Census of Agriculture, the number of farms in Van Wert County was 947, up 36% from 696 in the 2007 Census of Agriculture. However, the total amount of land in agricultural production decreased 14% from the 214,966 acres in 2007, resulting in a decrease in the average farm size from 354

acres in 2007 to 227 in 2017. The market value of agricultural products sold increased 38% from $110,079,000 in 2007 to $178,239,000 in 2017. Of this, crop sales accounted for 52% of the total market share and livestock sales accounted for 48%. Government payments increased 24% from 2007 to $7,162,000 in 2017.

This largely agricultural community is supplemented by the manufacturing industry. The principal industries of the area include agri-business, automotive, controls, plastics and metal fabrication. Services and manufacturing comprise the 2 largest employment sectors in Van Wert County. Several Census and other statistics help describe the County's population as a labor force. The majority of the County's employment opportunities are concentrated in the City of Van Wert. The County's income tax liability for 2018 was $11,552,698. Table 1.4 shows the employment and wages for the County.

Table 1.4: Employment and Wages by Sector (2018)

Industrial Sector	Number of Establishments	Average Employment	Total Wages	Average Weekly Wages
Private Sector	538	9,584	$360,207,918	$723
Goods-Producing	108	3,360	$156,401,462	$895
Natural Resources and Mining	19	182	$6,991,695	$740
Construction	48	376	$17,517,113	$895
Manufacturing	41	2,802	$131,892,654	$905
Service-Providing	431	6,224	$203,806,456	$630
Trade, Transportation and Utilities	145	1,710	$55,751,553	$627
Information	7	44	$1,091,494	$473
Financial Services	49	639	$41,545,730	$1,250
Professional & Business Services	60	764	$19,786,706	$498
Education and Health Services	63	1,779	$66,487,502	$719
Leisure and Hospitality	54	897	$9,584,408	$206
Other Services	54	390	$9,559,063	$471
Federal Government		48	$2,244,813	$901
State Government		66	$3,927,005	$1,144
Local Government		1,377	$49,286,986	$688

Source: ODSA Ohio County Profiles

Unemployment in Van Wert County has been decreasing in recent years with the highest rate over the past 5 years being reported in 2014 at 4.9% (see Table 1.5). In general, the County maintains unemployment rates below state averages.

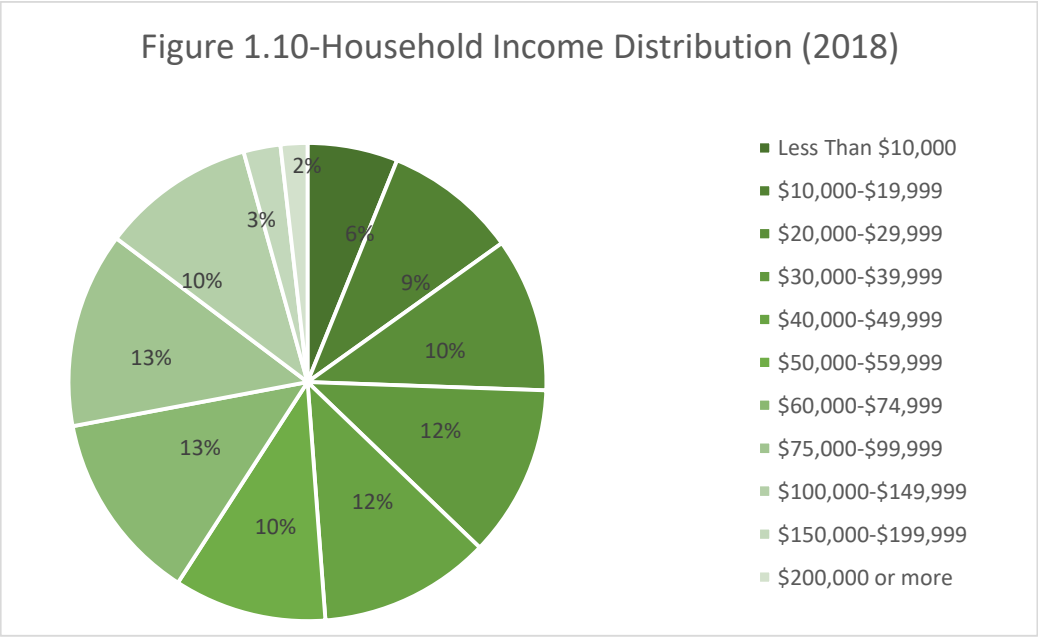
Table 1.5: Civilian Labor Force

	2014	2015	2016	2017	2018
Total labor force	14,400	14,300	14,300	14,500	14,400
Employed	13,700	13,700	13,700	13,900	13,900
Unemployed	700	600	600	500	500

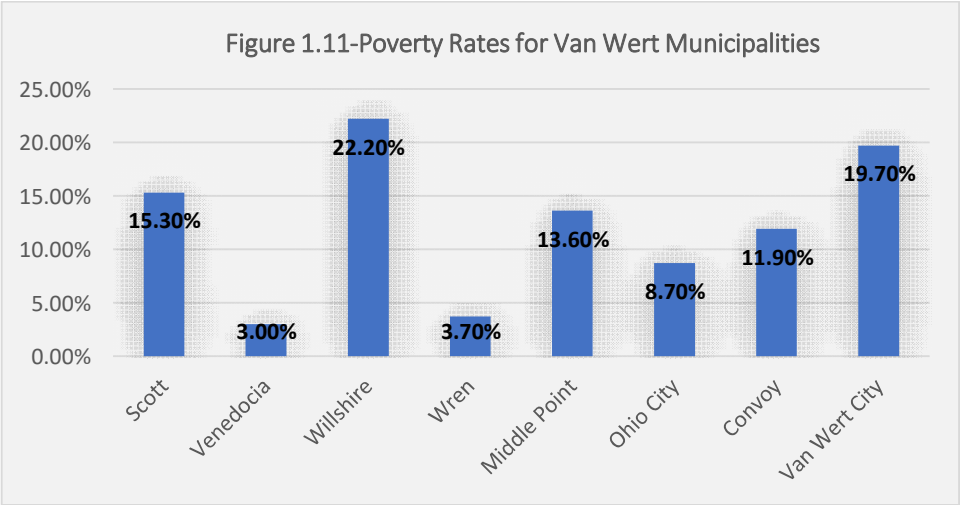
Unemployment Rate	4.9	4.2	4.0	3.9	3.5

Source: ODSA Ohio County Profiles

According to ODSA's County Profiles, the median household income in Van Wert County is $50,974, which is 2.7% lower than the state median household income of $52,407. Median household incomes for the villages are generally lower than the County income with the exception of the Villages of Convoy ($52,500), Middle Point ($58,500) and Venedocia ($53,750). Figure 1.10 below reveals the income distribution for the County.



The poverty rate for the County is 12.7% which is lower than the state poverty rate of 15.3%. Poverty rates in the municipalities are generally higher than the county and vary from 3.7% in Wren to 22.2% in Willshire as shown in Figure 1.11 below.



1.5 Utilities and Transportation

1.5.1 Transportation Networks

Roads

Van Wert County is served by 14 designated State and Federal highways making up approximately 160 miles of roadway, which is listed below:

US 30 is a limited access, divided highway that traverses east-west across the County and State. It serves as one of the main highways in and out of Van Wert County.

US 224 is an east-west route which traverses the entire county and connects to US 30 in Van Wert.

US 127 is a north-south route that traverses the entire county.

US 118 exits the City of Van Wert on the south side, where it traverses south into Mercer County.

US 33 generally traverses south-east, north-west through Willshire Township in Van Wert County and then into Indiana to the west and Mercer County to the south.

OH 49 traverses generally north-south through western Van Wert County through Willshire, Wren and Convoy.

OH 81 traverses in an east-west direction through southern Van Wert County, through Willshire and Elgin.

OH 637 enters northeastern Van Wert County and traverses in a north-south direction through Hoaglin and Jackson Townships.

OH 697 traverses in an east-west direction from its terminus at OH 116 into the City of Delphos in eastern Van Wert County.

OH 66 enters eastern Van Wert County traverses in a north-south direction, through the City of Delphos and into Allen County.

OH 116 traverses to the east out of the City of Van Wert until it reaches OH 697, whereby it travels in a generally south-easterly, northwesterly direction through Venedocia and south into Auglaize County.

OH 117 traverses east-west thorough Jennings Township in southeastern Van Wert County.

OH 709 traverses east-west from its terminus at OH 118 thorough Ohio City to Venedocia.

Van Wert County also has an extensive network of County and Township roads that make up an additional 840 miles of roadway.

Airports
Van Wert County has 1 airport that serves its municipal areas. The Van Wert County Regional Airport offers 2 runways and is located on the southwest of the City of Van Wert.

Railroads
The Chicago, Ft Wayne and Eastern Railroad runs west to east through the center of the County through Dixon, Convoy, Van Wert, Middle Point and Delphos with a spur to local industries in Van Wert.

1.5.2 Utilities

Electric, Telephone and Gas
Electric power for Van Wert County is provided by four utilities. Two of these utilities are investor owned and two are cooperatives. The following companies service Van Wert County's electricity: Dayton Power & Light, AEP Power, Midwest Electric and Paulding-Putnam Electric. Telecommunications companies that serve Van Wert County include Spectrum, Frontier North, Century Link, Continental, TSC, Ottoville Mutual, Metalink, Watch Communications and TDS Telecom. Dominion Energy supplies natural gas and Van Wert Propane supplies propane gas in the County.

Water and Wastewater
The rural character of Van Wert County is evident, with 61% of housing units relying on groundwater from public and private systems for water, compared to 82.4% of the State of Ohio as a whole. Approximately 50% of the County residents rely on wells as a water source, compared with slightly over 15% of the State. Sixty percent of the housing units in the County rely on a public sewer for sanitary wastewater disposal, compared to 78% reported by the State. Households utilizing septic tank or cesspool sanitary wastewater disposal accounted for 40% of County units, a figure significantly higher than that reported by the State of Ohio (21.5%).

Municipal water and sewer service is provided to residents by the cities of Van Wert and Delphos and the Villages of Convoy, Ohio City, Middle Point and Willshire. Residents of the Villages of Scott, Wren, Venedocia and Elgin are currently served by private onsite wastewater treatment systems and drinking water wells. Below is a description of the respective public water and sewer facilities.

Van Wert
The City of Van Wert provides both water and sewer service to its residents. The current water treatment plant is designed to treat 4.5 MGD daily. Raw water is pulled from Town Creek and stored in one of the City's 3 reservoirs on the south side of the City before being treated. These reservoirs combined, hold 1,000,000,000 gallons of water. The system has 70 miles of water distribution main and 2 water storage towers with a total capacity of 900,000 gallons. The Van Wert water treatment plant is located at 1260 S. Washington Street, Van Wert, OH 45891, 419-238-1417.

The City's wastewater treatment plant has a treatment capacity of 4.0 MGD as well as an 8 MGD storm flow capability. The plant was expanded in 2000-2001 to accept the high storm flow produced by the city along with the average daily flow of sanitary sewage. The wastewater treatment plant is located at 7998

US 127, Van Wert, OH 45891, 419-238-9666.

Delphos

The Delphos Water System was created in 1896-97. In 1946 and 1947, the system was expanded with the inclusion of the north treatment facility. The future will bring a need for additional water supplies. In 1933, the average daily use in the City was just under 400,000 gallons per day. Current usage, by contrast, is approximately 1.0 MGD and growing. In 2006, the City constructed a new water treatment facility and reservoir. The new plant uses Lime Soda Ash filtration for softening and Granular Activated Carbon filtration for removal of organics, taste and odor. The new plant can produce up to 3.75 million gallons of water per day. The reservoir is located approximately 2 miles northwest of the City and holds 360 million gallons of water.

The City's original wastewater treatment plant was constructed in 1931 as a trickling filter treatment system. It has undergone several upgrades since and in 2005, the City began a wastewater treatment improvement project that now allows the community to adequately treat its high organic loadings, improve the effluent quality being discharged into Jennings Creek and meet upcoming Total Maximum Daily Loadings (TMDL's) for the Auglaize River Watershed.

The City of Delphos has combined sewer collection system, which means that the sanitary sewer and storm sewers are tied together throughout most of the City. The City incorporated a method of storm water collections via pump stations and holding basins into this system in order to reduce or eliminate storm sewer overflow events. These pump stations receive storm event waters and transfer the flow into a 2 million gallon retention pond located south of the wastewater plant and a 12.0 million gallon pond located on North Franklin Street. These basins allow the City to collect the combined storm/sewer water and hold it until the flow is down and then return it via pumps back to the plant for treatment.

Convoy

A water system was installed in 1943 and sewage system was installed in the 1930s. Since then, the water system was updated and brought up to EPA standards and a new wastewater treatment plant was constructed.

Water is furnished by the municipally owned water works. Water is pumped from three separate wells as needed to an overhead water tank of 100,000 gallon capacity. It is estimated 400,000 gallons per day are available with an average daily usage of 120,000 gallons. Water is treated with chlorine at each well site with distribution through four, six, and some eight-inch water mains.

The Village provides wastewater disposal services at the Wastewater Treatment Plant. The plant has been updated since it was constructed and the activated sludge facility has a capacity of 400,000 gallons per day. A recent upgrade added a sludge press.

Ohio City

The Village of Ohio City currently owns and operates a water distribution and treatment system that serves its residents. The current water treatment plant has the capacity to treat 0.338 MGD and was installed in

2010. The primary source of the public system's water supply is groundwater.

The Village currently owns and operates a public wastewater collection and treatment system. A new oxidation ditch treatment facility was installed in 2012.

Middle Point

Water is furnished to the Village of Middle Point's residents through a public water supply system, originally installed in 1936. Water is pumped from 2 wells and treated through a municipally owned water treatment plant. The plant produces approximately 50,000 gallons per day.

Middle Point's wastewater treatment facility was built in 1991. Wastewater collected from the Village is treated through a process of lagoons and clarifiers. Treated wastewater is stored in a large holding cell until it can be hauled away for disposal.

Willshire

Since the Village of Willshire could not meet the safe drinking water act of 1996 with their 1955 water treatment plant, the Village decided to build a new groundwater treatment plant. The 0.75 MGD water plant began operation in November 1998 and is somewhat experimental/innovative in nature. Water is supplied to the population through metered service connections.

The Village currently owns and operates a wastewater treatment and collection system that was built in 1987 and 1988. Wastewater treatment is provided via lagoons.

Scott

Residents in the Village of Scott are served by individual onsite wastewater treatment systems and private wells. A recently completed feasibility study revealed that it is not financially feasible to install a public sewer system in the Village.

Wren

Residents in the Village of Wren are served by individual onsite wastewater treatment systems and private wells. A recently completed feasibility study revealed that it is not financially feasible to install a public sewer system in the Village.

Venedocia

Residents in the Village of Venedocia are currently served by individual onsite wastewater treatment system and private drinking water wells.

Elgin

Residents in the Village of Elgin are currently served by individual onsite wastewater treatment system and private drinking water wells.

1.6 Jurisdictions

Van Wert County is comprised of 2 cities, 8 villages, 12 Townships and 15 unincorporated communities. The City of Delphos and the Village of Scott each span 2 counties. In such an instance, the Emergency Management Director may elect to participate in either County Plan. The City of Delphos has elected to participate in the Hazard Mitigation Plan for Allen County and the Village of Scott has elected to participate in the Hazard Mitigation Plan for Paulding County. Given that these municipalities will not be included in Van Wert County's Plan Update, they will not be discussed further. Below summarizes the demographic information for the individual municipalities. Township and unincorporated community data is reflected in the overall county data.

Van Wert

The City of Van Wert began its history in 1834 when James Wilson Riley bought 240 acres of land for the location of a town in the center of the county. In 1838, the City of Van Wert was named as the county seat. The transcontinental road referred to as Lincoln Highway connected the entire county to the city of Van Wert's Main Street. In 1903, Van Wert was chartered as a City and established a Mayor/Council form of government, with both mayor and council members serving four years.

While Van Wert is set apart from urban commotion, a network of major highways connects the city with many metropolitan areas. Included are five U.S. and state highways – US Highway 30, 127 and 224 and State Routes 116 and 118. Van Wert is served by Chicago, Ft Wayne and Eastern Railroad, six truck lines and four freight terminals. The Van Wert Municipal Airport is equipped with a 4,000-foot runway, which features pilot controlled lighting and a GPS approach system. Table 1.6 shows the basic demographic information for Van Wert.

Van Wert is home to The Brumback Library, which was the First County Library in the United States, opening its doors in 1901. The City is also home of the Wassenberg Art Center and the award-winning Van Wert Civic Theater. Van Wert also prides itself with having a 1,200 seating capacity state-of-the-art Performing Arts Center located on State Route 118 in conjunction with Van Wert City Schools.

Table 1.6-Van Wert Demographic Data (2018)

Land Area	7.4 square miles
Population	11,077
White	10,546 (95.2%)
Black or African American	247 (2.2%)
Other	118 (1.0%)
Two or more races	166 (1.4%)
Hispanic or Latino	496 (4.4%)
Number of Households	5,094
Persons per household	2.11
Median Household Income	$43,635

Persons below Poverty level	1,900 (17.8%)
Median Age	47.1

Convoy

The Village of Convoy was established as a small hamlet near the edge of the Black Swamp of Northwest Ohio in 1854, finally incorporating in 1874. The earliest land entries of the township were in the late 1830's. The Convoy area was part of the last "frontier" of Ohio. The Black Swamp proved to be a challenge to tame, but became attractive for settlement because the land was less expensive than even "out west" in Illinois.

The impetus for growth in the community centered on the building of the railroad through the County. The completion of the Pittsburgh, Fort Wayne and Chicago Railroad in 1855 opened up transportation to the township. Settlement moved from an area along an old Indian trail to a place near the railroad, and Convoy was formed, being incorporated in 1874. Convoy gradually changed from merely a lumbering center and a railroad town to a farming community, becoming the center for the milling of grain and supporting stores and shops. Following World War I, Convoy consolidated its business community and prepared for the future needs and demands of a changing society. The Village was named after Convoy, Ireland, the native home of one its first settlers.

The Convoy Opera House was recently refurbished and now offers entertainment. A Branch of the Brumbach Library is also located in the Village.

Table 1.7: Convoy Demographic Data (2018)

Land Area	0.6 square miles
Population	1,125
White	1,091 (97.0%)
Black or African American	0
Other	16 (1.4%)
Two or more races	18 (1.6%)
Hispanic or Latino	34 (3.0%)
Number of Households	511
Persons per household	2.20
Median Household Income	$55,833
Persons below Poverty level	117 (10.4%)
Median Age	35.9

Ohio City

The Village of Ohio City is located in the south-central part of Van Wert County. The Village was platted on March 4–8, 1876 by Butler, Patterson & Company as Van Wert Junction. On June 1, 1882, a vote was taken to change the name to Enterprise, which soon became a source of confusion for the US Post Office, because another town with the same name was located in Pickaway County, Ohio. The town council met on June

1, 1890, and a man by the name of Lewis J. Kiggins brought up the subject, and suggested Ohio City. The vote was taken and Ohio City became the new name.

In 1910, Ohio City was a very prosperous town. Being on the junction of several major railroads, its importance allowed it to sport three churches, one union school, two dry goods stores, two hardware stores, one clothing store, two millinery establishments, three hotels, three restaurants, one bakery, four saloons, two shoe shops, one tailor shop, one silversmith shop, one slack barrel factory, one lumber yard, two blacksmith shops, two elevators, one tile factory, one lumberyard, one beet dump, two sawmills, one harness shop, one ice-making house, and three railroads all using the centrally located Union Depot. Ohio City has seen three bank robberies in its history, in 1925, 1930, and 1996.

John William Lambert of Ohio City developed America's first gasoline powered automobile, dubbed the "horseless carriage", in 1891. Later that year, Ohio City became the scene of the first automobile accident in the United States when Lambert's car struck a tree stump in the road and bounced into a hitching rack.

The Village is home to a branch of the Brumback Library hosts the annual "Lambert Days" Festival each July.

Table 1.8: Ohio City Demographic Data (2018)

Land Area	0.5 square miles
Population	833
White	816
Black or African American	0
Other	12
Two or more races	5
Hispanic or Latino	43
Number of Households	379
Persons per household	2.2
Median Household Income	$45,917
Persons below Poverty level	72 (8.6%)
Median Age	37.5

Middle Point

The Village of Middle Point is located on the east side of the county between the cities of Van Wert and Delphos. The Village was platted in 1852 on land belonging to S.B. Sykes and H.N. Sykes. The Village was incorporated on September 9, 1874 and was known as Sykestown. The name Middle Point came about when a passenger riding on the train through the village asked just where they were. The conductor's reply was that they were at about the middle point between Van Wert and Delphos, thus, the name Middle Point.

Table 1.9: Middle Point Demographic Data (2018)

Land Area	0.6 square miles
Population	525
White	511 (97.3%)
Black or African American	14 (2.7%)
Other	0
Two or more races	0
Hispanic or Latino	11 (2.1%)
Number of Households	238
Persons per household	2.21
Median Household Income	$58,500
Persons below Poverty level	39 (7.4%)
Median Age	39.3

Wren

The Village of Wren is located in southwest Van Wert County. The Village was established in 1883. A branch of the Brumback Library is also located in the Village.

Table 1.10: Wren Demographic Data (2018)

Land Area	0.3 square miles
Population	110
White	110 (100%)
Black or African American	0
Other	0
Two or more races	0
Hispanic or Latino	12 (10.9%)
Number of Households	62
Persons per household	1.77
Median Household Income	$40,000
Persons below Poverty level	5 (4.5%)
Median Age	57.9

Willshire

The Village of Willshire is located near the Indiana border in western Van Wert County. It was established in 1822 by Captain James Riley and is named for William Willshire, an Englishman that saved Captain Riley while he was held captive in Africa. The Village served as the first county seat for Van Wert County until 1838 when it was moved to Van Wert. A replica of the first courthouse sits in the Village park.

Table 1.11: Willshire Demographic Data (2018)

Land Area	0.4 square miles
Population	399
White	388 (97.2%)
Black or African American	0
Other	2 (<1%)
Two or more races	9 (2.3%)
Hispanic or Latino	2 (<1%)
Number of Households	160
Persons per household	2.5
Median Household Income	$43,750
Persons below Poverty level	83 (20.8%)
Median Age	43.5

Venedocia

The Village of Venedocia is located in the southeast portion of Van Wert County. The Village was first settled around 1848 after William Bebb from Wales, who was then Governor of Ohio, and his cousin toured Van Wert and Allen Counties where they bought land for settlements. The settlements began to grow and develop with the erection of flour mills. In 1861 D.W. Evans, a son-in-law of Mr. Bebb, took possession of the portion of land now occupied by Venedocia. In 1863 Mr. Evans sold the first lot for building purposes to Mr. W. E. Jones, who immediately erected a frame building. The next lot was sold to two gentlemen who erected a storeroom and engaged in the mercantile business. In 1875, Mr. E.B. Evans made a survey and sold some lots upon which several fine dwellings were erected. There were 16 lots staked at this time. By 1897 there were 73 lots and the townspeople began talking about incorporation. On September 7, 1897 Venedocia was recorded as an incorporated town with at that time a population of between two and three hundred people. Today, the Village hosts annual cultural events including the Saint David's Day dinner and Gymanfa Ganu, a Welsh festival of song.

Table 1.12: Venedocia Demographic Data (2018)

Land Area	0.1 square miles
Population	142
White	135 (95.1%)
Black or African American	0
Other	0
Two or more races	7 (4.9%)
Hispanic or Latino	0
Number of Households	55
Persons per household	2.6
Median Household Income	$46,964

Persons below Poverty level	10 (7.1%)
Median Age	31.1

Elgin

The Village of Elgin is located in southeast Van Wert County.

Table 1.13: Elgin Demographic Data (2018)

Land Area	0.8 square miles
Population	112
White	107 (5.5%)
Black or African American	0
Other	2 (1.8%)
Two or more races	2 (1.8%)
Hispanic or Latino	3 (2.7%)
Number of Households	47
Persons per household	2.4
Median Household Income	$48,125
Persons below Poverty level	13 (11.8%)
Median Age	50.0

1.7 Planning Process

Authority

The Van Wert County Hazard Mitigation Plan is a multi-jurisdictional plan that details the natural hazards that threaten the county and its municipalities. The plan fulfills the requirements set forth by the Mitigation Act of 2000 (DMA 2000) requiring counties to formulate a hazard mitigation plan in order to be eligible for mitigation funds made available by the Federal Emergency Management Agency (FEMA).

The first Hazard Mitigation Plan for Van Wert County was developed in 2007 and subsequently updated in 2014. For this 2020 update, a kick-off meeting with potential stakeholders was held in December 2019, where 17 individuals were in attendance. The final stakeholder committee came together for the first meeting in January 2020. The process for the plan development followed by the stakeholder committee is summarized below.

Scope

The Van Wert County Hazard Mitigation Plan includes all incorporated and unincorporated areas in Van Wert County with the exception of the City of Delphos which is included in the Allen County Hazard Mitigation Plan and the Village of Scott, which is included in the Paulding County Hazard Mitigation Plan. The plan addresses all natural hazards identified by FEMA and the Stakeholder Committee with input from the general public. All hazards that may affect the County and its residents have been analyzed. Hazard

mitigation strategies are discussed in terms of general activities and mitigation action items. Responsibility for implementation of strategies is discussed and possible funding sources are identified. The plan is one of many steps Van Wert County may take to protect the welfare of its residents and businesses in order to reduce the long-term risk to human life and property before, during and after a natural disaster occurs.

Plan Development

The Great Lakes Community Action Partnership (GLCAP) was hired to develop the Plan Update for Van Wert County. GLCAP coordinated with County representatives regarding the planning process, schedule and development of the planning committee in November 2019. The Van Wert County EMA director prepared and sent out the invitations for the kick-off meeting. All meetings were announced via email.

A kick-off meeting was held on December 5, 2019 at the Van Wert County Commissioners Office. There were 17 persons in attendance representing County agencies, Township Trustees and local governments. The purpose of the meeting was to introduce the project to the stakeholders and discuss the planning process. Planning Committee Meetings were subsequently held on January 10, 2020 and February 6, 2020. The project was also discussed at meetings of the County Commissioners and other municipalities which are held regularly and open to the public.

The planning committee was responsible for reviewing and updating the HIRA and Vulnerability Assessment, analyzing and updating the Hazard Mitigation Strategy, including goals, objectives and actions and reviewing and updating the plan update process. The members of the Stakeholder Committee are found in Table 1.14 below.

Table 1.14: Hazard Mitigation Plan Update Committee

NAME	POSITION / TITLE	JURISDICTION
Rick McCoy	Director	Van Wert County EMA
Steve Kouts	Citizen	General Public
Marcie Clement	Council Member	Village of Venedocia
Josh Hoehn		Village of Middle Point
Kim Brandt	911 Operations	County
Stacy Adam	Director	Van Wert Area Economic Development
Erinn Sellers	Director	Van Wert Jobs and Family Services
Jeanette Ford	Administrator	Van Wert Health Department
Todd Wolfrum	Commissioner	Van Wert County Commissioners
Ryanne Bollenbacher	Clerk	Van Wert County Commissioners
Bill Tumbleson	Council Member	Village of Wren
Jay Fleming	Safety Service Director	City of Van Wert
Katie Hughes	Administrative Assistant	Van Wert County Commissioners
Stan Owens	Commissioner	Van Wert County Commissioners
Mark Klausing	Chair	Van Wert CERT
Jack Brown	Mayor	Village of Ohio City
Joe Ruwoldt	Council Member	Village of Ohio City
Brenda Mengerink	Mayor	Village of Middle Point

Cathie Malone	Director	Van Wert Regional Planning
Craig Staley	Chairman	Representing Van Wert County LEPC
Curtis E Young		OSU Extension
Rex Marbaugh	Trustee (Liberty Township)	Representing Township Trustee Association
Timothy Bolenbaugh	Mayor	Village of Convoy
Joseph L Thompson	Mayor	Village of Elgin
Vernon Hobbs	Mayor	Village of Venedocia
Amos Stauffer	Mayor	Village of Willshire
Monica Davis	Mayor	Village of Wren

Each member of the planning committee participated in the revision process by reviewing and commenting on the hazard analysis, risk assessment and vulnerability assessment, the mitigation strategy and the update/revision process in the existing plan. The Committee was also responsible for facilitating completion of the public interest surveys by sharing hard copies with members, clients and constituents and on social media and websites where appropriate. Member comments are integrated into this Plan update, where appropriate.

Additionally, adjacent counties were invited to participate in the planning process. Invitations were sent to: Paulding EMA, Putnam EMA, Allen EMA, Auglaize EMA and Mercer EMA announcing the Plan update and representatives were invited to attend and participate in the process. A representative from Mercer County EMA attended the kick-off meeting in December. No other counties participated.

Other interested parties invited to participate include: Northwestern Ohio Community Action, Van Wert United Way, Public Transit, Local Schools, Board of Developmental Disabilities and Habitat for Humanity. No representatives from these groups participated.

Public Outreach and Other Stakeholder Involvement

The committee meetings that occurred were by email invitation. An online public interest survey was developed and kicked off In February 2020. Notice of the availability of this survey was widely published on the county and local jurisdiction's social media and websites. GLCAP coordinated with the Township Trustees Association to disseminate surveys amongst the membership. Additional surveys were directly emailed to local businesses and other county agencies and non-profit organizations. Surveys were collected between February and June 2020. Forty-eight surveys were received with 63.8% of respondents reporting they have been impacted by a natural disaster. Tornadoes and other windstorms along with snow and ice storms were the most commonly reported events. Power loss and building damage were the most commonly reported impacts of these events. A summary of the survey responses can be found in Appendix B.

The first official meeting of the Planning Committee was held on January 10, 2020 at the Van Wert County Commissioners Offices. At this meeting, the plan committee reviewed and discussed the Memorandum of Agreement for a Multi-jurisdictional Plan, discussed and approved a community outreach strategy and reviewed the most recent demographic data for the County and its jurisdictions.

In February, the planning committee reviewed and updated the risk assessment from the previous plan. National Oceanic and Atmospheric Administration (NOAA) data was reviewed and local representatives from each jurisdiction provided information on hazards, risks and vulnerabilities of their respective municipalities. The committee identified and ranked county-wide hazards based on the following criteria: location, extent, previous occurrences and probability of future occurrences. The results of this ranking can be found in Appendix C. Each municipality individually ranked hazards and identified vulnerabilities that impact their respective jurisdictions. The online public interest survey was reviewed and methods of dissemination were discussed. GLCAP posted the surveys online and sent out the link to be shared.

Due to the COVID-19 pandemic that struck the country in March 2020, the planning committee was unable to meet in person to develop and prioritize mitigation strategies. An online survey of potential mitigation activities was developed by GLCAP and sent to the planning committee members and County jurisdictions. Individuals were asked to identify the strategies they felt would provide the biggest benefit to Van Wert County in terms of reducing real impacts from natural disasters and then prioritize those activities in terms of importance to the county and the individual jurisdictions. The results of this activity can be found in Appendix D. Mitigation strategies were developed around the highest priority items as discussed in Section 3.0.

Table 1.15 summarizes the participation by each jurisdiction in the planning process:

Table 1.15-Plan Participation by Jurisdiction

Jurisdiction	12/5/19	1/10/20	2/6/20	4/29/21	Other*
Van Wert Co	X	X	X	X	X
Van Wert		X	X		X
Convoy					X
Middle Point	X	X	X		X
Ohio City		X	X		X
Elgin					X
Wren	X			X	X
Venedocia	X				X
Willshire					X

*Includes participation by surveys, emails and/or phone calls

A public notice announcing the availability of the Plan Update for public review and comment was advertised in the Times Bulletin on September 10, 2021. The plan was hosted on the GLCAP website from 9/14/2021-10/1/2021. A comment form was provided to receive public comments. A link to the website was posted on the Van Wert County EMA website as well as all jurisdictions websites where available. Printed copies of the Plan Update were made available at the County EMA office, County Commissioners Office and all branches of the Brumback public library during the comment period. All individuals that attended Hazard Mitigation Plan meetings or who asked to be notified and provided and email address were e-mailed a copy of the plan for review. The comment period closed on October 1, 2021. GLCAP presented the plan update at a regularly scheduled meeting of the County Commissioner on 9/14/2021 and hosted an open house event on 9/29/21 at the county commissioner's office. One person attended the open house. The County did not receive any comments on the Plan Update. Following final federal

approval, a copy of the final report will be made available to all interested parties including all municipalities in Van Wert County and neighboring jurisdictions.

1.8 Integration with Existing Plans

Neither the County nor its jurisdictions have comprehensive land use or other plans that direct development. Each entity has formally adopted floodplain regulations by Resolution or Ordinance and update them as new maps are released. All jurisdictions in Ohio follow the State Building Code. All health and safety regulations follow State law. The Hazard Mitigation Planning Committee, which has representatives from each jurisdiction and county offices, will incorporate appropriate elements of the Hazard Mitigation Plan as any local planning initiatives are developed or updated, and as a result of the planning process.

Below is a list of plans that are available in Van Wert County:

- Van Wert County Hazard Risk Assessment (2011)
    - The risk assessment was used to provide background information in developing the 2014 Plan Update.
- Van Wert County Mitigation Plan (2014)
    - This plan provides an update to prior plans
- Van Wert County Emergency Operations Plan-2021
    - The County will strive to include hazard mitigation actions into its emergency operations plan updates.
- Van Wert Area Economic Development Strategic Plan (2019-2024)
    - The EMA will work with Van Wert Area Economic Development to ensure that commercial development and industrial expansion does not occur in areas that are vulnerable to disruption or damage from hazards, ensuring resiliency in attracting, expanding and retaining businesses and industry.
- Van Wert County Health Department Emergency Operations Plan
    - The County EMA participates with the local health department during its emergency operations planning updates to ensure that hazard mitigation activities are considered when dealing with public health emergencies.
- Asset Management Plans of all public water systems in the county as required by Ohio EPA.
    - The current hazard mitigation plan considers actions to provide continued utility operations during a hazard event. The County can work with local jurisdictions to ensure these actions are part of their asset management programs. The county can also assist with the development of policies that can protect utilities and other critical infrastructure from the effects of hazards.
- Van Wert County and Local Floodplain Regulations
    - Each required entity has formally adopted floodplain regulations by Resolution or Ordinance and update them as new maps are released. The County floodplain manager and GIS coordinator are part of the County Engineer's office, as such, lenders and

developers work with the floodplain manager to ensure compliance with flood prevention regulations while the GIS specialist ensures maps are accurate and up to date. The County EMA can work with the floodplain manager to ensure continued NFIP compliance and provide public information and education.

In addition, the 2019 Ohio State Hazard Mitigation Plan was consulted to assist with background information and hazard identification.

Unlike larger counties in Ohio, Van Wert County and its jurisdictions have limited hazard mitigation capabilities. As of Spring 2005, all entities in Ohio follow the State building code. The County and all its jurisdictions are zoned. All jurisdictions with the exception of Washington Township follow the County zoning regulations. The Village of Middle Point, located in Washington Township, also follows the County zoning regulations. All health and safety regulations follow State law. Van Wert County and its jurisdictions have adequate resources to operate and maintain public facilities. However, considering the rural nature of the county, the County and its jurisdictions do not have much flexibility in financial assets to accomplish mitigation tasks on their own. Below is a summary of their capabilities:

Table 1.16: County and Jurisdiction Hazard Mitigation Capabilities

COMMUNITY	PLANNING COMMISSION	COMPREHENSIVE PLANS	FLOODPLAIN REGULATIONS	BUILDING CODES[1]	ZONING ORDINANCES	CAPITAL BUDGET[2]	PUBLIC WORKS BUDGET[2]
Van Wert County	YES	(none)	YES	YES	YES	(none)	Limited in-kind wages only.
City of Van Wert	(none)	(none)	YES	YES	YES	(none)	Limited in-kind wages only.
Village of Convoy	(none)	(none)	YES	YES	YES	(none)	Limited in-kind wages only.
Village of Ohio City	(none)	(none)	YES	YES	YES	(none)	Limited in-kind wages only.
Village of Middle Point	(none)	(none)	YES	YES	YES	(none)	Limited in-kind wages only.
Village of Willshire	(none)	(none)	YES	YES	YES	(none)	Limited in-kind wages only.
Village of Wren	(none)	(none)	YES	YES	YES	(none)	Limited in-kind wages only
Village of Venedocia	(none)	(none)	YES	YES	YES	(none)	Limited in-kind wages only
Village of Elgin	(none)	(none)	YES	YES	YES	(none)	Limited in-kind wages only

[1] All jurisdictions within the state now follow the State Building Code. (Ohio Administrative Code 4101:1.)
[2] Budget that would allow the jurisdiction to devote financial resources toward hazard mitigation activities

1.9 Plan Maintenance and Project Monitoring

The planning period for the Van Wert County Hazard Mitigation Plan is five years. This planning cycle is consistent with FEMA requirements. The Director of the Van Wert County Emergency Management Agency (herein after referred to as "Director") is solely responsible for the maintenance of the Hazard Mitigation Plan. The Director will facilitate a planning evaluation meeting with members of the Hazard Mitigation Planning Committee as needed, especially during periods following a disaster event, but at least annually. The Director will be responsible for contacting committee members and organizing the evaluation meeting. The meeting will be announced by invitation and advertised in advance by newspaper, postings and other media as appropriate. The Committee, at a minimum will consist of the following individuals:

- Van Wert County EMA Director
- Van Wert County Regional Planning Director
- Van Wert County Sheriff or representative
- Van Wert County Commissioner or representative
- City of Van Wert Mayor or representative
- Village of Ohio City Mayor or representative
- Village of Wren Mayor or representative
- Village of Vendocia Mayor or representative
- Village of Willshire Mayor or representative
- Village of Convoy Mayor or representative
- Van Wert County Engineer or representative
- Local Fire Departments

The Committee will utilize these meetings to evaluate the Hazard Mitigation Plan and how disasters affected their respective jurisdictions during the period. Prior to the annual meeting, the committee members shall review their mitigation sections for any needed changes. Local Committee member representatives shall keep a log of natural disasters in their jurisdiction, including financial loss information, if available, to discuss at the annual meeting. After the meeting, the jurisdictions will adopt any changes made to the Plan.

The Director will regularly stay in contact with each jurisdiction in order to address preparation and education issues regarding hazard events within the County and its municipalities.

The Planning Committee led by the Director, will also be responsible for updating the Hazard Mitigation Plan before the five-year planning cycle expires. The Planning Committee will be responsible for developing a funding source, procurement of services and preparation of the scope of work for future plans, if necessary.

Continued Public Involvement

Any future Hazard Mitigation Planning Committee meetings will be advertised to the public by local media and public postings. The public is encouraged to attend and participate in any Plan updates. Additional surveys of residents will be utilized as needed as determined by the Director.

Copies of the updated Hazard Mitigation Plan will be available at each municipal office, the Van Wert County Commissioners Office and the Van Wert County Emergency Management Agency office.

2.1 OVERVIEW

Van Wert County is susceptible to hazards, both natural and man-made that impact the County and its municipalities. The County has experienced hundreds of events that has resulted in millions of dollars in damages but only limited physical injuries or loss of life. This risk analysis will identify those natural hazards that have affected the county in the past and will likely continue to affect Van Wert County and its jurisdictions in the future. According to the FEMA Local Hazard Mitigation Planning Handbook, the steps to conduct a risk analysis include:

1. Hazard Identification of type and extent
2. Identify community assets
3. Analyze risk by evaluating vulnerable assets, describing potential impacts and estimating losses for each hazard identified
4. A summary of each jurisdiction's vulnerability

2.2 Hazard Identification

Van Wert County is vulnerable to many hazards that disrupt life and property. Hazards may affect the County throughout the entire year. As part of this Plan Update, the planning committee developed a Hazard Risk Assessment, which identified 10 hazards that either have affected or may affect Van Wert County and its jurisdictions. These hazards were identified through a process that included planning committee input, public and stakeholder survey input, empirical data, historical occurrences and researching the susceptibility of locations within the County to individual hazards. Identified hazards were ranked and prioritized based on a pre-determined set of criteria. This criteria included location, extent and probability of future occurrence. Table 2.1 describes the scale used to score each hazard and Table 2.2 reveals the composite score and their respective rankings. Individual rating sheets can be found in Appendix C.

Table 2.1-Criteria for Risk Assessment

CRITERIA	LEVEL	SCALE	VALUE	WEIGHTING FACTOR
FREQUENCY	None	Community has never been impacted by an event	1	20%
	Low		2	
	Average		3	
	Excessive		4	
PROBABILITY	Unlikely	Less than 1% chance annually or recurrence interval of greater than every 100 years	1	30%

	Occasional	1-10% chance annually or recurrence interval of 11 to 100 years	2	
	Likely	10-90% chance annually or recurrence interval of 1-10 years	3	
	Highly Likely	90-100% chance annually or a recurrence interval of less than 1 year	4	
EXTENT (MAGNITUDE/STRENGTH BASED ON HISTORIC EVENTS OR FUTURE PROBABILITY)	Weak	Limited classification on scientific scale. Very few injuries, if any. Only minor property damage and minimal disruption on quality of life. Temporary shutdown of critical facilities	1	30%
	Moderate	Moderate classification on scientific scale, moderate speed of onset or duration of event. Minor injuries only. Property damages between 10-25% of property in affected area damaged or destroyed. Loss of services or complete shutdown of critical facilities for more than one day.	2	
	Severe	Severe classification on scientific scale, fast speed of onset or long duration of event. Multiple deaths/injuries possible. Property damages between 25-50% of affected area damaged or destroyed. Complete shutdown of critical facilities for more than 1 week.	3	
	Catastrophic	Extreme classification on scientific scale, immediate speed of onset or long duration of event, resulting in catastrophic damage and uninhabitable conditions. High number of deaths/injuries possible. More than 50% of property in affected area damaged or destroyed. Complete shut-down of critical facilities for 30 days or more	4	
LOCATION	Localized	Less than 10% of planning area or single point occurrence	1	5%
	Limited	10-25% of area affected or limited single point occurrence	2	
	Significant	25-75% of area affected or frequent single point occurrence	3	
	Extensive	75-100 of area affected or consistent single point occurrence	4	
WARNING TIME		More than 24 hours	1	5%
		12-24 hours	2	
		6-12 hours	3	
		Less than 6 hours	4	

DURATION	Less than 6 hours	1	10%
	Less than 24 hours	2	
	Less than 1 week	3	
	More than 1 week	4	

Table 2.2: Van Wert County Prioritized Hazards List

Rank	Hazard	Score
1	Tornado	313.6
2	Severe Storms-thunderstorms, lightening	304.6
3	Flooding	289.3
4	Severe Winter Weather	231.8
5	Drought	221.8
6	Extreme Temperatures	221.4
7	Hailstorm	203.9
8	Hazardous Materials Incident	158.9
9	Invasive Species	138.6
10	Earthquake	125.7

Hazards were also identified and ranked for Van Wert County's individual jurisdictions. This ranking utilized the same criteria set above and is shown in Table 2.3 below.

Table 2.3-Summary of Prioritized Rankings by Jurisdiction

	Tornados	Severe Storms	Flooding	Severe Winter Weather	Drought	Extreme Temperatures	Hailstorm	Hazardous Materials Incident	Invasive Species	Earthquake	Epidemic	Erosion	Wildfire	Dam Failure
Van Wert	195	245	210	215	195	195	180	145	135	135	145	n/a	n/a	Not rated
Convoy	570	685	415	595	365	380	415	260	100	n/a	495	120	n/a	n/a
Ohio City	230	255	120	245	250	210	230	220	165	135	230	n/a	n/a	n/a
Middle Point	220	230	260	375	n/a	280	255	250	n/a	140	195	100	100	n/a
Willshire	195	255	210	215	195	190	180	140	145	195	145	n/a	n/a	n/a

Venedocia	155	175	185	175	185	175	175	n/a	n/a	n/a	235	n/a	n/a	n/a
Elgin	260	260	100	260	120	255	100	160	100	100	180	100	n/a	n/a
Wren	190	300	250	255	185	185	225	200	240	n/a	300	n/a	n/a	n/a

The hazard identification process identified 14 hazards that could or have impacted Van Wert County and/or its jurisdictions. This update includes an in-depth analysis of all identified hazards except for erosion and wildfires. Due the limited mitigation resources available in the county, the plan committee opted to focus its efforts on those hazards that have the highest probability of occurrence and the greatest documented impact to people and property. Individually, these hazards may affect the County and its municipalities in varying degrees of severity, which will be addressed in subsequent sections of the Plan update.

The Risk Assessment further identified several hazards that have no applicability to Van Wert County and will not be considered further:

- Avalanche
- Coastal erosion
- Coastal storms
- Hurricane
- Land subsidence
- Tsunami
- Volcano

Disaster Declarations and Public Assistance

According to FEMA's website, the state of Ohio has received 57 federal disaster declarations since 1953, of these, Van Wert County was included in 13. The County has received 7 disaster declarations for severe storms, 2 biological, 2 for snow, 1 for hurricanes and 1 for tornados, as shown in Table 2.4 below. Since the previous plan update, the County has received 1 federal disaster declaration for the COVID-19 Pandemic. This declaration (DR-4507) was issued on March 31, 2020 and includes the entire state.

Table 2.4-Van Wert County Federal Disaster Declarations

Disaster Number	Declaration Date	Incident Type
DR-191-OH	4/14/1965	Tornadoes and severe storms
EM-3029-OH	2/2/1977	Snowstorms
DR-3055-OH	1/26/1978	Blizzards and snowstorms
DR-951-OH	8/4/1992	Severe storms, tornadoes and flooding
DR-1444-OH	11/18/2002	Severe storms and tornadoes
DR-1478-OH	7/15/2003	Severe storms and flooding
DR-1556-OH	9/19/2004	Severe storms and flooding
EM-3250-OH	9/13/2005	Hurricane Katrina evacuation
DR-1580-OH	2/15/2005	Severe winter storms flooding and mudslides
DR-3346-OH	6/30/2012	Severe storms

DR-4077-OH	8/20/2012	Severe storms and straight-line winds
EM-3457-OH	3/13/20-continuing	COVID-19
DR-4507-OH	3/13/20-continuing	COVID-19 Pandemic

In recent years, Van Wert County has also been included in 5 USDA disaster declarations for crop losses, including one presidential declaration, due to natural disasters as shown in Table 2.5 below.

Table 2.5: USDA Disaster Declarations in Van Wert County

Designation Number	Declaration Date	Incident Type
S-4447	6/18/19	Flooding, severe wind, tornadoes
S-4125	12/18/16	Drought
S-4131	5/24/16	Drought
S-3864	8/12/15	Excessive rain and flooding
S-3934	11/18/15	Excessive rain, flash flooding, flooding

Climate Change

Climate change describes a change in the average global or regional climate patterns such as temperature and rainfall, over a long period of time. The Earth's average temperature has risen by 1.5 degrees F and is projected to rise another 0.5-8.5 degrees F over the next 100 years. Even small increases in average temperatures can translate to large and potentially dangerous shifts in climate and weather patterns (https://19january2017snapshot.epa.gov/climatechange/climate-change-basic-information). The plan committee does not consider climate change in and of itself to be a natural hazard, however it is obvious that its impacts are felt due to increasing rain, snow, flooding and extreme temperature events over time.

Future Growth

Significant population growth is not expected to occur in Van Wert County. In general, population in the County and its jurisdictions is relatively stable and has trended toward decline during the past 100 years. In addition, ODSA population projections predict a continued downward trend in total population over the next 20 years as discussed in Section 1. Any potential future growth is anticipated to follow current and historic patterns and is not expected to contribute significantly to the impacts of hazard events in the County.

Critical Facilities

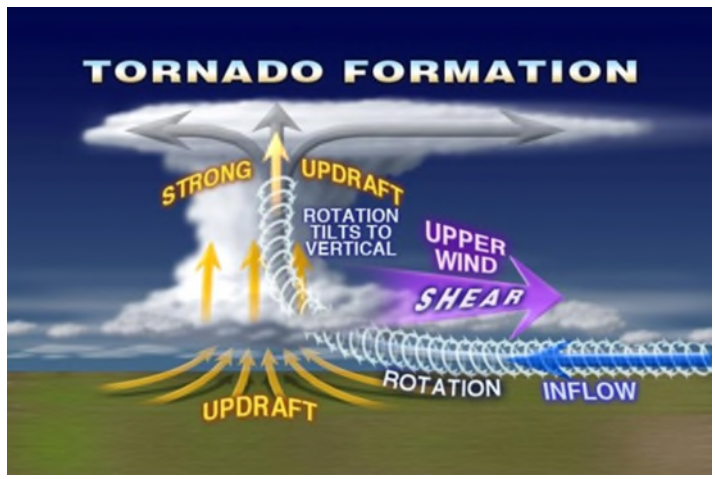
When assessing the impacts of natural disasters, one important factor lies in the vulnerability of critical facilities and their potential for being severely impacted by a disaster. Critical facilities are considered those that provide essential services to the community, such as hospitals, schools, fire departments, law enforcement offices and nursing homes as well as places where individuals might seek shelter during a hazard event. Protection of these facilities is identified as a goal of the Plan and mitigation activities are specified in Section 3.0. A list of critical facilities by jurisdiction can be found in Appendix E.

2.3 HAZARD DESCRIPTIONS

2.3.1 Tornados

The National Weather Service defines a tornado as a violently rotating column of air touching the ground attached to the base of a thunderstorm. A tornado is not necessarily visible; however, low pressure caused by high wind speeds and rapid rotation usually cause water vapor in the air to condense into cloud droplets, resulting in the formation of a visible funnel clouds. If these funnel clouds reach the ground, tornados will form, but not all funnel clouds evolve into tornados, sometimes making it difficult to tell the difference.

Figure 2.1: Formation of a Tornado



Source: www.mfhstornadoinfo.weebly.com/life-cycle.html

Tornados generally come from a class of thunderstorms known as supercells containing mesocyclones-an area of organized wind rotation a few miles up in the atmosphere. These storms can also include very heavy rain, frequent lightning, strong wind gusts and hail. These tornados generally follow a recognizable life cycle that begins when increasing rainfall drags an area of quickly descending air that accelerates as it approaches the ground and drags the supercell's mesocyclone towards the ground with it. The next phase is the formation phase where the rotating cloud base lowers, becoming a funnel, that kicks up dust and debris as it reaches the ground. As the warm air feeding the tornado grows, it reaches the mature stage, lasting a few minutes to more than an hour and causes the most damage. Finally, the tornado enters the dissipation stage where the downdraft feeding the storm wraps around, choking off the air supply, weakening and ending the tornado. The dissipation phase generally only lasts a few minutes.

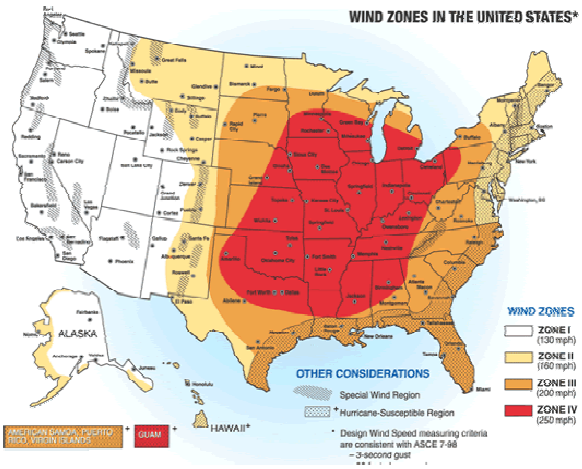
Tornado magnitude is measured using the Enhanced Fujita (EF) scale. The scale rates the intensity of tornados based on the damage they cause on a level of EF 0 to EF 5. The Enhanced Fujita scale replaces the Fujita scale that was developed by Theodore Fujita in 1971, being revised to better align wind speeds more closely with associated storm damages as shown in Table 2.6.

Table 2.6-Enhanced Fujita Scale

EF Scale	Wind Speed	Typical Damage
0	65-85 mph	Minor damage. Peels surface off some roofs; some damage to gutters or siding; branches broken off trees; shallow rooted trees pushed over.
1	86-100 mph	Moderate damage. Roofs severely stripped; mobile homes overturned or badly damaged; loss of exterior doors; windows and other glass broken.

2	111-135 mph	Considerable damage. Roofs torn off from well-constructed houses; foundations of frame houses shifted; mobile homes completely destroyed; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
3	136-165 mph	Severe damage. Entire stories of well-constructed houses destroyed; severe damage to large buildings such as shopping malls; trains overturned; trees debarked; heavy cars lifted off the ground and thrown; structures with weak foundations are badly damaged.
4	166-200 mph	Devastating damage. Well-constructed and whole frame houses completely leveled; some frame houses may be swept away; cars and other large objects thrown and small missiles generated.
5	>200 mph	Incredible damage. Well-built frame houses with foundations swept clean of debris; steel-reinforced concrete structures are critically damaged; tall buildings collapse or have severe structural deformations; cars, trucks and trains can be thrown up to 1 mile.

Figure 2.2: FEMA Wind Zones in the U.S.



Tornados are the most violent and unpredictable of atmospheric storms, capable of tremendous destruction with wind speeds of 250 mph or more. They are most hazardous in populated areas and can occur at any time of the day and during any season. Damage paths can be in excess of 1 mile wide and 50 miles long.

Local History

Ohio is located in the Zone IV wind zone according to the FEMA Wind Zone Map, shown in Figure 2.2, on the eastern edge of what is commonly known as "tornado alley". Although the number of tornados in Ohio does not rank high compared to some other states, the State does average 14 tornados per year. Ohio's peak tornado season runs from April through July, with most tornados occurring between 2 p.m. and 10 p.m. According to the Ohio State Hazard Mitigation Plan, the frequency of tornado activity varies greatly depending on which county you are in. The counties of Wood, Van Wert, Lorain, Richland and Franklin see the most frequent tornados, with Van Wert County having the highest occurrence of tornados in the state.

Historically, June is the month with the most tornado activity in Ohio. However, many of the State's major tornado outbreaks have taken place in April and May. However, history has shown that tornados can occur during any month of the year and at any time of the day or night, which has been the case in Van Wert County with a number of fall outbreaks, which usually occur between Labor Day and Thanksgiving.

Tornados are a county-wide hazard that can affect all areas and jurisdictions. However, according to the Tornado Tracks Map, shown in Figure 2.3, developed by the Ohio EMA from NCDC climatological data and found in the State of Ohio Hazard Mitigation Plan, a tornado of F3-F5 Intensity would typically travel from the southwest to the northeast through the heart of the County, making the City of Van Wert the most vulnerable population.

Figure 2.3-Ohio EMA Tornado Tracks Map

According to the *National Climate Data Center's (NCDC) Storm Events Database*, 36 tornado events were reported for Van Wert County between January 1, 1990 and June 22, 2018. Reported damages totaled $34,679,000 for these events, injuring 27 and killing 3. Most events were measured at magnitudes of EF 0-1, with 2 events measuring EF-4. These events occurred in 1992 and 2002.

Tornados are considered the most violent atmospheric phenomenon in the face of the earth. Many F0 and F1 tornados have touched down in Ohio, but Ohio has also been struck by some of the most destructive (F5) tornados ever, including the April 13, 1974 tornado which devastated the City of Xenia, killing over 30 people and destroying 2,000 buildings. Also, on November 10, 2002, an F4 tornado struck the City of Van Wert, killing 2 people and causing over $50 million dollars in damages and other economic losses. This event is ranked among the top 10 tornados to ever hit the northeastern United States.

In 2010, there were 3 significant events where tornados severely impacted Ohio communities. The first occurred on June 5-6, whereby tornados moved through northern Ohio affecting the counties of Lucas, Fulton, Wood, Ottawa, Richland, Holmes and Tuscarawas. The second event occurred on September 16th, whereby 11 tornados were confirmed in Wayne, Holmes, Fairfield, Athens, Perry, Meigs, Delaware and Tuscarawas Counties. Finally, the third event occurred on October 27th, when a very intense area of low pressure pushed through the Great Lakes Region, with a strong cold front moving through the Ohio Valley. The National Weather service confirmed 8 tornados in Auglaize, Fayette, Franklin, Licking, Paulding, Pickaway and Van Wert Counties. The tornados ranged from EF0 to EF2 (Ohio Emergency Management Agency. *State of Ohio Hazard Mitigation Plan*, 2011. Found at http://ohiosharpp.ema.state.oh.us/OhioSHARPP/Planning.aspx#ehmp).

Since the previous plan update in 2013, Van Wert County has been struck by 7 tornado events, four of which were from the same event on 8/24/16.

August 24, 2016 Middlebury-EF1

A unique combination of extreme low-level moisture and a passing upper-level disturbance provided the trigger for severe storms. Eyewitness reports and an aerial survey by EMA indicated a funnel cloud was skipping along the storm path and occasionally touching down. First touchdown was in a cornfield just west of a residence on Convoy Heller Road. Several trees were uprooted and napped off while some roof and siding damaged occurred to a home. A large two-story garage/barn had mud thrown onto the eastern side of the building and a window was broken inward while a vent on the building was blown outward. The tornado continued skipping northeast hitting a large barn on US Highway 224. The roof of this building was blown off to the north. The tornado continued skipping northeast, knocking down trees, including a large pine tree in a cemetery where gravestones were also moved. Maximum winds were estimated at 100 mph. Damage amounts were not reported.

August 24, 2016 Convoy-EF0

This tornado was a secondary spin-up tornado from the same mesocyclone as the earlier EF1 tornado reported in Middlebury. Damage found from aerial survey by EMA was mainly crop damage to corn and beans. Damage amounts were not reported

August 24, 2016 Van Wert-EF0

Damage found from aerial survey consisted mainly of crop damage to corn and beans. The tornado skipped once in the middle of this path. Maximum winds were estimated at 65 mph. Damage amounts were not reported,

August 24, 2016 Wetsel-EF0

Damage found from aerial survey consisted mainly of crop damage to corn and beans. Damage amounts were not reported.

June 22, 2018 Van Wert Circle-EF0

A frontal boundary resided across portions of northwestern Ohio, with several boundary interactions producing increased, but localized wind shears in excess of 30 knots. A brief tornado was observed by several residents and confirmed by drone survey. No damages were reported

August 11, 2021 Middle Point and Venedocia

On August 11, 2021, an EF-U tornado struck at 3 pm southwest of the Village of Middle Point and was on the ground for one & a half miles. A second EF-U tornado hit at the same time just east of the Village of Venedocia and was on the ground for a half mile in Van Wert County and continued on the ground into Allen County for another 4 miles. No structures were damaged during either event but crop damages were reported.

Probability of Future Occurrences

Tornados are non-spatial hazards and can occur whenever and wherever conditions are favorable and can affect all areas and jurisdictions of the County. They tend to occur primarily during the spring and summer but can develop at any time of the year. Because of these characteristics, it is difficult to predict the exact risk to the County and its jurisdictions. However, based on historical data, tornados are a significant hazard in the County, occurring on an almost annual basis, with 33 tornados having been confirmed from 1990-2016, ranging in intensity from F0-EF4, resulting in an average of 1-2 Tornado events per year. A summary of tornado events in the County since 1950 can be found in Appendix F.

Vulnerability Assessment and Loss Estimation

While tornados can cause significant damage to structural assets, it is almost impossible to predict vulnerability and damages due to the inherent characteristics of how and when tornados develop. Based on past events, some events are relatively minor and losses to the County have been negligible, limited primarily to vehicles and minor structural damages. However, other events are quite significant with considerable losses to buildings and equipment, and in some cases injuries and even deaths have occurred. Total reported damages since 1950 are $34,679,000, resulting in average annual losses of $495,000.

Using HAZUS property values as estimates, the potential building exposure for the county is shown in Table 2.7.

Table 2.7-Building Exposure by Occupancy for Van Wert County-Tornados

Building Type	Number of Structures	Value
Residential	4,500	$998,352,000
Non-Residential	402	$367,474,000
Critical Facilities	55	$74,439,000
TOTAL:	**4,957**	**$1,440,265,000**

2.3.2 Severe Storms

Van Wert County, like most communities in Ohio, is susceptible to severe storms. Severe storms likely to affect Van Wert County include hailstorms, windstorms, heavy rains and thunderstorms. These events often affect several individual locations during one event. Serious injury or death can occur during severe storms due to its affect on motor vehicle accidents, wind damage or other cascading effects. A severe storm may also result in moderate damage to private property and public facilities. One of the biggest concerns associated with severe storms is the lack of public education and awareness. Severe storms can do damage but are often the precursor for much more severe weather to follow. For example, there is a direct association between thunderstorms and tornadoes that may follow.

Thunderstorms

A severe thunderstorm is the result of a violent form of convection wherein cold, upper air falls and warm, moist air rises. As the warm air rises, cumulonimbus clouds can develop and turn into severe thunderstorms with strong winds, lightning, heavy rain and hail. Such storms can cause damage from wind, hail, heavy rainfall (including flooding) and/or lightning strikes. Thunderstorms are generally a seasonal hazard and can be expected to occur every year. According to the National Weather Service, the most active thunderstorm season in Ohio is late spring and early summer.

There are 3 stages in the life cycle of a thunderstorm: developing, mature and dissipating as shown in Figure 2.4. During the developing stage cumulus clouds are pushed upwards by a rising column of air (updraft). There is little to no rain during this phase but there may be occasional lightning. Thunderstorms enter the mature stage when the updraft continues to feed the storm and precipitation begins to fall creating a downdraft. As the downdraft and rain-cooled air moves out along the ground it forms a front or gusty line of winds. This is the stage where hail, heavy rain, frequent lightning, strong winds and tornados are most likely to develop. Eventually, a large amount of precipitation is produced and the updraft is overcome by the downdraft beginning the dissipation stage. On the ground, the front moves out a long distance from the storm and cuts off the warm moist air that was feeding the thunderstorm. At this point, rainfall begins to decrease but lightning remains a danger (https://www.nssl.noaa.gov/education/svrwx101/thunderstorms/).

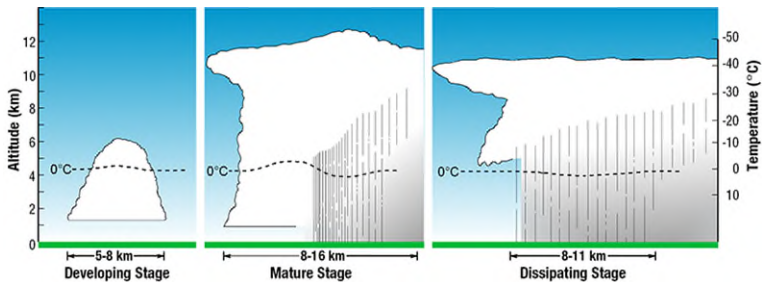


Illustration from The National Severe Storms Laboratory at https://www.nssl.noaa.gov/education/svrwx101/thunderstorms/

Figure 2.4: Formation of Severe Thunderstorms

Lightning

Lightning is a natural occurrence of electricity of very short duration and high voltage between a cloud and the ground and is a key component of thunderstorms. It is often accompanied by a bright flash and thunder. Tall objects such as trees, skyscrapers, utility poles and mountains are commonly struck by lightning, but lightning can also strike at ground-level, depending on where the electrical charges accumulate in the atmosphere.

Hail

Hail is a type of precipitation made of frozen rain which falls in showers from cumulonimbus clouds. The precipitation is made of hailstones or hard pellets of snow and ice that can vary in size from ¼ inch diameter (pea-sized) to 4 ½ inches (grapefruit-sized). If the air temperature close to the ground is warm, the hail can partially melt creating sleet or freezing rains. Hail is typically associated with severe thunderstorms and/or

severe winter storms. Hail can be very damaging to property, particularly cars and can be deadly to people and livestock. Hail that covers roadways is especially hazardous to drivers and pedestrians by creating an icy roadway much like winter weather events.

Windstorms

A windstorm is a storm marked by high winds or violent gusts, sometimes called wind shears or microbursts but with little or no rain. Extreme windstorm events are associated with hurricanes, severe thunderstorms and derechos-a widespread, long-lived, straight line windstorm associated with a land-based, fast-moving group of severe thunderstorms. Sustained wind speeds during a windstorm typically exceed 34 mph, generating much higher wind gusts. Windstorms may last for a few minutes when caused by downbursts from thunderstorms or they may last for hours to several days when they result from large-scale weather systems, caused by either large differences in atmospheric pressure across a region or strong jet stream winds overhead. Severe winter weather is frequently the cause of long-lasting windstorms as these low-pressure systems have large horizontal pressure differences and are always accompanied by strong jet-stream winds.

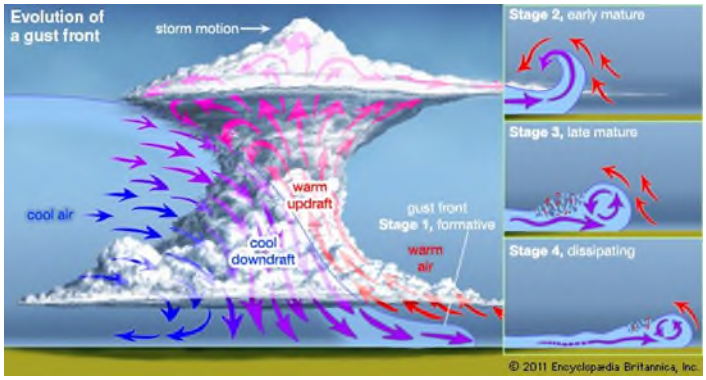


Figure 2.5: Development of a gust front from a thunderstorm

Source: www.britannica.com/science/windstorm

Severe storms are generally measured in terms of wind speeds, rainfall amounts or hail stone size and often occur simultaneously or in quick succession. A severe thunderstorm is generally determined by the storm being strong enough to inflict wind or hail damage. A severe thunderstorm watch is issued if wind speeds could reach 58 mph and/or produce hail that is 1-inch in diameter or greater is likely to develop. Another key ingredient that defines a thunderstorm is lightning. A storm is also considered severe if funnel clouds and/or tornados are produced, which was further discussed in Section 2.2.1. Rainfall rates greater than 2-inches per hour are also used to indicate severe storms. Heavy rains associated with severe storms primarily contribute to flooding which is discussed in Section 2.2.5 below.

Location

Severe storms can affect all areas and jurisdictions of Van Wert County, often striking multiple individual areas at the same time and can vary in intensity and type. For instance, a severe storm can produce thunderstorms in one area of the County with heavy rain and lightning, while at the same time, producing hail or high winds in another.

Past Occurrences

According to the National Climate Data Center's (NCDC) Storm Events Database, 254 storm events were reported for Van Wert County between 1962 and 2020. There were 179 thunderstorms; 1 lightning storm, 60 hailstorms that produced hail stones from 0.75 to 2 inches, and 14 windstorms with wind speeds between 40 and 60 knots. Total reported damages from these events were $1,301,500. A summary of these storm events can be found in Appendix F.

Since the most recent plan update in 2013, 27 thunderstorm events, 3 windstorms and 5 hailstorms have been reported by the *NCDC Storm Event Database* in Van Wert County. In 2014, 5 severe storm events were reported including 4 thunderstorm events and 1 windstorm. Each of these storm events produced high winds and 1 event produced large hail, causing power outages, downed trees and minor property damage. In 2015, there were six thunderstorm events producing damaging winds that occurred across several areas of the county, causing power outages, downed trees and minor property damages. In 2016 there was one severe storm event reported that produced thunderstorms and damaging winds that downed 4 trees on US 224 at Van Wert/Decatur Road. The downed trees also knocked down 4 power and utility poles, blocking US 224. In 2017, there were 11 severe storm events including 1 windstorm, 4 hailstorms and 6 thunderstorms. These storms produced severe thunderstorms, damaging wind gusts up to 45-60 mph, and 1-inch hail causing minor property damage, downed trees and power lines resulting in sporadic power outages. In 2019, 12 severe storm events were reported in the County including 10 thunderstorms, four of which were part of the same storm system that struck the county in various locations, 1 windstorm and 1 hailstorm. These events produced severe thunderstorms, damaging wind gusts up to 55 mph and 0.75-inch hail, causing downed trees and associated damages and other minor property damage. There was also a report of a semi-truck blown over on US 224.

Probability of Future Occurrences

Severe storms have been identified as a hazard in Van Wert County. Thunderstorms are generally a seasonal hazard and can be expected to occur every year to varying degrees. Based on past history, the County averages 5 severe storm events per year. Many of the thunderstorms impacting Van Wert County also produce damaging winds that lead to minor property damage. According to the National Weather Service, the most active thunderstorm season in Ohio is late spring and early summer.

Vulnerability Assessment and Loss Estimation

Much of the damages associated with severe thunderstorms include downed power lines, fallen trees and other debris that causes minor structural damage. In addition, damage to buildings and contents is also potentially high, due primarily to power surges associated with lightning strikes and debris scatter from falling trees and damaging winds. Based on past reported damages the average cost per event in Van Wert County is $5,124. Using HAZUS property values as estimates, the potential building exposure for the county is shown in Table 2.8.

Table 2.8-Building Exposure by Occupancy for Van Wert County-Thunderstorms

Building Type	Number of Structures	Value
Residential	2,175	$1,003,979,000
Non-Residential	1,001	$262,655,000
Critical Facilities	24	$61,684,000
TOTAL:	**3,199**	**$1,328,318,000**

Hailstorms are a significant hazard throughout all of Van Wert County. However, these events have historically caused little to no structural damage to the county's assets, except for a possible broken window, dented automobile or damaged heating/cooling equipment. Table 2.9 shows the potential for structural damages in the event of hailstorms.

Table 2.9-Building Exposure by Occupancy for Van Wert County-Hailstorms

Building Type	Number of Structures	Value
Residential	544	$251,037,000
Non-Residential	250	$65,675,000
Critical Facilities	6	$15,423,000
TOTAL:	**1,071**	**$332,135,000**

Damages associated with windstorms during the past 7 years include downed trees and power lines, power outages, minor property damages such as roof shingles being blown off and 2 incidents of semi-trucks being blown over. Table 2.10 below shows the total building exposure, based on HAZUS estimates, to Van Wert County.

Table 2.10-Building Exposure by Occupancy for Van Wert County-Windstorms

Building Type	Number of Structures	Value
Residential	4,092	$1,888,715,000
Non-Residential	1,047	$574,823,000
Critical Facilities	59	$154,724,400
TOTAL:	**5,198**	**$2,618,262,000**

2.3.3 Severe Winter Storms

A winter storm is a weather event in which a combination of heavy snow, blowing snow and/or dangerous wind chills affect an area. These storms can also produce high winds, sleet and ice. There are several types of winter storms including blizzards, ice storms, lake effect storms and snow squalls. Van Wert County can be impacted by winter storms in varying degrees from late fall to early spring.

A blizzard is a dangerous winter storm that includes a combination of blowing snow and wind gusts of 35 mph or more resulting in low visibilities. Sustained winds and visibilities of ¼ mile or less for at least 3 hours are required for an event to be considered a blizzard. Heavy snowfall and severe cold often accompany blizzards, but they are not required.

Lake effect storms form as cold, dry air masses move over the Great Lakes region, picking up moisture as it moves across the lakes. The heavy, wet air produces heavy snowfalls in areas generally to the south and east of the Lakes.

Snow squalls are brief, intensive snow showers generally accompanied by strong, gusty winds and significant snow accumulations.

Other forms of winter precipitation that can cause hazardous conditions include snow (flurries, showers or blowing snow), sleet and freezing rain and ice. A significant accumulation of freezing rain over several hours is considered an ice storm.

Winter storms are typically measured by the amount of precipitation (i.e., snowfall, freezing rain and ice), associated winds and extreme cold temperatures. Snowfall in excess of 6-inches is typically considered disruptive. Heavy showers of freezing rain and ice are one of the most dangerous types of winter storms, as little as 0.04 inches of freezing rain can paralyze a region making driving extremely hazardous, downing trees and damaging utility lines.

Location

A severe winter storm can affect the entire county at the same time, bringing virtually all County operations to a stand-still. Due to the rural nature of the region, Van Wert is highly vulnerable to the wide-ranging effects of snowstorms, blizzards, ice storms, and severe cold snaps. This type of hazard creates a difficult emergency response effort due to adverse road conditions, which impede or prohibit vehicle movement.

Van Wert County receives, on average, 31” of snowfall per winter. Driving is treacherous during winter storms as roadways freeze and become covered with snow and slush. During severe winter storms, heavy snow may cause property damage and power outages. Also, the adverse driving conditions may lead to additional property damage. Roads are sometimes blocked, stranding some rural residents from the incorporated areas where medical and other emergency services are located.

Past Occurrences

Research indicates that winter storms are the third leading weather threat in Ohio. The storms of 1950 and 1978 were of a duration that required extensive mass sheltering or statewide response and recovery efforts. Van Wert County received a Presidential Disaster Declaration during 1978 due to severe blizzard conditions.

According to the *National Climate Data Center’s (NCDC) Storm Events Database*, 28 winter weather events were reported for Van Wert County between January 1, 2014-September 30, 2020. These events ranged from winter storms, to extreme cold and heavy snow. A summary of historical winter weather events can be found in Appendix F.

In 2014, there were 8 winter weather events including 4 winter storms and 1 incident of extreme cold that lasted from January 6-7 with wind chills of 35-45 degrees below zero. Strong winds also caused blowing

and drifting of snow contributed to hazardous roads and several accidents and slide-offs were reported. Schools and businesses were closed during those 2 days. In 2015, there were 7 winter weather events including 1 incident of heavy snow and 1 incident of extreme cold temperatures. A heavy snowstorm on 2/1/2015 produced snow totals from 5-9 inches across the county and wind gust up to 25 mph, reducing visibilities and causing blowing and drifting snow. Numerous events were cancelled along with slide-offs and accidents due to snow covered and slick roads. Sporadic power outages were also reported. In 2016, 3 events of winter weather were reported with light to moderate snowfall, falling temperatures, blowing snow and some periods of freezing rain and sleet causing reduced visibilities and difficult driving conditions. There was 1 winter weather event reported in 2017. A wintery mix of snow, sleet and freezing rain with snow totals between 1-3 inches across the county, created slick roads. Several accidents were reported during this event. Two winter weather events were reported in 2018 bringing light freezing drizzle and moderate snow accumulations, leading to hazardous driving conditions and a few school delays and closings. In 2019, six winter weather events were reported including 1-storm event and 1 incident of extreme cold temperatures. These events brought in moderate snows, freezing rain and gusty winds. Wind chills associated with a cold front on 1/30-1/31 ranged between 25 and 45 degrees below zero. The coldest air temperature recorded was 18 degrees below zero in the City of Van Wert. One winter weather event was reported on 2/26/2020 that included periods of light to moderate snow and below freezing temperatures, creating difficult travel conditions.

Probability of Future Occurrences

Winter weather events in varying degrees are an annual occurrence affecting Van Wert County and its jurisdictions. Based on past history, the County can expect to experience at least 2 winter weather events per year.

Vulnerability Assessment and Loss Estimation

Damage as a result of winter storms often is associated with snow and ice weight, leading to the downing of trees and utility poles, roof damages, power outages, etc. as well as those associated with hazardous driving conditions. Extreme cold temperatures and blizzard conditions can lead to personal injuries such as hypothermia, frostbite or even death. These events have not historically caused wide-spread property damage in Van Wert County but have caused significant disruption to daily life due to repeated power outages and treacherous road conditions.

Based on reported data, real property damages are relatively low, averaging $4,208 per year due to winter weather events. Based on the HAZUS estimates for the county, the total exposure is shown in Table 2.11 below:

Table 2.11: Building Exposure by Occupancy for Van Wert County-Severe Winter Storm

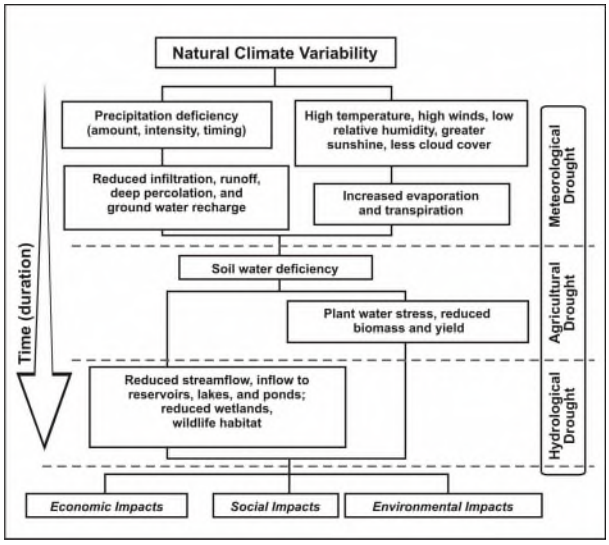
Building Type	Number of Structures	Value
Residential	8,000	$1,774,848,000
Non-Residential	2,150	$432,332,000
Critical Facilities	116	$136,638,000
TOTAL	10,266	$2,343,818,000

2.3.4 Drought and Extreme Heat

Drought occurs when there is below-average precipitation over an extended period, affecting hydrological and agricultural concerns. Drought is equally as likely to occur in one area of the county as any other. The effects of drought vary greatly depending on several factors including land use (agricultural production vs. urbanization), economy (how dependent is the community on agricultural production), geology (presence of aquifers or ground water sources that limit well production) and water source (public water systems vs. private wells or cisterns) (*Ohio State Hazard Mitigation Plan, p.221).*

There are generally 4 types of drought: meteorological, hydrological, agricultural and socio-economic. Hydrological and agricultural droughts are most common in Van Wert County, often occurring simultaneously.

Figure 2.6: Drought Cycle



Source: https://drought.unl.edu/Education/DroughtIn-depth/TypesofDrought.aspx

Meteorological drought is the departure of precipitation from normal that causes two other types of drought that negatively affect an area. Hydrological drought occurs when below average amounts of precipitation affects the water table, potentially affecting drinking water supplies. Agricultural drought occurs when there is not enough soil moisture to support crop growth or good pasture conditions. Socioeconomic drought considers the impact of other drought conditions on the supply and demand of some goods such as fruits, vegetables, grains and fruits. Socioeconomic drought occurs when the demand for these goods exceeds the supply as a result of a weather-related deficit in water supply (www.weather.gov). Figure 2.6 shows the drought cycle and the relationship between the different types of drought.

Drought is typically measured using the Palmer Drought Severity Index (PDSI). The PDSI was developed by meteorologist Wayne Palmer in 1965 and is a measurement of dryness based on recent precipitation and temperature. The index is based on a supply and demand model of soil moisture, taking into account more than just temperature and precipitation at a specific location. The index has proven effective in determining long-term drought, but is less reliable in determining short-term drought conditions (*Source: https://en.wikipedia.org/wiki/Palmer_drought_index)*. The PDSI is used by State and Federal agencies to determine the need for drought relief programs. See Table 2.12 for the PDSI Classifications.

Table 2.12-Palmer Drought Severity Index Classification

4.0 or more	Extremely wet
3.0 to 3.99	Very wet
2.0 to 2.99	Moderately wet
1.0 to 1.99	Slightly wet
0.5 to 0.99	Incipient wet spell
0.49 to -0.49	Near normal
-0.5 to -0.99	Incipient dry spell
-1.0 to -1.99	Mild drought
-2.0 to -2.99	Moderate drought
-3.0 to -3.99	Severe drought
-4.0 or less	Extreme drought

Extreme heat is defined as temperatures hovering 10 degrees or more above the average high for a region that lasts for several weeks. Humid or muggy conditions, which add to the discomfort of high temperatures, occur when a dome of high atmospheric pressure traps hazy, damp air near the ground. Excessively dry and hot conditions can provoke dust storms and low visibility. Droughts occur when a long period passes without substantial rainfall. A heat wave combined with a drought is a very dangerous situation.

Extreme heat can have devastating consequences. It is hard to quantify the exact total number of deaths associated with a heat wave as there are a number of other health risks to individuals associated with exposure to excessive heat, particularly in vulnerable populations such as the homeless, children, the elderly and those who work under extreme conditions. Table 2.13 below defines these risks and some of the symptoms associated with each health risk.

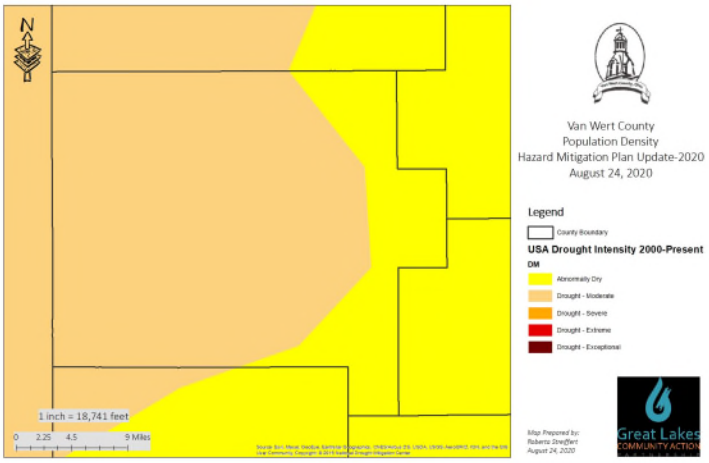
Table 2.13-Health Risks associated with Extreme Heat Conditions

Health Hazard	Symptoms
Sunburn	Redness and pain. In severe cases: swelling of skin, blisters, fevers and headaches.
Dehydration	Excessive thirst, dry lips and slightly dry mucous membranes
Heat Cramps	Painful spasms, usually in muscles of legs and abdomen and possible heavy sweating
Heat Exhaustion	Heavy sweating; weakness; cold, pale and clammy skin; possible fainting and vomiting
Heat Stroke	High body temperature (104°F or higher), hot and dry skin, rapid and strong pulse and possible coma

Agricultural losses to crops and livestock would primarily be affected during periods of drought and adverse health conditions in individuals are primarily associated with extreme heat conditions.

Past Occurrences

Figure 2.7-USDA Drought Intensity Map (2010-Present)



All areas of Van Wert County are equally susceptible to drought conditions during the summer and autumn months due to the significant lack of rainfall and/or other precipitation. These drought conditions often affect local farmers, both commercial and family farmers as well as local water supplies where wells can run dry and rivers run low forcing public water supplies to decrease. According to the USDA Drought Intensity Map, Van Wert County has been in a period of abnormally dry to moderate drought conditions since 2010 as shown in Figure 2.7. Extended widespread droughts and extreme heat conditions are fairly infrequent in Van Wert County; however, brief local events are common and can be severe in some cases.

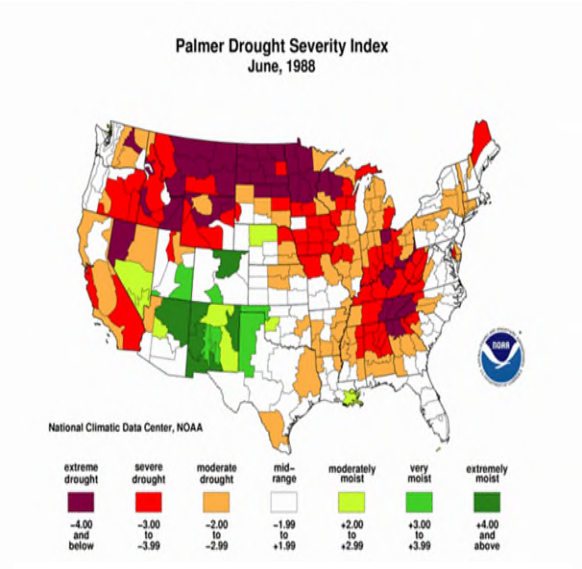


Figure 2.8-Palmer Drought Severity Index (June 1998)

Van Wert County's large agricultural sector is extremely susceptible to drought and could potentially suffer significant economic losses. The *NCDC* reports that for the period between 1985 and 1995, Ohio counties spent up to 5% of the summer and autumn months under drought conditions. According to the *Palmer Drought Severity Index* from June 1988., shown in Figure 2.8, Van Wert County suffered from one of the worst droughts in its history. In 2020, the *Palmer Drought Severity Index* revealed moderated drought conditions in June and July.

Two long-term droughts affecting almost all of the United States also impacted Van Wert County.

1988-1989 North American Drought

The drought of the late 1980's followed a milder drought in the Southeastern United States and California the year before. This drought spread from the Mid-Atlantic, Southeast, Midwest, Northern Great Plains and Western United States. It was widespread, unusually intense and accompanied by heat waves which killed around 4,800 to 17,000 people across the United States and also killed livestock across the county. One particular reason that the Drought of 1989 became very damaging was that farmers might have farmed on land which was marginally arable. Another reason was the pumping of groundwater to near the depletion mark. The Drought of 1989 destroyed crops almost nationwide, residents' lawns went brown and water restrictions were declared many cities. This

drought was catastrophic for multiple reasons; it continued across the Midwest States and North Plains States during 1989, not officially ending until 1990.

2012 North American Drought

The 2012-2013 North American drought is an expansion of the 2010–2012 United States drought which began in the spring of 2012, when the lack of snow in the United States caused very little snow melt to absorb into the soil. The drought includes most of the US and included Ohio. Among many counties, Van Wert County was designated with moderate drought conditions by mid-June. It has been equaled to similar effects as the droughts in the 1930s and 1950s but it had not been in place as long. However, the drought inflicted catastrophic economic ramifications. In most measures, the drought has exceeded the 1988-1989 North American drought, which is the most recent comparable drought.

On July 30, 2012, the Governor of Ohio sent a memorandum to the USDA Ohio State Executive Director requesting primary county natural disaster designations for eligible counties due to agricultural losses caused by drought and additional disasters during the 2012 crop year. The USDA reviewed the Loss Assessment Reports and determined that there were sufficient production losses in 85 counties to warrant a Secretarial disaster designation. On September 5, 2012, Van Wert County was one of those designated counties.

Probability of Future Events

The probability of future droughts is difficult to predict and is rarely the result of a single cause. Seasons of drought and extreme heat can potentially occur during any particular year when climatic conditions are conducive and can affect all areas of Van Wert County leading to agricultural losses and decreases in municipal and local water supplies. Heat waves are generally increasing in frequency and severity due to the effects of climate change and the County can expect this trend to continue. While these impacts are difficult to predict, the Center for Climate and Energy Solutions predicts that average daily high and low temperatures could increase 5-10 degrees F by mid-century. Additional studies project that the annual number of days with a heat index above 100 degrees F will double and days with a heat index above 105 degrees F will triple over the same time period (*www.c2es.org/content/heat-waves-and-climate-change/*).

Vulnerability Assessment and Loss Estimation

Van Wert County and its jurisdictions are susceptible to the effects of drought and extreme heat in varying degrees. Extreme heat conditions can exacerbate other types of disasters such as drought and wildfires. Financial losses to structures are not generally associated with drought and extreme heat conditions, however, loss of crops and livestock are. Definitive financial losses are not readily available.

Projected financial losses to structures or parcels due to drought and extreme heat are not applicable. Health-related effects to both humans and animals are also difficult to project and quantify. Extreme heat is becoming one of the leading causes of weather-related deaths in the United States. In addition, other heat related illnesses can exacerbate health problems in vulnerable populations, particularly the homeless, elderly and low-income individuals that may have limited ability for cooling. Hot days are also associated

with increases in cardiovascular and respiratory complications as well as kidney disease. In extreme temperatures, air quality is also affected as hot and sunny days can increase ozone levels in the atmosphere and the increased use of air conditioning requires more electricity which can emit other types of air pollution including particulates.

Extreme heat conditions are mitigated through Van Wert County Health Department's public education and other informational releases. There are also a number of cooling centers available throughout the County for at-risk populations during extreme heat conditions. The Van Wert County Health Department reports that no injuries, illnesses or fatalities were reported due to the extreme heat and drought conditions experienced during 2012 or since.

Based on data from USDA's National Agricultural Statistics Service, Van Wert County's exposure for corn, soybeans and cattle in 2020 is shown in Table 2.14 below.

Table 2.14: Agricultural Exposure-2020

Commodity	Planted (acres)	Harvested (acres)	Yield (bushels)	Production (1,000 bushels)
Soybeans	126,000	125,200	55.2	6,911
Corn	82,500	76,500	163.8	12,531
	All cattle and calves (number)		Milk cows (number)	
Cattle	11,700		3,000	

2.3.5 Flooding

A flood is an overflow of water from the banks of a river or shores of lakes and oceans that submerges land that is usually dry, known as the floodplain. Flooding normally occurs due to excessive precipitation and is dependent on many factors, including drainage basin characteristics, antecedent soil moisture conditions, weather patterns, land cover, urbanization and many others. Flooding is considered the most frequent and costly natural hazard in the United States.

According to the National Severe Storms Laboratory, there are 6 types of floods: riverine, coastal, storm surge, inland and flash flooding. River flooding occurs when water levels rise over the top of river banks due to excessive rain from tropical storm systems, persistent thunderstorms over the same area for an extended period of time, combined rainfall and snowmelt or an ice jam. A coastal flood is caused by higher than average high tide and worsened by heavy rainfall and onshore winds. Storm surge is an abnormal rise in water in coastal areas over and above the regular astronomical tide caused by forces generated from the winds, rains and low atmospheric pressure of a severe storm, generally a hurricane. Extreme flooding can occur over a large area especially when storm surge coincides with normal high tide. Inland flooding occurs when moderate precipitation accumulates over several days, intense precipitation falls over a short period or a river overflows because of an ice jam, debris flow or a dam or levee failure. A flash flood is caused by heavy or excessive rainfall in a short period of time, generally less than 6 hours. Flash floods are generally characterized by raging torrents after heavy rains rip through river beds, urban streets or mountain canyons

(https://www.nssl.noaa.gov/education/svrwx101/floods/types/). The primary types of flooding that affect Van Wert County are flash flooding and riverine.

Location

Van Wert County is located within the Auglaize River and St Marys River watersheds which are part of the Maumee River Watershed and Western Lake Erie Basin as shown in Figure 2.9.

The County is susceptible to flooding along the paths of the St Mary's and Auglaize Rivers. Flooding primarily occurs along the St Mary's River, which flows near the Village of Willshire and often floods the section of State Route 49 that runs adjacent to the River.

Figure 2.9: Van Wert County Watersheds

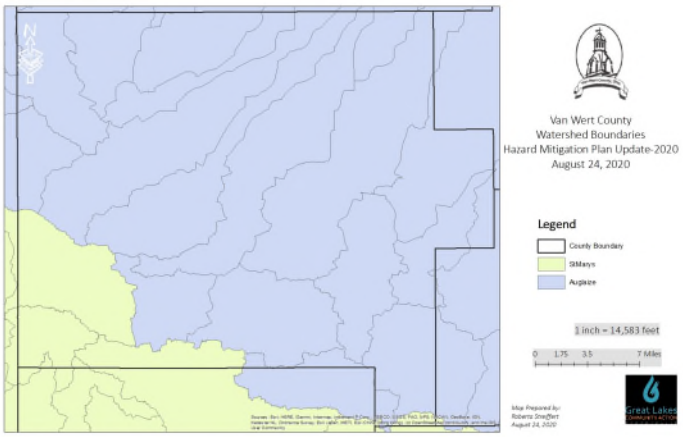
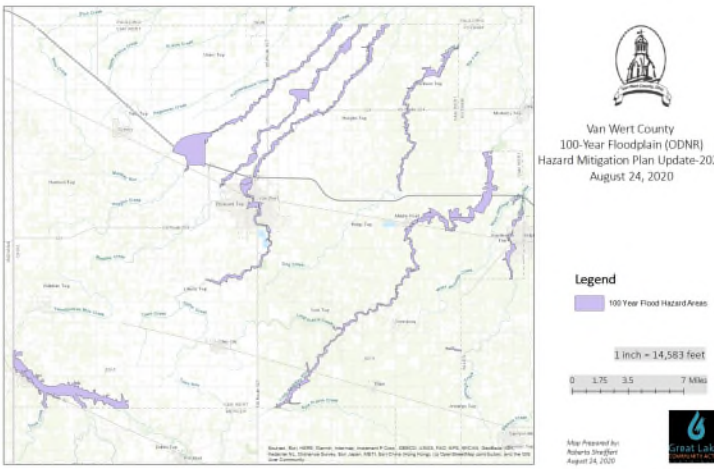


Figure 2.10: FEMA Flood Hazard Map



Flooding is not as significant of a hazard in Van Wert County as in many other counties in Ohio. According to the 100-Year Flood Hazards Map, shown in Figure 2.10, floodplains have been mapped for the St Marys River, Little Auglaize River, Dog Creek, Hoaglin Creek, Jennings Creek, Maddox Creek and Town Creek. While wide-spread flooding events are not likely to occur, localized flooding events, primarily in the southwest corner of the county, along the St. Marys River and including the Village of Willshire are likely to continue to be a minor hazard in the county.

Van Wert County and its jurisdictions participate in the National Flood Insurance Program (NFIP), with the exception of Venedocia, Wren and Elgin where no flood hazard areas have been identified. Table 2.15 provides the NFIP status for communities in the County based on the Community Status Book dated 6/2/2020. Participation in this program allows for the provision of flood insurance for vulnerable properties in the County.

Table 2.15: NFIP Community Status Report

Community	CID	Current Effective Map Date	Reg-Emer Date
Van Wert County	390784#	9/01/87 (L)	9/01/87
City of Van Wert	390552	6/25/76	6/28/75 (E)
Village of Convoy	390550	NSFHA	1/03/85
Village of Ohio City	390869	NSFHA	5/13/83
Village of Middle Point	390841#	9/24/84 (M)	9/24/84
Village of Willshire	390867	4/01/92 (L)	4/01/92
Village of Scott	390857	NSFHA	7/28/78

New flood maps for Van Wert County have been released and the County is currently in the appeal period which began on June 2, 2021 and will end on September 2, 2021. If no major appeals are received, it is anticipated that the Final Letter of Determination (LFD) from FEMA will be issued by April 1, 2022, with effective maps being issued by October 1, 2022. Once the County receives the final LFD, they can begin to update the floodplain regulations for Van Wert County and its jurisdictions.

Past Occurrences

Past floods are indications of what can happen in the future, but mitigation plans are based on the risk of future flooding. Flood studies interpret historical records to determine the statistical potential that storms and floods of certain magnitude will recur. Such events are measured by their recurrence interval.

Recurrence interval, or frequency of occurrence, is defined as the average number of years between storms of a given intensity. Recurrence intervals commonly used in technical studies and design are 2, 10, 25, 50 and 100 years. Recurrence interval addresses how often a flood of a specific depth will be expected to occur. Structures located within areas considered at higher risk should be prioritized higher as it relates to mitigation.

According to the NCDC, *Storm Events Database,* the County has experienced 18 flooding events between 1996 and 2017. One occurrence of general flooding occurred on February 6-7, 2008 in Willshire when a snowpack of 3 inches rapidly melted as warm air arrived in the region. The snowmelt combined with partially frozen, very moist ground and rainfall from 2, to locally over 3 inches, resulted in an increase in lowland and river flooding running south of Paulding to the Ottawa County Line. At the onset, some flash flooding occurred in areas experiencing heavy rainfall. Several County roads were closed due to high water including State Route 49, just north of Willshire. Damage estimates from this event total $50,000. Two flash flooding events occurred during this time period on 8/21/07 and 5/27/10. Several rounds of heavy rainfall occurred across parts Ohio beginning on 8/20/07 through 8/22/07. Much of this rain fell in the Maumee River basin leading to widespread, localized flooding in Van Wert and surrounding counties. EMA officials in Van Wert County reported that bridges and most roads were closed in Hoaglin and Jackson Townships as a result of water flowing over many roads and approaching the bottom of bridges. Another flash flooding event occulted when a slow moving cold front interacted with moderate instability in the

atmosphere to allow for thunderstorm development on 5/27 and 5/28, 2010. Four to six inches of rain fell in a short period of time across southwestern Van Wert County. Water overflowing several roads and bridges resulted in road closures in Ohio City, Glenmore and Schumm. No property damages were reported.

Since the previous plan update, there has been 6 reported flooding events in Van Wert County. A heavy rain event on June 15, 2015 resulted in generalized flooding and flash flooding in and around Wilshire. Several roads were partially or completely impassable from flowing or standing water as runoff from the heavy rains overwhelmed local streams, creeks and rivers. Portions of several state routes were closed for an extended period of time with 6-12 inches of water flowing over them. No damages were reported. Another event on 6/27/2015 led to numerous road closures due to high water as periodic showers and storms led to localized flooding in the Dixon area. No damages were reported. A heavy rain event, where up to 4 inches of rain fell across the county on 7/9/2015 caused localized flooding near Wetsel and Middle Point. No damages were reported. On 5/24/2017, excessive rainfall of 8 inches fell over a short period of time onto already saturated ground causing flash flooding in the southwestern portion of the county. An enormous amount of water flowed into Town Creek resulting in a 500-year flood event that flooded an extensive amount of farmland and flooded some homes in the rural area. Portions of Wren were underwater for several days with some evacuations needed. Flood damage was reported to several homes in the Village. The water flowed into the City of Van Wert causing considerable damage to the national headquarters of Central Mutual Insurance and the Willow Bend Country Club. The retention wall built along Town Creek in the City through a Federally funded project in the 1980's were able to retain the water within its walls and saved hundreds of properties from devastating flooding. On 7/10/2017, several rounds of thunderstorms dropped 3 to 6 inches of rain across the county causing extensive flooding and flash flooding in the southeastern portion of the county. Jennings Creek overflowed its banks and surrounded a factory near Delphos forcing employees to shelter in place. Several County Roads were closed across the area. Emergency management officials reported that 12 homes and 3 businesses were impacted with damages of $425,000.

The County has received 3 disaster declarations for flooding: DR-951, dated 8/4/1992; DR 1478, dated 7/15/2003 and DR 1556, dated 9/19/2004.

Table 2.16-Flooding History (1996--2017)

Event	Total Incidents	Total Property Loss	Total Crop Loss	Total Deaths	Total Injuries
Flash Flooding	10	$680,000	0	0	0
Flood	8	$810,000	0	0	0
Total:	**18**	**$1,490,000**	**0**	**0**	**0**

Probability of Future Occurrences

While flooding is not a significant hazard in Van Wert County, some areas of the county experience significant, localized flooding events, particularly during heavy rain events. These flooding events can occur at any time when the weather conditions are favorable.

Vulnerability Assessment and Loss Estimation

Loss estimates were calculated by HAZUS MH based on a 100-year flood event.

General Building Stock

HAZUS estimates that there are 13,225 buildings in the County which have an aggregate total replacement value of $3,331,000,000. Table 2.17 represents the distribution of the value relative to general occupancy for Van Wert County. Tables 2.18 and 2.19 show the distribution of potential property damages for the 100-year and 25-year flood events.

Table 2.17-Building Exposure by Occupancy for Van Wert County

Occupancy	Exposure	Percent of Total
Residential	$2,518,287000	75.6%
Commercial	$420,549,000	12.6%
Industrial	$181,900,000	5.5%
Agricultural	$56,368,000	1.7%
Religion	$73,815,000	2.2%
Government	$23,669,000	0.7%
Education	$56,214,000	1.7%
Total	**$3,330,802,000**	**100%**

Table 2.18-Building Exposure by Occupancy for 100-Year Flood

Occupancy	Exposure	Percent of Total
Residential	$732,711,000	72.8%
Commercial	$164,716,000	16.4%
Industrial	$48,307,000	4.8%
Agricultural	$24,296,000	2.4%
Religion	$24,265,000	2.4%
Government	$5,544,000	0.6%
Education	$6,107,000	0.6%
Total	**$1,005,946,000**	**100%**

Table 2.19-Building Exposure by Occupancy for 25-Year Flood

Occupancy	Exposure	Percent of Total
Residential	$452,463,000	66.5%
Commercial	$145,245,000	21.3%

Industrial	$38,036,000	5.6%
Agricultural	$15,218,000	2.2%
Religion	$18,658,000	2.7%
Government	$4,791,000	0.7%
Education	$6,107,000	0.9%
Total	**$680,518,000**	**100%**

Essential Facility Inventory

There is one hospital in the region with a total bed capacity of 99 beds, 19 schools, 7 fire stations and 4 police stations. There are no emergency operations centers.

General Building Stock Damages

HAZUS estimates that approximately 35 buildings will be at least moderately damaged and that no buildings will be completely destroyed during the 100-year flood event and 44 buildings will be moderately damaged and no buildings will be completely destroyed during the 25-year flood event. Moderate damage to one fire station is estimated under the 100-year flood scenario.

Debris Generation

HAZUS estimates the amount of debris that will be generated by a flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc) and 3) Foundations (concrete slab, concrete block, rebar, etc). The distinction is made because of the different types of material handling equipment required to manage the debris.

During the 100-year flood scenario, the model estimates that a total of 911 tons of debris will be generated. Of that total, Finishes comprise 642 tons (71%), Structural comprises 142 tons (16%) and Foundations comprise 126 tons (14%). If the debris tonnage is converted to an estimated number of truckloads, it will require 37 truckloads (25 tons/truck) to remove the debris generated by a flood. No analysis was conducted for the 25-year flood scenario.

Shelter Requirements

HAZUS estimates the number of households that are expected to be displaced in a 100-Year flood event and the associated potential evacuation. HAZUS also estimates those displaced people that will require accommodations in public shelters. During the 100-year flood scenario, the model estimates 423 households (1,269 persons) will be displaced due to a flood. Displacement includes households evacuated from within or a very near the inundated area. Of these, 10 people will seek temporary shelter. No analysis was conducted for the 25-year flood scenario.

Economic Loss

HAZUS estimates the total economic loss for the 100-year flood at 80.47 million dollars, which represents 8.0% of the total replacement value of the building losses, shown below in Table 2.19.

Building losses are broken into 2 categories: direct building losses and business interruption losses. The direct building losses include estimates to repair or replace the damages caused to the building and its contents. The business interruption losses are the losses associated with the inability to operate a business because of the damage sustained by a flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of a flood.

The total building related losses during the 100-year flood scenario are estimated at $32.25 million, with 60% of those losses being related to business interruption. Residential occupancies make up 30.36% of estimated losses. These losses are summarized (in millions of dollars) in Table 2.20 below:

Table 2.20-Summary of Total Losses, 100 Year Flood

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	10.73	3.51	0.81	0.36	15.41
	Content	5.11	7.94	1.25	2.20	16.50
	Inventory	0.00	0.06	0.25	0.03	0.34
	Subtotal	**15.84**	**11.51**	**2.30**	**2.59**	**32.25**
Business Interruption						
	Income	0.28	14.90	0.08	1.50	16.75
	Relocation	5.72	3.67	0.09	0.75	10.23
	Rental Income	1.94	2.67	0.01	0.10	4.72
	Wages	0.65	9.83	0.15	5.89	16.52
	Subtotal	**8.59**	**31.06**	**0.33**	**8.25**	**48.22**
ALL	**Total**	**24.43**	**42.57**	**2.63**	**10.84**	**80.47**

The total building related losses during the 25-year flood scenario are estimated at $26.87 million, with 58% of the losses being related to business interruption. Residential occupancies make up 26.45% of estimated losses. These losses are summarized (in millions of dollars) in Table 20.21 below:

Table 2.21-Summary of Total Losses, 25 Year Flood

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	8.01	4.03	0.32	0.30	12.66
	Content	3.53	8.13	0.62	1.74	14.03
	Inventory	0.00	0.04	0.12	0.02	0.18
	Subtotal	**11.54**	**12.21**	**1.06**	**2.06**	**26.87**
Business Interruption						
	Income	0.19	11.99	0.02	1.12	13.31
	Relocation	3.53	2.87	0.02	0.59	7.00
	Rental Income	1.29	2.07	0.00	0.08	3.45

	Wages	0.45	8.03	0.04	5.11	13.63
	Subtotal	**5.45**	**24.96**	**0.09**	**6.90**	**37.39**
ALL	**Total**	**17.00**	**37.16**	**1.15**	**8.96**	**64.26**

Repetitive Loss Structures

There are four repetitive loss structures in Van Wert County, none of which are listed as severe repetitive loss:

Table 2.22-Repetitive Loss Structures

Community	Number	Building Payments	Contents Payments	Total Payments	Losses	Properties	Occupancy Type
City of Delphos	390005	$35,239.46	-	$35,239.46	4	1	Single Family
City of Delphos	390005	$18,973.71	-	$18,973.71	2	1	Single Family
City of Delphos	390005	$9,616.53	$4,134.03	$13,750.56	2	1	Single Family
City of Van Wert	390005	$2,764.50	$106.54	$2,871.04	2	1	Single Family
	Total:	**$66,594.20**	**$4,240.57**	**$70,834.77**	**10**	**4**	

2.3.6 Epidemic

An epidemic is the widespread occurrence of an infectious disease, spreading rapidly within a given population. Epidemics are generally caused by several factors including a change in the ecology of the host population, a genetic change in the pathogen or the introduction of an emerging pathogen to a host population. An epidemic occurs when the immunity of either an established pathogen or a newly emerging (novel) pathogen in a host population is suddenly reduced and the transmission threshold is exceeded. An epidemic is generally restricted to one location, but if it spreads to other countries and affects a substantial number of people it is termed a *pandemic*.

There are 5 modes of disease transmission: contact (direct and/or indirect), droplet, airborne, vector and common vehicle. Direct contact transmission is the most common mode of transmission and occurs when pathogens are transferred by direct physical contact with an infected person. Indirect contact transmission involves the transfer of pathogens through a contaminated object such as gloves, medical equipment or other instruments. Other objects within an infected person's home or environment can also lead to indirect contact transmission. Droplet transmission involves the transmission of microorganisms from the respiratory tract during coughing, sneezing or during aerosol procedures such as suctioning. These droplets are propelled short distances, entering the nasal or oral mucosa of a new host. Some of these microorganisms can also survive on objects in the immediate environment before entering a new host. Airborne transmission is the spread of infection by droplet nuclei or dust in the air. These microorganisms remain suspended in the air and are widely dispersed by air currents, making control of the disease transmission most difficult. Common vehicle transmission refers to the transmission of a disease through

a contaminated source such as food, medication, IV fluids or shared equipment that transmits infection to multiple hosts. Vector-borne transmission refers to infections caused by animals and insects, such as West Nile Virus and Dengue Fever (www. professionals.wrha.mb.ca).

A pandemic occurs when an infectious disease is spread to other countries and affects a substantial number of people. The current COVID 19 pandemic is on par to be one of the deadliest pandemics to strike the United States since the 1918 (H1N1) Spanish Flu pandemic. The Centers for Disease Control and Prevention (CDC) is currently applying the *Pandemic Intervals Framework* for tracking the phases of an influenza pandemic to the COVID 19 crisis. The framework outlines 6 phases of a pandemic (https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6306a1.htm):

- Phase 1: Investigation-a new type of virus in identified and investigated in animal or human, anywhere in the world, that is thought to have implications for human health.
- Phase 2: Recognition-increased cases or cluster of cases are identified along with increased potential for person to person transmission
- Phase 3: Initiation-cases of the virus are confirmed with both efficient and sustained person to person transmission
- Phase 4: Acceleration-the new virus infects susceptible people. Public health officials may take measures such as closing schools, encouraging social distancing and offering anti-viral or vaccines if available.
- Phase 5: Deceleration-there is consistently decreasing rates of infections across the United States
- Phase 6: Preparation-after the pandemic has subsided, public health officials continue to monitor the virus and prepare for another wave of illness.

Location

Epidemics can develop with little or no warning and quickly erode the capacity of local medical care providers. A fast-developing epidemic can last several days and extend into weeks or even months in extreme cases. An epidemic has the potential to affect the entire County but is more probable to occur in densely populated areas, such as the Villages and the City of Van Wert, especially at facilities containing large numbers of occupants, such as nursing homes and assisted living facilities that serve the elderly and individuals with underlying conditions that can worsen the effects of an illness.

Local History of Past Occurrences

There are no known documented epidemics in Van Wert County. However, at the writing of this report, the Country is currently struggling with the COVID 19 pandemic. As of December 2021, Van Wert County has seen 4.,552 cases of the COVID 19 illness and 89 confirmed deaths.

Probability of Future Occurrences

The most likely epidemics that could affect Van Wert County include influenza (bird flu, H1N1 virus, etc.), West Nile Virus and more recently, COVID 19. Cases of influenza are reported annually but has not reached

the status of an epidemic. The probability of future outbreaks of COVID 19 are currently unknown, however, health experts speculate that the virus will continue to spread throughout the world to varying degrees. The impact of such outbreaks will be dependent on a number of factors including density of populations, age and susceptibility to respiratory diseases due to the presence of underlying conditions such as heart disease and asthma.

Vulnerability Assessment and Loss Estimation

Given that there are no documented epidemics in Van Wert County and the economic impacts of the current COVID 19 pandemic are not yet known, it is difficult to estimate vulnerability and potential damages. Given the relatively low population density of the County, the overall number of cases should remain low. However, the county's aging population and limited medical facilities could contribute to a disproportionate number of serious illness and deaths.

A severe epidemic has the potential to cause serious illness or death to large numbers of people but would cause no damage to private property or structural damage to public facilities. The impact on individuals could also be economic due to the inability of an infected person to go to work and the loss of jobs due to mandatory shutdowns. In a worst-case scenario, cascading effects could lead to civil unrest, food and fuel shortages or utility failure due to large numbers of people being unable to provide services.

Epidemics are mitigated through the State of Ohio and Van Wert County Health Departments' public education and other informational releases. Due to the unpredictable nature of an epidemic and low probability of future occurrence in the County, no additional mitigative strategies will be considered at this time.

2.3.7 Earthquakes

An earthquake is a sudden motion or trembling of the surface of the earth resulting from a sudden release of energy in the Earth's lithosphere that creates seismic waves. This typically occurs along fault lines, areas where two blocks of earth called plates, move past one another underground but also by other effects such as volcanic activity, landslides, mine blasts and nuclear tests. Recently, earthquakes have been linked to hydraulic fracturing in parts of Ohio. The severity of the effects of an earthquake is dependent on the amount of energy released from the fault or epicenter and can be felt far beyond the site of its occurrence. Earthquakes usually occur without warning and after just a few seconds can cause massive damage and extensive casualties. Common effects of earthquakes are ground motion and shaking, surface fault ruptures and ground failure. Damages related to earthquakes include rattling foundations, falling debris and can topple buildings, bridges and culverts in severe cases.

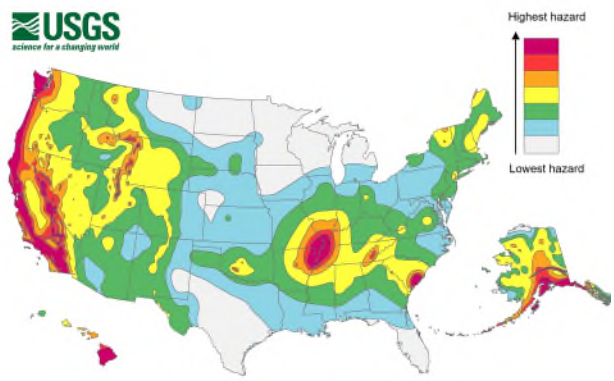


Figure 2.11: USGS National Seismic Hazard

Ohio is rated as a low hazard area according to the USGS (2018) Seismic Hazard Long-term Model, shown in Figure 2.11. The model shows peak ground accelerations having a 2% probability of being exceeded in 50 years for a firm rock site and are based on seismicity and fault-slip rates as well as the frequency of earthquakes of various magnitudes (www.usgs.gov/media/images/2018-long-term-national-seismic-hazard-map).

The severity of an earthquake is measured using the Modified Mercalli Scale as shown below:

Table 2.23-Modified Mercalli Scale and Description

Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by very few under especially favorable conditions
II	Weak	Felt only by a few persons at rest, especially on the upper floors of buildings
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations are similar to the passing of a truck.
IV	Light	Felt indoors by many, outdoor by few during the day. At night, some are awakened. Dishes, windows and doors are disturbed; walls make cracking sounds. Sensation like heavy truck striking building. Standing motor cars are rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened at night. Some dishes, windows are broken. Unstable objects overturned and pendulum clocks may stop
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage is slight.
VII	Very strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys are broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage is great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments and walls. Heavy furniture is overturned.

IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage is great in substantial buildings with partial collapse and buildings are shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

Table found at: www.dev-acquisition.cr.usgs.gov/learn/topics/mercalli.php

According to the ODNR's Division of Geologic Survey, the origins of earthquakes in Ohio is not well known and difficult to predict. Those in Ohio appear to be associated with ancient zones of weakness in the earth's crust that formed during the continental collision and mountain-building events about one billion years ago. These zones are characterized by deeply buried and poorly known faults, some of which serve as the sites for periodic release of strain that is constantly building up in the North American continental plate due to continuous movement of the tectonic plates that make up the Earth's crust (*Source: https://ohiodnr.gov/wps/wcm/connect/gov/5dc770e3-bde7-4122-9cbb-003ceaacb3db/EL+9-Earthquakes+in+Ohio_WEB_rev+2020-Final.pdf?MOD=AJPERES&CVID=n8UZuZW*)

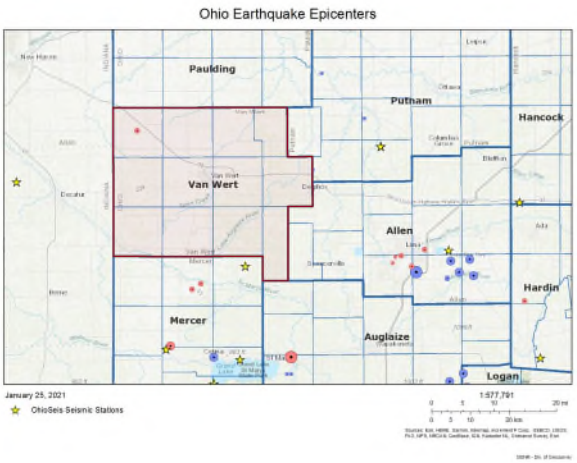


Figure 2.12-ODNR Earthquake Epicenter Map

Source: Ohio Division of Geologic Survey, 2021 Earthquake Epicenter Map in Ohio and adjacent areas-color version: Ohio Department of Natural Resources, Division of Geologic Survey Map EG-2, generalized page-size version, 1p., scale 1:2,00,000

History of Past Occurrences

Historically, earthquake activity has been isolated and virtually non-existent in Van Wert County. However, Ohio is rated as MM IV on the Mercalli scale of earthquake intensity, therefore, earthquake hazards must be taken into consideration.

According to the ODNR Epicenters in Ohio Map (2012), a 2.6 mbLg magnitude earthquake was reported in Van Wert County in 2015 near the Village of Convoy as shown in Figure 2.12. No other earthquake activity has been reported.

Probability of Future Occurrences

Based on historical occurrences of earthquakes in the County, the probability of an earthquake striking Van Wert County in any given year would be less than 1%. Within the past 130 years, there has been 1 recorded epicenter in Van Wert County. However, Van Wert County is adjacent to two of the most active counties in Ohio as it relates to earthquake activity. Both Auglaize and Mercer County have had very active patterns of earthquake epicenters occurring over the past 130 years. Scientists also speculate that the New Madrid Fault line, which runs in close proximity to the State of Ohio, has a high probably of activity within the next 50 years.

Vulnerability Analysis and Loss Estimation

Loss estimates were calculated by HAZUS MH based on a 5.0 magnitude earthquake at a depth of 5 kilometers, with the City of Van Wert as the epicenter.

Building Damage

HAZUS estimates that there are 13,000 buildings in the County which have an aggregate total replacement value of $3,330,000,000. HAZUS MH estimates that approximately 2,978 buildings will be at least moderately damaged. There are an estimated 205 buildings that will be damaged beyond repair. Tables 2.24 and 2.25 below summarize the total building exposure and the expected building damage by occupancy for the scenario.

Table 2.24-Building Exposure by Occupancy for Van Wert County

Occupancy	Exposure	Percent of Total
Residential	$2,518,287000	75.6%
Commercial	$420,549,000	12.6%
Industrial	$181,900,000	5.5%
Agricultural	$56,368,000	1.7%
Religion	$73,815,000	2.2%
Government	$23,669,000	0.7%
Education	$56,214,000	1.7%
Total	**$3,330,802,000**	**100%**

Table 2.25-Building Exposure for the Scenario

Occupancy	None	Slight	Moderate	Extensive	Complete
Residential-single family	6,133	2,791	1,434	404	121
Residential-other	401	229	272	129	29
Commercial	213	142	180	94	10
Industrial	57	38	55	33	10
Agricultural	88	54	72	40	10
Religion	39	21	21	11	4
Government	13	8	10	4	1
Education	14	7	8	4	1
Total:	**6,958**	**3,289**	**2,053**	**720**	**205**

Fire and Debris Generation

Fires can often occur after an earthquake of this magnitude. HAZUS MH estimates that there will be no ignitions for the County.

HAZUS also estimates the amount of debris that would be generated by an earthquake. The model estimates that a total of 117,000 tons of debris will be generated, requiring approximately 4,680 truckloads

(at 25 tons/truck) for removal. Of the total, brick and wood comprises 48%, with the remainder being reinforced concrete and steel.

Shelter Requirements and Casualties

HAZUS estimates that the number of households expected to be displaced in the event of an earthquake and the number of displaced people that will require accommodation in temporary public shelters. The model estimates a total of 184 households, of which, 106 individuals will seek temporary accommodation in public shelters.

HAZUS estimates the number of people that will be injured or killed by an earthquake. Casualties are broken down into 4 security categories, as follows:

- Security Level 1-Injuries that will require medical attention, but hospitalization is not required.
- Security Level 2-Injuries will require hospitalization but are not considered life-threatening.
- Security Level 3-Injuries will require hospitalization and can become life-threatening if not treated promptly.
- Security Level 4-Victims are killed by earthquake.

Casualty estimates are given for 3 times of the day: 2 AM, 2 PM and 5 PM. These times represent periods of the day that different sectors of the community are at their peak occupancy loads. The 2 AM estimate considers the residential occupancy of the community, the 2 PM estimate considers the educational, commercial and industrial sectors and 5 PM represents the peak commute time. Table 2.26 below, summarizes the estimated residential casualties for an earthquake event in Van Wert County at 2PM, representing the worst-case scenario.

Table 2.26-Estimated Residential Casualties (2PM)

	Level 1	Level 2	Level 3	Level 4
Residential	17	4	1	1
Non-residential	113	27	3	7
Total:	130	31	4	8

Economic and Building Related Losses

HAZUS MH estimates that the total economic loss for the County due to an earthquake is $564,710,000, including building and lifetime related losses based on regional inventory.

Building losses are broken into 2 categories: direct building losses and business interruption losses. The direct building losses include estimates to repair or replace the damages caused to the building and its contents. The business interruption losses are the losses associated with the inability to operate a business because of the damage sustained by an earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of an earthquake.

The total building related losses during the 5-mag earthquake scenario are estimated at $414,750,000, of which $74,655,000 were related to business interruption of the region. Total losses are summarized in Table 2.27 below:

Table 2.27-Summary of Total Estimated Losses

Category	Area	Residential	Commercial	Industrial	Others	Total
Income Losses						
	Wage	1,326,900	12,881,100	1,181,300	1,142,800	16,532,100
	Capital-Related	565,700	10,235,100	708,600	310,000	11,819,400
	Rental	6,341,400	5,141,600	381,800	468,700	12,333,500
	Relocation	17,141,200	8,740,100	1,609,200	4,552,400	32,042,900
	Subtotal	**25,375,200**	**36,997,900**	**3,880,900**	**6,473,900**	**72,727,900**
Capital Stock Losses						
	Structural	28,917,700	13,317,400	5,961,300	7,574,300	55,770,700
	Non-Structural	118,164,900	38,942,200	19,102,000	14,920,700	191,129,800
	Content	46,763,900	21,789,700	13,790,500	9,047,800	91,391,900
	Inventory	0.00	489,200	2,900,100	338,900	3,728,200
	Subtotal	**193,846,500**	**74,538,500**	**41,753,900**	**31,881,700**	**342,020,600**
ALL	**Total**	**219,220,700**	**111,536,400**	**45,634,800**	**38,355,600**	**414,748,500**

Transportation and Utility Lifeline Losses

HAZUS estimates the direct repair costs of utility and transportation networks for the scenario.

Table 2.28-Summary of Estimated Utility Losses

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
		Transportation Networks		
Highway	Segments	796,200,600	-	-
	Bridges	75,238,600	1,311,100	1.74
	Tunnels	-	-	-
	Subtotal	**871,439,200**	**1,311,100**	
Railways	Segments	65,766,400	-	-
	Bridges	-	-	-
	Tunnels	-	-	-
	Facilities	2,663,000	288,900	10.85
	Subtotal	**68,429,400**	**288,900**	
Airport	Facilities	10,651,000	4,676,600	43.91
	Runways	75,928,000	-	-
	Subtotal	**86,579,000**	**4,676,600**	
	Total	**1,026,450**	**6,280,000**	
		Utility Systems		
Potable Water	Pipelines	-	-	-
	Facilities	-	-	-
	Distribution Lines	108,135,500	2,841,800	2.63
	Subtotal	108,135,500	**2,841,800**	

Wastewater	Pipelines	-	-	-
	Facilities	699,300,000	138,886,600	19.86
	Distribution Lines	64,881,300	1,427,500	2.20
	Subtotal	**764,181,300**	**140,314,100**	
Natural Gas	Pipelines	-	-	-
	Facilities	-	-	-
	Distribution Lines	43,254,200	489,100	1.13
	Subtotal	**43,254,200**	**489,100**	
Electrical Power	Facilities	115,500,000	10,158,200	8.79
	Subtotal	**115,500,000**	**10,158,200**	
Communication	Facilities	210,000	40,400	19.24
	Subtotal	**210,000**	**40,400**	
	Total	**915,780,000**	**143,690,000**	

Despite the potential for fairly significant damages due to an earthquake, given the low probability of a future occurrence and the lack of available planning and financial resources in the County, the planning committee does not consider earthquakes a significant hazard and will not consider mitigative strategies at this time.

2.3.8 Hazardous Materials Incident

Hazardous materials can include explosives, flammable and combustible substances, poisons and radioactive materials. Emergencies can happen during production, storage, transportation use of and disposal of these materials. A hazardous materials incident is a type of safety incident that involves the uncontrolled release of hazardous materials into an environment in which humans are or could be present or that otherwise has the potential to put human or environmental safety at risk.

Hazardous materials are classified in several different ways. The US Department of Transportation uses the following 9 classes:

Table 2.29-USDOT Hazardous Materials Classification

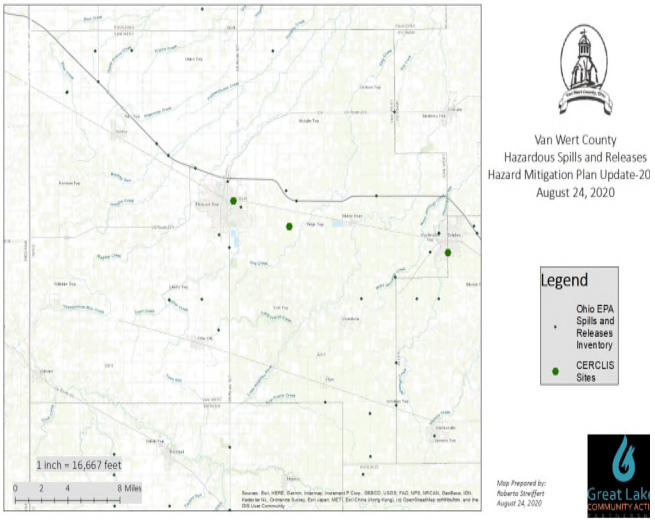
Classification	Description
Class 1	Explosives
Class 2	Gases
Class 3	Flammable Liquids (and combustible liquids)
Class 4	Flammable solids; substances liable to spontaneous combustion; substances which, on contact with water, emit flammable gases
Class 5	Oxidizing substances and organic peroxides
Class 6	Toxic (poisonous) substances

Class 7	Radioactive materials
Class 8	Corrosive substances
Class 9	Miscellaneous dangerous goods/hazardous materials and articles

Hazardous materials vary greatly in the types of health risks they pose to humans including: thermal-risks from exposure to temperature extremes; radiological-exposure to radioactive materials; asphyxiation results from exposure to materials that reduce oxygen levels that may cause suffocation; chemical harm-exposure to chemicals, including poisons and corrosives, injuries and illnesses vary by material; biological harm-results from exposure to biological materials, including bacteria, viruses and biological toxins; and, mechanical harm-exposure or contact with fragmentation or debris scattered because of a pressure release, explosion or boiling liquid expanding vapor explosion (https://www.fema.gov/media-library-data/1566393023589-8134367aaf67f65c7a159453c0b8c27b/Hazardous_Materials_Incidents.pdf).

Hazardous materials are stored in a number of different containers including drums, cans, jars, pipes and other vessels. Some releases are incidental and do not threaten the health or safety of the general public or environment. A release that requires action by first responders or other outside agencies is considered an emergency response.

Figure 2.13-Ohio EPA Spills and Release Inventory



Local History of Past Occurrences

According to the Ohio EPA's Spills and Releases Inventory Database, 41 incidents have been reported in Van Wert County since 2017 as shown in Figure 2.13, including one in December 2020. These spills have included fuels, corrosives, oils and grease, manure, food waste and paints/adhesives. None of these spills were significant and were handled locally by the Van Wert County EMA.

There are 2 CERCLIS (Comprehensive Environmental Response, Compensation and Liability Act) sites in the County. Both are SUPERFUND sites located at 412 East Main Street and 15945 Middle Point Road. Two sites are listed on the Toxics Release Inventory in Van Wert County. One is the Elgin Crop Service located on Main Street in Elgin and the other is the Harter Group located at 1255 Industrial Drive in Van Wert. In addition, there are 37 Resource Conservation and Recovery Act (RCRA) sites in the county that are regulated by the USEPA that generate, treat, store and/or dispose of hazardous waste (https://environment.netronline.com/state/OH/county/van_wert/rcragenerators/).

Vulnerability Assessment and Loss Estimation

The county is vulnerable to hazardous materials spills due to the movement of these substances along rail lines and state routes in and through the county. Hazardous materials spills can occur anywhere in the county making them difficult to predict but are most likely to occur along state routes and in the city of Van Wert where the majority of manufacturing facilities operate. Past incidences have not caused significant damage to structures, people or the environment and have been easily handled through existing EMA protocols. There are no known losses associated with hazardous materials spills in the County.

2.3.9 Invasive Species

The National Wildlife Federation defines an invasive species to be any kind of living organism, amphibian, plant, insect, fish, fungus, bacteria or even an organism's seeds or eggs, that is not native to an ecosystem and that can harm the environment, economy or human health. Invasive species are primarily spread by human activities such as ballast water or propellers of ships; in wood through shipping pallets and crates; as exotic pets, and as ornamental plants that can spread into natural areas and become invasive.

As reported in the Ohio State Hazard Mitigation Plan (SHMP), according to ODNR's Division of Natural Areas and Preserves, of the approximately 2,300 species of plants in Ohio, approximately 78% are native or have occurred in Ohio before the time of substantial European settlement (1750). The remaining 506 species are considered non-native, having been introduced for erosion control, horticulture, forage crops, medicinal use, wildlife foods or by accident. Without natural predators or other controls, non-native plants are able to spread quickly and force out native plants. As reported in the SHMP, the top 10 invasive plant species in Ohio are:

Bush Honeysuckles	Japanese Honeysuckle
Autumn-Olive	Japanese Knotweed
Buckthorns	Multi-flora Rose
Common Reed Grass	Purple Loosestrife
Garlic Mustard	Reed Canary Grass

Aquatic invasive species include both plants and animals that have been introduced into local waterways and have become harmful to native species and their habitats. These species may live entirely within or partially within an aquatic habitat. Below is a list of the top aquatic invasive species in Ohio:

Asian carp (Bighead carp, Silver carp, Black carp, Diploid Grass carp)	Ruffe
Curlyleaf Pondweed	Red Swamp Crayfish
Hydrilla	Sea Lamprey
Round Goby	White perch
	Zebra Mussel

As reported in the SHMP, the ODNR, Division of Forestry cites that one of the most invasive species in Ohio is the Emerald Ash Borer, an Asian beetle part of a group of metallic wood-boring beetles. This beetle affects all species of native ash tree found in Ohio, which have little to no resistance to this pest that was unintentionally introduced into southeastern Michigan many years ago. The larvae feed on the living

portion of the tree, restricting the tree's ability to move essential water and nutrients throughout the tree, killing it within 3-5 years.

Local History

Invasive species are found in all counties of Ohio, particularly the Emerald Ash Borer beetle. According to the EDDMapS from the University of Georgia (www.eddmaps.org), there are 270 records of invasive species in Van Wert County County including 5 records of exact locations of bittersweet nightshade, creeping yellow loosestrife, lady's thumb, red clover and yellow Fieldcrest as well as 5 records of the ash borer beetle.

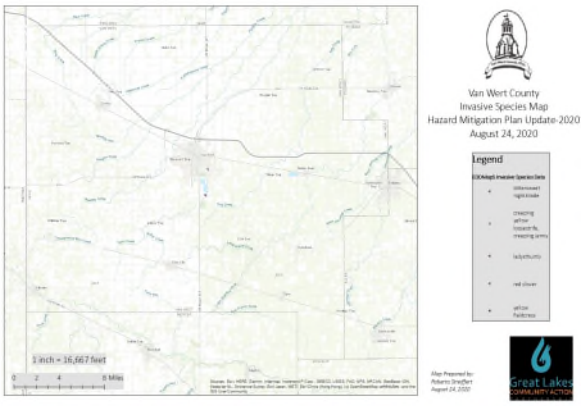


Figure 2.14-Invasive Species Map

Vulnerability and Loss Estimation

Land use in Van Wert County is primarily agricultural, with approximately 233,000 of its total 262,000 acres in agricultural production. There are limited natural areas that would be impacted by invasive species with 9,735 acres of land in forested or natural areas including open water. These natural and agricultural areas are the most susceptible to the impacts of invasive species.

Infestations of invasive species are not likely to cause structural damages; however, economic losses associated with agricultural production is possible. Ecological damages could occur in the limited forested and natural areas of the county. Given the limited potential for significant damages and the lack of available planning and financial resources in the County, the Planning Committee does not consider invasive species to be a significant hazard due to its sporadic nature and lack of historical events. Mitigative measures to reduce their impacts will not be considered until additional financial and planning resources can be made available.

2.3.10 Dam Failure

Dams are man-made structures designed to obstruct or restrain waters that may cause flooding downstream. These structures are generally made with concrete or earthen material. FEMA defines a dam as "*any artificial barrier of at least a minimum size, including appurtenant works, that impounds or diverts water or liquid-borne solids on a temporary or long-term basis.*" A dam failure occurs when the barrier constructed across a waterway fails or otherwise does not obstruct or retain the flow of water, which can rapidly result in a large area of completely inundated land. Water released from a dam failure always flows downstream and the resulting flood wave can cause significant damage to buildings and infrastructure. The nature of this type of flooding also increases the potential for loss of life in the impacted are due to reduced warning times.

There are several factors that contribute to a dam failure, including:

- Overtopping caused by flooding that exceeds the capacity of the dam;
- Improper design and structural failures due to poor construction practices and materials;
- Internal erosion caused by embankment or foundation leakage or piping;
- Foundation defects including settlement and slope instability;
- Cracking caused by ground movement such as natural settling or earthquakes;
- Improper or inadequate maintenance and operation including failure to remove or open gates or valves during high flow periods;
- Deliberate acts of sabotage or vandalism.

Dams are classified by 2 conditions, height and storage. In Ohio, dams are classified 1 thru 4 based on the combination of height and storage as shown in Table 2.30 below. Class I dams provide the highest potential for significant loss of life and structural damage to high value properties including residential, industrial and public utilities in the event of failure and will be the only classification that will be analyzed further. According to the Ohio Department of Natural Resources (ODNR), Class I dams are identified as *"dams having a total storage volume greater than five thousand acre-feet or a height of greater than sixty feet shall be placed in class I. A dam shall be placed in class I when sudden failure of the dam would result in one of the following conditions: (a) Probable loss of human life and (b) Structural collapse of at least one residence or one commercial or industrial business."*

Table 2.30-Ohio Dam Classification Systems

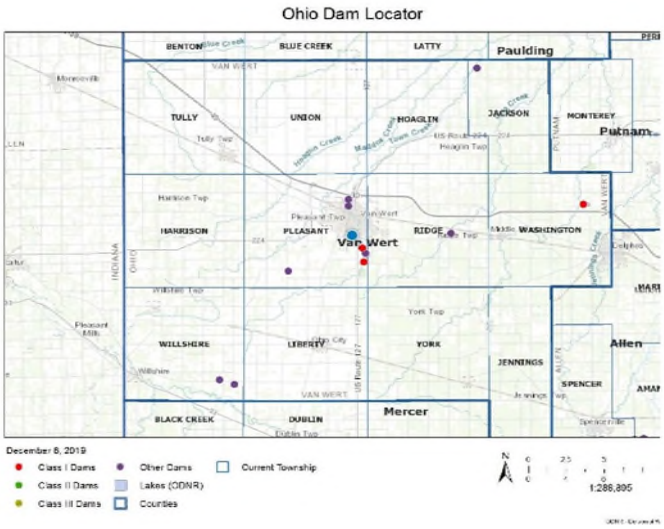
Ohio Dam Classification	Description	Potential Downstream Hazard
Class I	Height of Dam-greater than 60 feet Storage Volume-greater than 5,000 acre-feet	Probable loss of life, serious hazard to health, structural damage to high value property (i.e. homes, industries, major public utilities)
Class II	Height of Dam-greater than 40 feet Storage Volume-greater than 500 acre-feet	Health hazard, flood water damage to homes, businesses, industrial structures (no loss of life envisioned), damage to state and interstate highways, railroads, only access to residential areas.
Class III	Height of dam-greater than 25 acre-feet Storage Volume-greater than 50 acre-feet	Damage to low value, non-residential structures, local roads, agricultural crops and livestock
Class IV	Height of Dam-less than or equal to 25 feet Storage Volume-less than or equal to 50 acre-feet	Losses restricted mainly to the dam

Source: http://water.ohiodnr.gov/safety/dam-safety

Location

According the ODNR's Dam Locator Map, there are 11 dams in Van Wert County. Three of these dams are classified as Class I and 8 are classified as "other" as shown in Figure 2.15. The Class I dams include 2 drinking water reservoirs for the City of Van Wert and 1 drinking water reservoir for the City of Delphos. The Van Wert reservoirs are located south of the city along State Route 127. The City of Delphos' reservoir is located northwest of the city along Shenk Rd. All of the Class I dams are municipally owned.

Figure 2.15-ODNR Dam Locator Map



Source: https://gis2.ohiod nr.gov/MapViewer/?config=ohiodams

All dams regulated by ODNR's Division of Water Resources are required to have an Emergency Action Plan (EAP). Of the Class I dams, 2 of the 3 have an approved EAP. Information on preparing an EPA can be found on ODNR's website at https://ohiodnr.gov/wps/portal/gov/odnr/discover-and-learn/safety-conservation/about-ODNR/water-resources/ohio-dam-safety/06-eap-guidelines. The inventory of dams from ODNR, including EAP status, is shown in Table 2.31 below.

Table 2.31-Inventory of Dams in Van Wert County

Class	Name	Owner	Impoundment	Structure	Length (ft)	Height (ft)	Pool Area (acre)	Storage Volume (ac-ft)	EAP
I	Delphos Reservoir	City of Delphos	Upground	Earthfill	6,130	29	49	1,550	Yes
I	Van Wert Reservoir #1	City of Van Wert	Upground	Earthfill	6,680	22	61.5	1,350	No
I	Van Wert Reservoir #3	City of Van Wert	Upground	Earthfill	11,815	25.5	100	2,397	Yes
Other	Thatcher Lake Dam	Private	Dam and Spillway	Earthfill	1,166	11	2.4	Null	n/a
Other	Van Wert CSO Basin	City of Van Wert	Upground	Earthfill	1,700	9.95	Null	34.39	n/a
Other	Unnamed mining	ODNR	Null	Null	Null	2	Null	Null	n/a
Other	Union Wester Leasing	Union Western	Upground	Earthfill	Null	10	4	Null	n/a

	Upground Reservoir	Leasing Company							
Other	Van Wert Reservoir #2	City of Van Wert	Upground	Earthfill	7,030	26.5	60	1,375	n/a
Other	Raudabaugh Lake Dam	Private	Upground	Earthfill	1,720	6.7	3.4	29.7	n/a
Other	Resor Pond Dam	Private	Dam and Spillway	Earthfill	450	16.3	3.4	null	n/a
Other	Allmandinger Lake Dam	Private	Dam and Spillway	Null	Null	12	2	Null	n/a

Local History

There are no reported dam failures in Van Wert County.

Probability of Future Occurrences

The likelihood of a dam failure occurring in Van Wert County is unlikely, but possible.

Vulnerability Assessment and Loss Estimation

Vulnerability and losses are difficult to estimate due to the fact that there have been no reported dam failures in the county. As such, there are no reported property or crop damages and no injuries or deaths associated with a dam failure.

The likeliest effect of a dam failure would be flooding. Class I dams, characterized as "high hazard potential" dams, would be expected to cause the most significant down-stream damages, including injuries or loss of life. As previously mentioned, 2 of the 3 Class I dams in the county have an approved EAP. However, ODNR holds the record of these EAP's, as well as any information related to inundation studies and states that the "data is subject to agreements where it cannot be published publicly".

The City of Delphos Reservoir is located in a relatively remote area of the county which is not densely populated. Significant structural damages or injuries would not be anticipated in the event of a failure.

The City of Van Wert's Reservoirs #1 and #3 are located adjacent to the south edge of the city. If Reservoir #1 were to fail, significant damages to the Van Wert Hospital and several homes could be expected.

The remaining dams in the County are located primarily in remote areas that are not densely populated and where no critical facilities are located. Therefore, no structural losses or injuries would be anticipated in the event of a dam failure.

3.1 Overview

According to FEMA's Local Hazard Mitigation Planning Handbook all communities must develop a mitigation strategy that outlines how the community will accomplish the goals of the plan and reduce losses identified in the risk assessment. FEMA identifies 4 types of mitigation actions as follows: local plans and regulations, structure and infrastructure projects, natural systems management, and education and awareness programs. During the development of the mitigation strategy the Planning Committee considered the following:

- Identified applicable mitigation goals and strategies based on stakeholder participation including public interest surveys.
- Mitigation strategies focused on those actions that addressed specific risks and vulnerabilities in each jurisdiction, keeping in mind the inherent limitations for planning and financing mitigation activities county-wide.
- Reviewed the progress of the previously adopted mitigation goals and action plans and re-evaluated those strategies based upon the updated information from the risk assessment and vulnerability assessment for each hazard.
- The committee members were reminded to view their strategies considering the likelihood of a hazard occurrence in their jurisdictions, the extent of the occurrence and the impact of those hazards on their jurisdictions.
- Members were asked to provide feedback regarding completion, addition and deletion of action items and other hazard mitigation projects.
- Strategies were prioritized based on an assessment of the social, technical, administrative, political, legal, economic and environmental feasibility of each individual jurisdiction.

The mitigation strategy is comprised of 3 main components as outlined in the *FEMA Local Mitigation Planning Handbook:*

- Goals: general guidelines that describe what the community wants to achieve, generally these are broad policy statements that represent the vision for reducing or avoiding losses from hazard impacts
- Objectives: identifies the specific strategy to achieve stated goals. Unlike goals, objectives are specific and measurable.
- Actions: the specific actions to achieve stated goals and objectives. Actions are prioritized in an action plan that prioritizes action steps, identifies responsible parties as well necessary resources to implement a specific action item.

3.2 Status of Past Mitigation Efforts

Mitigation activities were developed during the 2014 Plan Update. Goals and actions were developed on all hazards and the 3 primary hazards that impact the county: flooding, severe winter storms and severe thunderstorms as well as multi-hazards.

All-Hazards

There are a number of activities that the County undertakes that addresses multiple hazards. Items such as public education programs, collaboration with other entities on disaster awareness and response, integration of mitigation actions with existing plans, pursuing opportunities for funding of mitigation activities and the protection of critical facilities are all key components of a successful mitigation program.

Van Wert County Officials rely on the National Oceanic and Atmospheric Administration (NOAA), National Weather Radio (NWR) to gather key information about weather conditions that affect the County. The Van Wert County Emergency Operations Plan details the actions to be taken in the event of an identified emergency. In addition, the County EMA will issue warnings via a number of outlets including: commercial or public radio and TV stations; the Weather Channel; Cable TV emergency news inserts; Telephone trees/mass telephone notification; NOAA Weather Radio; tone activated receivers in key facilities; outdoor warning sirens; door to door contact; mobile public address systems; e-mail notifications and social media.

Currently, Van Wert County has an outdoor warning system consisting of five warning sirens in the City of Van Wert; two in the Village of Middle Point and one in each of the remaining Villages. Each community uses its siren system for multiple warnings such as tornado, enemy attack and hazardous materials emergency by sounding a different tone for each hazard. The sirens are sounded with a steady tone for tornados and a wailing tone for enemy attack or hazardous materials emergencies.

Flood

All applicable incorporated areas within the County have established floodplain management programs as a part of the National Flood Insurance Program (see Table 3.1, below). Most generally, jurisdictional requirements for construction and other development within identified floodplain areas mimic the Flood Damage Prevention Regulations adopted by the Board of County Commissioners.

Table 3.1-NFIP Participating Communities

CID	Community Name	Current Effective Map Date	Date Community moved from Emergency to Regular Phase
390784	Van Wert County	9/1/1987	9/1/1987
390552	City of Van Wert	6/5/1976	4/28/1975
390550	Village of Convoy	NSFHA	1/3/1985
390841	Village of Middle Point	9/24/1984	9/24/1984
390869	Village of Ohio City	NSFHA	5/13/1983

390867	Village of Willshire	4/1/1992	4/1/1992

New flood maps for Van Wert County have been released and the County is currently in the appeal period which began on June 2, 2021 and will end on September 2, 2021. If no major appeals are received, it is anticipated that the Final Letter of Determination (LFD) from FEMA will be issued by April 1, 2022, with effective maps being issued by October 1, 2022. Once the County receives the final LFD, they can begin to update the floodplain regulations for Van Wert County and its jurisdictions.

Educational information for citizens on post-flood disaster activities (cleanup procedures, managing water/food supplies contaminated by flood waters, etc.) are also available from public entities such as the Van Wert County Health Department and the Van Wert County Emergency Management Agency, as well as online at cdc.gov and other organizations websites.

Additionally, Manufactured Home Park Rules (Chapter 3701-27 of the Ohio Administrative Code) require that all manufactured homes placed within a manufactured home park in a 100-year floodplain after November of 1992 must comply with stipulated blocking requirements. The rules also require that all manufactured homes placed in a manufactured home park after June 1, 1979, must secure the home with tie-downs in accordance with manufacturer's specifications.

Severe Winter Storm

Existing mitigation activities relating to severe winter storms come in the form of preliminary notification and post-disaster response. Public information of an impending severe winter storm is provided by the Van Wert EMA Emergency and its Mass Notification System (nixle), area news media affiliates and the National Oceanic and Atmospheric Administration (NOAA) weather radio system based on predictions from the National Weather Service.

Severe Thunderstorms

Existing mitigation activities relating to severe thunderstorms come in the form of preliminary notification and post-disaster response. Public information of an impending severe winter storm is provided by the Van Wert EMA Emergency and its Mass Notification System (nixle), area news media affiliates and the National Oceanic and Atmospheric Administration (NOAA) weather radio system based on predictions from the National Weather Service.

Table 3.2 summarizes the 2014 Mitigation Actions and their current status, as evaluated by the Planning Committee. These actions are classified by:

- Completed-strategy was completed as written and will not be included in new plan.
- Revised-strategy has been modified, re-written or combined with another strategy, separated into multiple strategies or otherwise modified and included in new plan.
- Ongoing-strategy has not been achieved in its entirety and is included in the new plan.
- Deleted-strategy was determined not feasible or necessary and has been removed from consideration in this plan update.

Table 3.2-Status of 2014 Mitigation Actions

STRATEGY	STATUS
Hazard Type: Tornado Goal: Reduce impacts of tornados on Van Wert County and its residents	
Objective: Provide public information and awareness of the dangers of tornados	
Actions:	
Install warning siren for campgrounds and rural locations to warn people outdoors of approaching severe weather	On-going
Provide NOAA radios for every household and educate residents on their use	Modified-duplicate activity that will be merged into "all-hazards"
Obtain new warning siren for Ohio City and Wren	Partially complete; a new siren was installed in Wren, but one is still needed in Ohio City
Objective: Establish temporary shelter sites for residents in the event of a tornado	
Actions:	
Conduct public outreach to inform homeowners of funding opportunities to construct safe shelters in their homes	On-going
Construct designated safe shelters that would provide protection from severe weather throughout the county	On-going
Objective: Establish protective shelter capability for critical facilities	
Actions:	
Enable one-structure safe room project at the Middle Point Fire Department	The funding for this project was cancelled and is being deleted
Obtain back-up generator for Elgin's shelter site	On-going
Obtain back-up generator for Venedocia's shelter site	On-going
Obtain back-up generator for Van Wert's shelter site	On-going
Hazard Type: Severe Storms Goal: Reduce impacts of severe storms on Van Wert County and its residents	
Objective: Provide public outreach and awareness of the dangers of tornados	
Actions:	
Continue community outreach and education	Modified-duplicate activity that will be merged into "all hazards"
Develop and distribute questionnaire for general public to complete in order to identify the location of sensitive population and those with special needs	Deleted-There is no funding to conduct this activity
Provide NOAA radios for every household and educate residents on their use	Modified-duplicate activity that will be merged into "all hazards"
Continue placement of NOAA radios for all businesses in the City of Van Wert	Completed
Develop tree maintenance program for the City of Van Wert	On-going
Hazard Type: Flooding Goal: Reduce impacts of flooding on Van Wert County and its residents	

Objective: Reduce the impacts of flooding on the Maumee and Auglaize River Watersheds	
Actions:	
Continue community outreach and education	Modified-duplicate activity that will be merged into "all hazards"
Develop debris management program	On-going
Develop list of available resources in the county to assist municipalities with sandbagging in the event of a flood	On-going
Increase the number of sandbags and location of sandbags being stored in the County	On-going
Review and update county floodplain ordinances	On-going
Review and update subdivisions ordnances and/or amendments	On-going
Prepare drainage system maintenance programs	On-going
Complete NFIP compliance map modernization	On-going; currently in process
Review and update county zoning codes	On-going
Install/improve storm drainage systems	On-going
Obtain approved detour plan for road closures in Wilshire during flooding events	On-going
Petition ODOT to improve State Routes in Wilshire to lessen impacts of flooding	Partially complete-SR 81 was improved
Provide sump pumps for critical facilities located in flood prone areas	On-going
Construct retention pond/diversion structure southeast of Wilshire to reduce impacts of flooding	On-going
Join NFIP program (Wren, Elgin, Venedocia)	On-going
Obtain surplus of sandbags to position in Wren for future flooding events	On-going
Develop and fund program for dredging St Mary's River	On-going
Obtain funds for ditch maintenance program	On-going
Hazard Type: Winter Storms Goal: Reduce impacts of winter weather on Van Wert County and its residents	
Objective: Provide public outreach and awareness of storm dangers	
Actions:	
Promote "Saving Minutes" program with other county agencies	Deleted-no funding to support this program
Increase public awareness of "Saving Minutes" tracking program to address special needs of sensitive populations in the event of an emergency	Deleted-no funding to support this program
Increase public awareness of Sheriff's emergencies by providing a public education flyer for Van Wert and surrounding counties explaining each counties' level of emergency	Modified-will be merged into "all hazards" mitigation

Create plan to incorporate "Saving Minutes" data into other emergency operations in the county	Deleted-no funding to support program
Provide NOAA radios for every household and educate residents on their use	Modified-duplicate activity that will be merged into "all hazards"
Objective: Improve visibility on area roads due to high winds and blowing snow	
Actions:	
Create living snow fences such as tree rows to limit blowing and drifting snow across roads	On-going
Hazard Type: Drought Goal: Reduce impacts of drought on Van Wert County and its residents	
Objective: Provide public outreach and awareness of the dangers of drought	
Actions:	
Identify/coordinate access to information regarding the availability of cooling centers in each jurisdiction	On-going
The City of Van Wert's fire hydrants become inoperable during drought conditions. The County wants to provide additional dry hydrants throughout the county that do not depend on a water source for operability	On-going

3.3 Risk Priorities

Risk Priorities

The Hazard Identification and Risk Assessment identified 10 hazards that could impact Van Wert County. The assessment considered the cause and effects of the identified hazards including the frequency and severity of past events and the damages that could occur should an event impact the county or its jurisdictions. As a result, the planning committee determined that the primary hazards affecting the county include tornados, drought, flooding and severe weather events.

Given the limited planning, financial and technical resources to conduct mitigation activities, the Planning Committee will focus its mitigation efforts on those hazards that strike most frequently, cause the most damage and can be prevented or lessened through feasible mitigation activities. The planning team focused on prioritizing those activities that could realistically be accomplished and would result in actual reduction in potential and real losses. The remaining hazards will not be considered until such time as additional studies are developed and resources can be made available for mitigative action other than the implementation of enhanced public education and awareness programs that cover "multiple hazards".

Since the primary hazards affect the County in its entirety, and none of the local jurisdictions administer zoning or building codes and do not have planning commissions or the financial resources to devote to mitigation activities, mitigation actions will be undertaken primarily as a County-wide effort. Local jurisdictions will coordinate mitigation efforts with county agencies and provide support and resources as appropriate.

3.4 Mitigation Goals and Strategies

This section identifies the prioritized mitigation goals and strategies for each jurisdiction and includes action type, lead agency, timelines and potential funding for each action. The mitigation actions were developed in accordance with the following types of mitigation strategies (in no particular order): 1) regulatory and planning; 2) property protection; 3) natural resource protection; 4) structure and infrastructure projects; and 5) public education and awareness as described in FEMA's Hazard Mitigation Ideas resource guide. The lead agency is the entity tasked with ensuring that local officials look for opportunities to implement strategies over the 5-year planning period. The timeline is the timeframe in which individual strategies should be implemented, however based on the availability of funding or changes in priorities as other critical projects emerge may impact the proposed timelines. Several funding sources may be used to undertake hazard mitigation activities depending on the type of project. Some of those sources include: Community Development Block Grant (CDBG), Flood Mitigation Assistance Grant (FMA), Pre-disaster Mitigation Grant (PDM), Severe Repetitive Loss Grant (SRL), Hazard Mitigation Grant Program (HMGP), Repetitive Flood Claims Program (RFC), Homeland Security Grant Program (HSGP), Clean Ohio Grant (COG) as well as local and other state funds. Individual jurisdictions in Van Wert County will need to coordinate with the Van Wert County EMA and/or Development Office to assess eligibility for funding.

Planning team members and representatives from local jurisdictions worked collaboratively to develop the goals and strategies. GLCAP drafted a list of strategies based on stakeholder input and presented them to the planning committee and other interested parties. Mitigation actions were developed based on projects thought to be the most feasible and the most beneficial to hazard reduction. Due to the COVID-19 epidemic, this activity was conducted via Google survey and an in-person meeting. Respondents were asked to rank strategies on a scale from lowest priority to highest priority and were also given a "no priority option". The priority strategies were tabulated and presented to the stakeholders for final review and approval. The strategy ranking can be found in Appendix D. Goals and strategies listed under specific jurisdictions reflect the individual risks identified by the municipality. Many are similar, but not identical across the County. Based on individual community characteristics and disaster history, the prioritization of hazards and priority mitigation strategies varied. Priority mitigation goals and strategies shown in the following section are listed in the order of task numbers from highest to lowest.

Priority mitigation projects will only be implemented if the maximum benefits outweigh the associated costs of the proposed projects. The Planning Committee performed a general assessment of each mitigation measure that might require FEMA funding. Detailed cost-benefit analysis of each mitigation activity will be required during the project planning phase in order to determine economic feasibility. Projects will also be evaluated for eligibility and feasibility based on social and environmental impact, technical feasibility and any other criteria that measure project effectiveness. This detailed evaluation of projects will be performed during the pre-application phase of any grant request. Further, project implementation will be subject to the availability of FEMA grants and other sources of funds as well as local resources. Projects that are determined to be infeasible during this detailed review will be re-evaluated by the Planning Committee for re-scheduling or deletion.

3.4.1 Van Wert County

Van Wert County is located in northwest Ohio. The northern part of the county is situated at the southern edge of the area previously known as the Great Black Swamp and is characterized by flat to gently sloping terrain, rich agricultural soils and riverine and isolated wetlands. These geographic conditions contribute to the primary hazards impacting Van Wert County such as tornadoes and flooding. Weather related events tend to exacerbate impacts to the county and its jurisdictions due to these conditions.

The flat, open nature of the county lends itself to the impacts of high winds and tornadoes which is the primary concern to the County. These events can occur at any time and place where weather conditions are favorable.

All of Van Wert County is susceptible to severe storms and other natural occurrences that can lead to power outages, property damages, endanger lives and interrupt the well-being of residents and workers.

There are several two-lane state highways that are heavily traveled by trucks, trailers and local traffic. The main route through the County is State Route 127 that runs north/south through the county and US 30 that traverses east/west across the county into Indiana. Freight-related traffic may be carrying hazardous materials and/or volatile compounds as well as retail goods along these routes. These materials are also transported by rail through Van Wert County. Severe weather events can lead to devastating accidents.

Table 3.3 shows the top priority mitigation strategies by hazard for Van Wert County.

Table 3.3-County Mitigation Goals and Strategies

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
Goal 1. Van Wert County will reduce the negative effects of tornadoes					
Task 1.1-The county will continue to conduct public education activities related to tornado awareness and safety					
	Public Education	County EMA	1/1/2022	1/1/2027	Local
Task 1.2-The county will assess the potential and implement construction of residential and community safe rooms in each jurisdiction					
	Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local, CDBG, FMA, PDA, HMGP, Others
Task 1.3-The County will require wind resistant building techniques for new construction and building retrofits					
	Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local
Goal 2. Van Wert County will reduce the negative effects of severe storms					
Task 2.1-The County will assess feasibility to protect critical facilities from damages related to severe storms.					
	Structure and Infrastructure	County Engineer	1/1/2022	1/1/2027	Local, PDM, CDBG
Task 2.2-Coordinate with utility providers to protect power lines and infrastructure through regular maintenance activities					
	Structure and Infrastructure	County EMA	1/1/2022	1/1/2027	Local

Task 2.3-Contine to conduct public education and outreach activities related to severe storm awareness and safety				
Public Education	County EMA	1/1/2022	1/1/2027	Local
Task 2.4-Promote or require site and building design standards to minimize windstorm damages				
Planning and Regulatory	County Commissioners	1/1/2022	1/1/2027	Local
Task 2.5-Adopt regulations governing residential construction to prevent wind damage				
Planning and Regulatory	County Commissioners	1/1/2022	1/1/2027	Local
Goal 3. Van Wert County will reduce the negative effects of flooding on residents and county facilities				
Task 3.1-Purchase portable sump pumps for use during flooding events				
Property Protection	County EMA	1/1/2022	1/1/2027	FEMA, CDBG
Task 3.2-Improve storm drainage capacity throughout the county its jurisdictions				
Structure and Infrastructure	County Engineer	1/1/2022	1/1/2027	OPWC, CDBG, HMGP, FMA, Local
Task 3.3-Incorporate flood mitigation into local planning efforts				
Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local
Task 3.4-Conduct regular maintenance on drainage systems and flood control structures				
Structure and Infrastructure	County Engineer	1/1/2022	1/1/2027	Local, HMGP, OPWC, CDBG
Task 3.5-Improve storm water management and planning throughout the county and its jurisdictions				
Planning and Regulatory	County Engineer	1/1/2022	1/1/2027	Local
Task 3.6-Provide protection for critical facilities located in flood prone areas (install/upgrade stormwater pump stations, raise electrical components above base flood elevations, etc.)				
Structure and Infrastructure	County Engineer	1/1/2022	1/1/2027	Local, HMGP, CDBG
Task 3.7-Protect infrastructure in flood prone areas (elevate roads and bridges above base flood elevations, flood proof water and wastewater facilities, employ bank stabilizations techniques, etc.)				
Structure and Infrastructure	County EMA	1/1/2022	1/1/2027	HMGP, FMA, OPWC, CDBG, Local
Task 3.8-Conduct mitigation activities for repetitive loss structures by assessing the potential and conducting acquisition/demolition/retrofitting for flood prone properties				
Property Protection	County Floodplain Administrator	1/1/2022	1/1/2027	FEMA, CDBG
Goal 4. Van Wert County will reduce the negative effects of severe winter weather on residents and county facilities				

Task 4.1-Provide assistance to vulnerable populations (identify specific at-risk populations that are vulnerable to long-term power outages, establish and promote heating centers throughout the county, etc.)				
Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local, Other TBD
Task 4.2-Reduce impacts to roadways (maintain adequate road clearing equipment, identify structures to limit blowing and drifting snow, etc.)				
Structure and Infrastructure	County EMA	1/1/2022	1/1/2027	Local, Other TBD
Task 4.3-Continue to conduct public education activities related to winter storm awareness and safety				
Public Education and Awareness	County EMA	1/1/2022	1/1/2027	Local
Task 4.4-Protect buildings and infrastructure from the effects of extreme cold, heavy snow and ice				
Structure and Infrastructure	County Engineer	1/1/2022	1/1/2027	HMGP, OPWC, CDBG, Local, Other TBD
Goal 5. Van Wert County will reduce the negative impacts of drought on residents and the county				
Task 5.1-Monitor drought conditions and water supplies				
Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local
Task 5.2-Continue to conduct public education activities related to drought awareness and safety				
Public Education and Awareness	County EMA	1/1/2022	1/1/2027	Local
Task 5.3-Assess vulnerability to drought risk				
Planning and Regulatory	County Engineer	1/1/2022	1/1/2027	Local, Others TBD
Task 5.4-Plan for drought (develop emergency plans, develop agreements for secondary sources of water to be used during drought conditions, etc.)				
Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local, Others TBD
Task 5.5-Require the use of water conservation measures during drought conditions				
Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local
Goal 6. Van Wert County will reduce the negative effects of extreme temperatures on county residents.				
Task 6.1-Provide assistance to vulnerable populations (identify specific at-risk populations that vulnerable to the effects of extreme heat and cold, establish heating and cooling centers throughout the county).				
Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local, Others TBD
Task 6.2-Conduct public education related to extreme temperature awareness and safety				
Public Education and Awareness	County EMA	1/1/2022	1/1/2027	Local
Goal 7. Van Wert County will reduce the negative effects of earthquakes on residents and county facilities.				
Task 7.1-Protect critical facilities (assess potential to retrofit buildings, require bracing of generators and elevators in hospitals, etc.)				

Planning and Regulatory	County Engineer	1/1/2022	1/1/2027	Local, Others TBD
Task 7.2-Conduct public education activities related to earthquake awareness and safety				
Public Education and Awareness	County EMA	1/1/2022	1/1/2027	Local
Task 7.3-Map and assess community vulnerability to seismic hazards				
Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local, Others TBD
Task 7.4-Adopt and enforce building codes to reduce damage to structures				
Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local
Task 7.5-Incorporate earthquake mitigation into local planning codes and ordinances				
Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local
Goal 8. Van Wert County will reduce the negative effects of all hazards through regulation and planning efforts, property protection projects and/or enhanced public education				
Task 8.1-The County and its jurisdictions will advocate for the use of the county-wide public notification system for weather related events and other emergencies				
Public Education and Awareness	County EMA	1/1/2022	1/1/2027	Local
Task 8.2-The County and its jurisdictions will provide and maintain adequate communication equipment for first responders to ensure proper communication during emergencies				
Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local
Task 8.3-The county and its jurisdictions will work to reduce response times for safety services during and after a hazard event				
Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local
Task 8.4-Municipalities will coordinate with the county to improve and maintain communications as it relates to public outreach and emergency messages and as it facilitates collaboration between first responders before, during and after hazard events and other emergencies				
Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local, PDA, HMGP
Task 8.5-The county and its jurisdictions will identify the most at-risk critical facilities and assess the potential for mitigation techniques				
Property Protection	County Engineer	1/1/2022	1/1/2027	Local, HMGP
Task 8.6-Continue enhanced public education and outreach to inform the public of the dangers associated with natural hazards and how to implement private mitigation and safety strategies				
Public Education and Awareness	County EMA	1/1/2022	1/1/2027	Local
Task 8.7-The county and its jurisdictions will advocate that property owners purchase adequate property, casual and flood insurance to help cover the cost of property repair and replacement after hazard events				
Property Protection	County EMA	1/1/2022	1/1/2027	Local
Task 8.8-The County will develop a GIS system to identify, map and track hazard areas and events to further assess community vulnerability				

Planning and Regulatory	County Commissioners	1/1/2022	1/1/2027	Local, Others TBD
Task 8.9-Juisdictions will work with the county to implement a GIS hazard event tracking system				
Planning and Regulatory	County Commissioners	1/1/2022	1/1/2027	Local, Others TBD
Task 8.10-The county and its jurisdictions will assess feasibility to relocate or retrofit public buildings in hazard prone areas				
Property Protection	County EMA	1/1/2022	1/1/2027	Local, Others TBD
Goal 9. Van Wert County will reduce the impacts of dam failure on the County and its jurisdictions				
Task 9.1- The county and its jurisdictions will assess feasibility to relocate or retrofit public buildings in hazard prone areas.				
Structure and Infrastructure	County Engineer	1/1/2022	1/1/2027	Local, OWDA, HHPD
Task 9.2-Assist dam owners to obtain inundation mapping for high hazard potential dams in the county and all jurisdictions with Class I dams (https://www.fema.gov/sites/default/files/2020-08/fema_dam-safety_inundation-mapping-flood-risks.pdf)				
Planning and Regulatory	County Engineer/GIS	1/1/2022	1/1/2027	Local
Task 9.3-Coordinate with Class I dam owners to develop EAP's as appropriate and provide funding assistance as needed.				
Planning and Regulatory	County EMA	1/1/2022	1/1/2027	Local, OWDA, HHPD

3.4.2 City of Van Wert

Incorporated in 1848, the City of Van Wert is the County seat for Van Wert County where most government and safety services are located. It is also the employment and retail hub for the county. It is centrally located at the intersection of State Route 127 and US 30 which is how most goods and freight move through the county. The city is particularly vulnerable to severe storms, severe winter weather, flooding and tornados, with one tornado event in 2002 killing 2 and causing millions of dollars in damages. The City also owns 2-Class I dams that serve as the city's drinking water reservoirs. Only one of these dams has an approved Emergency Action Plan (EAP). The city struggles to keep up with maintenance and improvement of its old and outdated infrastructure as well as eliminating abandoned and unused buildings that often become casualties of severe weather events. Power outages are also common during extreme weather events making it more difficult to respond during and after an emergency. The City has identified the following mitigation goals and strategies:

Table 3.4-Van Wert City Mitigation Goals and Strategies

Mitigation Action	Lead Agency	Start Date	End Date	Funding
Goal 1. The City of Van Wert will reduce the negative impacts of flooding				
Task 1.1-The City will conduct mitigation activities for repetitive loss structures by assessing the potential for acquisition/demolition/retrofitting flood prone properties				
Property Protection	City Manager	1/1/2022	1/1/2027	FEMA, CDBG
Goal 2. The City of Van Wert will reduce the negative impacts of tornados				
Task 2.1-The city will continue to conduct public education activities related to tornado awareness and safety				
Public Education	City Manager	1/1/2022	1/1/2027	Local
Task 2.2-The city will assess the potential to construct safe rooms to provide shelter for residents during tornado events				
Planning and Regulatory	City Engineer	1/1/2022	1/1/2027	Local, CDBG, FMA, PDA, HMGP, Others
Goal 3. The City of Van Wert will reduce the impacts of dam failure on its residents				
Task 3.1-The city will ensure that regular maintenance and/or rehabilitation of dams is being conducted.				
Structure and Infrastructure	City Engineer	1/1/2022	1/1/2027	Local, OWDA, HHPD
Task 3.2-Obtain inundation mapping for the City's high hazard potential dams (Class I dams) (https://www.fema.gov/sites/default/files/2020-08/fema_dam-safety_inundation-mapping-flood-risks.pdf)				
Planning and Regulatory	City Engineer	1/1/2022	1/1/2027	Local
Task 3.3-The City will develop and/or update EAP for its Class I dams as appropriate				
Planning and Regulatory	City Engineer	1/1/2022	1/1/2027	Local, OWDA, HHPD
Goal 4. The City of Van Wert will reduce the negative effects of all hazards through regulation and planning efforts, property protection projects and/or enhanced public education				
Task 4.1-The City will advocate for the use of the county-wide public notification system for weather related events and other emergencies				
Public Education and Awareness	City Manager	1/1/2022	1/1/2027	Local
Task 4.2-The City will provide and maintain adequate communication equipment for first responders to ensure proper communication during emergencies				
Planning and Regulatory	City Manager	1/1/2022	1/1/2027	Local
Task 4.3-The City will work to reduce response times for safety services during and after a hazard event				
Planning and Regulatory	Police and Fire Chief	1/1/2022	1/1/2027	Local
Task 4.4-The City will coordinate with the county to improve and maintain communications as it relates to public outreach and emergency messages and as it facilitates collaboration between first responders before, during and after hazard events and other emergencies				
Planning and Regulatory	City Manager	1/1/2022	1/1/2027	Local, PDA, HMGP
Task 4.5-The city will coordinate with the county to identify the most at-risk critical facilities and assess the potential for mitigation techniques				

Property Protection	City Engineer	1/1/2022	1/1/2027	Local, HMGP
Task 4.6-Continue enhanced public education and outreach to inform the public of the dangers associated with natural hazards and how to implement private mitigation and safety strategies				
Public Education and Awareness	City Manager	1/1/2022	1/1/2027	Local
Task 4.7-The county and its jurisdictions will advocate that property owners purchase adequate property, casual and flood insurance to help cover the cost of property repair and replacement after hazard events				
Property Protection	City Manager	1/1/2022	1/1/2027	Local
Task 4.8-The City will work with the county to implement a GIS hazard event tracking system				
Planning and Regulatory	County Commissioners	1/1/2022	1/1/2027	Local, Others TBD
Task 4.9-The city will coordinate with the county to assess feasibility to relocate or retrofit public buildings in hazard prone areas				
Property Protection	County EMA	1/1/2022	1/1/2027	Local, Others TBD

3.4.3 Village of Convoy

The Village of Convoy is located in northwestern Van Wert County, along US Route 30. Hagerman Creek flows northeast out of the village making it susceptible to the effects of flooding in addition to tornadoes, severe storms and severe winter weather. The village struggles to keep up with maintenance and improvement of its old and outdated infrastructure as well as eliminating abandoned and unused buildings that often become casualties of severe weather events. Convoy has identified the following mitigation goals and strategies:

Table 3.5-Convoy Goals and Mitigation Strategies

Mitigation Action	Lead Agency	Start Date	End Date	Funding
Goal 1- The Village will reduce the negative effects of severe storms				
Task 1.1-The Village will assess the potential to protect critical facilities and infrastructure from storm related damages				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local, Others TBD
Task 1.2-The Village will coordinate with the county to conduct enhanced public education activities related to severe storm awareness and safety.				
Public Education and Awareness	Village Administrator	1/1/2022	1/1/2027	Local
Goal 2. The Village will reduce the negative effects of severe winter weather				
Task 2.1-The Village will assess the potential to protect critical facilities and infrastructure from the effects of extreme cold, heavy snow and ice				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local, Others TBD
Task 2.2-The Village will identify and provide assistance to vulnerable populations that are susceptible to negative impacts of long-term power outages.				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local

Task 2.3-Plan for and maintain adequate road clearing equipment in order to clear roads of snow, ice and debris in an efficient manner after a severe weather event				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 2.4-The Village will coordinate with the County to conduct enhanced public education activities related to winter storm awareness and safety.				
Public Education and Awareness	Village Administrator	1/1/2022	1/1/2027	Local
Goal 3. The Village will reduce the negative effects of tornadoes				
Task 3.1-The Village will coordinate with the county to conduct enhanced public education activities related to tornado awareness and safety				
Public Education and Awareness	Village Administrator	1/1/2022	1/1/2027	Local
Task 3.2-The Village will assess the potential to construct safe rooms to provide shelter for residents during tornado events				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local, CDBG, FMA, PDA, HMGP, Others
Task 3.3-Adopt regulations governing residential construction to prevent wind damage				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 3.4-Adopt regulations requiring wind resistant building techniques for new construction and retrofits.				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 3.5-Promote or require site and building design standard to minimize wind damage to buildings				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 3.6-The Village will coordinate with utility providers to protect power lines and other infrastructure from damages through the implementation of regular maintenance activities				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Goal 4. The Village will reduce the negative effects of flooding				
Task 4.1-The Village will manage flooding and protect property by improving storm water drainage capacity and improved maintenance of storm sewers and drainage systems where it will alleviate flooding				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local, CDBG, OPWC
Task 4.2-The Village adopt policies to reduce stormwater runoff				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 4.3-The Village will coordinate with the county to identify culverts and other storm drainage structures for repair/replacement				
Structure and Infrastructure	Village Administrator	1/1/2022	1/1/2027	CDBG, OPWC, Local
Task 4.4-The Village will coordinate public information releases with the County on the risks of flooding and private property protection				
Public Education and Awareness	Village Administrator	1/1/2022	1/1/2027	Local
Task 4.5-The Village will coordinate with the county to identify need for flood-proofing critical facilities including water and wastewater facilities in the Village.				

Property Protection	Village Administrator	1/1/2022	1/1/2027	Local, FMA, Others
Task 4.6-The Village will coordinate with the county to assess the potential to elevate, remove or retrofit structures and utilities in flood prone areas				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local, FMA, Others
Task 4.7-The Village will coordinate with the county to protect and restore natural flood mitigation features and preserve floodplains as open space				
Natural Systems Protection	Village Administrator	1/1/2022	1/1/2027	Local, Others TBD
Task 4.8-The Village will coordinate with the county to conduct enhanced public education regarding flood awareness and safety as well private mitigation techniques to protect property				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local
Goal 5. The Village will reduce the negative effects of multiple hazards				
Task 5.1-The village will coordinate with the county to identify and promote the location of heating and cooling centers throughout the county				
Panning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 5.2-The village will coordinate with the county to improve and maintain communications as it relates to public outreach and emergency messages and as it facilitates collaboration between first responders before, during and after hazard events and emergencies				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 5.3-The village will coordinate with the county to reduce response times for safety services during and after a hazard event				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 5.4-The village will coordinate with the county to continue public education and outreach to inform the public of the dangers associated with natural hazards and how to implement private mitigation and safety strategies				
Public Education and Awareness	Village Administrator	1/1/2022	1/1/2027	Local
Task 5.5-The village will coordinate with the county to identify the most at-risk critical facilities and assess the potential for mitigation techniques				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local, Others TBD
Task 5.6-The village will provide and maintain adequate communications equipment for first responders to ensure proper communication during emergencies				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 5.7-The village will advocate that property owners purchase adequate property, casualty and flood insurance to help cover the cost of property repair and replacement after hazard events				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local, HSGP
Task 5.8-The Village will coordinate with the county to implement GIS hazard event tracking system				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local

3.4.4 Village of Ohio City

The Village of Ohio City is located south of the city of Van Wert off State Route 127 in south central Van Wert County. The Village is especially vulnerable to the effects of tornados, severe winter weather, drought, extreme temperatures and hazardous materials incidents. The village struggles to keep up with

maintenance and improvements of its old and outdated infrastructure as well as eliminating abandoned and unused buildings that often become casualties of severe weather events. The Village of Ohio City has identified specific mitigation goals and strategies for tornadoes, extreme temperature events and hazardous materials. All other hazards will be mitigated through implantation of " " strategies.

Table 3.6-Ohio City Goals and Mitigation Strategies

Mitigation Action	Lead Agency	Start Date	End Date	Funding
Goal 1. The Village of Ohio City will reduce the negative effects of tornadoes				
Task 1.1-The Village will coordinate with the county to assess the potential to construct a safe room in the Village.				
Structure and Infrastructure	Village Administrator	1/1/2022	1/1/2027	Local, OPWC, ODOT, HMGP, Others
Task 1.2-The Village will coordinate with the County EMA to conduct public education activities related to tornado safety and awareness.				
Public Education	Village Administrator	1/1/2022	1/1/2027	Local, HMGP, Others
Task 1.3-The Village will coordinate with the county to obtain a new warning siren				
Structure and Infrastructure	Village Administrator	1/1/2022	1/1/2027	Local, Others TBD
Goal 2. The Village of Ohio City will reduce the negative effects of extreme temperatures				
Task 2.1-The Village will provide assistance to at-risk populations by identifying those that are vulnerable to long-term power outages.				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Goal 3. The Village of Ohio City will reduce vulnerability to damages from hazardous materials spills and incidents				
Task 3.1-The Village will coordinate with the County and other agencies to ensure adequate training of its first responders in response and management of hazardous materials spills				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local, Other
Task 3.2-The village will ensure adequate mutual aid agreements are in place for assistance in the event of a spill				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 3.3-The village will ensure adequate signage is in place to help vehicles hauling hazardous materials move through the village safely and efficiently				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local, ODOT, others
Goal 4-The Village will reduce the negative effects of multiple hazards on property and residents				
Task 4.1-The Village will coordinate with the county to identify the most at-risk critical facilities and assess the potential for mitigation techniques				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local, HMGP
Task 4.2-Continue enhanced public education and outreach to inform the public of the dangers associated with natural hazards and how to implement private mitigation and safety strategies				
Public Education and Awareness	Village Administrator	1/1/2022	1/1/2027	Local

Task 4.3-The county and its jurisdictions will advocate that property owners purchase adequate property, casual and flood insurance to help cover the cost of property repair and replacement after hazard events				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local
Task 4.4-The Village will work with the county to implement a GIS hazard event tracking system				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local, Others TBD
Task 4.5-The Village will coordinate with the county to assess feasibility to relocate or retrofit public buildings in hazard prone areas				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local, Others TBD

3.4.5 Village of Middle Point

The Village of Middle Point is located directly east of the City of Van Wert, south of US 30. The Little Auglaize River flows through the southeastern corner of the Village making the Village susceptible to the impacts of flooding. The village has also identified particular vulnerability to severe winter weather, extreme temperatures, hazardous materials incidents and hailstorms.

Table 3.7-Middle Point Goals and Mitigation Strategies

Mitigation Action	Lead Agency	Start Date	End Date	Funding
Goal 1. The Village of Middle Point will reduce the negative effects of severe winter weather				
Task 1.1-The Village will assess potential to protect buildings and infrastructure for the effects of extreme cold and heavy snow and ice.				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local, PDM, CDBG, others
Task 1.2-The Village will work to reduce impacts roadways by purchasing and maintaining adequate road clearing equipment				
Structure and Infrastructure	Village Administrator	1/1/2022	1/1/2027	Local
Goal 2. The Village of Middle Point will reduce the negative impacts of flooding				
Task 2.1-The Village will incorporate flood mitigation into local planning efforts				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 2.2-The village will work to limit or restrict development in flood prone areas				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 2.3-The Village will develop storm water management plans				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 2.4-The Village will work to improve stormwater drainage capacity and conduct regular maintenance activities for drainage systems and flood control structures				
Structure and Infrastructure	Village Administrator	1/1/2022	1/1/2027	Local, CDBG, OPWC, Others
Task 2.5-The Village will identify and assess the potential to provide protection for critical facilities and other structures and utilities located in flood prone areas either by elevating or retrofitting such structures				
Structure and Infrastructure	Village Administrator	1/1/2022	1/1/2027	Local, others TBD
Goal 3. The Village of Middle Point will reduce vulnerability to damages from hazardous materials spills and incidents				

Task 3.1-The Village will coordinate with the County and other agencies to ensure adequate training of its first responders in response and management of hazardous materials spills				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local, Other
Task 3.2-The village will ensure adequate mutual aid agreements are in place for assistance in the event of a spill				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local
Task 3.3-The village will ensure adequate signage is in place to help vehicles hauling hazardous materials move through the village safely and efficiently				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local, ODOT, others
Goal 4. The Village of Middle Point will reduce the negative effects of multiple hazards				
Task 4.1-The village will work to reduce response times for safety services during and after a hazard event				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	
Task 4.2-The village will coordinate with the county to improve and maintain communications as it relates to public outreach and emergency messages and as it facilitates collaboration between first responders before, during and after hazard events and emergencies				
Public Education and Awareness	Village Administrator	1/1/2022	1/1/2027	Local
Task 4.3-The village will advocate the use of the county-wide public notification system for public notification of weather-related events and other emergencies				
Public Education and Awareness	Village Administrator	1/1/2022	1/1/2027	Local
Task 4.4-The village will provide and maintain adequate communications equipment for first responders to ensure proper communication during emergencies				
Public Education and Awareness	Village Administrator	1/1/2022	1/1/2027	Local, HSGP
Task 4.5-The village will advocate that property owners purchase adequate property, casualty and flood insurance to help cover the cost of property repair and replacement after hazard events				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local
Task 4.6-The Village will coordinate with the county to implement GIS hazard event tracking system				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local

3.4.6 Village of Willshire

The Village of Willshire is a small village located in the southwest corner of the county along US Route 33. The St. Mary's River flows along the eastern edge of the Village making it susceptible to the effects of flooding. The Village is also vulnerable to severe storms, severe winter storms, tornados, drought and extreme temperatures. The village is remotely located away from county emergency services and resources, relying heavily on volunteer fire and EMS personnel, therefore it is important that they establish and maintain disaster resiliency and self-sufficiency.

Table 3.8-Willshire Goals and Mitigation Strategies

Mitigation Action	Lead Agency	Start Date	End Date	Funding
Goal 1. The Village of Willshire will reduce the negative effects of severe storms				
Task 1.1-The Village will coordinate with the county to assess the vulnerability of critical facilities to damage from severe weather and identify the potential for mitigation				

Property Protection	Village Administrator	1/1/2022	1/1/2027	Local
Task 1.2-The Village will coordinate with the county to increase public awareness of the risks associated with severe storms				
Public Education and Awareness	Village Administrator	1/1/2022	1/1/2027	Local
Task 1.3-The Village will advocate for and implement programs to trim trees, clear ditches and streams of debris and other actions to protect property from storm damages				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local
Goal 2. The Village of Willshire will reduce the negative effects of severe winter weather on property and residents				
Task 2.1-Plan for and maintain adequate road clearing equipment in order to clear roads of snow, ice and debris in an efficient manner after a severe weather event				
Structure and Infrastructure	Village Administrator	1/1/2022	1/1/2027	Local, Others TBD
Goal 3. The Village of Willshire will reduce the negative effects of flooding				
Task 3.1-The village will manage flooding and protect property through improved maintenance of storm sewers and drainage systems where it will alleviate flooding				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local
Task 3.2-The Village will coordinate with the county to identify culverts and other storm drainage structures for repair/replacement				
Structure and Infrastructure	Village Administrator	1/1/2022	1/1/2027	CDBG, Local, PDM
Task 3.3-The Village will coordinate with the County to identify the need for flood-proofing critical facilities and identify potential funding opportunities				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local, Others TBD
Task 3.4-The Village will coordinate public information releases with the County on the risks of flooding and private property protection				
Public Education and Awareness	Village Administrator	1/1/2022	1/1/2027	Local
Goal 4. The Village will reduce the negative impacts of tornadoes and property and residents				
Task 4.1-The Village will coordinate with the county to assess the potential to construct a safe room in the Village.				
Structure and Infrastructure	Village Administrator	1/1/2022	1/1/2027	Local, Others TBD
Goal 5. The Village will reduce the negative impacts of drought				
Task 5.1-The Village will coordinate with the County and other partners to provide public information on water saving techniques such as low flow toilets and showerheads, fixing leaks in plumbing and others.				
Structure and Infrastructure	Village Administrator	1/1/2022	1/1/2027	Local
Goal 6. The Village will reduce the negative effects of extreme heat				
Task 6.1-The Village will coordinate with the county to provide public informational release on the location of cooling and heating centers				
Public Education and Awareness	Village Administrator	1/1/2022	1/1/2027	Local
Goal 7. The Village will reduce the negative effects of multiple hazards				
Task 7.1-The village will coordinate with the county to improve and maintain communications as it relates to public outreach and emergency messages and as it facilitates collaboration between first responders before, during and after hazard events and emergencies				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local

Task 7.2-The village will advocate for the use of the county-wide public notification system for notification of weather-related events and other emergencies				
Public Education and Awareness	Village Administrator	1/1/2022	1/1/2027	Local
Task 7.3-The village will provide and maintain adequate communications equipment for first responders to ensure proper communication during emergencies				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local, HSGP
Task 7.4-The village will advocate that property owners purchase adequate property, casualty and flood insurance to help cover the cost of property repair and replacement after hazard events				
Property Protection	Village Administrator	1/1/2022	1/1/2027	Local
Task 7.5-The Village will coordinate with the county to implement GIS hazard event tracking system				
Planning and Regulatory	Village Administrator	1/1/2022	1/1/2027	Local

3.4.7 Village of Venedocia

The Village of Venedocia is a small village located approximately 10 miles southeast of the City of Van Wert. Wolf Ditch, a tributary of the Little Auglaize River runs adjacent to the Village making it susceptible to the effects of flooding. The Village is also primarily vulnerable to severe storms, drought, severe winter storms and extreme temperatures. The village is remotely located away from county emergency services and resources, relying heavily on volunteer fire and EMS personnel, therefore it is important that they establish and maintain disaster resiliency and self-sufficiency.

Table 3.9-Venedocia Goals and Mitigation Strategies

Mitigation Action	Lead Agency	Start Date	End Date	Funding
Goal 1. The Village of Venedocia will reduce the negative effects of flooding				
Task 1.1-The village will improve stormwater drainage capacity and protect property through improved maintenance of storm sewers and drainage systems where it will alleviate flooding.				
Property Protection	Mayor	1/1/2022	1/1/2027	Local
Task 1.2-The Village will coordinate with the county to identify culverts and other storm drainage structures for repair/replacement				
Structure and Infrastructure	Mayor	1/1/2022	1/1/2027	CDBG, Local, PDM
Task 1.3-The Village will coordinate with the County to identify the need for flood-proofing critical facilities and identify potential funding opportunities				
Property Protection	Mayor	1/1/2022	1/1/2027	Local, Others TBD
Task 1.4-The Village will coordinate public information releases with the County on the risks of flooding and private property protection				
Public Education and Awareness	Mayor	1/1/2022	1/1/2027	Local
Goal 2. The Village will reduce the negative impacts of drought				
Task 2.1-The Village will coordinate with the County and other partners to provide public information on water saving techniques such as low flow toilets and showerheads, fixing leaks in plumbing and others.				
Public Education and Awareness	Mayor	1/1/2022	1/1/2027	Local
Goal 3. The Village of Venedocia will reduce the negative effects of severe storms				

Task 3.1-The Village will coordinate with utility providers to ensure the protection of power lines and other infrastructure from storm damage through the implementation of regular maintenance activities.				
Structure and Infrastructure	Mayor	1/1/2022	1/1/2027	Local
Task 3.2-The Village will coordinate with the county to assess the vulnerability of critical facilities to damage from severe weather and identify the potential for mitigation				
Property Protection	Mayor	1/1/2022	1/1/2027	Local
Task 3.3-The Village will coordinate with the county to increase public awareness of the risks associated with severe storms				
Public Education	Mayor	1/1/2022	1/1/2027	Local
Task 3.4-The Village will advocate for and implement programs to trim trees, clear ditches and streams of debris and other actions to protect property from storm damages				
Property Protection	Mayor	1/1/2022	1/1/2027	Local
Goal 4. The Village will reduce the negative effects of severe winter weather on property and residents				
Task 4.1-Plan for and maintain adequate road clearing equipment in order to clear roads of snow, ice and debris in an efficient manner after a severe weather event				
Structure and Infrastructure	Mayor	1/1/2022	1/1/2027	Local, Others TBD
Goal 5. The Village will reduce the negative effects of extreme temperatures on vulnerable populations				
Task 5.1-The Village will coordinate with the county to provide public informational releases on the location of cooling and heating centers				
Public Education and Awareness	Mayor	1/1/2022	1/1/2027	Local
Goal 6. The Village will reduce the negative effects of multiple hazards				
Task 6.1-The village will work with the county to reduce response time for safety services during and after an event.				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local
Task 6.2-The village will advocate for the use of the county-wide public notification system for notification of weather-related events and other emergencies				
Public Education and Awareness	Mayor	1/1/2022	1/1/2027	Local
Task 6.3-The village will provide and maintain adequate communications equipment for first responders to ensure proper communication during emergencies				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local, HSGP
Task 6.4 -The village will coordinate with the county to improve and maintain communications as it relates to public outreach and emergency messages and as it facilitates collaboration between first responders before, during and after hazard events and emergencies				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local
Task 6.5-The village will coordinate with the county to identify the most at-risk facilities and assess the potential for mitigation techniques.				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local
Task 6.6-The Village will coordinate with the County to provide enhanced public education and outreach to inform the public of the dangers associated with natural hazards and how to implement private mitigation and safety strategies.				

Public Education and Awareness	Mayor	1/1/2022	1/1/2027	Local
Task 6.7-The Village will coordinate with the county to implement GIS hazard event tracking system				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local

3.4.8 Village of Elgin

The Village of Elgin is a small village located approximately 15 miles southeast of the City of Van Wert. The Village is also primarily vulnerable to tornadoes, severe storms, severe winter weather and extreme temperatures. The village is remotely located away from county emergency services and resources, relying heavily on volunteer fire and EMS personnel, therefore it is important that they establish and maintain disaster resiliency and self-sufficiency.

Table 3.10-Elgin Goals and Mitigation Strategies

Mitigation Action	Lead Agency	Start Date	End Date	Funding
Goal 1. The Village will reduce the negative effects of tornadoes				
Task 1.1-The village will coordinate with the county to assess the feasibility to construct a safe room in the Village				
Structure and Infrastructure	Mayor	1/1/2022	1/1/2027	Local
Goal 2. The Village will reduce the negative effects of extreme temperatures on vulnerable populations				
Task 2.1-The Village will coordinate with the county to provide public informational releases on the location of cooling and heating centers				
Public Education and Awareness	Mayor	1/1/2022	1/1/2027	Local
Goal 3. The Village will reduce the negative effects of multiple hazards				
Task 3.1-The village will work with the county to reduce response time for safety services during and after an event.				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local
Task 3.2-The village will advocate for the use of the county-wide public notification system for notification of weather-related events and other emergencies				
Public Education and Awareness	Mayor	1/1/2022	1/1/2027	Local
Task 3.3-The village will provide and maintain adequate communications equipment for first responders to ensure proper communication during emergencies				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local, HSGP
Task 3.4 -The village will coordinate with the county to improve and maintain communications as it relates to public outreach and emergency messages and as it facilitates collaboration between first responders before, during and after hazard events and emergencies				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local
Task 3.5-The village will coordinate with the county to identify the most at-risk facilities and assess the potential for mitigation techniques.				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local
Task 3.6-The Village will coordinate with the County to provide enhanced public education and outreach to inform the public of the dangers associated with natural hazards and how to implement private mitigation and safety strategies.				

Public Education and Awareness	Mayor	1/1/2022	1/1/2027	Local
Task 3.7-The Village will coordinate with the county to implement GIS hazard event tracking system				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local

3.4.9 Village of Wren

The Village of Wren is a small village located approximately 15 miles southwest of the City of Van Wert along State Route 49. Twenty-seven Mile Creek is located just south of the Village making it susceptible to flooding, as well as severe storms, severe winter weather and hazardous materials incidents. The village is remotely located away from county emergency services and resources, relying heavily on volunteer fire and EMS personnel, therefore it is important that they establish and maintain disaster resiliency and self-sufficiency.

Table 3.11-Wren Goals and Mitigation Strategies

Mitigation Action	Lead Agency	Start Date	End Date	Funding
Goal 1. The Village will reduce the negative effects of severe storms				
Task 1.1-The Village will coordinate with utility providers to ensure the protection of power lines and other infrastructure from storm damage through the implementation of regular maintenance activities.				
Structure and Infrastructure	Mayor	1/1/2022	1/1/2027	Local
Task 1.2-The Village will coordinate with the county to assess the vulnerability of critical facilities to damage from severe weather and identify the potential for mitigation				
Property Protection	Mayor	1/1/2022	1/1/2027	Local
Task 1.3-The Village will coordinate with the county to increase public awareness of the risks associated with severe storms				
Public Education and Awareness	Mayor	1/1/2022	1/1/2027	Local
Task 1.4-The Village will advocate for and implement programs to trim trees, clear ditches and streams of debris and other actions to protect property from storm damages				
Property Protection	Mayor	1/1/2022	1/1/2027	Local
Goal 2. The Village will reduce the negative effects of severe winter weather on property and residents				
Task 2.1-Plan for and maintain adequate road clearing equipment in order to clear roads of snow, ice and debris in an efficient manner after a severe weather event				
Structure and Infrastructure	Mayor	1/1/2022	1/1/2027	Local, Others TBD
Task 2.2-The Village will coordinate with the county to conduct public education activities related to winter storm awareness and safety.				
Public Education and Awareness	Mayor	1/1/2022	1/1/2027	Local
Task 2.3-The Village will identify and assist at-risk populations that are vulnerable to long-term power outages				
Public Education and Awareness	Mayor	1/1/2022	1/1/2027	Local
Goal 3. The Village of Wren will reduce the negative effects of flooding				
Task 3.1-The village will improve stormwater drainage capacity and protect property through improved maintenance of storm sewers and drainage systems where it will alleviate flooding.				
Property Protection	Mayor			Local

Task 3.2-The Village will coordinate public information releases with the County on the risks of flooding and private property protection				
Public Education and Awareness	Mayor			Local
Goal 4. The Village will reduce vulnerability to damages from hazardous materials spills and incidents				
Task 4.1-The Village will coordinate with the County and other agencies to ensure adequate training of its first responders in response and management of hazardous materials spills				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local, Other
Task 4.2-The village will ensure adequate mutual aid agreements are in place for assistance in the event of a spill				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local
Task 4.3-The village will ensure adequate signage is in place to help vehicles hauling hazardous materials move through the village safely and efficiently				
Property Protection	Mayor	1/1/2022	1/1/2027	Local, ODOT, others
Goal 5. The Village will reduce the negative effects of multiple hazards				
Task 5.1-The village will work with the county to reduce response time for safety services during and after an event.				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local
Task 5.2-The village will advocate for the use of the county-wide public notification system for notification of weather-related events and other emergencies				
Public Education and Awareness	Mayor	1/1/2022	1/1/2027	Local
Task 5.3-The village will provide and maintain adequate communications equipment for first responders to ensure proper communication during emergencies				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local, HSGP
Task 5.4 -The village will coordinate with the county to improve and maintain communications as it relates to public outreach and emergency messages and as it facilitates collaboration between first responders before, during and after hazard events and emergencies				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local
Task 5.5-The village will coordinate with the county to identify the most at-risk facilities and assess the potential for mitigation techniques.				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local
Task 5.6-The Village will coordinate with the County to provide enhanced public education and outreach to inform the public of the dangers associated with natural hazards and how to implement private mitigation and safety strategies.				
Public Education and Awareness	Mayor	1/1/2022	1/1/2027	Local
Task 5.7-The Village will coordinate with the county to implement GIS hazard event tracking system				
Planning and Regulatory	Mayor	1/1/2022	1/1/2027	Local

3.5 Implementation

This mitigation strategy was developed as part of a multi-jurisdictional hazard mitigation plan. That being said, the responsibility for plan implementation lies with each individual jurisdiction. The actions included in the individual county and municipalities' mitigation strategy are designed to address the vulnerabilities identified during the risk assessment and include measures that may include structural projects and non-

structural activities such as planning and regulatory activities as well as public education and outreach initiatives designed to protect property and reduce risk to residents.

Due to the limited financial and technical capacity of the county and its municipalities, the identified strategies are general actions that could be taken to help reduce the negative impact of natural and human caused disasters. Van Wert County's villages will likely need to coordinate with County agencies such as the EMA, Engineer's office and Development office in order to convert an action item into a specific project that is technically and financially feasible.

The Van Wert County EMA is the entity that is responsible for monitoring plan implementation as described in Section 1.4.

Memorandum of Agreement for a Multi-Jurisdictional Planning Team

I. Purpose

A Memorandum of Agreement (MOA) is hereby executed between the Participating Jurisdictions in the Van Wert County Hazard Mitigation Plan. The Participating Jurisdictions in this MOA are as follows:

Van Wert County
City of Van Wert
Village of Convoy
Village of Elgin
Village of Middle Point
Village of Ohio City
Village of Venedocia
Village of Willshire
Village of Wren

The purpose of this MOA is to establish commitment from and a cooperative working relationship between all Participating Jurisdictions in the development and implementation of the Van Wert County Hazard Mitigation Plan. In addition, the intent of this MOA is to ensure that the multi-jurisdictional hazard mitigation plan is developed in accordance with Title 44 of the Federal Code of Regulations (CFR) Part 201.6; that the planning process is conducted in an open manner involving community stakeholders; that it is consistent with each participating jurisdiction's policies, program and authorities; and it is an accurate reflection of the community's values.

This MOA sets out the responsibilities of all parties. The MOA identifies the work to be performed by each participating jurisdiction. Planning tasks, schedules and finished work products are identified in the Work Program and Schedule. The plan created as a result of this MOA will be presented to the governing body of each participating jurisdiction for adoption.

II. Background

Mitigation plans form the foundation for community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction and repeated damage. The participating jurisdictions in a mitigation planning process would benefit by:

- identifying cost effective actions for risk reduction;
- directing resources on the greatest risks and vulnerabilities;
- building partnerships by involving people, organizations and businesses;
- increasing education and awareness of hazards and risk;
- aligning risk reduction with other community objectives;
- providing eligibility to receive federal hazard mitigation grant funding.

The Van Wert County EMA has received a grant from the Federal Emergency Management Agency to prepare a multi-jurisdictional hazard mitigation plan in accordance with 44 FEMA requirements at 44.CFR.201.6.

III. Planning Team Responsibilities

Van Wert County will act as the Lead Community and will assign a Chairperson of the Planning Team for the Van Wert County Hazard Mitigation Plan. The participating jurisdictions authorize the lead community to manage and facilitate the planning process in accordance with the Work Program and Schedule.

The participating jurisdictions understand that representatives must engage in the following planning process, as more fully described in *Local Mitigation Planning Handbook (*FEMA 2012), including, but not limited to:

- develop Work Program and Schedule with planning team;
- organize and/or attend regular meetings of the planning team;
- assist planning team with developing and conducting an outreach strategy to involve other planning team members, stakeholders and the public, as appropriate to represent their jurisdiction;
- identify community resources available to support the planning effort, including meeting spaces, facilitators and media outlets;
- provide data and feedback to develop the risk assessment and mitigation strategy, including a specific mitigation action plan for their jurisdiction;
- submit the draft plant to their jurisdiction for review;
- work with the planning team to incorporate all their jurisdiction's comments into the draft plan;
- submit the draft plan to their respective governing body for consideration and adoption;
- after adoption, coordinate a process to monitor, evaluate and work toward plan implementation.

IV. Planning Team

The following points of contact and alternatives are authorized on behalf of the governing bodies to participate as members of the Planning Team for the Van Wert County Hazard Mitigation Plan:

Name: Rick W McCoy
Title: Director
Office/Agency: Van Wert County EMA
Name of Participating Jurisdiction: Van Wert County
Address: PO Box 602, Van Wert, OH, 45891
Phone: 419-238-1300
E-mail: emamccoy@vanwertema.com

Name: Jay Fleming
Title: Safety Service Director
Office/Agency: Safety Services
Name of Participating Jurisdiction: City of Van Wert
Address: 515 E Main Street
Phone: 419-238-1300
E-mail: jfleming@vanwert.org

Name:
Title:
Office/Agency:
Name of Participating Jurisdiction:
Address:
Phone:
E-mail:

Name:
Title:
Office/Agency:
Name of Participating Jurisdiction:
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Name of Participating Jurisdiction:
Address:
Phone:
E-mail:

Name:
Title:
Office/Agency:
Name of Participating Jurisdiction:
Address:
Phone:
E-mail:

V. MOA Implementation

This MOA will be in effect from the date of signature by all parties, will remain in effect through the duration of the planning process and will terminate after adoption of the final FEMA-approved mitigation plan by all participating jurisdictions, or 5 years after FEMA approval whichever is earlier. It may terminated prior to that time for any Participating Jurisdiction by giving 60 days written notice. This MOA is to be implemented through the attached Work Plan and Schedule, and any addendums that describe the specific activities, programs and projects, and if necessary, funding by separate instrument.

Lead Jurisdiction:
Van Wert County Commissioners

Signature: _____
, President

Date: _____

City of Van Wert

Signature: _____
, Mayor

Date: _____

Village of Convoy

Signature: _____
Timothy Bolenbaugh, Mayor

Date: _____

Village of Elgin

Signature: _____
Joseph L Thompson, Mayor

Date: _____

Village of Middle Point

Signature: _____
Brenda Mengerink, Mayor

Date: _____

Village of Ohio City

Signature: _____
Jack J Brown, Mayor

Date: _____

Village of Venedocia

Signature: _____
Vernon Hobbs, Mayor

Date: _____

Village of Willshire

Signature: _____
Amos D Stauffer III, Mayor

Date: _____

Village of Wren

Signature: _____
Monica Davis, Mayor

Date: _____

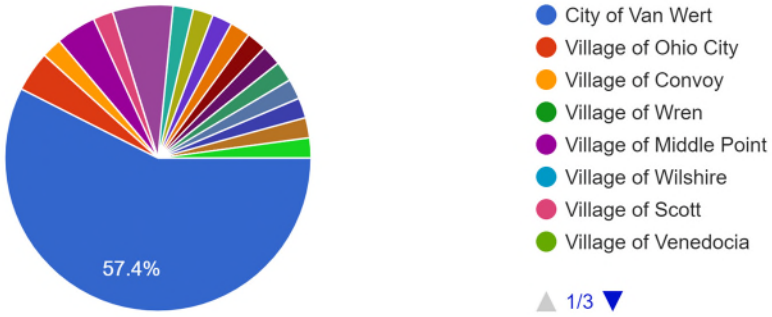
VI. Attachments

Work Program and Schedule

Public Interest Survey

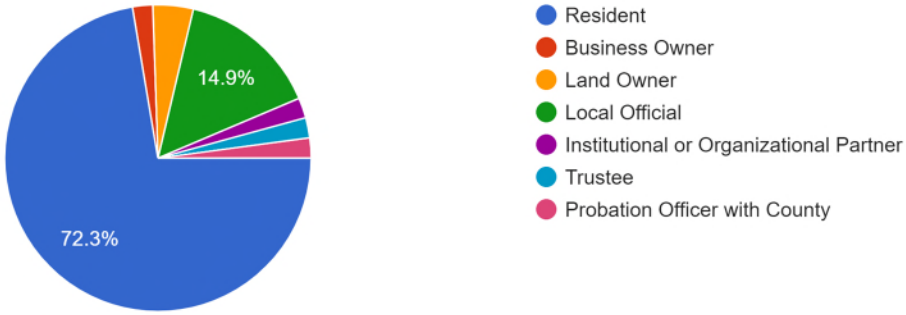
1. Which community do you represent?

47 responses



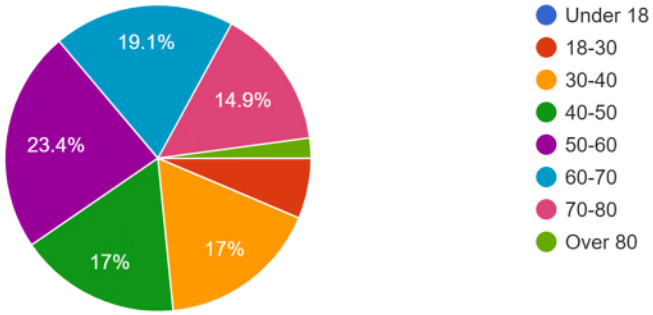
2. I am a...

47 responses

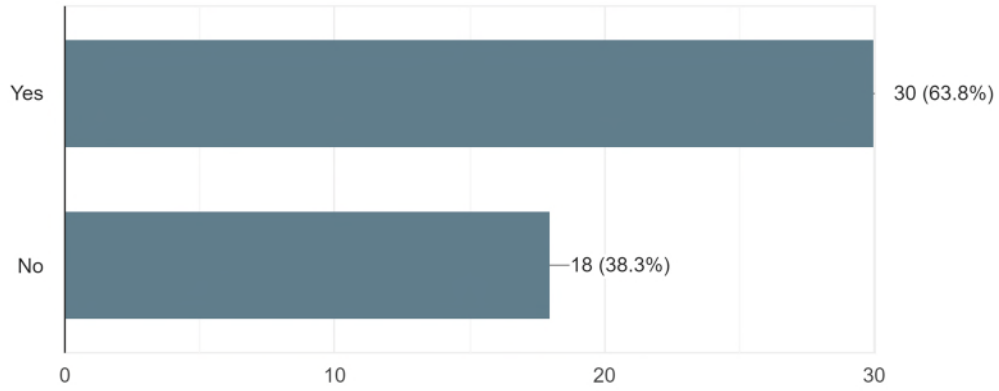


3. Please state your age range

47 responses



4. Have you ever experienced or been impacted by a natural disaster?
47 responses



If "yes", what type and how:28 responses

Tornado

Tornado in VW, serving as coroner; derecho lost power for a couple days

Tornado, Wind storms, Ice Storm

Gustnado/tornado. House damage. Lightning damage

Derecho wind storm

resident of the county in 2002, assisted as volunteer with clean-up efforts.

"Micro Burst" or small tornado

Tornado, straight wind, flooding

Hurricane while living in Miami and Tornado (Joplin, Mo) while living in Kansas.

Blizzard

Snow storm

tornado damage to residence and pole barn

I lived in Van Wert when the tornado of 2002 went thru our county.

F5 tornado. Husband lost his business.

2002 Tornado, ice storms, other severe storms/winds

I was stranded for several days in my house by a blizzard in 1978. In the 60's, a tornado passed close to my house and wrapped the antennae over the the house.

I am the floodplain administrator for my county so when an area is hit with a natural disaster such as flooding, I get called in to help. It is also my job to know what areas are at higher risk of flooding and mitigates situations as they arise for that area.

tornado - destroyed engineer's facility, debris cleanup countywide

tornado, ice storms, thunder storms, flooding

hailstorm damage. Flooding in basement from power outage.

blizzard of 1978

severe winter storm, tornado

Extreme High Winds/tornado

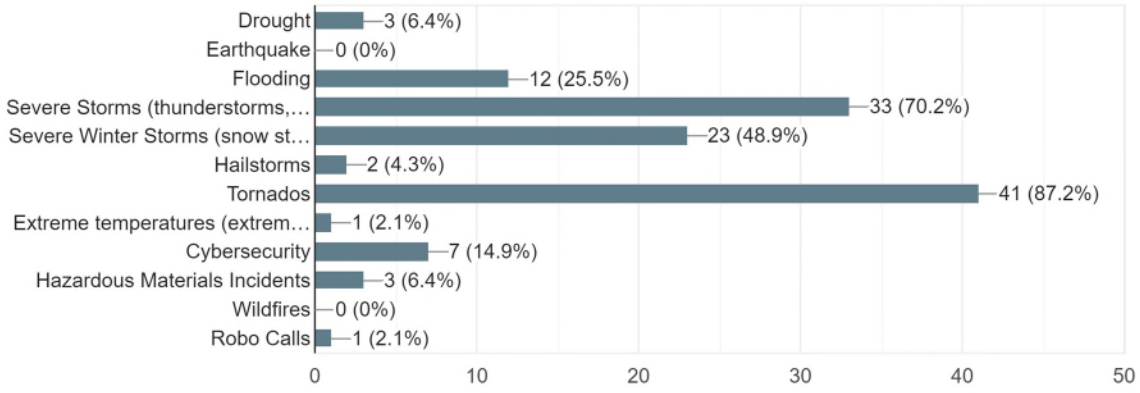
Flooding - When Town Creek flooded we had to sandbag around the back of my house. I had water damage in my basement.

I lived in this community when the tornado from 2002 went thru.

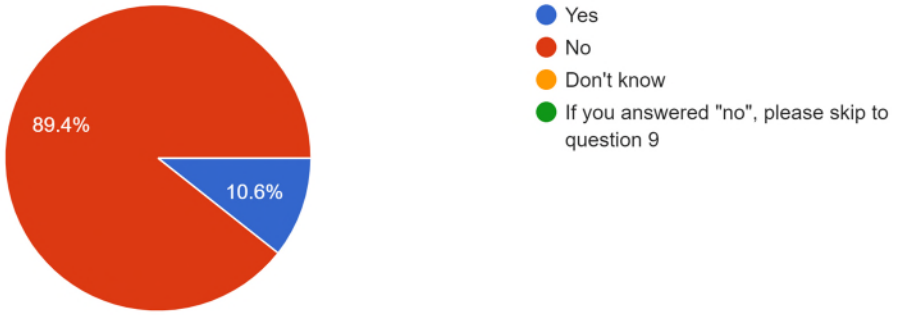
Wind

5. Please select the natural disaster that you think presents the highest threat to your neighborhood or community (select up to 3)

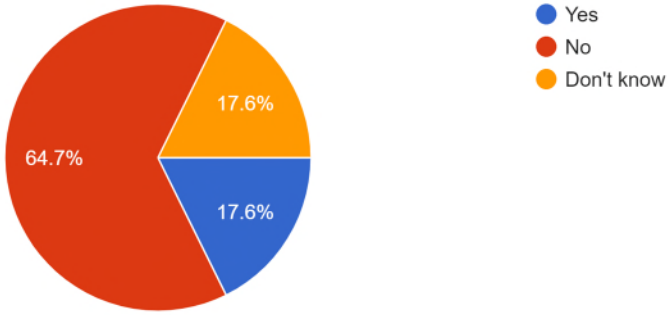
47 responses



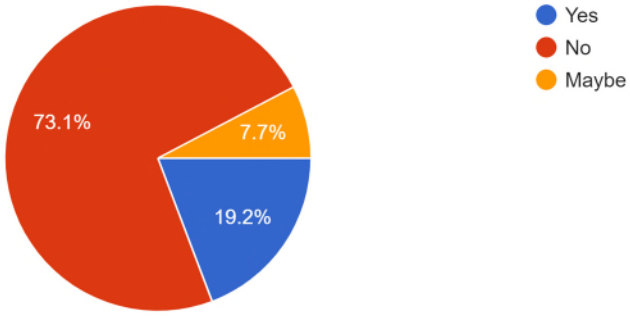
6. Is your home located in a flood prone area or have you personally been impacted by flooding?
47 responses



7. If yes, do you have flood insurance?
17 responses

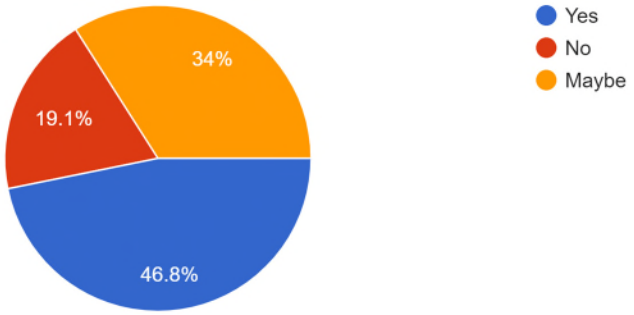


8. If your property is flood prone or has suffered repeated losses due to flooding would you be interested in learning about a program that would purchase the property from you?
26 responses



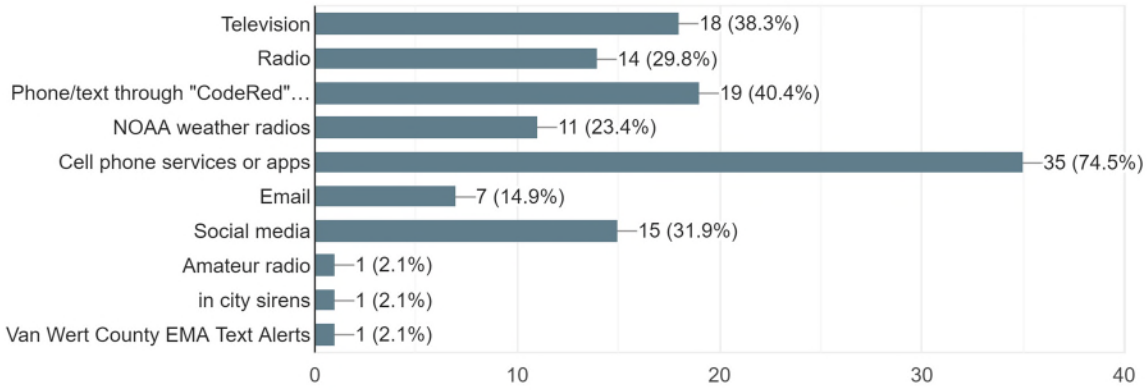
9. Would incentives such as insurance discounts, property tax breaks or low interest loans motivate you take additional steps to protect your property (i.e. flood-proofing, reinforcing your roof, etc)?

47 responses

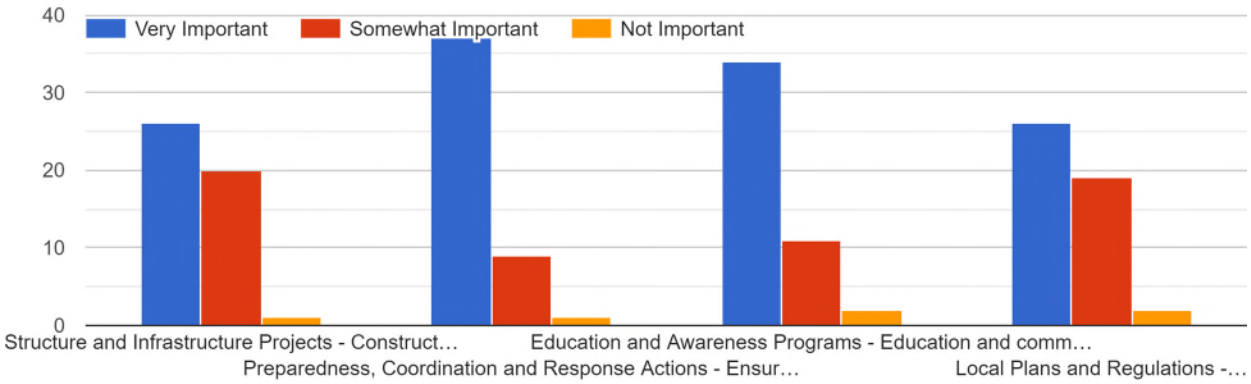


10. How do you generally receive warnings regarding severe weather events?

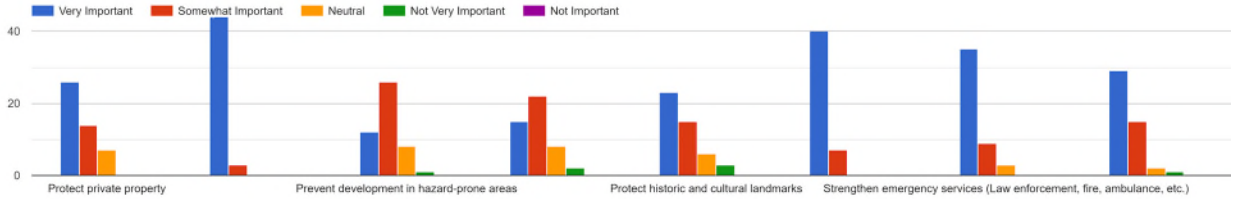
47 responses



11. A number of community-wide activities can reduce risks from natural hazards. In general, these activities fall into one of the following four (4) g...each one is for your community to consider pursuing.



12. Resources to mitigate natural hazards are limited, and hard choices must be made about which community assets and services to prioritize. Please indicate your priority areas below.



13. Are there any other issues regarding the reduction of risk and loss associated with natural hazards or disasters that the county or local jurisdictions can implement that you think are important?5 responses

none

Better irrigation system for farmers in the event of a drought

Nothing that I can think of.

Every Village should have at least one safe place for their residents to go to in the event of a natural disaster like a tornado

We as a whole need to be better about cleanliness in littering the earth/town. If there is one "natural disaster" I've lived through here, it's been the destruction of our environment. If there was some sort

of team that would meet regularly to go out and pick up trash/recyclables and dispose of them properly, I would definitely join. I have gone out and picked up litter by myself a few times, but is very costly for me to do myself. Also, the recycling center has seemingly gone on to be less and less able/helpful with daily tasks/maintenance/projects for residents. If they could get a swift kick in the butt to open up more to the community with outreach events to educate others on the importance of properly disposing of, and reducing use of one-time-use items that'd be really nice. We went to a few events they hosted when I was younger and it helped to just see what it is they do and the facility they work at to understand/familiarize ourselves with their abilities. People don't know what they're capable of if they don't publicize/reach out.

THANK YOU FOR YOUR PARTICIPATION! The survey may be submitted anonymously. However, if you would like to receive information regarding upcoming public meetings for the hazard mitigation plan, please provide your name, address, phone, and email information below.8 responses

Kevin Mumma, 303 Linda Street, Van Wert Ohio 45891, 419-796-0852, kevinmumma12@gmail.com

Mike Smith

Steve Kouts, PO Box 347, Van Wert, OH - stevekouts145@gmail.com Tel: 419-771-8152

Linda Stutz, 831 Woodland Ave., 419-238-2901, lindavote41@gmail.com

Cathie E. Malone, 121 E. Main St. Room 106, 419-238-3611, vanwertmap@vanwertcountyohio.gov

Dalton and Abbie Schmersal, 409 Shaffer St. Van Wert, OH 45891, daschmersal@gmail.com

Ryanne Bollenbacher

Nancy Dixon 14161 Slack Rd Van Wert, Oh 45891 auditor@vanwertcounty.org

Special Interest Groups Survey

1. Organization name and contact person16 responses

Harrison township Jeff Harmon

van wert silid waste management. jeff harmon

Ridge Township, Julie Doner

Pleasant Township, Van Wert County, OH Contact: Linda J. Hartman, Fiscal Officer

St. Mary of the Assumption Catholic School / Dan Metzger

Northwestern Ohio Community Action Commission, Deb Gerken, Executive Director

Bill Lawson City of Van Wert

Van Wert Area Economic Development Corporation, Stacy Adam contact

United Way of Van Wert County - Vicki Smith

Wassenberg Art Center - Hope Wallace

City of Van Wert WWTP Greg Reinhart

Village of Wren. Monica Davis

Crestview Local Schools, Kathy Mollenkopf, Superintendent

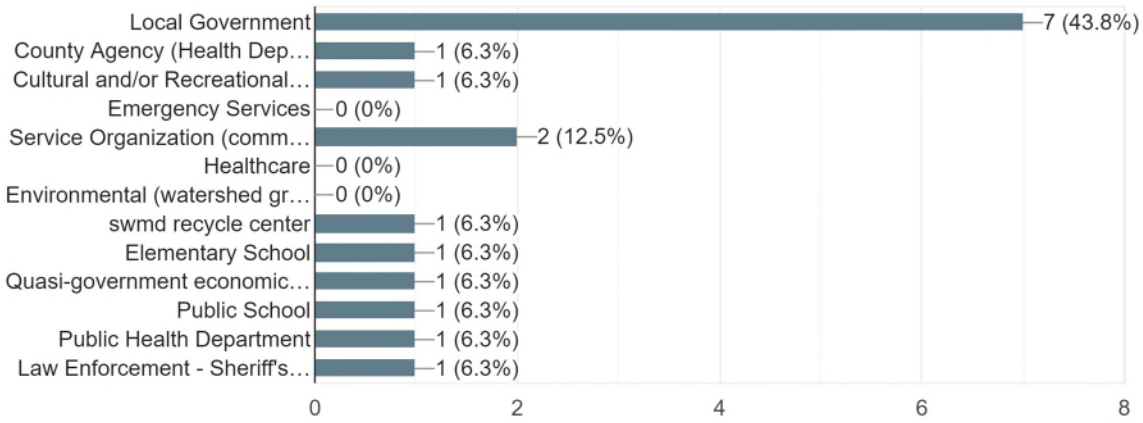
VWCGHD/ Jeanette Ford

Van Wert County Sheriff's Office Tom Riggenbach

Village of Venedocia/ Vernon Hobbs

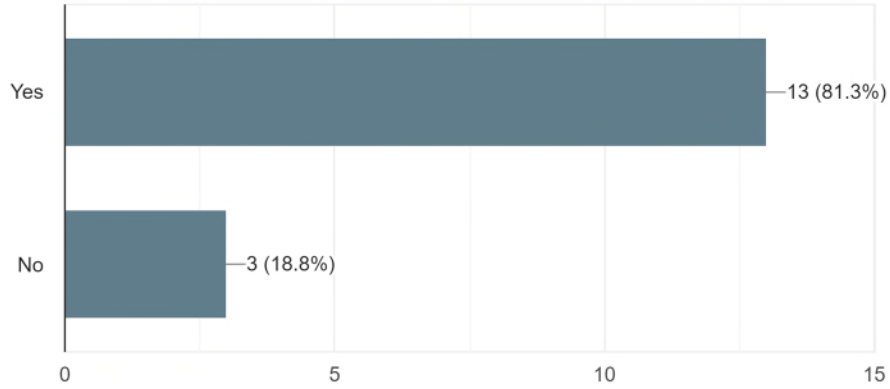
2. Please select the category that best describes your organization

16 responses



3. Has your organization, constituents or clients ever experienced or been impacted by a natural disaster?

16 responses



4. If "yes", what type and how (please provide a brief description of damages and costs, did the event require closure for an extended period, loss of services, etc):12 responses

Tornados and floods damage and loss to properties

June 29, 2012 Large Wind Storm, Electricity was off for few days, Building Roof and Ceiling Damage. Office was closed for 2 days.

(Residents and businesses in twp affected by): Wind, tornadoes (esp. 11/2002), flooding

Tornado in Fulton County. No closure of our agency, we provided disaster assistance to County residents affected by property damage and displacement.

tornado, minor flooding

tornado, flooding, power outages, drought, severe storms, extreme temperatures

We have had clients homeless due to tornado and flooding.

Tornado

A windstorm in June 2012, left us without electricity for several days. We had many trees down.

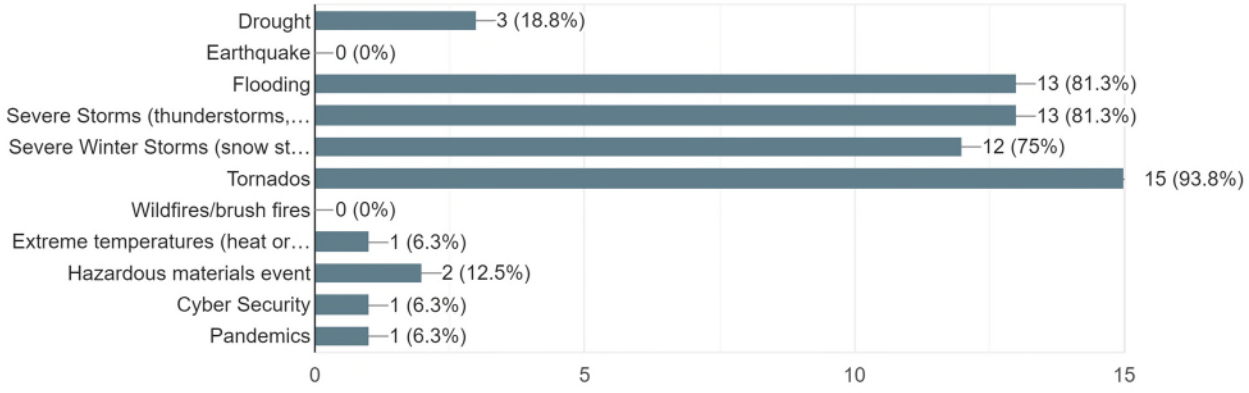
Severe storms/Wind sheers - Replacement of fencing and roofing on athletic buildings; no closure, areas blocked off until repairs completed

Flooding, Severe Storms, Severe Winter Storms, Tornado's, Cyber Security - Damage up to toal loss of homes and business, widespread loss of power, injury, death, loss of critical information from digital devices.

blizzard and straight line winds

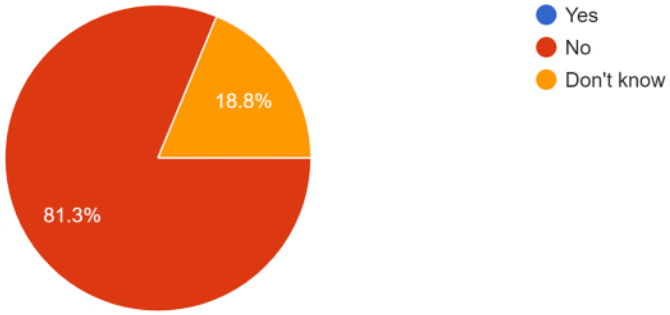
5. Please select the natural disaster(s) that you think present the highest threat to your organization, constituents or clients.

16 responses



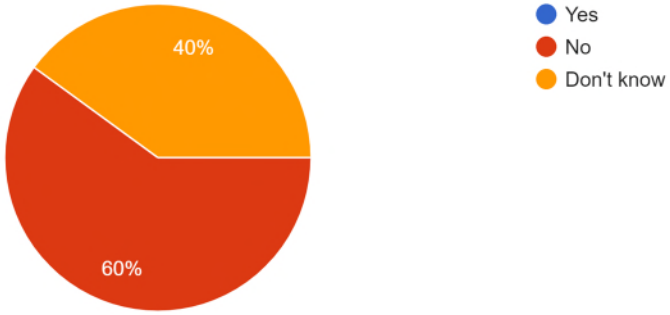
6. Does your organization own or operate facilities that are located in a flood prone area?

16 responses



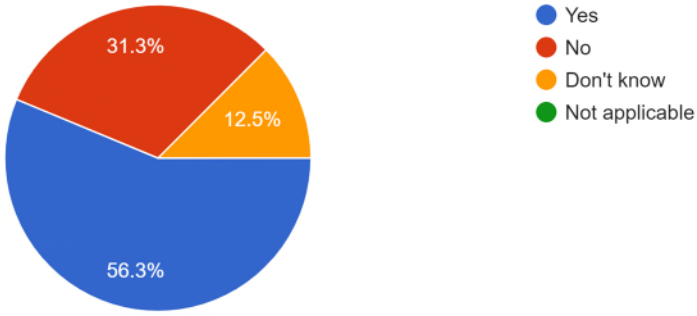
7. If yes, do you have flood insurance?

10 responses



8. Do you believe that your facilities are disaster-resistant (properly located, have back-up power, etc)?

16 responses



9. If not, are there any projects or programs that the county or municipality could implement that would improve your disaster resiliency?6 responses

possibly

Having backup portable generators

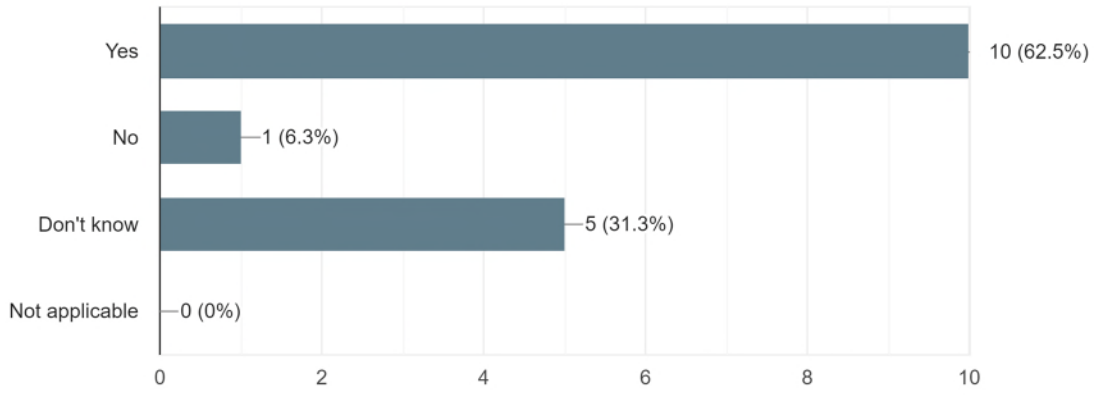
safety shelters

possibly back up power

We need a warming center.

Unsure

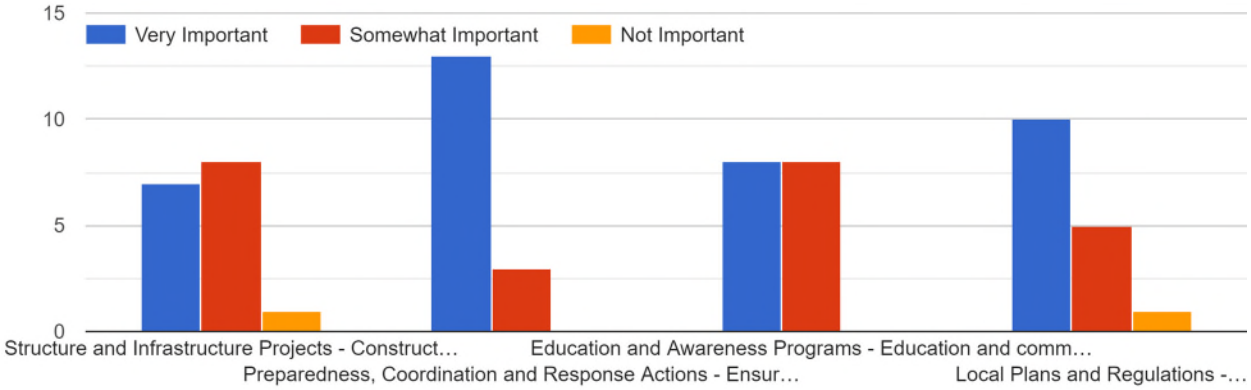
10. Do you think the transportation networks and utility infrastructure serving your facilities are properly designed to withstand closures and/or da...g long-term support for your organizational needs
16 responses



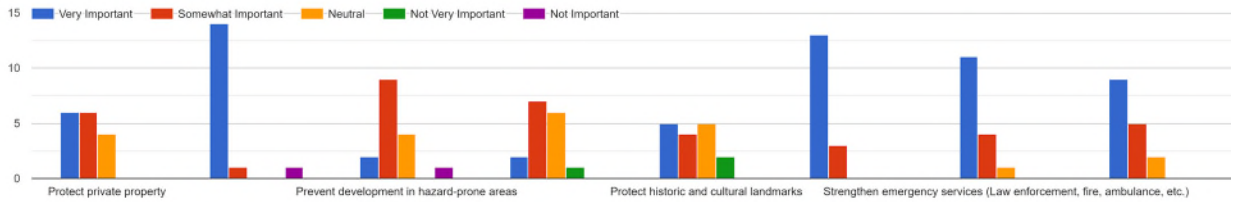
11. If "no", please briefly explain why not1 response

We have no transportation networks in our six-county service area.

12. A number of community-wide activities can reduce risks from natural hazards. In general, these activities fall into one of the following four (4) ca... important you think each one is for your operations.



13. Resources to mitigate natural hazards are limited, and hard choices must be made about which community assets and services to prioritize. Please indicate your priority areas below.



14. Are there any other issues regarding the reduction of risk and loss associated with natural hazards or disasters that you think are important?3 responses

No

Can't think of any at this time.

THANK YOU FOR YOUR PARTICIPATION! The survey may be submitted anonymously. However, if you would like to receive information regarding upcoming public meetings for the hazard mitigation plan, please provide your name, address, phone, and email information below.5 responses

Pleasant Township Trustees, 10507 Old Tile Factory Rd., Van Wert, OH 45891 Ph. 419-238-4690. E: pleasant-vw@wcoil.com

Dan Metzger
611 Jennings Rd, Van Wert, Ohio 45891
419-238-5186

dmetzger@stmarysvanwert.com

Greg Reinhart City of Van Wert 515 E Main St Van Wert, OH 45891 greinhart@vanwert.org

Monica Davis 419-203-1327. Thank you!

Tom Riggenbach triggenbach@vanwertcountysheriff.com 419-238-3866

Van Wert County Hazard Mitigation Plan Update Business Survey

1 response

Publish analytics

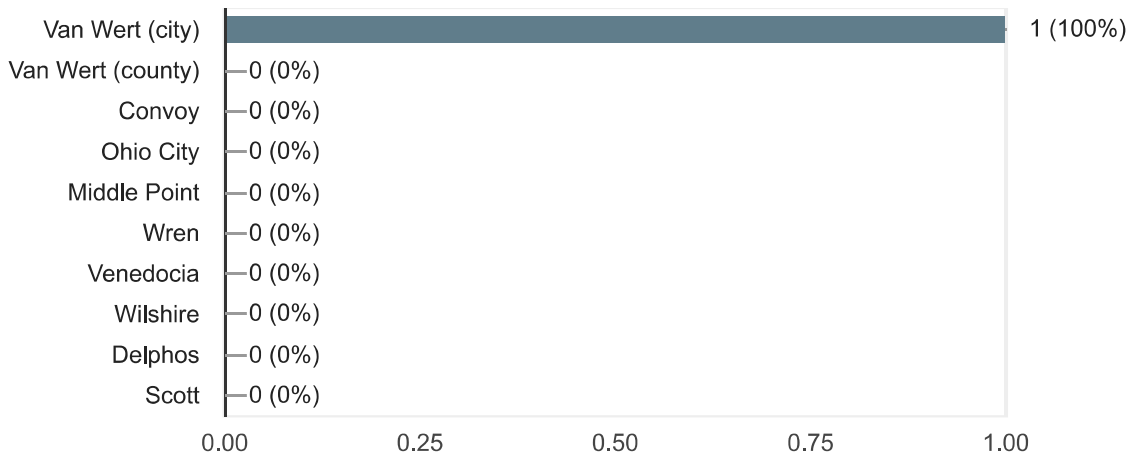
1. Business name and contact person

1 response

Van Wert County Recorder

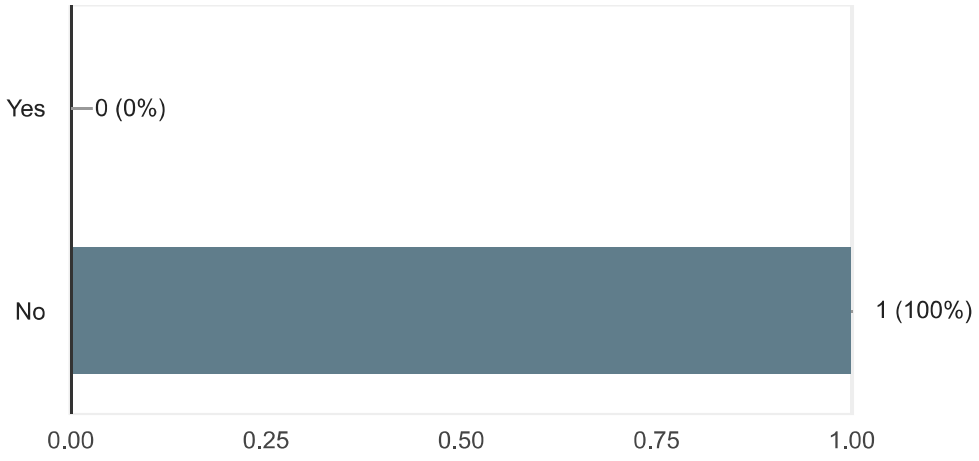
2. Location

1 response



3. Has your business ever experienced or been impacted by a natural disaster?

1 response



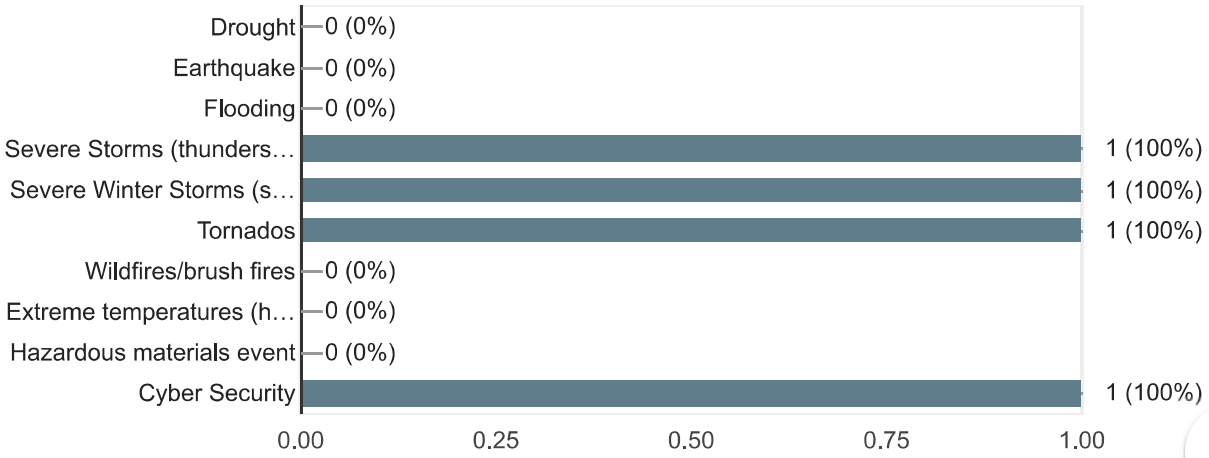
4. If "yes", what type and how (please provide a brief description of damages and costs, did the event require closure for an extended period, loss of production or sales, etc):

0 responses

No responses yet for this question.

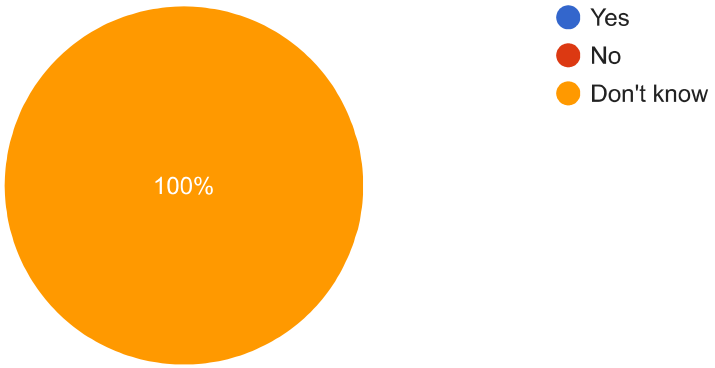
5. Please select the natural disaster(s) that you think present the highest threat to your business

1 response



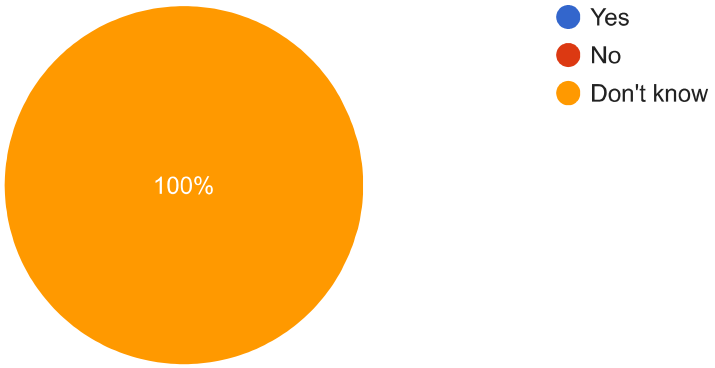
6. Is your business located in a flood prone area?

1 response



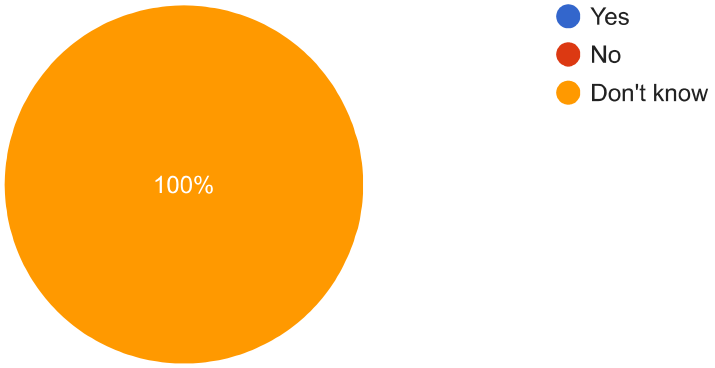
7. If yes, do you have flood insurance?

1 response



8. Do you believe that your facilities are disaster-resistant (properly located, have back-up power, etc)?

1 response



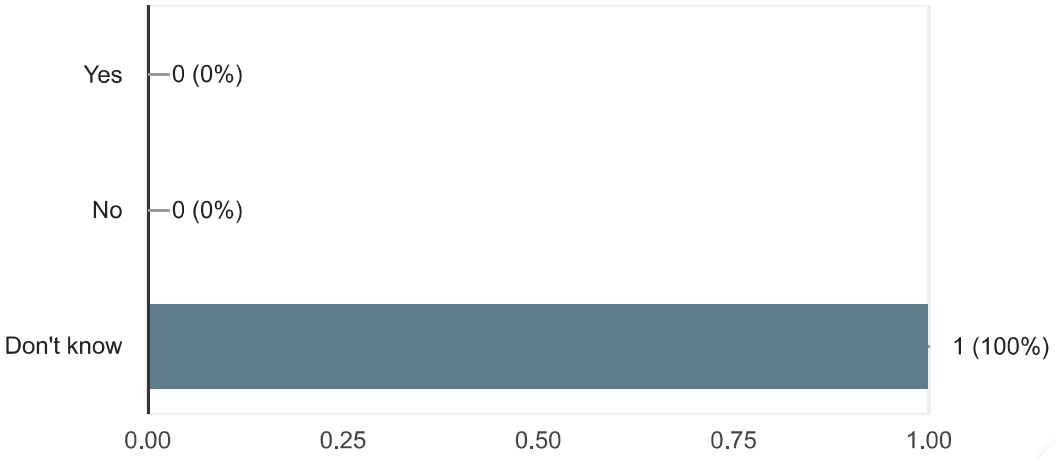
9. If not, are there any projects or programs that the county or municipality could implement that would improve your disaster resiliency?

0 responses

No responses yet for this question.

10. Do you think the transportation networks and utility infrastructure serving your facility are properly designed to withstand closures and/or damages due to natural disasters, providing long-term support for your business needs

1 response

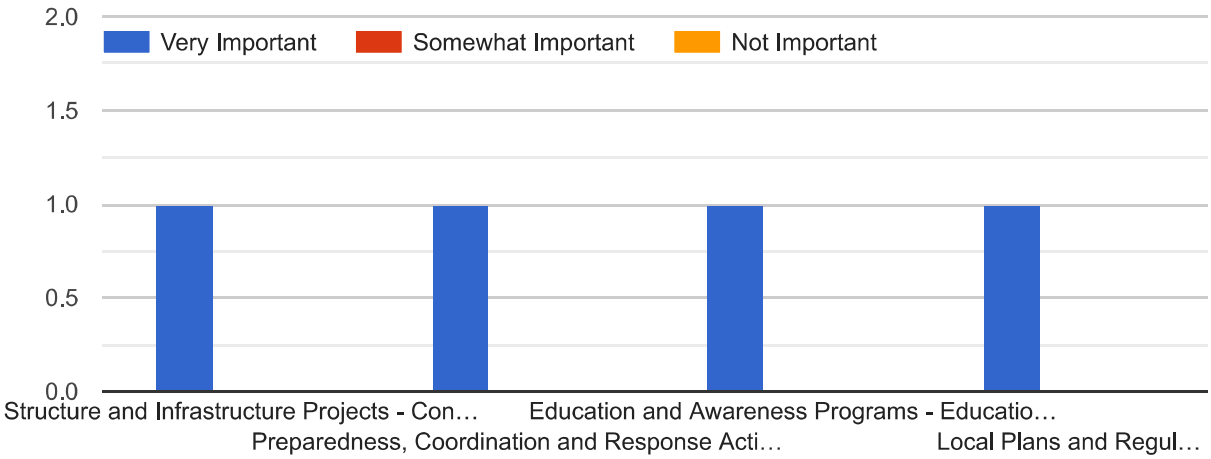


11. If "no", please briefly explain why not

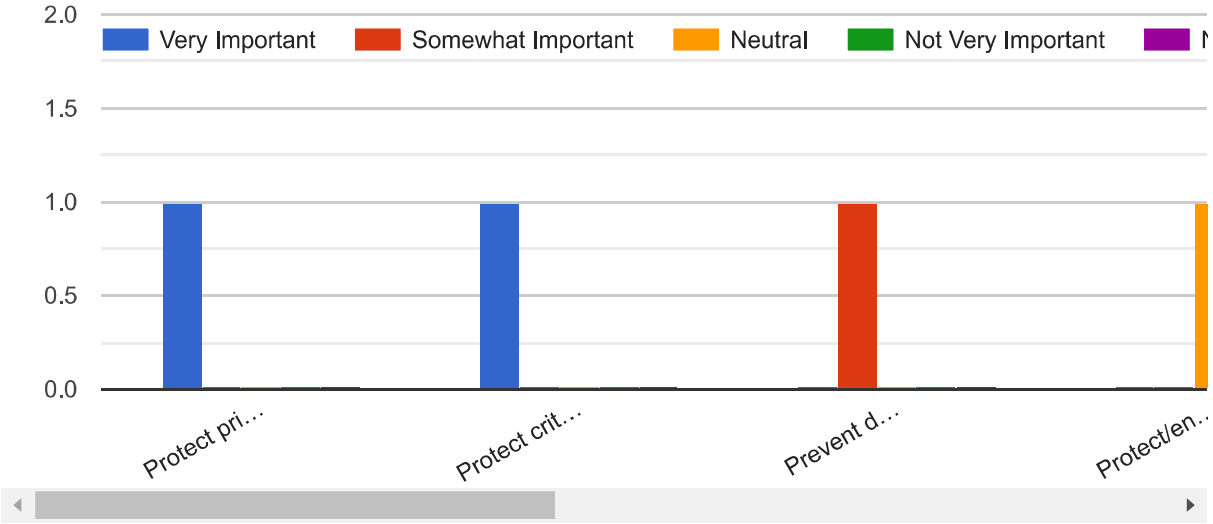
0 responses

No responses yet for this question.

12. A number of community-wide activities can reduce risks from natural hazards. In general, these activities fall into one of the following four (4) categories. Please tell us how important you think each one is for your business operations.



13. Resources to mitigate natural hazards are limited, and hard choices must be made about which community assets and services to prioritize. Please indicate your priority areas below.



14. Are there any other issues regarding the reduction of risk and loss associated with natural hazards or disasters the county, township or village can implement that you think are important?

0 responses

No responses yet for this question.

THANK YOU FOR YOUR PARTICIPATION! The survey may be submitted anonymously. However, if you would like to receive information regarding upcoming public meetings for the hazard mitigation plan, please provide your name, address, phone, and email information below.

0 responses

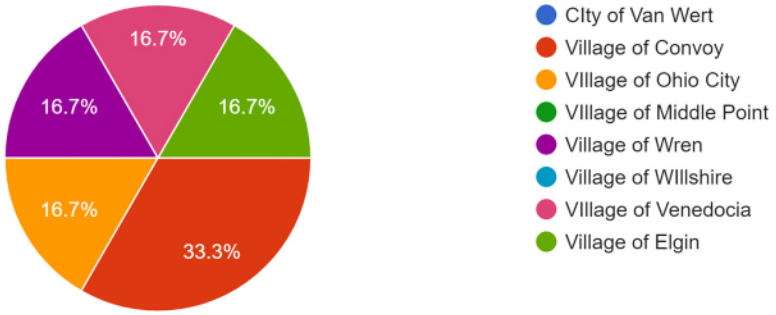
No responses yet for this question.

Van Wert County Hazard Identification and Risk Assessment								
Hazard	Frequency	Probability	Extent	Location	Warning Time	Duration	Score	Overall Significance Rating
	20	30	30	5	5	10	100	
Drought	21	30	29	47	18	59	204	5
	420	900	870	235	90	590	3105	
Earthquake	7	18	19	32	42	14	76	10
	140	540	570	160	210	140	1760	
Extreme temperatures	25	36	26	50	16	41	194	6
	500	1080	780	250	80	410	3100	
Flooding	44	50	32	33	31	39	159	3
	880	1500	960	165	155	390	4050	
Hailstorm	28	32	25	36	41	20	182	7
	560	960	750	180	205	200	2855	
Hazardous materials incident	15	21	23	19	56	23	157	8
	300	630	690	95	280	230	2225	
Invasive species	10	20	17	24	20	41	132	9
	200	600	510	120	100	410	1940	
Severe storms-lightening, thunderstorsm, windstorms	50	52	34	48	35	27	246	2
	1000	1560	1020	240	175	270	4265	
Severe winter weather	27	36	33	42	21	32	191	4
	540	1080	990	210	105	320	3245	
Tornado	61	45	40	36	48	20	250	1
	1220	1350	1200	180	240	200	4390	

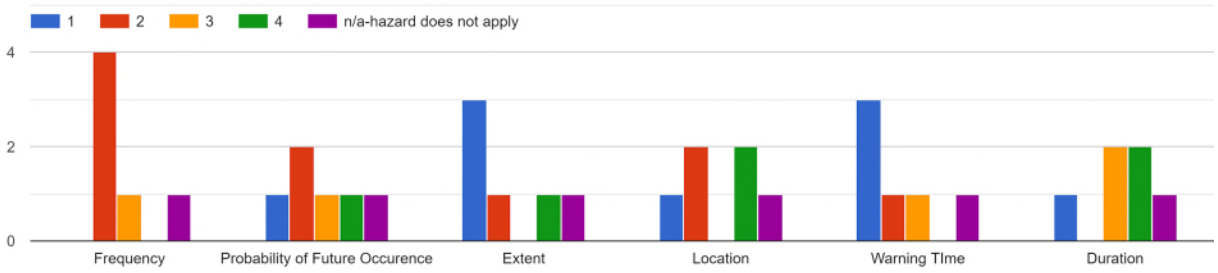
Community Hazard Ranking Survey

Which community do you represent?

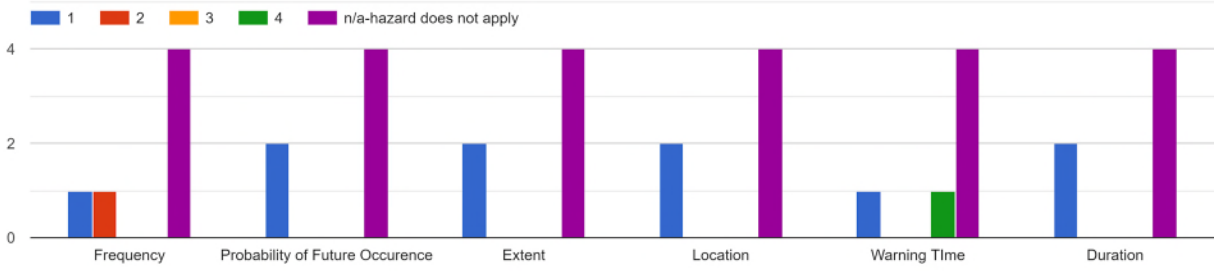
6 responses



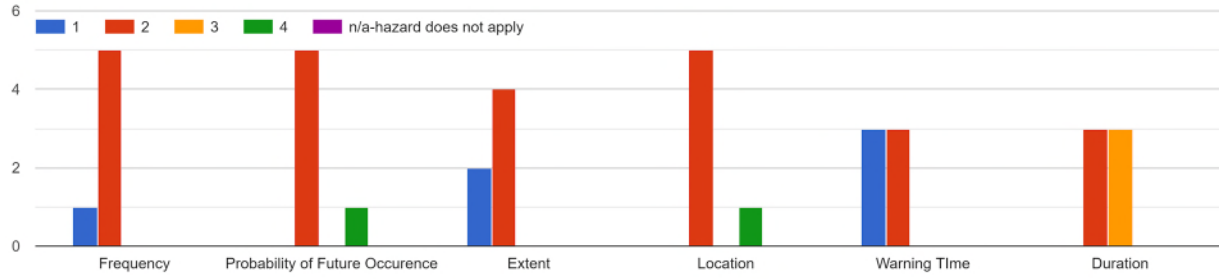
Drought



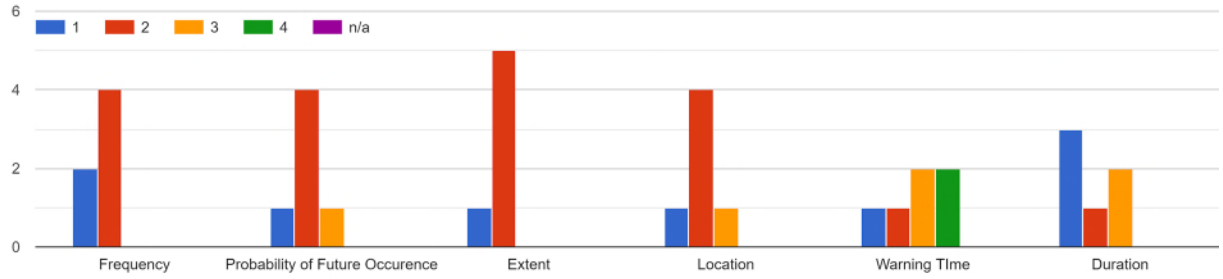
Earthquake



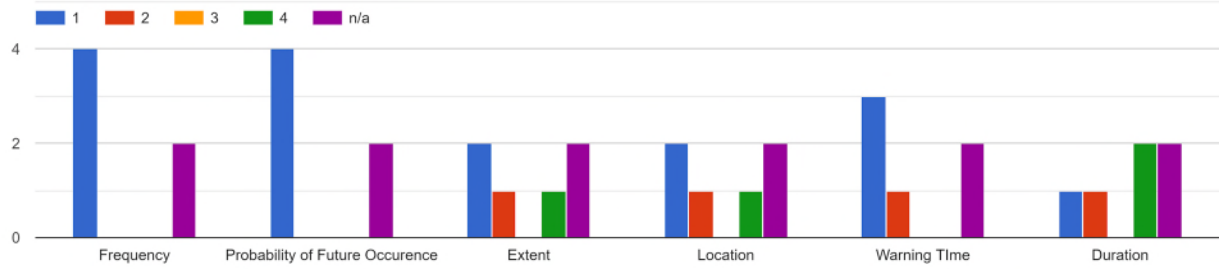
Extreme Temperatures



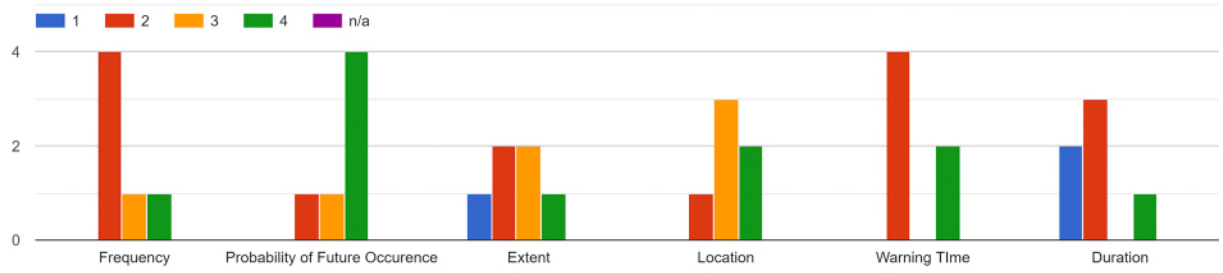
Hailstorm



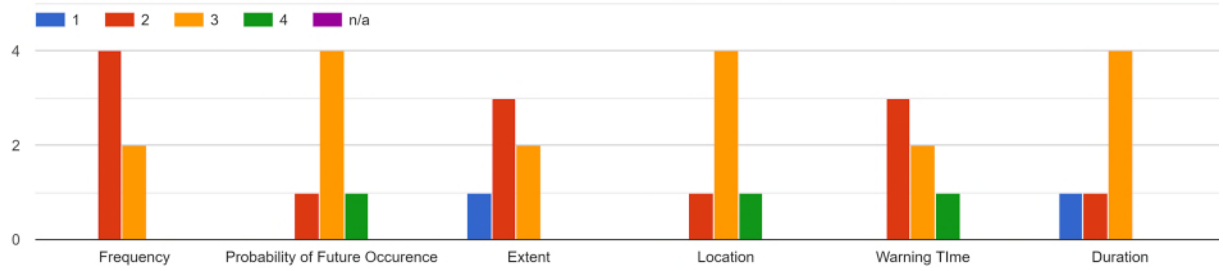
Invasive Species



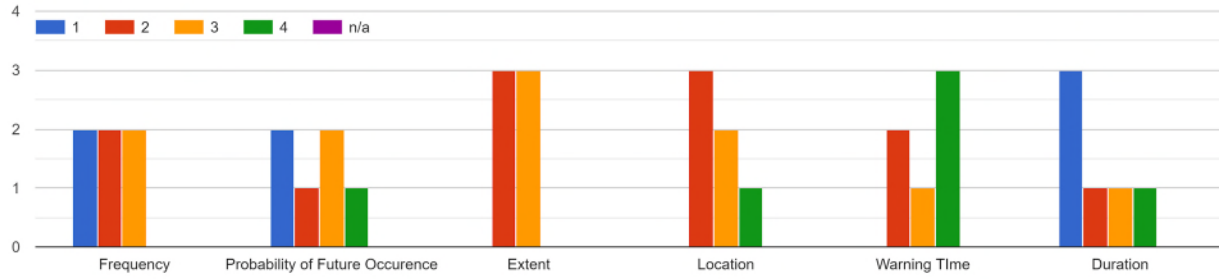
Severe storms-thunderstorms, lightening, windstorms



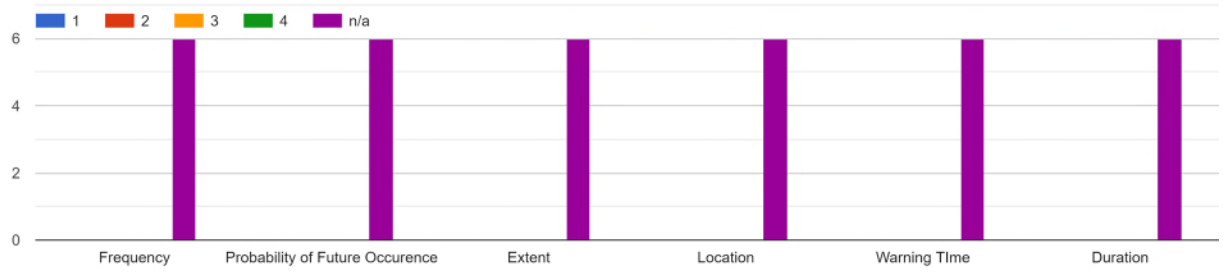
Severe winter weather



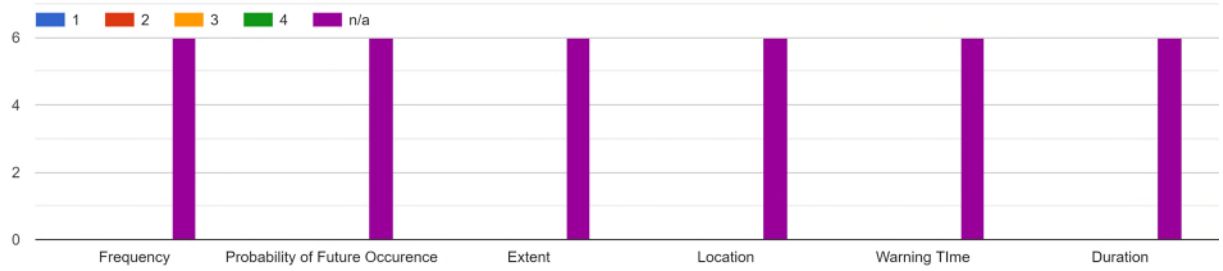
Tornado



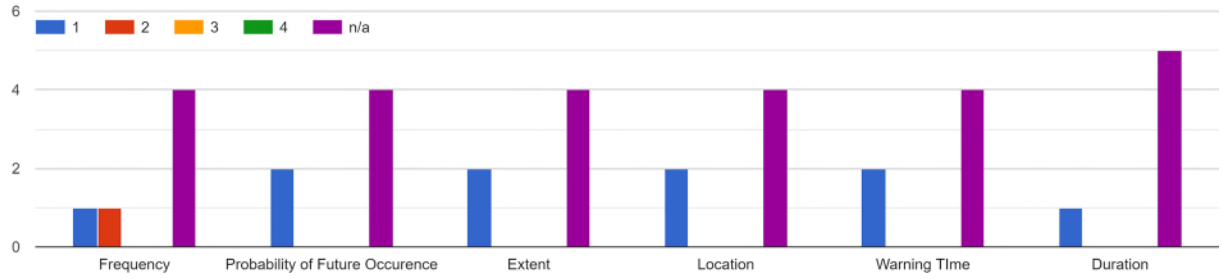
Wildfire



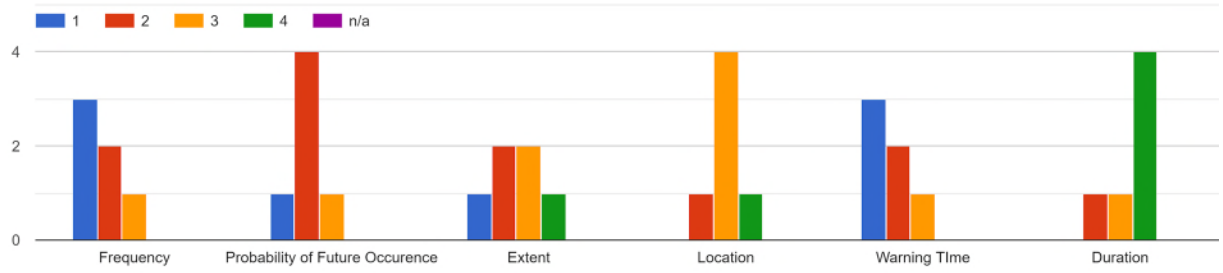
Dam Failure



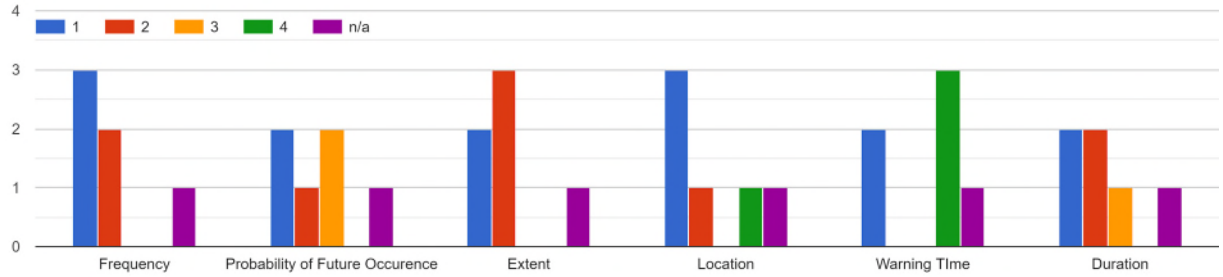
Erosion



Epidemic



Hazardous Materials Incident



Name, Affiliation, contact info 5 responses

Vivian Thompson-Clerk/Treasurer

Kelly A. Schlemmer Fiscal Officer 419-749-2266 P O Box 310, Convoy, Ohio 45832

Jen Pugh, Fiscal Officer of Venedocia, 419.234.0740

Monica Davis, Mayor Village of Wren 419-203-1327

Gary Kreischer, Fire Chief

Hazard Identification and Risk Assessment-Van Wert City								
Hazard	Frequency	Probability	Extent	Location	Warning Time	Duration	Score	Overall Significance Rating
	20	30	30	5	5	10		
Drought	2	2	1	4	1	4	14	2
	40	60	30	20	5	40	195	
Earthquake	1	1	1	4	1	3	7	12
	20	30	30	20	5	30	135	
Extreme temperatures	1	3	1	4	1	3	13	4
	20	90	30	20	5	30	195	
Flooding	2	3	1	2	2	3	8	11
	40	90	30	10	10	30	210	
Hailstorm	1	3	1	4	2	1	12	5
	20	90	30	20	10	10	180	
Hazardous materials incident	1	1	1	4	1	4	12	6
	20	30	30	20	5	40	145	
Invasive species	1	1	1	4	1	3	11	10
	20	30	30	20	5	30	135	
Severe storms-lightening, thunderstorsm, windstorms	4	3	1	4	1	2	15	1
	80	90	30	20	5	20	245	
Severe winter weather	2	3	1	2	3	1	12	7
	40	90	30	10	15	10	195	
Tornado	2	3	1	2	3	1	12	8
	40	90	30	10	15	10	195	
Wildfire							0	
	0	0	0	0	0	0	0	
Dam Failure	1	1	3	1	4	4	14	3
	20	30	90	5	20	40	205	
Erosion							0	
	0	0	0	0	0	0	0	
Epidemic	1	1	1	4	1	4	12	9
	20	30	30	20	5	40	145	

Willshire Hazard Identification and Risk Assessment								
Hazard	Frequency	Probability	Extent	Location	Warning Time	Duration	Score	Overall Significance Rating
	20	30	30	5	5	10		
Severe storms-lightening, thunderstorsm, windstorms	4	3	1	4	1	3	16	1
	80	90	30	20	5	30	255	
Severe winter weather	2	3	1	4	1	3	14	2
	40	90	30	20	5	30	215	
Flooding	2	3	1	2	2	3	8	3
	40	90	30	10	10	30	210	
Drought	2	2	1	4	1	4	14	4
	40	60	30	20	5	40	195	
Earthquake	1	3	1	4	1	3	9	4
	20	90	30	20	5	30	195	
Tornado	2	3	1	2	3	1	12	4
	40	90	30	10	15	10	195	
Extreme temperatures	1	3	1	2	2	3	12	5
	20	90	30	10	10	30	190	
Hailstorm	1	3	1	4	2	1	12	6
	20	90	30	20	10	10	180	
Epidemic	1	1	1	4	1	4	12	7
	20	30	30	20	5	40	145	
Invasive species	1	1	1	4	1	4	12	7
	20	30	30	20	5	40	145	
Hazardous materials incident	1	1	1	2	4	3	12	8
	20	30	30	10	20	30	140	
Wildfire							0	
	0	0	0	0	0	0	0	
Dam Failure							0	
	0	0	0	0	0	0	0	
Erosion							0	
	0	0	0	0	0	0	0	

This hazard identification and risk assessment was obtained through a phone call discussion between the Mayor of Willshire and the County EMA Director on March 30, 2021

Elgin Hazard Identification and Risk Assessment								
Hazard	Frequency	Probability	Extent	Location	Warning Time	Duration	Score	Overall Significance Rating
	20	30	30	5	5	10		
Severe storms-lightening, thunderstorsm, windstorms	2	4	2	2	2	2	14	1
	40	120	60	10	10	20	260	
Severe winter weather	2	4	2	2	2	2	14	1
	40	120	60	10	10	20	260	
Tornado	2	4	2	2	2	2	14	1
	40	120	60	10	10	20	260	
Extreme temperatures	2	4	2	2	1	2	13	2
	40	120	60	10	5	20	255	
Epidemic	1	2	2	2	2	2	11	3
	20	60	60	10	10	20	180	
Hazardous materials incident	1	3	1	1	1	1	8	4
	20	90	30	5	5	10	160	
Drought	2	1	1	1	1	1	7	5
	40	30	30	5	5	10	120	
Earthquake	1	1	1	1	1	1	4	6
	20	30	30	5	5	10	100	
Flooding	1	1	1	1	1	1	4	6
	20	30	30	5	5	10	100	
Hailstorm	1	1	1	1	1	1	1	6
	20	30	30	5	5	10	100	
Invasive species	1	1	1	1	1	1	6	6
	20	30	30	5	5	10	100	
Erosion	1	1	1	1	1	1	6	6
	20	30	30	5	5	10	100	
Wildfire							0	
	0	0	0	0	0	0	0	
Dam Failure							0	
	0	0	0	0	0	0	0	

This hazard identification and risk assessment was obtained through a phone call discussion between the Mayor of Elgin and the County EMA Director on March 30, 2021

Strategy	Score
The county and its jurisdictions will advocate for the use of the conty-wide public notification system for weather related events and other emergencies	66
The county and its jurisdictions will provide and maintain adquate commuication equipment for first responders to ensure proper communication during emergencies	62
Assess feasibility to protect critical facilities from damages related to severe storms	60
The county and its jurisdictions will work to reduce response times for safety services during and after a hazard event	60
Municipalities will coordinate with the county to improve and maintain communications as it relates to public outreach and emergency messages and as it facilitates collaboration between first responders before, during and after hazard events and other emergencies	60
Protect power lines and infrastructure through regular maintenance activities	56
Conduct public education activities related to tornado awareness and safety	53
Provide assitance to vulneralbe populations-identify specific at-risk populations that are vulnerable to long-term power outages, establish and promote heating centers throughout the county	53
Reduce impacts to roadways-maintain adequate road clearing equiopment, limit blowing and drifting snow	52
Improve storm water drainage capacity	50
The county and its jurisdictions will identify the most at-risk critical facilities and assess the potential for mitigation techniques	50
Conduct public education and outreach actitivites related to severe storm awareness and safety	49
Incorporate flood mitigation into local planning efforts	49
Conduct regular mainatenance for drainage systems and flood control structure	49
Continue enhanced public education and outreach to inform the public of the dangers associated with natural hazards and how to implement private mitigation and safety strategies	49
Improve storm water management and planning	47
Provide protection for critical facitlities located in flood prone areas-install/upgrades stormwater pump stations, reaise electrical components above base flood elevations	46
Protect infrastructure in flood-prone areas-elevate roads and bridges above base flood elevations, flood proof water/wastewater treatment facitlities, employ bank stabilization techniques	45
Limit or restrict development in floodplain areas	43
Provide assistance to vulnerable populations-identify specific at-risk populations that are vulnerable to effects of extreme heat and cold, establish and promote heating and cooling centers throughout the county	43
Assess potential to construct safe rooms in each jurisdiction	41
Conduct public education activities related to winter storm awareness and safety	41
Conduct public education and awareness activities related to extreme temperatures awareness and safety	41
Educate property owners about flood mitigation techniques	40
Adopt policies to reduce stormwater runoff	39
Improve flood risk assessment through GIS mapping and development of database to track community risk	39
Join or improve compliance with National Flood Insurance Program	38
Monitor drought conditions and water supplies	37

The county and its jurisdictions will advocate that property owners purchase adequate property, casual and flood insurance to help cover the cost of property repair and replacement after hazard events	37
Conduct public education and awareness activities related to flood risk and safety	36
Protect buildings and infrastructure from the effects of extreme cold, heavy snow and ice	36
The county will develop a GIS system to identify, map and track hazard areas and events to further asess community vulnerabilty	36
Promote or require site and building desing standards to minimize wind damage	35
Elevate or retrofit structures and utilities in flood prone areas	35
Protect and restore natural flood mitigation features	34
Require wind resistant building techniaues for new construction and building retrofits	33
Adopt regulations governing residential contruction to prevent wind damage	33
Jurisdictions will work with the county to implement a GIS hazard event tracking system	33
Participate in NFIP's Community Rating System (rewards communities that exceed minimum NFIP requirements)	32
Preserve floodplains as open space	32
Conduct public education activities related to drought awareness and safety	32
Assess vulnerability to drought risk	31
Plan for drought-develop emergency plan, agreement sfor secondary water sources to be used during drough conditions	31
Require water conservation measures during drought conditions	29
Remove existing structures from flood hazard areas	27
The county and its jurisdictions will assess feasibility to relocate or retrofit public buildings in hazard prone areas	27
Enhance landscaping and design measues-encourgae drought-tolerant landscaping, promote the use of permeable surfaces (i.e. drivesways) to reduce runoff and promote groundwater recharge	24
Protect critical facilties-assess potential to retrofit buildings, require bracing of generators and elevators in hospitals, etc	16
Conduct public education and awareness activities related to earthquke awareness and safety	14
Map and assess community vunerability to seismic hazards	11
Adopt and enforce building codes to reduce damage to structures	10
Incorporate earthquake mitigation into local planning codes and ordinances	10

Table E-1: Critical Facilities for Van Wert County

Name or Description of Asset	Location	Critical Facility	Vulnerable Populations	Economic Assets	Special Considerations	Historic/Other Considerations	Facility Type	Replacement Value	Contents Value
Van Wert County Sheriff Department	113 N Market Street Van Wert	X	X				Public Safety	461,000	
Angel Intervention Services	123 S Washington St Van Wert		X				Social Service	123,000	
Tri County ADAMH	1054 S Washington St #A Van Wert		X				Social Service	339,000	
Hearth and Home of Van Wert	1118 Westwood Dr Van Wert		X		X		Medical	2,260,000	
Van Wert Manor	160 Fox Rd Van Wert		X		X		Medical	1,011,000	
Vancrest Health Care Center	10357 Van Wert-Decatur Rd Van Wert		X		X		Medical	3,486,000	
CHP Home Care and Hospice	1159 Westwood Dr Van Wert		X		X		Medical, Social Service	292,000	
Thomas Edison Group Home	813 N Franklin Van Wert		X		X		Social Service	5,286,000	
Van Wert Senior Citizen Center	160 Fox Rd Van Wert		X		X		Social Service	1,011,000	
Van Wert County Council on Aging	220 Fox Rd Van Wert		X		X		Social Service	494,000	
Van Wert County Board of DD	813 N Franklin Van Wert		X		X		Social Service	5,286,000	
County Courthouse	121 E Main St Van Wert					X	Public Safety	5,917,000	
ODOT Office	10238 Van Wert-Decatur Rd				X		State	1,730,000	
Veterans Services	121 E Main St Van Wert		X		X		Service Organization		
Brumback Library (Main Branch)	215 W Main St Van Wert, OH				X	X	Cultural Institution	1,235,000	
Engineer's Office and Garage	1192 Grill Rd Van Wert	X					Public Safety	1,591,000	

Van Wert Community Services Office	114 E Main St Van Wert		X		X		Social Service	10,340	
CORS Head Start	813 N Franklin St Van Wert		X				Social Service	5,286,000	
Early Head Start	1151 Westwood Dr Van Wert		X				Social Service	434,000	
Van Wert Early Childhood Center	1120 Buckeye Dr Van Wert		X				Social Service		
Van Wert County EMA	1220 Lincoln Hwy Van Wert	X					Public Safety		
Tully Twp	133 Dealy Dr Convoy					X	Administration		
Union Twp	2964 Colwell Rd Convoy					X	Administration	120,000	
Hoaglin Twp	16487 Galvin Rd Van Wert					X	Administration	95,000	
Jackson Twp	19159 Wetzel Rd Middle Point					X	Administration	65,400	
Harrison Twp	6667 German Church Rd Convoy					X	Administration		
Pleasant Twp	1220 Ervin Rd Van Wert					X	Administration		
Ridge Twp	10184 Hoaglin Center Rd Van Wert					X	Administration	165,000	
Washington Twp	23612 Lincoln Hwy Delphos					X	Administration	85,000	
Willshire Twp	13289 State Rt 49 Ohio City					X	Administration		
Liberty Twp	13695 Richey Rd Van Wert					X	Administration		
York Twp	16170 Wren Landeck Van Wert					X	Administration	69,000	
Jennings Twp	21332 Gilbert Rd Spencerville					X	Administration	17,000	

Table E-2: Critical Facilities for Convoy

Name or Description of Asset	Address	Critical Facility	Vulnerable Populations	Economic Assets	Special Considerations	Historic/Other Considerations	Facility Type	Replacement Value	Contents Value
Village Office	123 S Main St	X	X				Administration		
US Postal Service	116 W Tully St				X		Administration		
Fire and EMS	117 Franklin St	X					Public Safety		
Wastewater Treatment Plant	6450 Franklin S	X					Utilities		
Water Treatment Plant		X					Utilities		
Police Department		X					Public Safety		
Brumback Public Library	116 E Tully St		X		X		Cultural Institution		
Convoy United Methodist Church	Sycamore and Main		X		X		Religious		
Sugar Ridge Church of God	124 N Liberty St		X		X		Religious		
Trinity Evangelical Lutheran	117 E Tully St #7765		X		X		Religious		
Crestview Local Schools	531 E Tully		X		X		Education		

Table E-3: Critical Facilities for Elgin

Name or Description of Asset	Location	Critical Facility	Vulnerable Populations	Economic Assets	Special Considerations	Historic/Other Considerations	Facility Type	Replacement Value	Contents Value
Village Office		X	X				Administration		
US Postal Service	18100 Sands Rd				X		Administration		

Table E-4: Critical Facilities for Middle Point

Name or Description of Asset	Location	Critical Facility	Vulnerable Populations	Economic Assets	Special Considerations	Historic/Other Considerations	Facility Type	Replacement Value	Contents Value
Village Office	103 N Adams St	X	X				Administration		
US Postal Service	206 E Jackson				X		Administration		
Brumback Library	102 Railroad St		X		X	X	Cultural Institution		
Wastewater Treatment Plant		X					Utilities		
Water Treatment Plant		X					Utilities		
Community Building	300 W Sycamore St		X		X		Recreation		
Fire and EMS	104 E Jackson St	X					Public Safety		
Police Department	107 N Adams St	X					Public Safety		
Whitehorse Biker Church	303 S Adams St		X		X		Religious		
United Methodist Church	107 Mill St		X		X		Religious		
AMVETS	102 S Adams St				X		Social Service Organization		
Lincolnview Public Schools	15945 Middle Point Rd		X		X		Education		

Table E-5: Critical Facilities for Ohio City

Name or Description of Asset	Location	Critical Facility	Vulnerable Populations	Economic Assets	Special Considerations	Historic/Other Considerations	Facility Type	Replacement Value	Contents Value
Village Office	105 S Main St	X	X				Administration	281,277	130,715
US Postal Service	118 S Main St				X		Administration		
Brumback Library	101 Carmean St		X		X	X	Cultural Institution		

Wastewater Treatment Plant	Snyder Rd	X					Utilities	176,522	22,059
Community Building	503 Lambert St		X		X		Public Safety Recreation	201,630	25,000
Volunteer Fire Department	103 S Main ST	X					Public Safety	150,759	104,545
Maintenance	Main and Carmean							84,316	12,255
Pump House	SR 118	X					Utilities	14,546	13,371
Pump House	SR 118	X					Utilities	14,546	13,371
Pump House	Skinner St	X					Utilities	14,546	13,371
Pump House	Skinner St	X					Utilities	14,546	13,371
Generator	Snyder Rd	X					Utilities	49,308	
WW Lift Station	Snyder Rd	X					Utilities	84,897	
Supply Building	Monroe St	X					Utilities	73,470	133,712
Lift Station	SR 118	X					Utilities	88,137	
Generator	105 Main St	X					Public Safety	8,617	
Lift Station	Archer St	X					Utilities	88,137	
Water Tower	W Skinner	X					Utilities	824,675	
Water Plant	W Skinner	X					Utilities	2,264,098	7,353
Generator	W Skinner	X					Utilities	49,308	
Ohio City United Methodist	110 N Main St		X		X		Religious		
Ohio City Community Church of God	204 E Carmean St		X		X		Religious		
St John's Lutheran	202 Dillon St		X		X		Religious		
AMVETS	102 S Adams St				X		Social Service Organization		

Table E-6: Critical Facilities for Van Wert (City)

Name or Description of Asset	Location	Critical Facility	Vulnerable Populations	Economic Assets	Special Considerations	Historic/Other Considerations	Facility Type	Replacement Value	Contents Value
Municipal Bldg	515 East Main St	X				X	Administration	1,000,000	
Van Wert Water Treatment Plant	1260 S Washington St	X					Utilities		
Van Wert Wastewater Treatment Plant	7998 US 127	X					Utilities		
Van Wert Fire Dept	515 East Main St	X					Public Safety	1,000,000	
Van Wert Police Dept	515 East Main St	X					Public Safety	1,000,000	
US Post Office	314 E Main St				X		Administration	688,000	
Life House Church	719 Fox Rd		X		X		Religious		
First United Methodist Church	113 W Central Ave		X		X		Religious		
Trinity Friends Church	605 N Franklin St		X		X		Religious		
Calvary Evangelical Church	10686 Van Wert-Decatur Rd		X		X		Religious		
Van Wert First Presbyterian	110 W Crawford St		X		X		Religious		
Grace Bible Church	603 Airport Ave		X		X		Religious		
First Baptist Church	13887 Jennings Rd		X		X		Religious		
Jennings Road Church of Christ	1124 Jennings Rd		X		X		Religious		
Apostolic Church	1017 S Shannon St		X		X		Religious		
Emmanuel Lutheran Church	705 S Washington St		X		X		Religious		
First Church of God	314 S Harrison St		X		X		Religious		
New Life Fellowship	634 N Washington St		X		X		Religious		
Pentecostal Way Church	1213 Leeson Ave		X		X		Religious		
St Mary of Assumption	601 Jennings Rd		X		X		Religious		
St Mark's Lutheran Church	160 W Sycamore St		X		X		Religious		
Christian Life Assembly of God	1112 Leeson Ave		X		X		Religious		

Wesley United Methodist Church	551 Center St		X		X		Religious		
Van Wert City Schools	205 W Crawford St		X		X		Education		

Table E-7: Critical Facilities for Venedocia

Name or Description of Asset	Location	Critical Facility	Vulnerable Populations	Economic Assets	Special Considerations	Historic/Other Considerations	Facility Type	Replacement Value	Contents Value
Village Office	19038 Main St	X	X				Administration		
US Postal Service	15115 Main St				X		Administration		
Salem United Presbyterian	15240 Main St		X		X		Emergency Shelter		
Lions Club	19038 Main St				X		Service Club (also serves as townhall and community building)		

Table E-8: Critical Facilities for Willshire

Name or Description of Asset	Location	Critical Facility	Vulnerable Populations	Economic Assets	Special Considerations	Historic/Other Considerations	Facility Type	Replacement Value	Contents Value
Village Office		X	X				Administration		
US Postal Service	110 Walcott St				X		Administration		
Brumback Library	323 State St		X		X	X	Cultural Institution		
Volunteer Fire Department	311 State Street	X					Public Safety		
Praise Point United Brethern	555 Decatur Rd		X		X		Religious		
Countryside Church of Nazarene	15465 OH-49		X		X		Religious		
Zion Evangelical Lutheran Church	17434 Schumm Rd		X		X		Religious		

Table E-9: Critical Facilities for Wren

Name or Description of Asset	Location	Critical Facility	Vulnerable Populations	Economic Assets	Special Considerations	Historic/Other Considerations	Facility Type	Replacement Value	Contents Value
Village Office		X	X				Administration		
US Postal Service	119 OH-49				X		Administration		
Brumback Library	101 Washington St		X		X	X	Cultural Institution		
Wren Church	15465 OH-49		X		X		Religious		

Van Wert County Disaster Declarations

Table F1 below shows the history of federal disaster declarations for Van Wert County since 1964.

Table F1-Federal Disaster Declaration

Disaster Declaration Number	Date Declared	Federal Disaster Program	Incident Type	Funds Approved
DR-1478	July 15, 2003	HA/ONA	Severe storms and flooding	
DR-1444	November 18, 2002	HA/ONA	Severe Storms and Tornados	
DR-4077	August 20, 2012	PA	Severe storms and straight-line winds	
DR-3500-EM (ALL counties)	January 26, 1978	PA	Severe Blizzard Conditions	
EM-3250 (All counties)	September 13, 2005	PA	Hurricane Katrina Emergency Shelter Operations	
EM-3346 (All Counties)	June 30, 2012	PA	Severe storms, straight line winds	
DR-4507 (All counties) EM-3457-OH	March 31, 2020 March 13, 2020		Ohio COVID-19 Pandemic	

Hazard History Data

The National Climatic Center has maintained records on weather events since 1950. Van Wert County has experienced 379 weather events that have been reported by NOAA. The following tables provide a summary of weather-related incidents in Van Wert County from 1950-2020.

Table F2-Winter Weather

DATE		EVENT	DEATHS	INJURIES	PROPERTY DAMAGE	CROOP DAMAGE
1/2/1996	Countywide	Winter Storm	0	0	50,000	0
1/11/1996	Countywide	Heavy Snow	0	0	1,000	0
3/6/1996	Countywide	Ice Storm	0	0	0	0
3/19/1996	Countywide	Winter Storm	0	0	0	0
1/2/1999	Countywide	Heavy Snow	0	0	0	0
3/11/2000	Countywide	Heavy Snow	0	0	0	0
12/13/2000	Countywide	Heavy Snow	0	0	0	0
12/25/2002	Countywide	Heavy Snow	0	0	0	0

2/22/2003	Countywide	Heavy Snow	0	0	0	0
1/26/2004	Countywide	Winter Storm	0	0	0	0
12/22/2004	Countywide	Winter Storm	0	0	0	0
1/5/2005	Countywide	Ice Storm	0	0	0	0
1/12/2005	Countywide	Dense Fog	0	0	0	0
12/8/2005	Countywide	Heavy Snow	0	0	0	0
2/13/2007	Countywide	Blizzard	0	0	0	0
2/24/2007	Countywide	Ice Storm	0	0	30,000	0
12/9/2007	Countywide	Ice Storm	0	0	0	0
12/15/2007	Countywide	Winter Storm	0	0	0	0
2/1/2008	Countywide	Winter Storm	0	0	0	0
2/25/2008	Countywide	Winter Storm	0	0	0	0
2/25/2008	Countywide	Winter Storm	0	0	0	0
3/4/2008	Countywide	Winter Storm	0	0	0	0
3/7/2008	Countywide	Winter Storm	0	0	0	0
12/19/2008	Countywide	Ice Storm	0	0	0	0
1/27/2009	Countywide	Heavy Snow	0	0	0	0
1/7/2010	Countywide	Winter Weather	0	0	0	0
2/5/2010	Countywide	Winter Storm	0	0	0	0
2/9/2010	Countywide	Winter Storm	0	0	0	0
12/12/2010	Countywide	Winter Storm	0	0	0	0
1/11/2011	Countywide	Winter Weather	0	0	0	0
2/1/2011	Countywide	Winter Storm	0	0	0	0
2/5/2011	Countywide	Heavy Snow	0	0	0	0
2/20/2011	Countywide	Winter Weather	0	0	0	0
2/25/2011	Countywide	Heavy Snow	0	0	0	0
1/20/2012	Countywide	Winter Weather	0	0	0	0
12/26/2012	Countywide	Winter Storm	0	0	0	0
12/28/2012	Countywide	Winter Weather	0	0	0	0
1/27/2013	Countywide	Winter Weather	0	0	0	0

2/4/2013	Countywide	Winter Weather	0	0	0	0
2/22/2013	Countywide	Winter Weather	0	0	0	0
2/26/2013	Countywide	Winter Weather	0	0	0	0
3/5/2013	Countywide	Heavy Snow	0	0	0	0
3/24/2013	Countywide	Heavy Snow	0	0	0	0
12/13/2013	Countywide	Winter Storm	0	0	0	0
1/1/2014	Countywide	Winter Weather	0	0	0	0
1/5/2014	Countywide	Winter Storm	0	0	0	0
2/1/2014	Countywide	Winter Storm	0	0	0	0
2/4/2014	Countywide	Winter Storm	0	0	0	0
2/17/2014	Countywide	Winter Weather	0	0	0	0
3/5/2014	Countywide	Winter Weather	0	0	0	0
3/12/2014	Countywide	Winter Storm	0	0	0	0
1/5/2015	Countywide	Winter Weather	0	0	0	0
1/8/2015	Countywide	Winter Weather	0	0	0	0
2/1/2015	Countywide	Heavy Snow	0	0	0	0
2/14/2015	Countywide	Winter Weather	0	0	0	0
3/1/2015	Countywide	Winter Weather	0	0	0	0
3/3/2015	Countywide	Winter Weather	0	0	0	0
1/12/2016	Countywide	Winter Weather	0	0	0	0
12/11/2016	Countywide	Winter Weather	0	0	0	0
12/17/2016	Countywide	Winter Weather	0	0	0	0
3/17/2017	Countywide	Winter Weather	0	0	0	0
1/24/2018	Countywide	Winter Weather	0	0	0	0
2/5/2018	Countywide	Winter Weather	0	0	0	0
1/12/2019	Countywide	Winter Weather	0	0	0	0

1/19/2019	Countywide	Winter Storm	0	0	0	0
2/12/2019	Countywide	Winter Weather	0	0	0	0
2/20/2019	Countywide	Winter Weather	0	0	0	0
		TOTAL:			81,000	

Table F3-Flooding

LOCATION	DATE	EVENT	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
COUNTYWIDE	7/18/1996	Flash Flood	0	0	0	0
MIDDLE PT	6/30/1997	Flash Flood	0	0	5,000	0
WILLSHIRE	7/6/2003	Flash Flood	0	0	0	0
VAN WERT	7/22/2004	Flash Flood	0	0	0	0
ELGIN	9/3/2004	Flash Flood	0	0	0	0
CAVETT	8/21/2007	Flash Flood	0	0	250,000	0
WILLSHIRE OSBORN ARP	5/27/2010	Flash Flood	0	0	0	0
WILLSHIRE OSBORN ARP	6/15/2015	Flash Flood	0	0	0	0
DIXON	5/24/2017	Flash Flood	0	0	0	0
VAN WERT ARPT	7/10/2017	Flash Flood	0	0	425,000	0
	1/17/1996	Flood	0	0	10,000	0
	2/27/1997	Flood	0	0	0	0
	3/1/1997	Flood	0	0	0	0
	7/7/2003	Flood	0	0	750,000	0
WILLSHIRE	2/6/2008	Flood	0	0	50,000	0
WILLSHIRE OSBORN ARP	6/15/2015	Flood	0	0	0	0
DIXON	6/27/2015	Flood	0	0	0	0
WILLSHIRE OSBORN ARP	7/9/2015	Flood	0	0	0	0

		TOTAL:	0	0	$1,490,000	0	

F4-Severe Storms

LOCATION	DATE	EVENT TYPE	MAGNITUDE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Countywide	4/30/1962	Thunderstorm Wind	62 MPH	0	0	0	0
Countywide	11/26/1965	Thunderstorm Wind	0	0	0	0	0
Countywide	7/9/1966	Thunderstorm Wind	0	0	0	0	0
Countywide	12/21/1967	Thunderstorm Wind	0	0	0	0	0
Countywide	10/4/1973	Thunderstorm Wind	0	0	0	0	0
Countywide	4/3/1974	Hail	0.75 INCH	0	0	0	0
Countywide	7/7/1977	Thunderstorm Wind	0	0	0	0	0
Countywide	5/13/1980	Thunderstorm Wind	52 MPH	0	0	0	0
Countywide	6/2/1980	Hail	2 INCH	0	0	0	0
Countywide	6/2/1980	Thunderstorm Wind	70 MPH	0	0	0	0
Countywide	7/5/1980	Thunderstorm Wind	0	0	0	0	0
Countywide	7/5/1980	Thunderstorm Wind	0	0	0	0	0
Countywide	4/28/1981	Thunderstorm Wind	50 MPH	0	0	0	0
Countywide	6/24/1981	Hail	0.75 INCH	0	0	0	0
Countywide	6/24/1981	Thunderstorm Wind	0	0	0	0	0
Countywide	5/27/1982	Hail	0.75 INCH	0	0	0	0
Countywide	5/31/1982	Thunderstorm Wind	0	0	0	0	0
Countywide	5/2/1983	Hail	0.75 INCH	0	0	0	0
Countywide	5/2/1983	Thunderstorm Wind	0	0	0	0	0
Countywide	7/1/1983	Hail	0.75 INCH	0	0	0	0
Countywide	4/5/1985	Thunderstorm Wind	0	0	0	0	0
Countywide	6/15/1985	Hail	1 INCH	0	0	0	0
Countywide	5/6/1986	Hail	2 INCH	0	0	0	0
Countywide	6/16/1986	Thunderstorm Wind	0	0	0	0	0

Countywide	7/25/1986	Thunderstorm Wind	52 MPH	0	0	0	0
Countywide	8/26/1986	Thunderstorm Wind	0	0	0	0	0
Countywide	5/30/1987	Thunderstorm Wind	0	0	0	0	0
Countywide	6/8/1987	Thunderstorm Wind	0	0	0	0	0
Countywide	6/8/1987	Thunderstorm Wind	0	0	0	0	0
Countywide	8/2/1987	Thunderstorm Wind	0	0	0	0	0
Countywide	5/25/1989	Thunderstorm Wind	0	0	0	0	0
Countywide	6/30/1990	Hail	1.75 INCH	0	0	0	0
Countywide	8/28/1990	Thunderstorm Wind	0	0	0	0	0
Countywide	3/27/1991	Hail	1.75 INCH	0	0	0	0
Countywide	2/18/1992	Thunderstorm Wind	0	0	0	0	0
Countywide	5/17/1992	Thunderstorm Wind	0	0	0	0	0
Countywide	5/17/1992	Thunderstorm Wind	0	0	0	0	0
Countywide	6/17/1992	Thunderstorm Wind	0	0	0	0	0
Countywide	9/9/1992	Hail	0.75 INCH	0	0	0	0
Countywide	10/8/1992	Thunderstorm Wind	0	0	0	0	0
Van Wert	4/27/1994	Thunderstorm Wind	0	0	0	50,000	0
Convoy	6/17/1994	Hail	0.75 INCH	0	0	0	50000
Wilshire	6/28/1994	Hail	2 INCH	0	0	0	50000
Delphos	9/25/1994	Hail	1 INCH	0	0	0	50000
West Half	6/7/1995	Hail	0.75 INCH	0	0	0	0
West Half	6/7/1995	Thunderstorm Wind	58 MPH	0	0	4,000	0
Wren	6/7/1995	Thunderstorm Wind	0	0	0	4,000	0
Willshire	6/8/1995	Thunderstorm Wind	0	0	0	3,000	0
Wetzel& Dixon	6/23/1995	Hail	0	0	0	0	0
Wetzel& Dixon	6/23/1995	Thunderstorm Wind	0	0	0	2,000	0

West Part	6/26/1995	Hail	0	0	0	0	0
West Part	6/26/1995	Thunderstorm Wind	0	0	0	3,000	0
VAN WERT	7/30/1996	Thunderstorm Wind	50 MPH	0	0	3,000	0
WILLSHIRE	10/29/1996	Thunderstorm Wind	50 MPH	0	0	3,000	0
VAN WERT	12/23/1996	Thunderstorm Wind	53 MPH	0	0	25,000	0
CONVOY	4/30/1997	Thunderstorm Wind	52 MPH	0	0	0	0
VAN WERT	6/21/1997	Thunderstorm Wind	57 MPH	0	0	0	0
VAN WERT	7/2/1997	Thunderstorm Wind	50 MPH	0	0	5,000	0
DIXON	7/18/1997	Thunderstorm Wind	80 MPH	0	0	75,000	0
WETSEL	4/8/1998	Hail	1 INCH	0	0	0	0
SCOTT	5/3/1998	Hail	0.75 INCH	0	0	0	0
WILLSHIRE	5/19/1998	Hail	0.75 INCH	0	0	0	0
WREN	5/29/1998	Hail	1 INCH	0	0	0	0
WREN	5/29/1998	Thunderstorm Wind	70 MPH	0	0	0	0
WREN	5/29/1998	Thunderstorm Wind	50 MPH	0	0	0	0
MONTICELLO	5/31/1998	Thunderstorm Wind	60 MPH	0	0	0	0
VENEDOCIA	5/31/1998	Thunderstorm Wind	60 MPH	0	0	0	0
SCOTT	6/12/1998	Thunderstorm Wind	70 MPH	0	0	0	0
CONVOY	6/26/1998	Thunderstorm Wind	50 MPH	0	0	0	0
WILLSHIRE	7/19/1998	Thunderstorm Wind	70 MPH	0	0	0	0
WREN	7/19/1998	Thunderstorm Wind	50 MPH	0	0	0	0
OHIO CITY	7/19/1998	Thunderstorm Wind	50 MPH	0	0	0	0
MIDDLE PT	7/21/1998	Hail	0.75 INCH	0	0	0	0
SCOTT	8/24/1998	Thunderstorm Wind	52 MPH	0	0	0	0
COUNTYWIDE	11/10/1998	Thunderstorm Wind		0	0	10,000	0
MIDDLE PT	6/9/1999	Hail	2 INCH	0	0	0	0

VAN WERT	6/12/1999	Hail	2.5 INCH	0	0	0	0
VENEDOCIA	6/12/1999	Hail	1.5 INCH	0	0	0	0
CONVERSE	6/12/1999	Thunderstorm Wind		0	0	1,000	0
VAN WERT	6/12/1999	Thunderstorm Wind		0	0	2,000	0
VAN WERT	7/6/1999	Thunderstorm Wind	50 MPH	0	0	0	0
WILLSHIRE	7/9/1999	Thunderstorm Wind		0	0	500	0
VENEDOCIA	7/9/1999	Thunderstorm Wind		0	0	5,000	0
VAN WERT	5/9/2000	Hail	1 INCH	0	0	0	0
CONVOY	5/9/2000	Hail	0.75 INCH	0	0	0	0
VAN WERT	5/9/2000	Hail	1 INCH	0	0	0	0
VAN WERT	6/14/2000	Hail	0.75 INCH	0	0	0	0
CONVOY	6/14/2000	Thunderstorm Wind		0	0	0	0
VAN WERT	6/14/2000	Thunderstorm Wind		0	0	10,000	0
SCOTT	8/6/2000	Thunderstorm Wind		0	0	0	0
OHIO CITY	9/20/2000	Thunderstorm Wind		0	0	0	0
WREN	5/15/2001	Hail	1.25 INCH	0	0	0	0
WREN	5/15/2001	Hail	0.75 INCH	0	0	0	0
CONVERSE	6/12/2001	Thunderstorm Wind		0	0	0	0
VAN WERT	7/21/2001	Thunderstorm Wind	57 MPH	0	0	0	0
VAN WERT	7/21/2001	Thunderstorm Wind		0	0	0	0
VAN WERT	7/21/2001	Thunderstorm Wind		0	0	0	0
CONVOY	8/18/2001	Thunderstorm Wind		0	0	0	0
WREN	8/22/2001	Thunderstorm Wind		0	0	0	0
OHIO CITY	8/22/2001	Thunderstorm Wind		0	0	0	0
MIDDLE PT	10/24/2001	Hail	0.75 INCH	0	0	0	0
WETSEL	10/24/2001	Hail	0.75 INCH	0	0	0	0
WREN	6/4/2002	Hail	0.75 INCH	0	0	0	0
VAN WERT	6/4/2002	Hail	1.5 INCH	0	0	0	0

OHIO CITY	6/4/2002	Hail	1.5 INCH	0	0	0	0
MIDDLE PT	6/25/2002	Thunderstorm Wind		0	0	2,000	0
VAN WERT	7/22/2002	Thunderstorm Wind		0	0	0	0
WILLSHIRE	7/29/2002	Thunderstorm Wind		0	0	0	0
WILLSHIRE	7/29/2002	Thunderstorm Wind		0	0	0	0
VAN WERT	7/29/2002	Thunderstorm Wind		0	0	0	0
WILLSHIRE	7/29/2002	Thunderstorm Wind		0	0	0	0
SCOTT	9/19/2002	Thunderstorm Wind		0	0	0	0
CONVOY	4/4/2003	Hail	0.88 INCH	0	0	0	0
CONVOY	4/4/2003	Hail	1.25 INCH	0	0	0	0
CONVOY	4/4/2003	Hail	0.75 INCH	0	0	0	0
VAN WERT	4/4/2003	Hail	1 INCH	0	0	0	0
WREN	7/4/2003	Thunderstorm Wind	50 MPH	0	0	0	0
OHIO CITY	7/4/2003	Thunderstorm Wind	50 MPH	0	0	0	0
OHIO CITY	7/4/2003	Thunderstorm Wind	52 MPH	0	0	0	0
MIDDLE PT	7/4/2003	Thunderstorm Wind	50 MPH	0	0	0	0
CONVOY	7/8/2003	Thunderstorm Wind	50 MPH	0	0	0	0
VAN WERT	7/8/2003	Thunderstorm Wind	50 MPH	0	0	0	0
CONVOY	8/1/2003	Thunderstorm Wind	51 MPH	0	0	0	0
CONVOY	8/26/2003	Thunderstorm Wind	50 MPH	0	0	0	0
CONVOY	8/26/2003	Thunderstorm Wind	50 MPH	0	0	0	0
WILLSHIRE	8/26/2003	Thunderstorm Wind	50 MPH	0	0	0	0
SCOTT	5/7/2004	Hail	0.88 INCH	0	0	0	0
VAN WERT	5/7/2004	Hail	0.88 INCH	0	0	0	0
CONVOY	5/7/2004	Hail	0.88 INCH	0	0	0	0
VAN WERT	5/7/2004	Hail	1 INCH	0	0	0	0
VAN WERT	5/21/2004	Thunderstorm Wind	55 MPH	0	0	0	0

VAN WERT	5/21/2004	Thunderstorm Wind	60 MPH	0	0	2,000	0
VENEDOCIA	5/23/2004	Hail	0.75 INCH	0	0	0	0
CONVOY	8/27/2004	Thunderstorm Wind	78 MPH	0	0	25,000	0
VAN WERT	5/13/2005	Thunderstorm Wind	51 MPH	0	0	0	0
VAN WERT	5/13/2005	Thunderstorm Wind	55 MPH	0	0	0	0
CONVOY	5/13/2005	Thunderstorm Wind	55 MPH	0	0	15,000	0
CONVOY	6/5/2005	Thunderstorm Wind	61 MPH	0	0	0	0
VAN WERT	7/18/2005	Thunderstorm Wind	59 MPH	0	0	5,000	0
CONVOY	7/26/2005	Thunderstorm Wind	50 MPH	0	0	40,000	0
COUNTYWIDE	11/6/2005	Thunderstorm Wind	80 MPH	0	0	100,000	0
OHIO CITY	3/31/2006	Hail	1.25 INCH	0	0	0	0
OHIO CITY	3/31/2006	Hail	0.75 INCH	0	0	0	0
CONVOY	3/31/2006	Thunderstorm Wind	52 MPH	0	0	0	0
WILLSHIRE	3/31/2006	Thunderstorm Wind	55 MPH	0	0	0	0
OHIO CITY	3/31/2006	Thunderstorm Wind	60 MPH	0	0	10,000	0
OHIO CITY	3/31/2006	Thunderstorm Wind	61 MPH	0	0	10,000	0
OHIO CITY	3/31/2006	Thunderstorm Wind	61 MPH	0	0	15,000	0
OHIO CITY	3/31/2006	Thunderstorm Wind	60 MPH	0	0	30,000	0
COUNTYWIDE	5/25/2006	Thunderstorm Wind	55 MPH	0	0	15,000	0
WILLSHIRE	6/22/2006	Thunderstorm Wind	70 MPH	0	0	100,000	0
VAN WERT	6/22/2006	Thunderstorm Wind	60 MPH	0	0	25,000	0
CONVOY	6/22/2006	Thunderstorm Wind	70 MPH	0	0	0	0
DIXON	6/8/2007	Thunderstorm Wind	55 MPH	0	0	10,000	0
MIDDLE PT	8/9/2007	Thunderstorm Wind	55 MPH	0	0	0	0
CONVOY	8/16/2007	Lightning		0	0	65,000	0

VAN WERT	1/29/2008	Thunderstorm Wind	50 MPH	0	0	15,000	0
CAVETT	5/30/2008	Thunderstorm Wind	70 MPH	0	0	200,000	0
OHIO CITY	6/9/2008	Thunderstorm Wind	70 MPH	0	0	0	0
MIDDLE PT	6/9/2008	Thunderstorm Wind	70 MPH	0	0	50,000	0
WETSEL	6/9/2008	Thunderstorm Wind	61 MPH	0	0	0	0
MIDDLE PT	6/9/2008	Thunderstorm Wind	63 MPH	0	0	0	0
GLENMORE	6/9/2008	Thunderstorm Wind	54 MPH	0	0	0	0
VAN WERT	6/15/2008	Thunderstorm Wind	60 MPH	0	0	40,000	0
OHIO CITY	6/15/2008	Thunderstorm Wind	55 MPH	0	0	0	0
WREN	6/25/2008	Thunderstorm Wind	55 MPH	0	0	10,000	0
VAN WERT	6/25/2008	Thunderstorm Wind	55 MPH	0	0	0	0
GLENMORE	7/8/2008	Thunderstorm Wind	50 MPH	0	0	0	0
VENEDOCIA	7/8/2008	Thunderstorm Wind	50 MPH	0	0	3,000	0
VAN WERT	8/1/2008	Thunderstorm Wind	55 MPH	0	0	6,000	0
MIDDLE PT	8/1/2008	Thunderstorm Wind	61 MPH	0	0	0	0
VAN WERT	3/7/2009	Hail	0.88 INCH	0	0	0	0
WETSEL	6/1/2009	Hail	1 INCH	0	0	0	0
SCOTT	6/1/2009	Hail	0.88 INCH	0	0	0	0
VAN WERT	6/1/2009	Thunderstorm Wind	60 MPH	0	0	10,000	0
WILLSHIRE OSBORN ARP	6/1/2009	Thunderstorm Wind	60 MPH	0	0	0	0
WETSEL	6/1/2009	Thunderstorm Wind	65 MPH	0	0	75,000	0
MIDDLE PT	5/14/2010	Thunderstorm Wind	78 MPH	0	0	0	0
CONVOY	6/23/2010	Thunderstorm Wind	55 MPH	0	0	0	0
SCOTT	6/23/2010	Thunderstorm Wind	55 MPH	0	0	0	0
CONVERSE	8/4/2010	Thunderstorm Wind	60 MPH	0	0	0	0

VAN WERT	10/26/2010	Thunderstorm Wind	60 MPH	0	0	0	0
CONVERSE	4/19/2011	Thunderstorm Wind	60 MPH	0	0	0	0
VAN WERT CIRCLE S AR	5/10/2011	Hail	1.75 INCH	0	0	0	0
CAVETT	5/10/2011	Hail	1 INCH	0	0	0	0
VAN WERT	5/25/2011	Hail	1.5 INCH	0	0	0	0
VAN WERT	5/25/2011	Thunderstorm Wind	50 MPH	0	0	0	0
OHIO CITY	6/22/2011	Thunderstorm Wind	55 MPH	0	0	0	0
OHIO CITY	8/9/2011	Hail	0.88 INCH	0	0	0	0
MONTICELLO	8/9/2011	Hail	1.25 INCH	0	0	0	0
VAN WERT	8/9/2011	Thunderstorm Wind	60 MPH	0	0	0	0
VAN WERT	8/9/2011	Thunderstorm Wind	50 MPH	0	0	0	0
SCOTT	11/14/2011	Thunderstorm Wind	55 MPH	0	0	1,000	0
CONVOY	6/29/2012	Thunderstorm Wind	51 MPH	0	0	0	0
CONVOY	6/29/2012	Thunderstorm Wind	56 MPH	0	0	0	0
VAN WERT	6/29/2012	Thunderstorm Wind	80 MPH	0	0	0	0
CONVOY	6/29/2012	Thunderstorm Wind	56 MPH	0	0	0	0
SCOTT	6/29/2012	Thunderstorm Wind	76 MPH	0	0	0	0
SCHUMM	7/5/2012	Thunderstorm Wind	55 MPH	0	0	0	0
WREN	8/4/2012	Thunderstorm Wind	50 MPH	0	0	0	0
DIXON	8/4/2012	Thunderstorm Wind	52 MPH	0	0	0	0
CONVOY	9/7/2012	Thunderstorm Wind	50 MPH	0	0	0	0
MIDDLE PT	5/30/2013	Thunderstorm Wind	60 MPH	0	0	0	0
WREN	6/24/2013	Thunderstorm Wind	50 MPH	0	0	0	0
OHIO CITY	7/10/2013	Thunderstorm Wind	55 MPH	0	0	0	0
VAN WERT	7/10/2013	Thunderstorm Wind	50 MPH	0	0	0	0

VAN WERT	11/17/2013	Thunderstorm Wind	54 MPH	0	0	0	0
WETSEL	11/17/2013	Thunderstorm Wind	50 MPH	0	0	0	0
MIDDLE PT	6/23/2014	Thunderstorm Wind	50 MPH	0	0	0	0
OHIO CITY	7/1/2014	Thunderstorm Wind	55 MPH	0	0	0	0
SCHUMM	7/27/2014	Thunderstorm Wind	55 MPH	0	0	0	0
MIDDLE PT	9/10/2014	Thunderstorm Wind	55 MPH	0	0	0	0
WREN	5/11/2015	Thunderstorm Wind	50 MPH	0	0	0	0
JONESTOWN	5/11/2015	Thunderstorm Wind	50 MPH	0	0	0	0
MIDDLE PT	5/26/2015	Thunderstorm Wind	52 MPH	0	0	0	0
VAN WERT	5/30/2015	Thunderstorm Wind	55 MPH	0	0	0	0
VAN WERT	5/30/2015	Thunderstorm Wind	50 MPH	0	0	0	0
MIDDLE PT	12/23/2015	Thunderstorm Wind	50 MPH	0	0	0	0
VAN WERT ARPT	8/28/2016	Thunderstorm Wind	60 MPH	0	0	0	0
VAN WERT ARPT	3/30/2017	Hail	1 INCH	0	0	0	0
VAN WERT ARPT	3/30/2017	Hail	0.88 INCH	0	0	0	0
CONVOY	5/18/2017	Thunderstorm Wind	55 MPH	0	0	0	0
GLENMORE	6/4/2017	Thunderstorm Wind	55 MPH	0	0	0	0
CONVOY	6/4/2017	Thunderstorm Wind	55 MPH	0	0	0	0
CONVOY	6/5/2017	Hail	1 INCH	0	0	0	0
WREN	6/5/2017	Hail	0.88 INCH	0	0	0	0
MIDDLEBURY	6/5/2017	Thunderstorm Wind	52 MPH	0	0	0	0
SCHUMM	6/5/2017	Thunderstorm Wind	55 MPH	0	0	0	0
MIDDLEBURY	6/5/2017	Thunderstorm Wind	50 MPH	0	0	0	0
OHIO CITY	5/16/2019	Hail	0.75 INCH	0	0	0	0
CONVOY	5/23/2019	Thunderstorm Wind	55 MPH	0	0	0	0

VAN WERT	5/23/2019	Thunderstorm Wind	55 MPH	0	0	0	0
VAN WERT	5/23/2019	Thunderstorm Wind	55 MPH	0	0	0	0
VAN WERT ARPT	5/23/2019	Thunderstorm Wind	52 MPH	0	0	0	0
MONTICELLO	7/10/2019	Thunderstorm Wind	60 MPH	0	0	0	0
VAN WERT ARPT	7/18/2019	Thunderstorm Wind	60 MPH	0	0	0	0
VENEDOCIA	8/14/2019	Thunderstorm Wind	56 MPH	0	0	0	0
JONESTOWN	8/14/2019	Thunderstorm Wind	56 MPH	0	0	0	0
SCHUMM	8/18/2019	Thunderstorm Wind	60 MPH	0	0	0	0
GLENMORE	8/18/2019	Thunderstorm Wind	55 MPH	0	0	0	0
			TOTAL:	0	0	$1,084,500	$150,000

F5-Extreme Temperatures

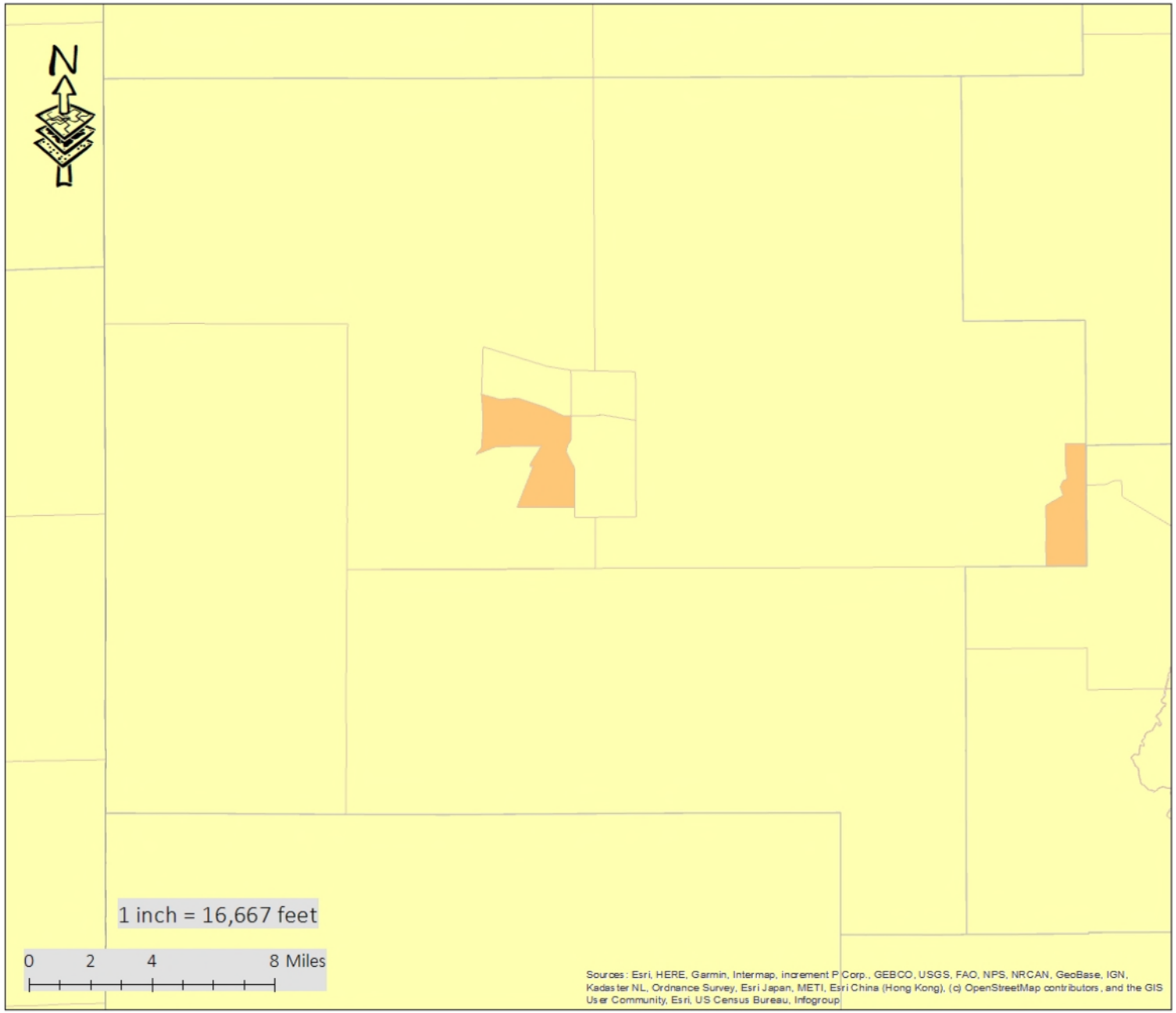
DATE	EVENT TYPE	DEATHS	INJURIES	PROPERTY DAMAGES	CROP LOSSES
2/1/1996	Cold/Wind Chill	0	0	$ 20,000	0
1/6/2014	Extreme Cold/Wind Chill	0	0	0	0
1/8/2015	Extreme Cold/Wind Chill	0	0	0	0
1/30/2019	Extreme Cold/Wind Chill	0	0	0	0

F6-Tornados and High Winds

LOCATION	DATE	EVENT TYPE	MAGNITUDE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Countywide	1/3/1950	Tornado	F1	0	1	$25,000	0
Countywide	7/19/1950	Tornado	F2	0	0	0	0
Countywide	4/11/1965	Tornado	F4	0	4	$250,000	0
Countywide	6/28/1967	Tornado	F1	0	0	$2,500	0
Countywide	5/25/1973	Tornado	F1	0	0	$2,500	0
Countywide	6/21/1981	Tornado	F1	0	0	$250,000	0
Countywide	9/14/1990	Tornado	F1	0	0	$250,000	0
Countywide	2/18/1992	Tornado	F4	0	6	$2,500,000	0
Countywide	7/12/1992	Tornado	F1	0	0	$250,000	0
Countywide	1/18/1996	High Wind	55 mph	0	0	$50,000	0

Countywide	4/6/1997	High Wind	60 mph	0	0	$2,000	0
Scott	5/3/1998	Tornado	F0	0	0	$10,000	0
Scott	6/11/1998	Tornado	F0	0	0	$4,000	0
Willshire	6/21/1998	Tornado	F1	0	0	$25,000	0
Countywide	12/11/2000	High Wind	48 mph	0	0	0	0
Middle Pt	10/24/2001	Tornado	F0	0	0	0	0
Countywide	3/9/2002	High Wind	52 mph	0	0	0	0
Van Wert City	9/20/2002	Tornado	F0	0	0	0	0
Willshire	11/10/2002	Tornado	F4	2	17	$30,000,000	0
Countywide	11/12/2003	High Wind	56 mph	0	0	0	0
Countywide	3/5/2004	High Wind	52 mph	0	0	0	0
Countywide	3/13/2006	Strong Wind	45 mph	1	0	0	0
Ohio City	3/31/2006	Tornado	F2	0	0	$1,000,000	0
Willshire	6/22/2006	Tornado	F0	0	0	$20,000	0
Willshire	6/22/2006	Tornado	F1	0	0	$15,000	0
Venedocia	6/22/2006	Tornado	F0	0	0	$10,000	0
	8/16/2007	Strong Wind	43 mph	0	0	$15,000	0
Wren	5/30/2008	Tornado	EF0	0	0	$60,000	0
Wetsel	6/6/2008	Tornado	EF0	0	0	$5,000	0
	9/14/2008	High Wind	60 mph	0	0	0	0
	2/11/2009	High Wind	50 mph	0	0	0	0
	12/9/2009	High Wind	50 mph	0	0	0	0
Middle Pt	5/14/2010	Tornado	EF1	0	0	0	0
Van Wert City	6/23/2010	Tornado	EF0	0	0	0	0
Dixon	10/26/2010	Tornado	EF0	0	0	0	0
Scott	10/26/2010	Tornado	EF1	0	0	0	0
Van Wert ARPT	4/19/2011	Tornado	EF0	0	0	0	0
Monticello	4/19/2011	Tornado	EF1	0	0	0	0
Schumm	5/23/2011	Tornado	EF1	0	0	0	0
Van Wert ARPT	5/25/2011	Tornado	EF0	0	0	0	0
Willshire	6/12/2013	Tornado	EF0	0	0	0	0
Wetsel	11/17/2013	Tornado	EF1	0	0	0	0
	11/24/2014	High Wind	50 mph	0	0	0	0
Middlebury	8/24/2016	Tornado	EF1	0	0	0	0
Convoy	8/24/2016	Tornado	EF0	0	0	0	0

Van Wert City	8/24/2016	Tornado	EF0	0	0	0	0
Wetsel	8/24/2016	Tornado	EF0	0	0	0	0
	3/8/2017	High Wind	52 mph	0	0	0	0
Van Wert Circle S AR	6/22/2018	Tornado	EF0	0	0	0	0
	2/27/2019	High Wind	50 mph	0	0	0	0
			TOTAL:	3	27	$31,125,000	0



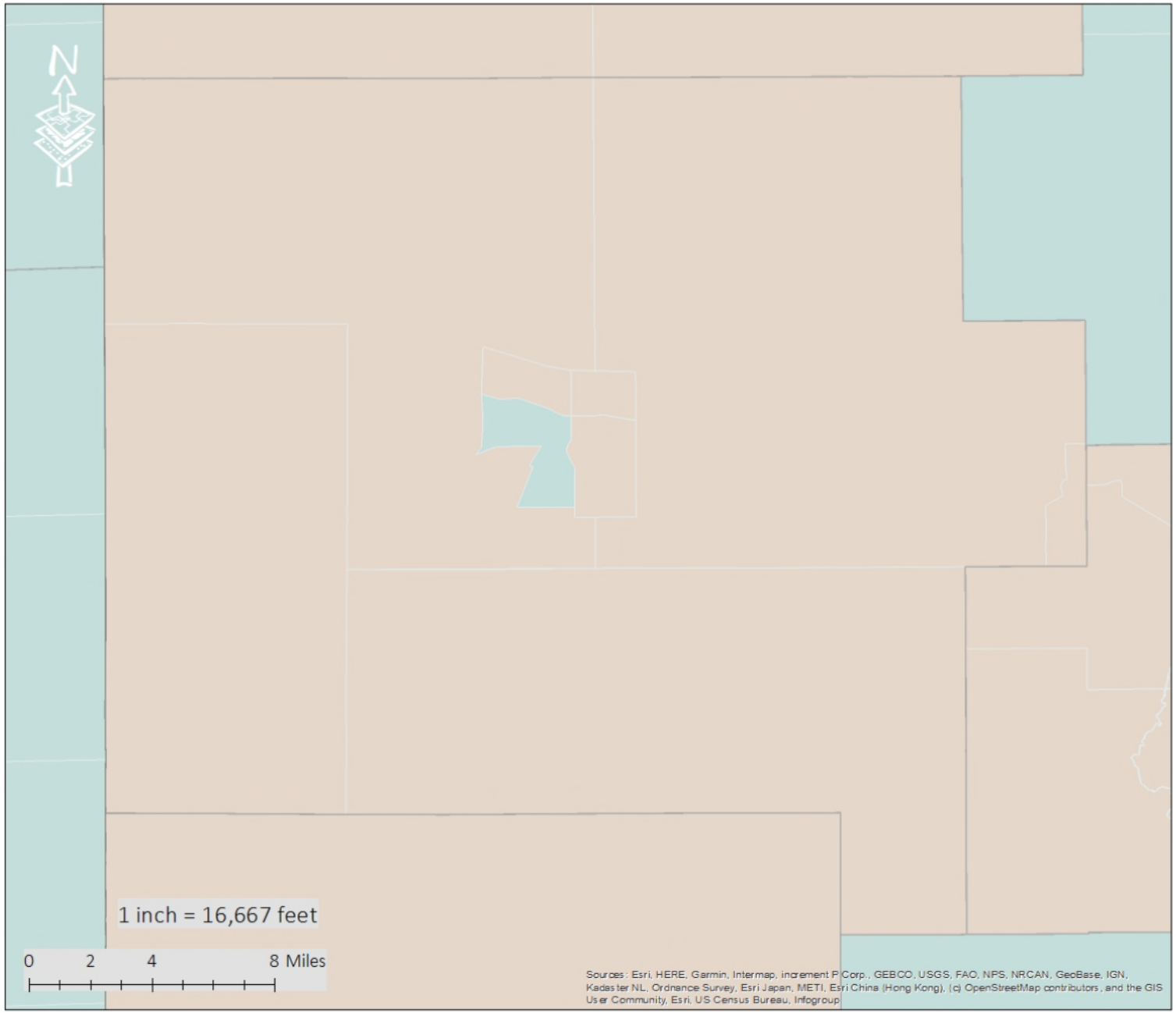
Van Wert County
Population Density
Hazard Mitigation Plan Update-2020
August 24, 2020

Legend

- State Boundaries
- County Boundaries
- 0 - 1,000 people per sq mi
- 1,000 - 8,400 people per sq mi
- 8,400 - 15,800 people per sq mi
- 15,800 - 24,000 people per sq mi
- 24,000 - 629,000 people per sq mi
- County Boundary

Map Prepared by:
Roberta Streiffert
August 24, 2020

Great Lakes
COMMUNITY ACTION
PARTNERSHIP



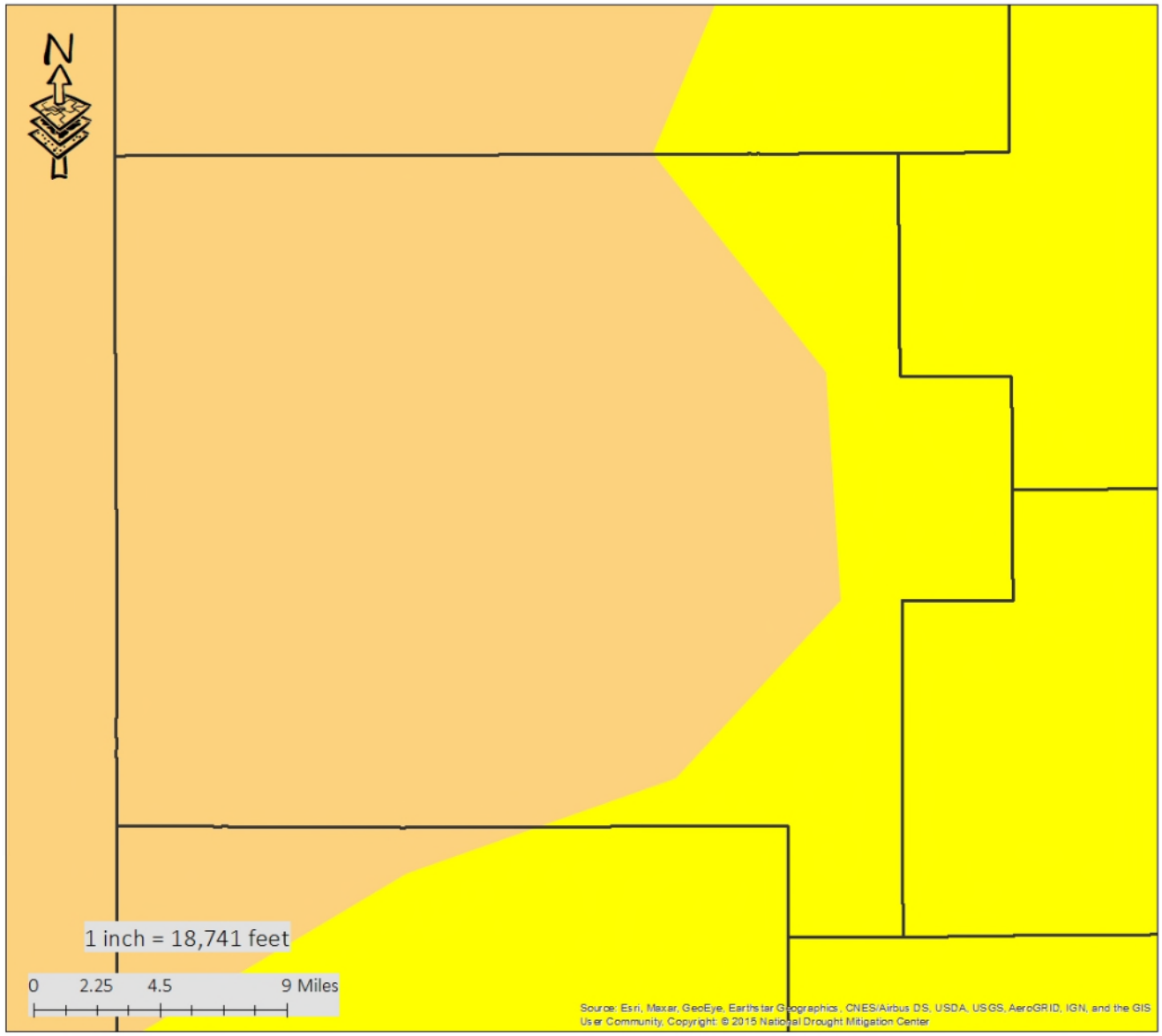
Van Wert County
Population Growth
Hazard Mitigation Plan Update-2020
August 24, 2020

Legend

- State Boundaries
- County Boundaries
- -2.1 to -1.9%
- -1.9% to -1.25%
- -1.25% to 0%
- 0% to 1.25%
- 1.25% to 1.9%
- 1.9 - 53.3 %
- County Boundary

Map Prepared by:
Roberta Streiffert
August 24, 2020

Great Lakes COMMUNITY ACTION



Van Wert County
Population Density
Hazard Mitigation Plan Update-2020
August 24, 2020

Legend

County Boundary

USA Drought Intensity 2000-Present

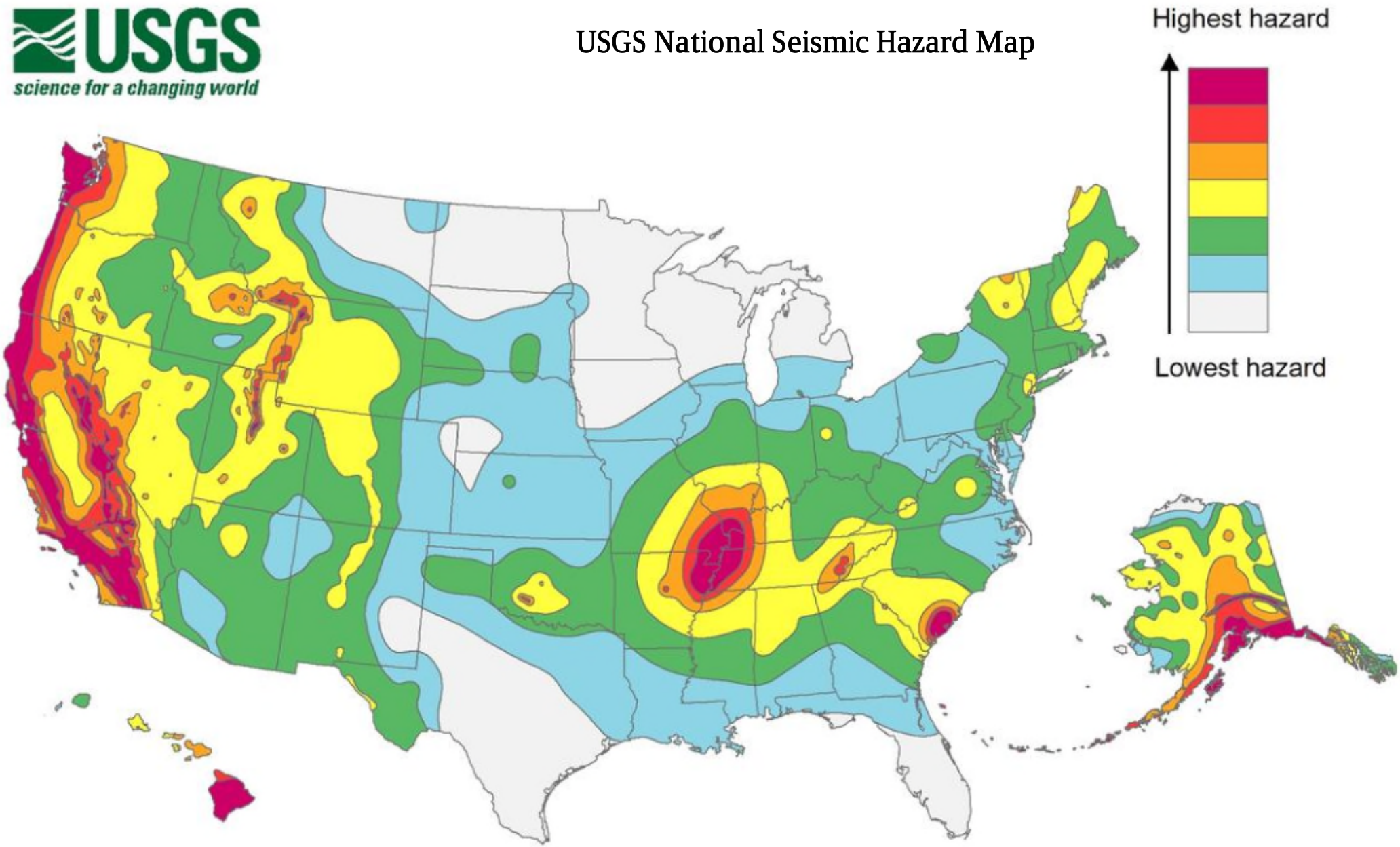
DM

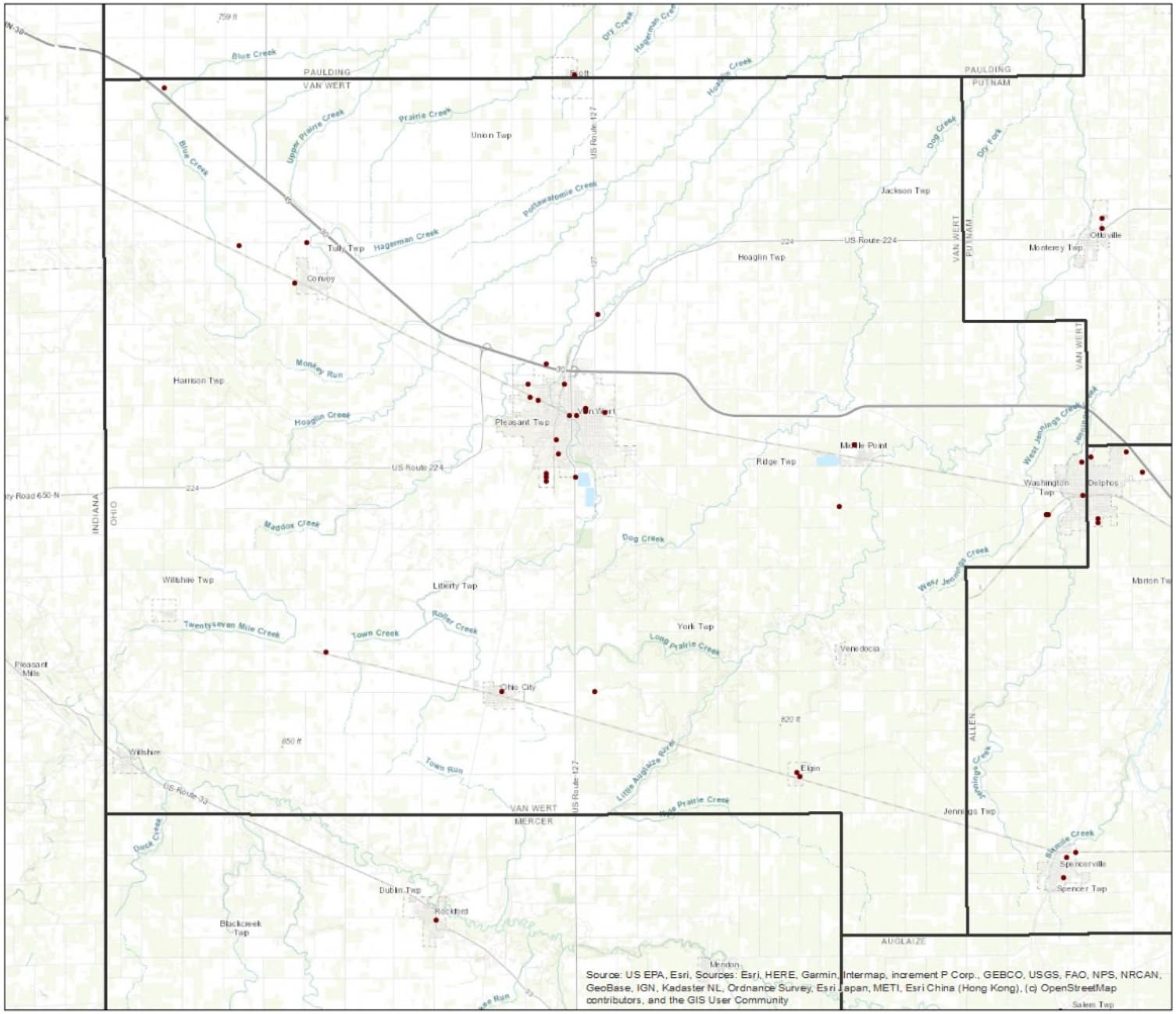
- Abnormally Dry
- Drought - Moderate
- Drought - Severe
- Drought - Extreme
- Drought - Exceptional

Map Prepared by:
Roberta Streiffert
August 24, 2020

USGS
science for a changing world

USGS National Seismic Hazard Map





Van Wert County
Hazardous Waste Sites
Hazard Mitigation Plan Update-2020
August 24, 2020

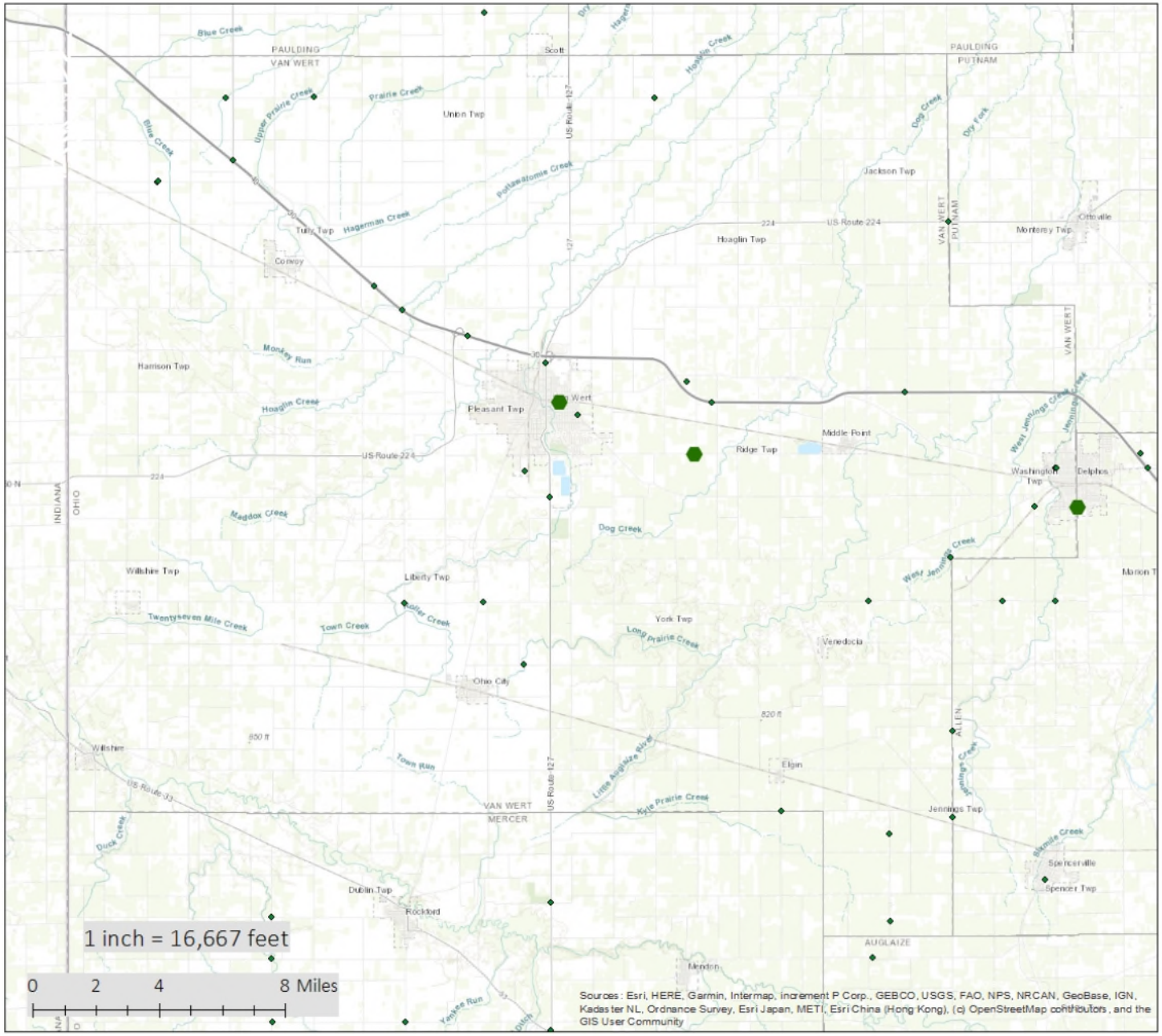
Legend

- Hazardous Waste Sites
- County Boundary

1 inch = 16,667 feet

0 2 4 8 Miles

Map Prepared by:
Roberta Streiffert
August 24, 2020



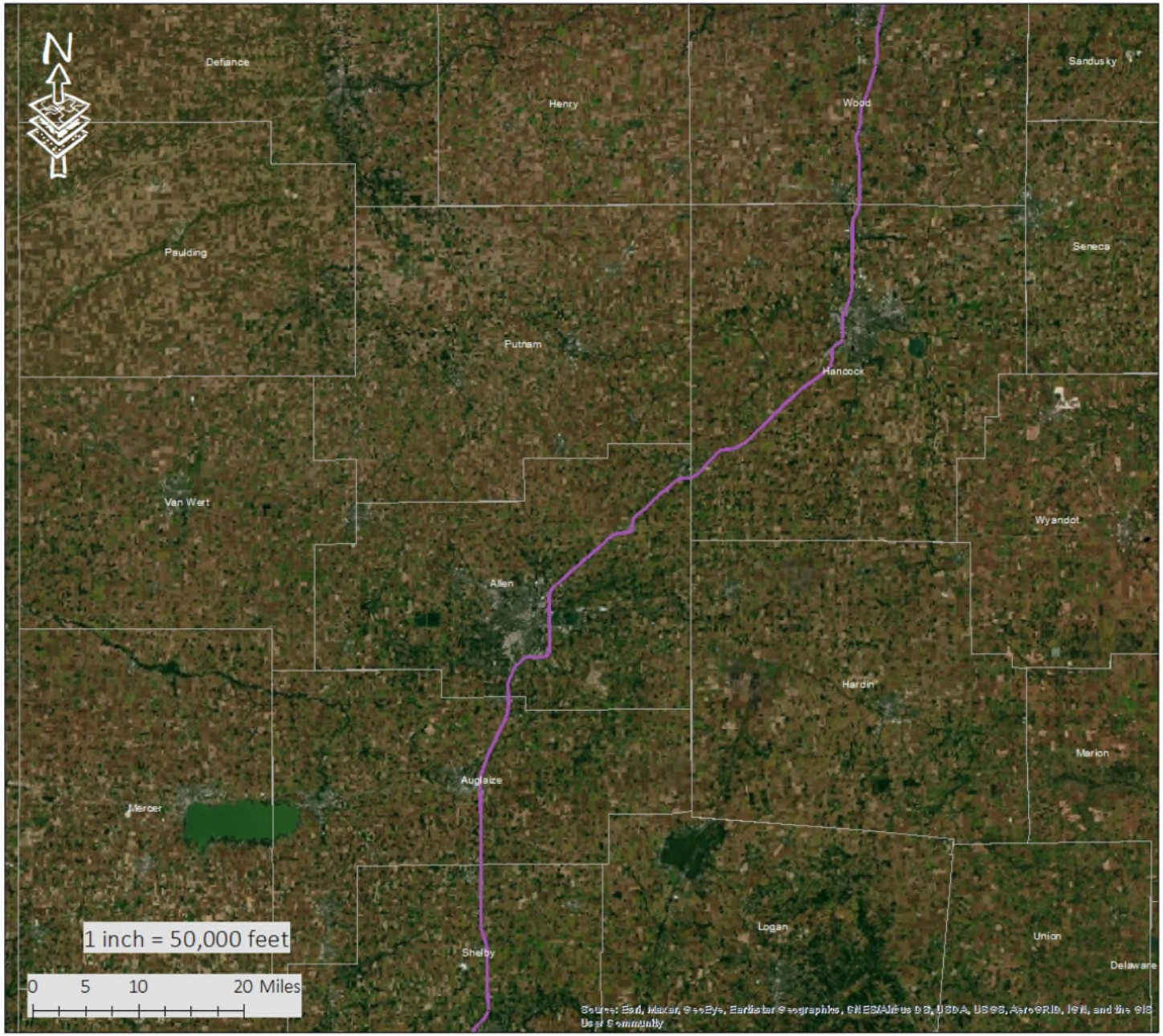
Van Wert County
Hazardous Spills and Releases
Hazard Mitigation Plan Update-2020
August 24, 2020

Legend

- Ohio EPA Spills and Releases Inventory
- CERCLIS Sites

Map Prepared by:
Roberta Streiffert
August 24, 2020

Great Lakes COMMUNITY ACTION PARTNERSHIP



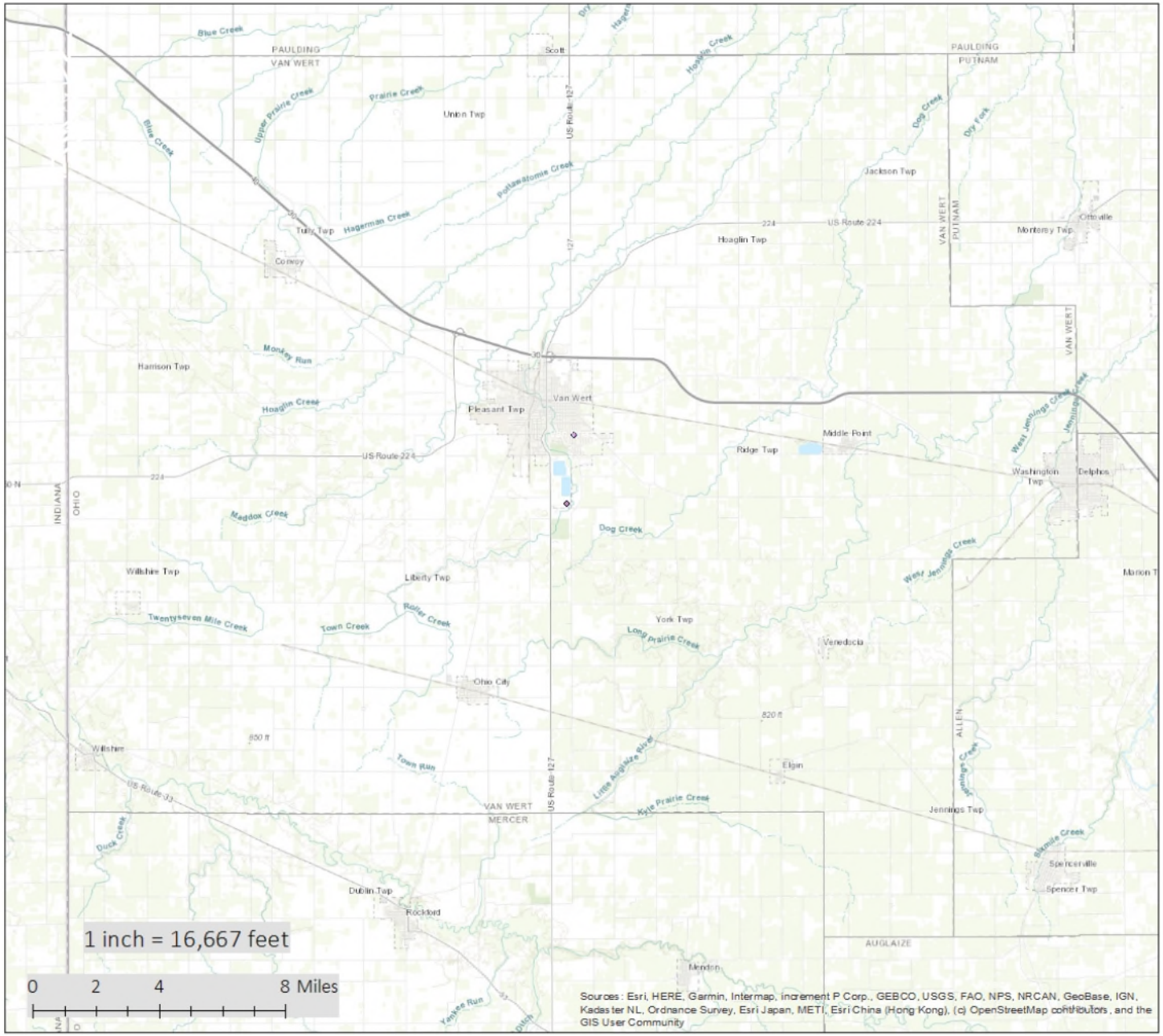
Van Wert County
HAZMAT Routes
Hazard Mitigation Plan Update-2020
August 24, 2020

Legend

- HAZMAT Routes in Ohio
- USA_Counties

Map Prepared by:
Roberta Streiffert
August 24, 2020

Great Lakes
COMMUNITY ACTION
PARTNERSHIP



Van Wert County
Invasive Species Map
Hazard Mitigation Plan Update-2020
August 24, 2020

Legend

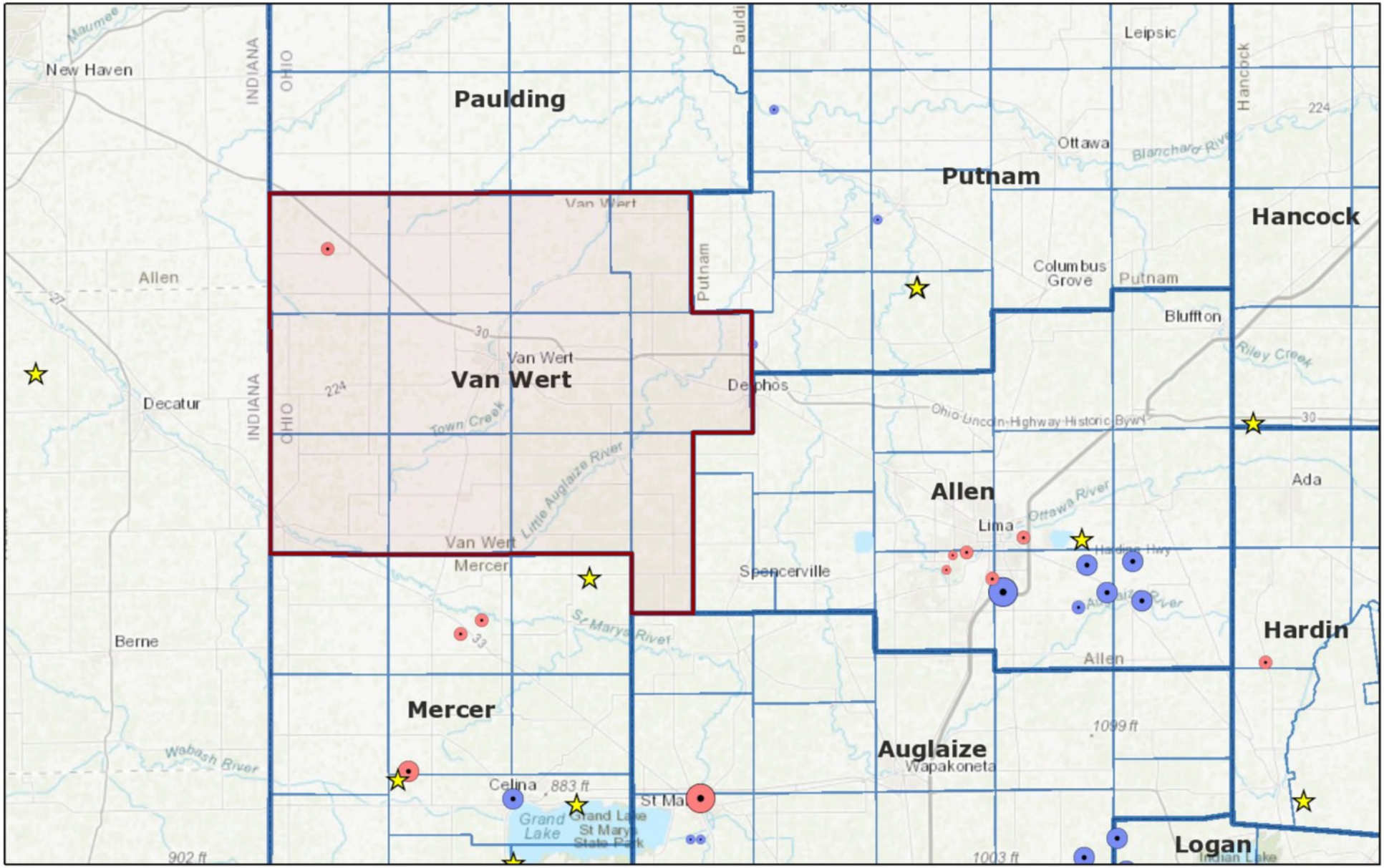
EDDMapS Invasive Species Data

- bittersweet nightshade
- creeping yellow loosestrife, creeping Jenny
- ladysthumb
- red clover
- yellow fieldcress

Map Prepared by:
Roberta Streiffert
August 24, 2020

Great Lakes COMMUNITY ACTION PARTNERSHIP

Ohio Earthquake Epicenters



January 25, 2021

OhioSeis Seismic Stations

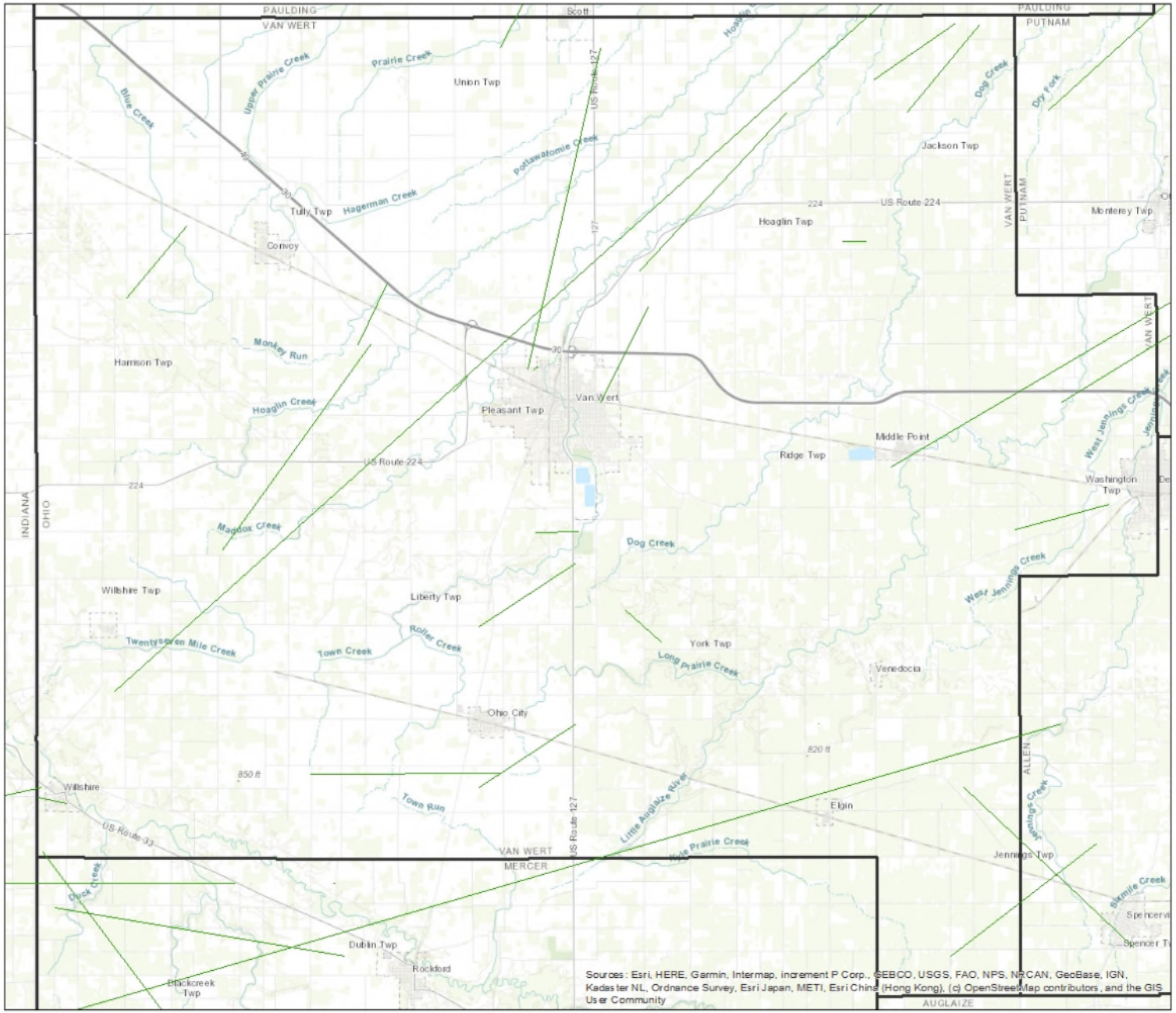
1:577,791

0 5 10 20 mi

0 5 10 20 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri

ODNR - Div. of Geosurvey



Van Wert County
Tornado Tracks 1950-2018
Hazard Mitigation Plan Update-2020
August 24, 2020

Legend

1950-2018-torn-aspath

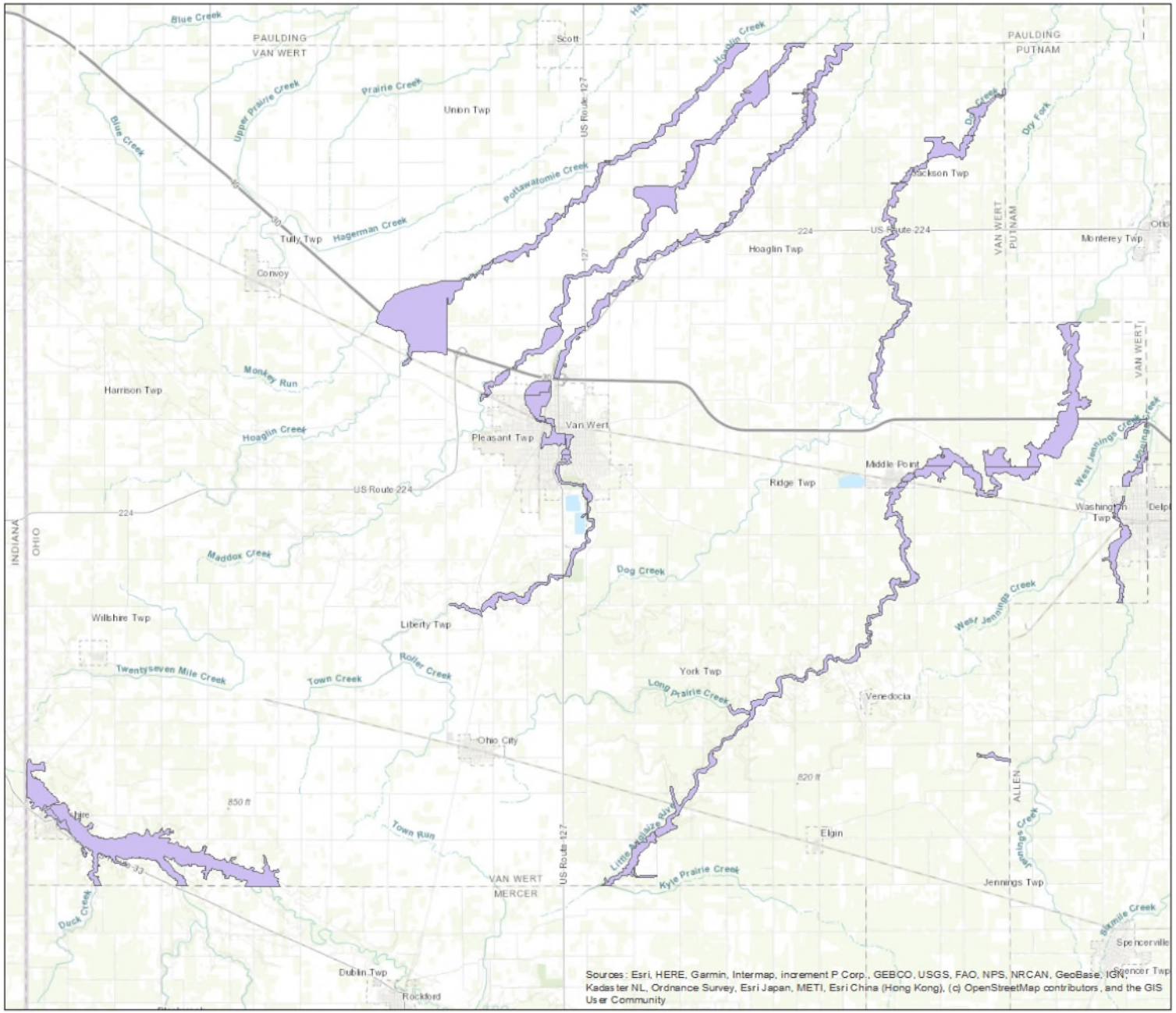
County Boundary

1 inch = 14,583 feet

0 1.75 3.5 7 Miles

Map Prepared by:
Roberta Streiffert
August 24, 2020

Great Lakes Community Action Partnership



Van Wert County
100-Year Floodplain (ODNR)
Hazard Mitigation Plan Update-2020
August 24, 2020

Legend

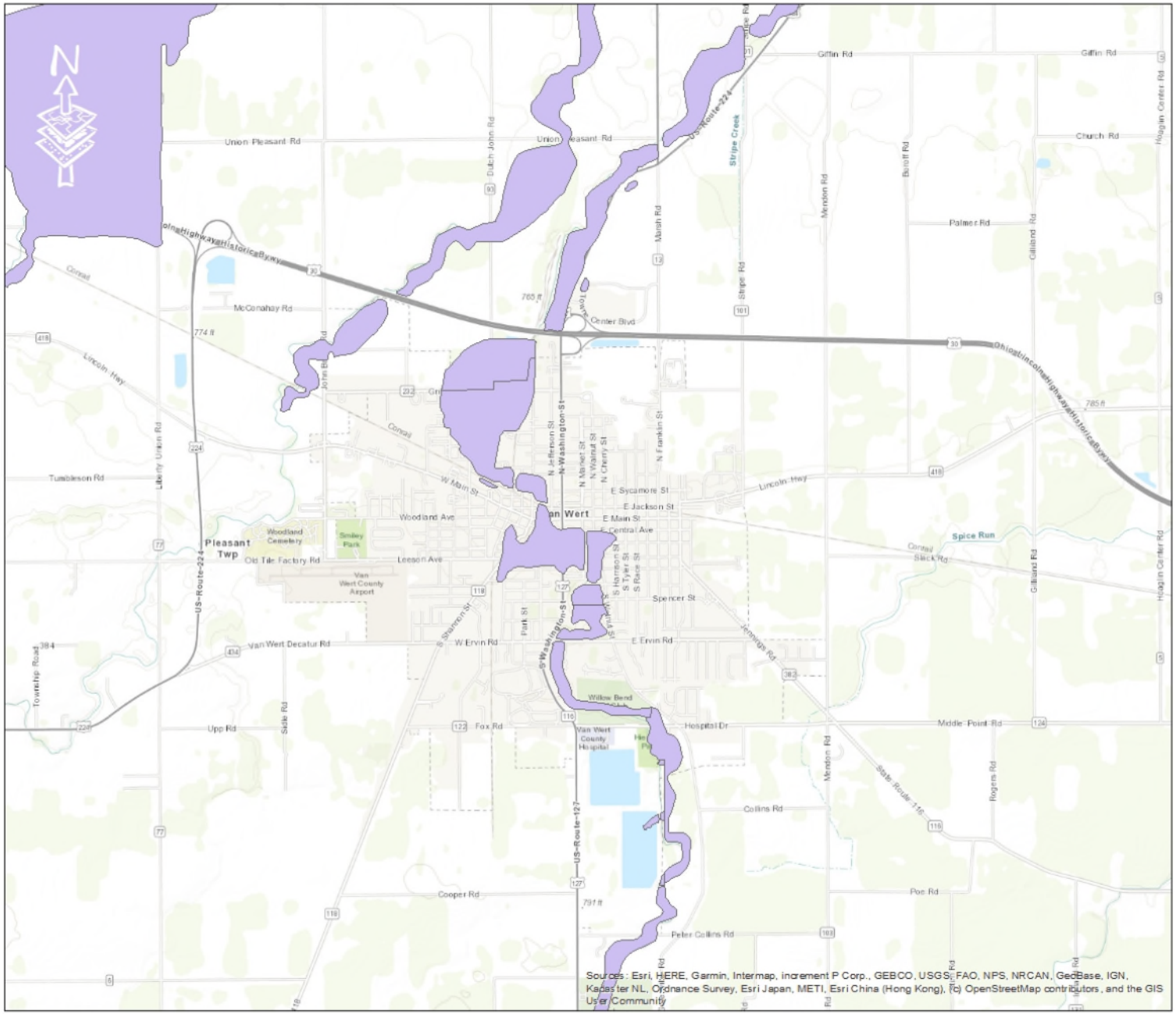
100 Year Flood Hazard Areas

1 inch = 14,583 feet

0 1.75 3.5 7 Miles

Map Prepared by:
Roberta Streiffert
August 24, 2020

Great Lakes Community Action Partnership



Van Wert City
100-Year Floodplain (ODNR)
Hazard Mitigation Plan Update-2020
August 24, 2020

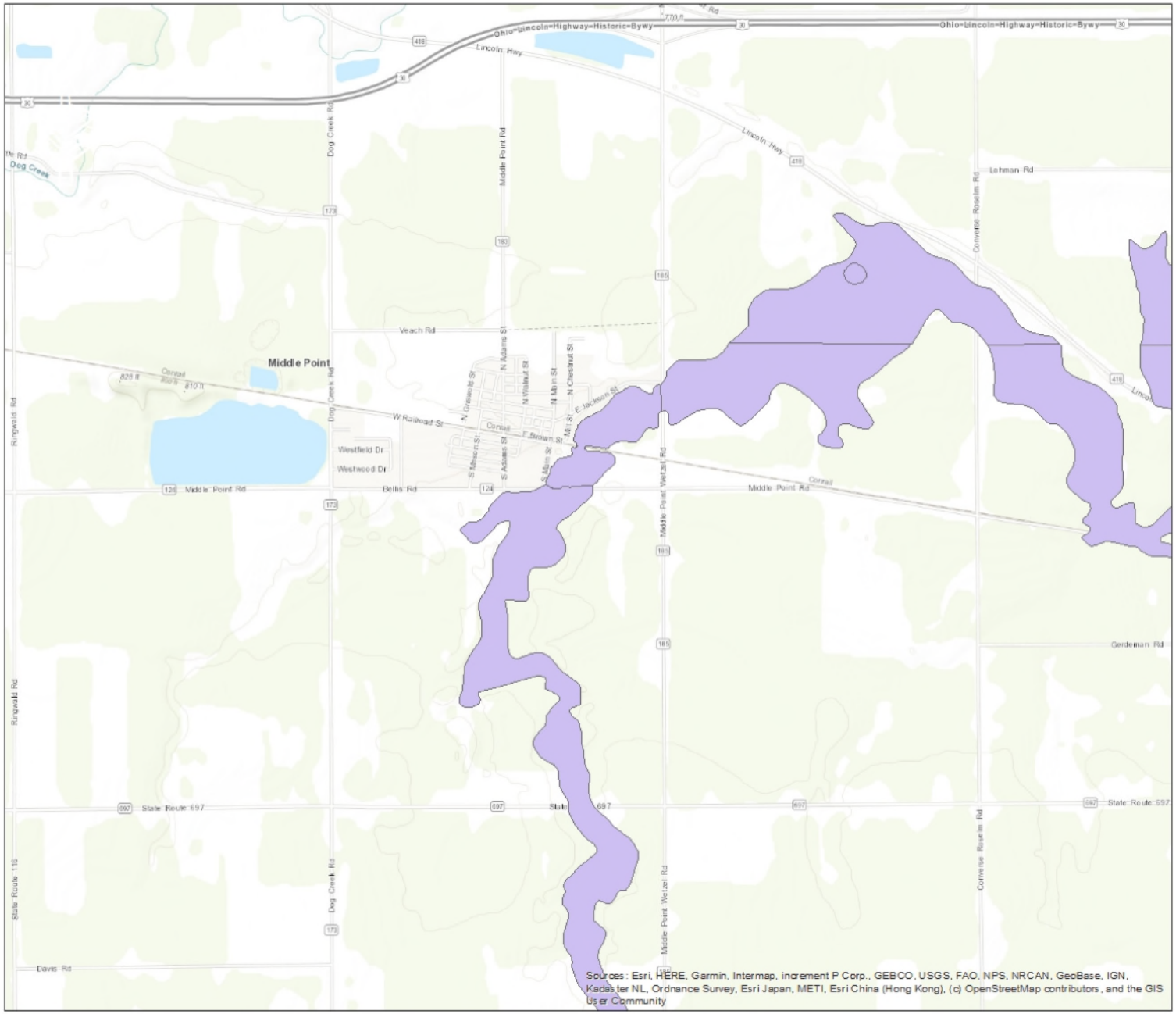
Legend

100 Year Flood Hazard Areas

1 inch = 4,070 feet

0 0.5 1 2 Miles

Map Prepared by:
Roberta Streiffert
August 24, 2020



Village of Middle Point
100-Year Floodplain (ODNR)
Hazard Mitigation Plan Update-2020
August 24, 2020

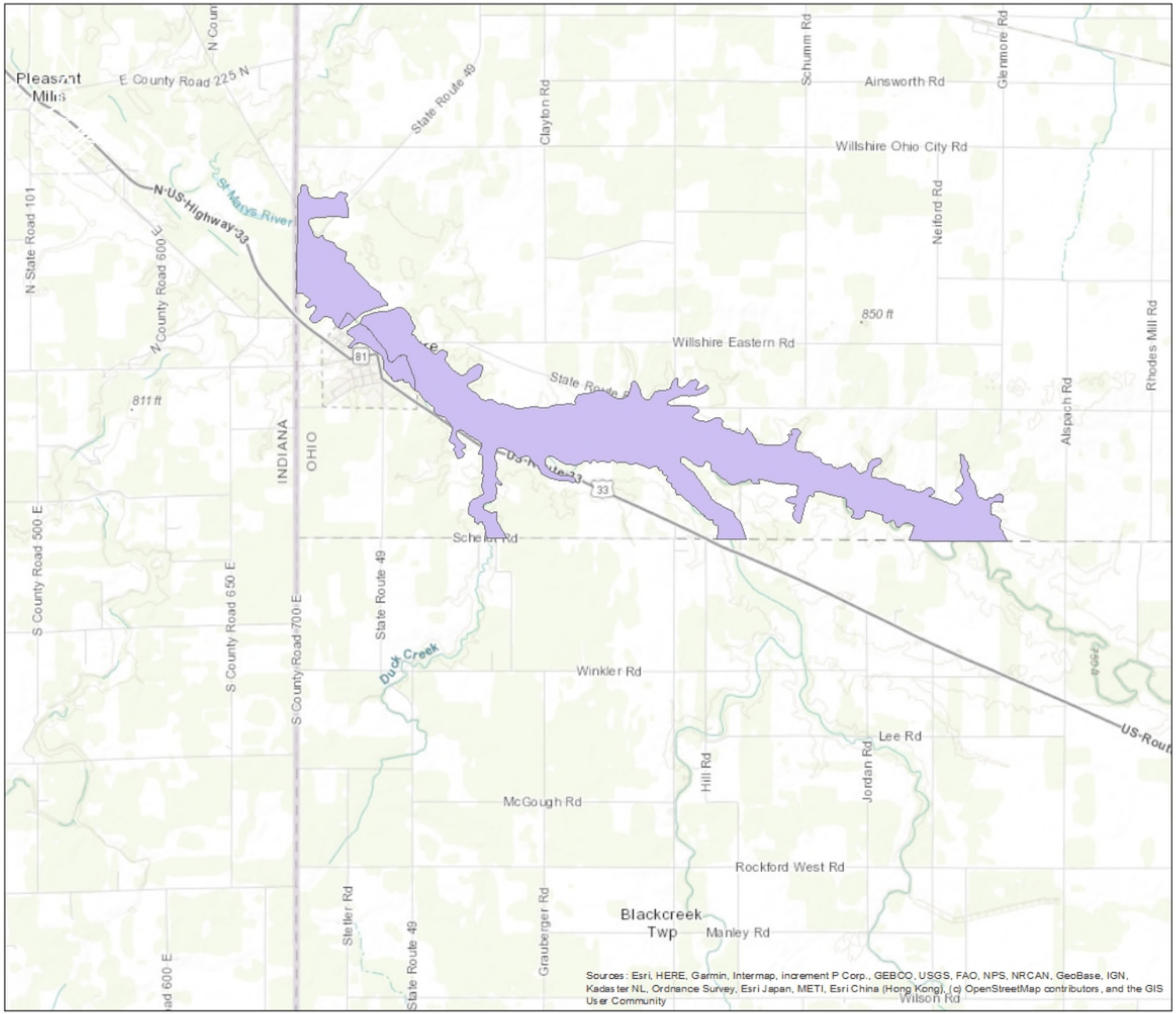
Legend

100 Year Flood Hazard Areas

1 inch = 2,145 feet

0 0.275 0.55 1.1 Miles

Map Prepared by:
Roberta Streiffert
August 24, 2020



Village of Willshire
100-Year Floodplain (ODNR)
Hazard Mitigation Plan Update-2020
August 24, 2020

Legend

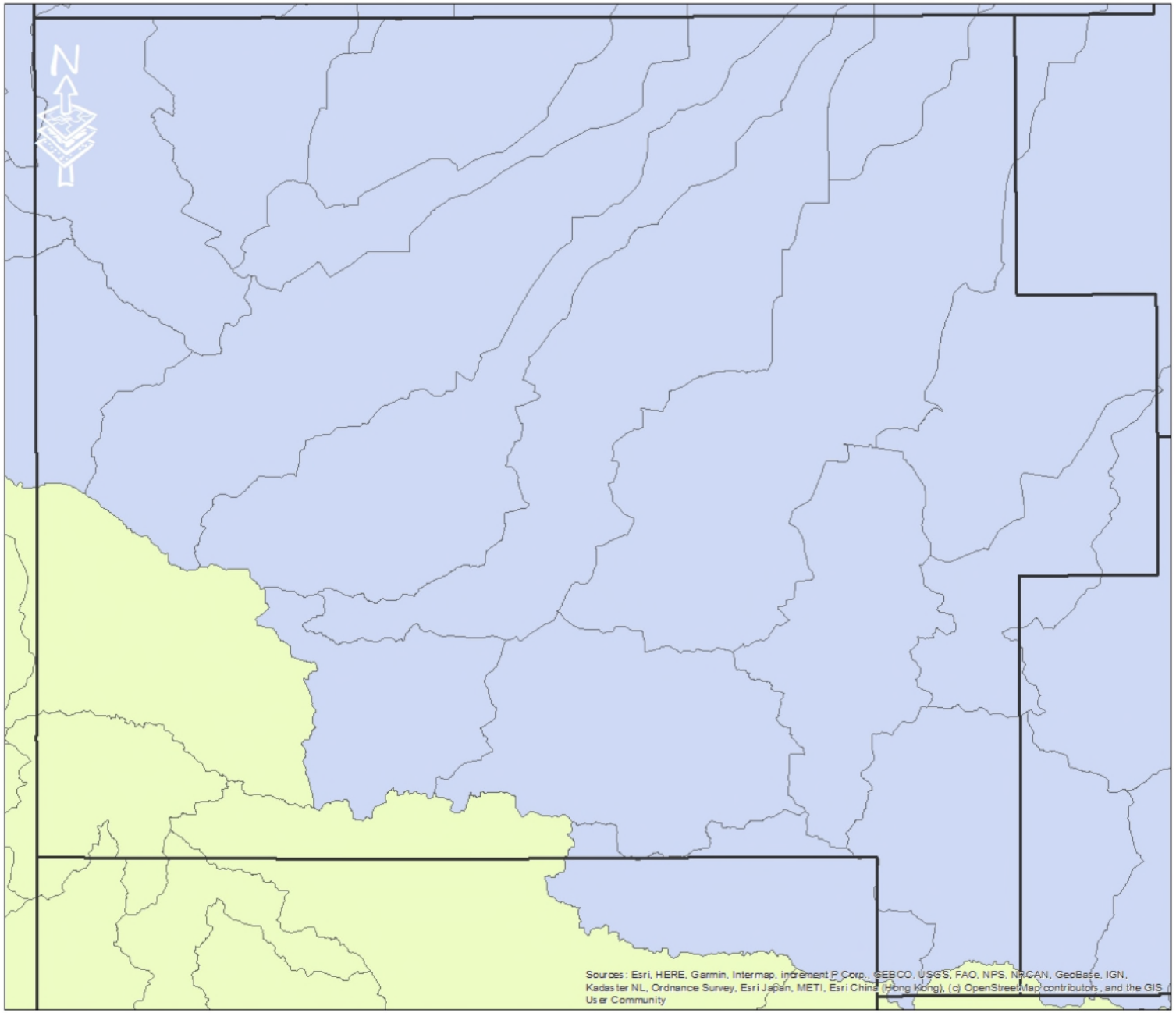
100 Year Flood Hazard Areas

1 inch = 5,208 feet

0 0.5 1 2 Miles

Map Prepared by:
Roberta Streiffert
August 24, 2020

Great Lakes Community Action Partnership



Van Wert County
Watershed Boundaries
Hazard Mitigation Plan Update-2020
August 24, 2020

Legend

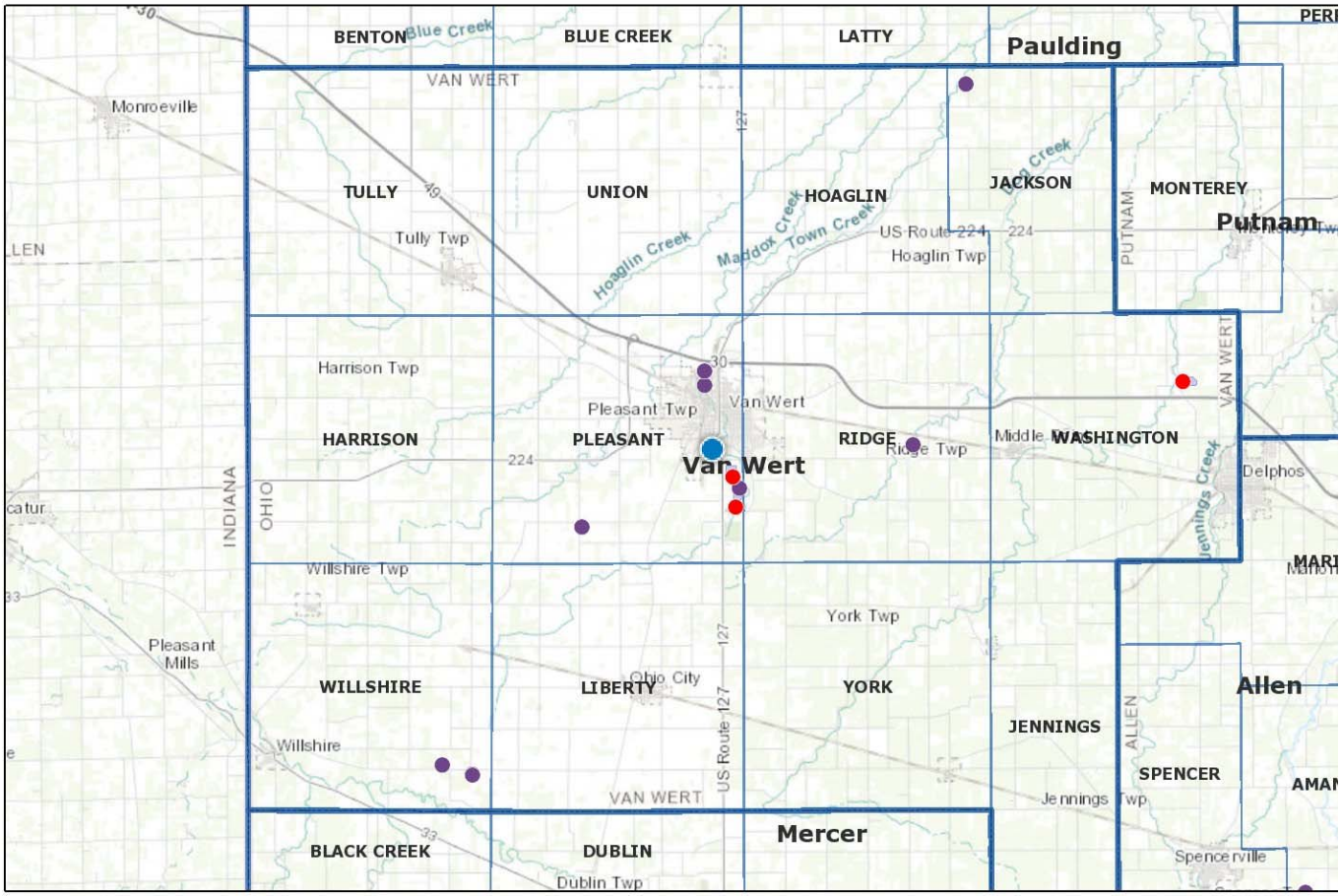
- County Boundary
- StMarys
- Auglaize

1 inch = 14,583 feet

0 1.75 3.5 7 Miles

Map Prepared by:
Roberta Streiffert
August 24, 2020

Ohio Dam Locator



December 6, 2019

- Class I Dams
- Class II Dams
- Class III Dams
- Other Dams
- Lakes (ODNR)
- Counties
- Current Township

N

0 2.5 5
0 4 8
1:288,895

ODNR - Division of W

(Sample) RESOLUTION NO. _____

A RESOLUTION OF THE VAN WERT COUNTY COMMISSIONERS ADOPTING THE VAN WERT COUNTY HAZARD MITIGATION PLAN, DATED OCTOBER 2020.

Whereas the Van Wert County Commissioners recognize the threat that natural hazards pose to people and property within the county; and

Whereas the Van Wert County Commissioners have prepared a multi-jurisdictional, multi-hazard mitigation with the Van Wert County Emergency Management Agency, hereby known as the Van Wert County Hazard Mitigation Plan, dated _____ in accordance with the Disaster Mitigation Act of 2000; and

Whereas the Van Wert County Hazard Mitigation Plan, dated _____ identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the County from the impacts of future hazards and disasters; and

Whereas adoption by the Van Wert County Commissioners demonstrates their commitment to hazard mitigation and achieving the goals outlined in the Van Wert County Hazard Mitigation Plan, dated _____.

NOW THEREFORE BE IT RESOLVED BY THE COUNTY OF VAN WERT, OHIO THAT:

Section 1. That the Board of County Commissioners hereby adopts the Van Wert County Hazard Mitigation Plan, dated_____.

Section 2. That it is found and determined that all formal actions of this Board concerning and relating to the passage of this resolution were passed in an open meeting of this Board and that all deliberations of this Board and of its committees that resulted in such formal action were in meetings open to the public, in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

ADOPTED by a vote of ____ in favor and ____ against, ____abstaining, this _____ day of _____, 202_.

By: _____
(print name)

ATTEST:

By: _____
(print name)

APPROVED AS TO FORM:

By: _____
(print name)

(Sample) RESOLUTION NO. _____

A RESOLUTION OF THE VILLAGE OF (NAME) ADOPTING THE VAN WERT COUNTY HAZARD MITIGATION PLAN, DATED OCTOBER 2020.

Whereas the Village of (name) recognizes the threat that natural hazards pose to people and property within the village; and

Whereas the Village of (name) has participated in the process of preparing a multi-jurisdictional, multi-hazard mitigation with the Van Wert County Emergency Management Agency, hereby known as the Van Wert County Hazard Mitigation Plan, dated October 2020 in accordance with the Disaster Mitigation Act of 2000; and

Whereas the Van Wert County Hazard Mitigation Plan, dated _____ identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the Village of (name) from the impacts of future hazards and disasters; and

Whereas adoption by the Council of the Village of (name)demonstrates their commitment to hazard mitigation and achieving the goals outlined in the Van Wert County Hazard Mitigation Plan, dated _____.

NOW THEREFORE BE IT RESOLVED BY THE VILLAGE OF (NAME), OHIO THAT:

Section 1. That the Council of the Village of (name) hereby adopts the Van Wert County Hazard Mitigation Plan, dated _____.

Section 2. That it is found and determined that all formal actions of this Council concerning and relating to the passage of this resolution were passed in an open meeting of this Council and that all deliberations of this Council and of its committees that resulted in such formal action were in meetings open to the public, in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

ADOPTED by a vote of ____ in favor and ____ against, ____abstaining, this _____ day of _____, 202_.

By: _____
(print name)

ATTEST:

By: _____
(print name)

APPROVED AS TO FORM:

By: _____
(print name)

Friday, September 10, 2021

Van Wert, Ohio
TIMES BULLETIN
Serving Van Wert County since 1844
MEDIA
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Van Wert County Hazard Mitigation Plan Review

Friday, September 10, 2021 11:33 AM

The Van Wert County Emergency Management Agency (EMA) announces the availability of the Van Wert County Hazard Mitigation Plan Update for public review and comment. The Plan Update is a requirement of FEMA for the provision of hazard mitigation funds to conduct mitigation activities that reduce the County's vulnerability to natural disasters.

The report can be found at www.glcap.org/vanwertplan or may be linked to from the Van Wert County EMA's website at www.vanwertema.com and the Van Wert County website at www.vanwertcountyohio.gov. Printed copies of the report are also available for review, during normal business hours, at the Van Wert County Commissioners Office, Van Wert County EMA and all branches of the Brumback Library.

The plan update will be presented to the county commissioners on September 14th at 10 am at the County Commissioners Office and is open to the public. An open house will be held on September 29th from 10 am to 4 pm at the County Commissioners office for anyone that wishes to review and make comments on the plan.

The public is encouraged to review and comment on this Plan Update until October 1, 2021. Comments on the plan may be submitted through the website or sent to Roberta Streiffert from the Great Lakes Community Action Partnership by email at rjstreiffert@glcap.org or by phone at 419-724-4155.

Great Lakes
COMMUNITY ACTION
PARTNERSHIP

Menu

Van Wert County Hazard Mitigation Plan

The Van Wert County Hazard Mitigation Plan assesses the county's vulnerability to natural disasters and is a requirement of the Federal Emergency Management Agency (FEMA). The plan is open to public viewing and comment now until Oct. 1.

Contact:
Roberta Streiffert

419-724-4155

The Van Wert County Hazard Mitigation Plan Update is now available for public review and comment. The plan update is required by the Federal Emergency Management Agency (FEMA) for the provision of hazard mitigation funds that will reduce the county's vulnerability to natural disasters.

Reports are accessible by clicking the links on this page, which includes a link to the updated **Van Wert County Hazard Mitigation Plan Update**, as well as an **appendix** that includes surveys and other data on Van Wert County and the plan.

Printed copies of the report are also available for review during normal business hours at the Van Wert County Commissioners Office at 114 E. Main Street, Suite 200, Van Wert; Van Wert County EMA office, 1220 Lincoln Highway, Van Wert; and all branches of the Brumback Library.

A presentation to the commissioners on the plan will take place on Sept. 14, 10 a.m. at the commissioners' office. An open house regarding the plan is scheduled Sept. 29, 10 a.m.-4 p.m. at the commissioners' office.

Comment here

The public is encouraged to review and comment on the Van Wert County Hazard Mitigation Plan until Oct. 1. Comments on the plan may be submitted **at this link** or sent to Roberta Streiffert by email at **rjstreiffert@glcap.org** or by phone at 419-724-4155.

Mitigation Appendices

(click to access)

Comment on the Plan

(click to access)