

**REQUEST FOR PRESIDENTIAL DISASTER DECLARATION
COVER LETTER
MAJOR DISASTER**

June 6, 2024

The Honorable Joseph R. Biden
President of the United States
The White House
Washington, D. C. 20500

Through: Thomas C. Sivak, Regional Administrator
FEMA Region 5
536 South Clark Street, 6th Floor
Chicago, Illinois 60605

Dear Mr. President:

Under the provisions of Section 401 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121-5207 (Stafford Act), and implemented by 44 CFR § 206.36, I request that you declare a Major Disaster, including activation of all Individual Assistance (IA) programs, for the State of Michigan in response to a series of severe thunderstorms and tornadoes that struck the southwest part of the state on May 7, 2024, resulting in roughly sixteen injuries and significant damage to homes, businesses, and the power grid.

The storms especially impacted areas within the counties of Kalamazoo, St. Joseph, Branch, and Cass, each marking the genesis of a damaging tornado (rated as EF2, EF2, EF1, and EF1 respectively). Each of these four counties declared a local State of Emergency, and I issued a Declaration of State Emergency under Executive Order No. 2024-3 for these counties at 9:31 p.m. on May 7, 2024. The hard-hit City of Portage, within Kalamazoo County, also additionally declared.

The Kalamazoo County tornado touched down near the intersection of South 10th Street and West R Avenue and traveled east/northeast for around 11 miles until it lifted north of East N Avenue just west of 31st Street. Many residences, including at two highly vulnerable mobile home communities, were severely damaged or completely destroyed. A number of businesses had significant damage and many hundreds of trees were snapped or uprooted. A large section of the roof of an industrial warehouse that houses FedEx operations collapsed near the Kalamazoo/Battle Creek International Airport. Workers were in the facility at the time the tornado struck, temporarily trapping roughly 40 people. Luckily, there were no significant injuries from the collapse. The Stryker Corporation, a major employer and manufacturer of medical equipment, also experienced facility damage and a week after the storms was still relying on generator power and free-standing air handling systems. Many other businesses were damaged, most locally owned by area residents. Six of these buildings were destroyed, five others are currently unfit for occupancy, and many others suffered damage to air handlers and ventilation fans on roofs.

A 180-unit apartment development that had been under construction took direct damage to the structure as well as to the accompanying construction equipment around it. County-wide, over 200 residents were ultimately displaced, and two shelters were initially created. Some governmental services were disrupted and schools in Portage were closed for three days following the tornadoes.

A second tornado touched down in St. Joseph County on the south side of Centreville and then tracked northeast, passing north of the Village of Colon and crossing into Branch County near Havens and Goodrich Lake. Extensive damage occurred to trees and center pivot irrigation systems along this track (the most significant damage occurring from north of the Village of Colon to north of the Village of Sherwood). Several homes suffered loss of roofs and walls, resulting in the highest damaged area for this specific tornado and consistent with estimated winds of 130 mph. Video footage and layout of tree damage confirmed this was a multi-vortex tornado during its peak intensity. Several incidents of hail were reported, ranging from 1 inch to 4 inches in diameter. Straight-line winds caused additional damage. Witnesses saw lightning strike in the proximity of a building housing a skating rink. The structure burnt to the ground shortly thereafter believed to be caused by the lightning strike. A third tornado developed southwest of Union City in Branch County. This tornado moved along West Girard Road between Babcock Road and Arbogast Road, destroying a machine shed and ripping out some of its cemented anchor posts. Branch County also experienced hail, with a storm spotter picture showing a stone measuring upwards of 4 inches.

The fourth tornado developed within Cass County, displaying maximum wind speeds of 95 mph and touching down in a field just north of the Dowagiac Municipal Airport. The tornado did damage to trees along Middle Crossing Road and uprooted some large trees onto homes in the area and then continued northeast where a power pole was snapped, and a few irrigation center pivots were flipped in a field adjacent to the Amtrak railroad near the intersection of Gage Street and Atwood Road. The tornado reached its maximum width in the Twin Lakes area where extensive damage to trees was noted on all sides of both lakes. Hundreds of trees varying in size were snapped and uprooted in Twin Lakes, with some falling onto homes. The tornado continued northeast and snapped trees on Dewey Lake Street. Additional damage to a barn was noted on Wickett Road. The tornado dissipated near the Cass/Van Buren County Line.

The extensive and timely efforts of local jurisdictions in responding to this disaster ensured that what could have resulted in even more injuries and damages was minimized. Weather warnings and emergency public alerts and information developed by the National Weather Service (NWS) were widely distributed throughout the emergency response community and also contributed to the public's safety.

Looking at this regional disaster as a whole, the storms had major impacts on the power grid. At its peak, the storms resulted in roughly 40,000 customers without electricity, spread across three different utilities. During the incident, a City Hall and Police Headquarters were forced to run on limited emergency power, and some communications towers were run on generators. The duration of power loss varied, but some areas saw outages lasting between 3 to 5 days. While there were also various natural gas outages due to tree uprooting or leaks from damaged homes, two mobile home parks representing roughly 700 customers were heavily impacted as feeder lines needed to be proactively

closed. Natural gas service in at least one of these mobile home communities was unable to be restored for over a week, leaving many vulnerable survivors without the ability to function in their battered homes. Some isolated propane tanks were damaged by the force of high winds.

Debris was and continues to be, a major issue, both in regard to property cleanup but also in terms of accessing struck areas where roads were blocked for emergency responders, utility workers, and displaced residents needing to leave their homes. Extensive tree debris wrapped with power lines in the roadways prevented emergency first responders from reaching survivors requiring assistance. Many law enforcement and fire personnel went out on foot through the debris in order to account for the safety of all residents from the time the tornado went through and well into the night. There are ongoing issues with debris removal, even weeks post-tornado. While vegetative debris will have a long-term cleanup, there is also construction and household debris in the right of way and hanging in trees. This includes metal and shingle roof components, insulation, furniture, clothing, and other items. Additionally, the cost of vegetative and construction debris cleanup is expensive and not something many homeowners are able to manage on their own due to physical, financial, or equipment limitations. The impact on the landscape will be long-lasting, as many homes were built in previously forested areas, with thousands of old growth trees now destroyed.

To facilitate needed assistance, I requested a joint federal, state, and local Preliminary Damage Assessment (PDA) on May 10. A kick-off meeting was held on May 14, and assessments occurred on May 15-16. In person assessments of damages were conducted by representatives from the Federal Emergency Management Agency (FEMA), the U.S. Small Business Administration (SBA), the Michigan State Police/Emergency Management and Homeland Security Division (MSP/EMHSD), and affected local jurisdictions. The results of the PDA are included in Enclosure A. The IA-related damages were heaviest in Kalamazoo County. Looking at the four affected counties as a whole, total estimated Housing Assistance (HA) and Other Needs Assistance (ONA) had a category total cost of roughly \$4,109,000. The Individuals and Households Program (IHP) cost calculator determined a total of 753 properties were eligible, with 105 categorized as destroyed and 199 as major. On average, just over 38% of properties were uninsured, but many residents reported being underinsured for the extent of their damages to assessment teams.

Based on experience from prior disasters, the official results of the IA assessments during the PDA may also severely underestimate the impacts on individuals and households caused by this disaster. For example, the 2024 Major Disaster Declaration FEMA-4757-DR was granted based on official IA PDA results from FEMA that included 1,123 assessed homes, throughout nine counties, eligible for an estimated \$5,502,231 in federal assistance through the IHP. However, following the receipt of the federal declaration, FEMA, as of May 28, 2024, has actually approved \$390,843,388 in assistance to 151,065 applicants. This example shows the difficulty in accurately estimating ultimate need, as final IA applications far exceeded the number of identified homes from the PDA by a factor of over 134. The approved financial assistance was over 71,000 times higher than the initial estimate.

The tragic and severe impacts of the tornadoes on these communities are also illustrated by the following experiences that disaster survivors shared with damage

assessment teams and local emergency managers. Some of the stories highlight the emotional trauma they will face as they attempt to recover.

In Branch County, a man lacking good shelter options was forced to wrap himself in an area rug as the storm ripped through his home around him. In another personal story, a young couple sensing their home was in the path of a tornado retreated to their vehicle (frequently not advised) moments before they then witnessed the tornado hitting their house. In Cass County, a family was trapped in a basement when a large tree fell on their home. When they were able to emerge, they found much of their uninsured house had been destroyed. In Kalamazoo County, an elderly couple in their mobile home was ejected into the roof rafters as it was hit by tornado-force winds and rolled over (both were briefly hospitalized). Six members of one family living in another mobile home were also tossed about as the home rolled multiple times. Fortunately, all members of this family received only minor injuries and walked away from their destroyed home. In a senior citizen townhome community, an elderly woman sought shelter in the bathroom of her residence, only to be trapped when a tree fell on the roof. Neighboring residents, once the tornado subsided, walked through debris to tell first responders that help was needed. This survivor sustained minor injuries from this incident, but her home was destroyed in the storm. In St. Joseph County, an elderly resident attempted to ride out a tornado in his living room. The back half of the house was destroyed, while the front portion of the house with the only other available exit was rendered completely inaccessible by a fallen tree. The resident sustained significant lacerations and required emergency intervention. One resident lost a trailer used for selling food at festivals and fairs, the week before it was time to start the season. Another resident was in the process of starting a wedding rental business and lost equipment recently purchased for that purpose before her first customers could be served.

Information regarding the nature and amount of governmental and other resources that have been or will be used to alleviate the conditions of this disaster can be found in Attachment 1, “Significant State and Local Response and Recovery Actions.”

Unfortunately, this severe weather event is just the latest in a string of major incidents that have occurred in Michigan. Over the past 24 months before this disaster, Michigan has experienced seven incidents (not including this disaster) which ultimately resulted in the declaration of one or more state of emergencies under the Emergency Management Act, No. 390 of the Michigan Public Acts of 1976, as amended MCL 30.401 to 30.421. These included:

- On May 11, 2022, heavy rain and flooding impacted parts of Northern Michigan.
- On May 20, 2022, an emergency declaration for a tornado impacting Gaylord, Michigan.
- On August 13, 2022, a break in a major 120-inch water main in St. Clair County.
- On August 24, 2022, a refinery fire in Whiting, Indiana that imperiled Michigan’s gasoline supply.
- On October 6, 2022, a large-scale industrial fire at a paper plant in Menominee, Michigan.
- On April 11, 2023, a rapid melting of snow that caused significant flooding and damage to public infrastructure in the Upper Peninsula.

- On August 24, 2023, heavy rain that spawned tornadoes and brought heavy flooding to southeast Michigan.

Local jurisdictions also experience numerous smaller-scale incidents for which gubernatorial declarations are not provided, but that still result in cumulative impacts to residents, businesses, public facilities, and essential services. Some recent incidents also occurring in Michigan during 2024 include the following:

- A spike in a newer COVID-19 variant, that while producing milder symptoms compared to historical norms, is proving to be highly contagious.
- A devastating cyber attack on some of the state's largest hospitals, whose impacts are ongoing and have sometimes resulted in delayed medical care.
- A response to the surge in H5N1 Influenza, which has resulted in the depopulation of millions of chickens, and infected cows, two confirmed diagnosis in individuals, and statewide concerns over a tainted milk supply.
- A lack of snow throughout much of the state during the past winter, has set the stage for drought later this year and severely damaged some local economies.

Turning to the state's fiscal capacity, the latest available estimate of Total Taxable Resources (TTR) from the U.S. Department of Treasury for the State of Michigan was \$671.7 billion (for the year 2021). The per capita TTR was \$66,920 significantly lower than the per capita TTR of \$83,349 for the United States as a whole. For the state fiscal year ending on September 30, 2024, the Senate Fiscal Agency projects a surplus in the state general fund budget of approximately \$1.8 billion. This is approximately \$1.2 billion less than the year ending September 20, 2023. Revenue growth is expected to be low in future years due to a variety of tax changes adopted during 2023 to lower General Fund/General Purpose and School Aid Fund revenues. Consumers are expected to return to a more normal split between goods (subject to sales and use taxes) and services (which generally are exempt). State revenues, particularly tax revenue, rely heavily on economic conditions nationally. While many economic variables have recovered to or surpassed their pre-pandemic levels, some have not, and the economy continues to adjust to a "new normal". Labor markets remain constrained: high consumption levels have combined with population demographics to create widespread labor shortages. Unemployment rates remain at lows experienced just before the pandemic, which were the lowest rates since the 1960s. Inflation remains elevated but is slowing. Significant shifts in consumption from services to goods interacted with stimulus efforts, the labor market, international trade disruptions, and conflicts in Ukraine to push inflation to its highest levels in approximately 40 years. After peaking in the middle of 2022, inflation has been only somewhat easing and remains high by historical standards. The state must proceed cautiously as economic recovery is expected to be a multi-year process.

Although Michigan has a Disaster and Emergency Contingency Fund under the Emergency Management Act, No. 390 of the Michigan Public Acts of 1976, as amended MCL 30.401 to 30.421, for partial reimbursement of eligible public damage and response costs to counties and local political subdivisions, it has limited funding which must maintain a minimum balance of \$2.5 million. During the annual budget process, additional funds to support state-level disasters and possible federal cost share is requested of the Michigan Legislature. Currently, there is a significant shortfall in this fund and limited

state resources to meet the current needs. By state law, these funds can only be provided to eligible public entities and certain volunteer organizations supporting incident response operations. Over the last 24 months, local jurisdictions have submitted over \$24.1 million in eligible costs for reimbursement under this program. By comparison, it is anticipated that only an estimated \$12.2 million will ultimately be compensated, as the law limits grant awards based on the population size and operating budgets of eligible jurisdictions.

Limited housing assistance to residents who have been displaced or suffered significant damage to their homes is available at the state level. The Michigan State Housing Development Authority (MSHDA) provides funding to limited programs that may be used to assist households experiencing homelessness because of general housing instability or due to this disaster. The Michigan Department of Health and Human Services (MDHHS) offers additional programs for housing assistance to eligible residents who might have been impacted by this disaster. Their services include the State Emergency Relief Program (SER) and Food Assistance Program (FAP). The SER is a crisis intervention program for needs such as payment for heating fuel, electricity, and home repairs, including furnace repair or replacement. The SER also assists with non-energy services such as burial assistance, relocation assistance, home ownership services, and other utility services. Eligibility is based on income and demonstration of immediate need. The MDHHS also utilizes other resources to ensure that the needs of disaster survivors are met by providing limited emergency relief assistance, emergency food replacement, and identifying unmet needs for repair, cleanup, debris removal, and other disaster-related issues. From May 7 to May 20, MDHHS has received 20 emergency fund requests worth nearly \$15,000. Information related to FAP and SER from during this same time period is provided below.

County	# of FAP Replacements Requested	# of FAP Replacements Approved	Total dollar amount of replacement benefits issued	# of SER Requests	# of SER Approvals	Total dollar amount of SER benefits approved
Kalamazoo	170	164	\$80,404.00	946	214	\$85,467.22
St. Joseph	2	1	\$120.00	105	38	\$13,366.06
Branch	0	0	\$0.00	74	20	\$6,530.65
Cass	1	1	\$250.00	73	28	\$10,146.94

While MDHHS and MSHDA programs are available to disaster survivors, their scope is limited and cannot address many of the housing and recovery needs of the impacted residents. This can be especially true for some of our more vulnerable residents. Attachment 2, “Socio-economic Profile of Affected Jurisdictions,” provides an overview of the demographics and economic status of the disaster area. This includes information related to poverty status, governmental assistance, and data regarding age, disabilities, and other diversity and equity considerations.

Due to the short duration of time between the severe weather event and this request, information on unemployment claims made by affected residents is not yet available (but can be provided at a later time, if needed). Increases in both disasters and fraudulent activity have highlighted the need for updating the Disaster Unemployment

Assistance (DUA) application and procedures, to respond to anticipated increased workload and anti-fraud activities, as well as augmenting staff resources through the DUA period. Based on the experience from prior disasters, it is likely that many residents working at businesses directly impacted by the tornado lost their employment.

The financial impact of this incident on people, their homes, and their businesses is severe. Please see Attachment 3 for supporting maps and photographs. Many personal homes were destroyed and are now uninhabitable. For those in apartments, and families who were renting mobile homes, they frequently do not have renter's insurance (the property owner/landlord may not have insurance either). Those living in any residence that is not insured may simply not be able to effectively start over. Even for those families that are insured, many residents are finding out that they are substantially underinsured and are also dealing with the extensive loss of irreplaceable personal possessions. Construction costs are currently high due to inflation, and there is a shortage of skilled trades capable of performing work. Beyond traditional businesses, barns, irrigation systems, and other agricultural equipment were destroyed after the planting season had already begun. The overall effects of this disaster are severe and require federal assistance to facilitate an efficient recovery.

This incident is of such severity and magnitude that effective recovery is beyond the capabilities of the State of Michigan and its affected county and municipal governments, and I have determined that supplemental federal relief assistance is necessary. Therefore, I am specifically requesting the activation of all IA programs for the affected counties and for activation of the Hazard Mitigation Grant Program statewide.

Sincerely,



Gretchen Whitmer
Governor

Attachments and Enclosures:

OMB No. 1660-0009/FEMA Form 010-0-13

Attachment 1 – Significant State and Local Response and Recovery Actions

Attachment 2 – Socio-economic Profile of Affected Jurisdictions

Attachment 3 – Supporting Maps and Photographs

Enclosure A – Individual Assistance

Enclosure C – Requirements for Other Federal Agency Programs

ATTACHMENT 1 TO MAJOR DISASTER REQUEST

Significant State and Local Response and Recovery Actions

Volunteer Response

The volunteer response to this disaster has been extensive due to the broad nature of the disaster-affected area. As of mid-May 2024, the engagement of half a dozen voluntary organizations active in disaster (VOADs) and significant donations have been coordinated through the United Methodist Committee on Relief (UMCOR), Team Rubicon, American Red Cross, Disaster Relief at Work (DRAW), Kalamazoo Community Resource Collective (KCRC), World Renew, Crisis Cleanup, Michigan Voluntary Organizations Active in Disasters (MI VOAD), Michigan 2-1-1, Michigan Community Service Commission (MCSC), MSP/EMHSD, Cass County Emergency Management, Kalamazoo County Emergency Management, Branch County Emergency Management, St. Joseph County Emergency Management, Gryphon Place, South-Central Michigan United Way, and other community-based organizations.

Early in the response and recovery efforts in the affected area, donations to the local response were critical to assisting homeowners stabilize and begin cleaning up their homes. Within the first weeks of operations, three pallets of tarps were donated to a community organization located in the City of Kalamazoo, fulfilling resource requests from the impacted communities. Monetary donations were offered and a partnership between the South-Central United Way and the Kalamazoo County Foundation was created to distribute funds to those local organizations who were receiving requests from survivors. Additionally, many donations of personal needs items were coordinated through KCRC, and the volume of physical donations reached a point where an official donation center was opened in the City of Portage.

Volunteers began aiding disaster survivors as soon as they were made aware of needs in the impacted area. Michigan 2-1-1 provided a critical piece of support in handling situational awareness with the public and identifying unmet needs for disaster recovery. As of May 22, 2024, Michigan 2-1-1 received approximately 160 calls for assistance and has handled 140 cases or requests. In addition to connecting callers to services often provided by volunteers, Michigan 2-1-1 also inputs case information into Crisis Cleanup, a disaster needs system utilized by volunteer organizations. This system, as of May 22, 2024, includes 20 cases.

Multiple VOAD organizations have already deployed to the impacted area to claim cases noted in Crisis Cleanup. The majority of the VOADs deployed to this incident thus far have provided debris management services for homeowners whose properties have been damaged and require assistance in removing the trees or otherwise impacted possessions and materials or removing debris from roadways or other access points to their homes. One of the first groups to deploy was World Renew, which deployed to the community of Twin Lakes in Cass County.

In addition to these teams which have already deployed to the area, additional VOAD partners are coordinating to deploy clean-up teams, including Christian Ministries of Indiana, Team Rubicon, and World Renew. Other VOAD partners have rallied to offer other forms of recovery assistance to disaster survivors including the American Red Cross, doing needs assessment in the impacted areas, and distributing clean-up kits. KCRC is

providing continued volunteer and donation management, as well as the collection of unmet needs to pass on to VOAD partners. UMCOR has been providing case management support and other needs assistance. UMCOR is a partner of the state that has provided disaster case management support in Major Disaster FEMA-4547-DR and Major Disaster FEMA-4607-DR.

Many gaps remain despite the outstanding efforts of VOADs to donate goods and services to enable disaster survivors to facilitate their own recovery. These gaps include VOADs, state agencies, and local partners inability to coordinate and maintain volunteer clean-up efforts on the ground and solicit future volunteer assistance for disaster survivors. Additionally, local efforts by the impacted city and county to support volunteer operations are challenging. Many disaster survivors have already been impacted by previous storms, and many local volunteers are impacted themselves. Further, the volunteers and VOADs able to assist may have competing areas of interest to assist or deploy teams to other areas due to other severe storms across the United States. The local emergency management's interest in coordinating with volunteers in earnest requires the establishment of new processes and additional time, guidance, and expertise to establish an order to better serve the disaster survivors. Further, to facilitate long-term recovery operations, the coordination of MCSC, United Way, Michigan VOAD, the impacted jurisdictions, and various other volunteer and community resources is critical.

Debris Removal

Debris management was a critically important response and recovery issue within hours and in the days following the tornadoes. Extensive, rapid debris operations were required to clear materials from damaged and destroyed businesses and homes in residential and commercial areas, including vegetative debris, building materials, and personal property, in order to protect public health and safety and enable the use of roadways, sidewalks, and fire hydrants.

The State Emergency Operations Center (SEOC) activated its Debris Management Branch to provide technical assistance to local jurisdictions and facilitate resource support for debris removal. Assistance included informational documentation “Intro to Debris Management – 3 Things You Should Know.” The impacted counties and municipalities were able to rapidly manage this difficult recovery issue while relying on limited state assistance. Requests for eight operators in Kalamazoo County and eight operators, six dump trucks, and two front loaders in Cass County were fulfilled by the Michigan Department of Transportation (MDOT) on May 9 to assist with debris removal. Some debris removal in Kalamazoo was delayed while crews waited for electrical hazards to be cleared. The Michigan Department of Environment, Great Lakes, and Energy (EGLE) provided emergency authorization for temporary debris waste handling and storage, as well as using social media and other channels to inform residents about proper debris handling.

Local debris removal was focused on ensuring the safety of residents and initially targeted priority issues that created hazards for the public and responders. This included the removal of vegetative and construction debris from buildings, roads, vehicles, and power lines. Local jurisdictions coordinated with utility providers to also ensure that hazardous situations involving electrical lines were addressed promptly.

The collection, staging, reduction, and processing of vegetative debris, building/construction materials, and other debris types were mostly handled through local personnel and equipment and the engagement of the waste management companies already operating in affected areas. However, some communities also relied on the assistance of voluntary organizations. For example, World Renew quickly deployed to the Twin Lakes community in Cass County to assist with debris removal.

Emergency Public Information and Communications

The time leading up to severe thunderstorm development saw information disseminated to the public via a variety of channels. The NWS and its partners also issued warnings. During the first hours after the tornadoes occurred on May 7, Public Information Officers (PIOs) for local and state agencies received and responded to many media requests for information regarding injuries and damages. On the same evening, my office issued a press release in coordination with the SEOC PIO announcing my declaration of a state of emergency in Branch, Cass, Kalamazoo, and St. Joseph Counties.

The Michigan Public Safety Communications System (MPSCS) had three sites that ended up being placed on generator power or otherwise received minor damage from the storms on May 7, but the system was able to remain operational. Estimated costs are less than \$1,000. Tower site 5113 in particular was hit by the Portage tornado, and MPSCS staff later realigned affected microwave dishes. The Michigan Department of Technology, Management and Budget (DTMB) assisted local entities and damage assessment teams by providing local event talk groups within the 800MHz radio system and provided two deployable data networks for the damage assessment teams.

A county-wide Joint Information Center (JIC) had been set up by Kalamazoo County, and on May 8, I visited the area to tour some of the hardest hit areas and to host a news conference with onsite media. The state of Michigan worked closely with local officials and Michigan 2-1-1 to inform residents of the availability of the Michigan 2-1-1 hotline to connect disaster survivors with recovery resources. Social media has been a significant tool to communicate with the public, and local and state agencies have used their social media channels to communicate activities and impacts. The public information campaign related to the tornadoes also included media coverage of our joint PDAs with FEMA and SBA. Such collaborative communication efforts will continue for the foreseeable future until all recovery-related issues and concerns have been effectively dealt with.

Additional State and Partner Response/Recovery Efforts

With over 200 Kalamazoo County residents displaced, the American Red Cross (ARC) initially stood up what was to be two 24-hour shelters at the beginning of the incident. This was eventually reduced to one as some residents were able to find alternative places to stay. Twelve people were still being housed at the remaining shelter two weeks after the incident. These locations also later served as Multi-Agency Resources Centers, greatly enhancing local response and recovery capabilities.

The MSP deployed resources from three posts to assist with traffic control, downed trees, and powerlines, as well as helping to check structures for injured persons. Additional off-duty officers were called in, as were Conservation Officers from the Department of Natural Resources (DNR). The MSP Aviation Unit, using a helicopter, conducted damage assessment flights and video recorded the affected areas. The Aviation Unit also provided

an aerial tour of damaged areas for FEMA and legislators on May 9. The EMHSD created a Geographic Information System (GIS) story map of the damage using still photos from the helicopter flights.

The Michigan Public Service Commission (MPSC) monitored the operations of regulated electric and natural gas utilities serving the affected areas. The MPSC collected and reported outage and restoration information, as well as tracked critical lifeline sector outages where appropriate. The MPSC also worked with telecommunication companies affected by the electrical outages. EGLE also specifically monitored power needs for water utilities. In addition to the power-related information provided in the main body of the letter this is attached to, the MPSC noted that some Frontier Communications services had been temporarily impacted by the outages. AT&T reported that four wireless sites had also been without power, all in Kalamazoo County. From a landline perspective, one 36-pair cable had been out. Charter Communications reported 9,090 customers had been out from the storm, mostly due to power loss. Some Comcast customers were also affected.

The efforts of MDHHS were highlighted in the main body of the letter this is attached to, as was some information related to unemployment. Staff from the Michigan Department of Labor and Economic Activity (LEO) attended an event for the City of Kalamazoo on May 17 at the Salvation Army and attended an event at the City of Portage on May 24 at the Portage Zhang Senior Center. These meetings dealt with workforce development and unemployment assistance matters. Spanish translation services were available at the events.

The Michigan Economic Development Corporation (MEDC) continues to assess potential negative economic effects (business and community) resulting from the event which include but are not limited to lost or significantly impacted business assets, reduced or ceased business activities, disruptions to transportation and other infrastructure support, and community common spaces and service assets. While insurance will be utilized, businesses (and residents alike) have indicated that they will likely realize significant expenses not covered by this source. In addition to small businesses, local partners have indicated that there are larger businesses and nonprofits that have been impacted such as churches, schools, Stryker, AVB, FedEx, Stryker/Kenco, etc. In addition, tourism and discretionary spending that support area businesses is likely to decrease in light of the damage.

The Michigan Department of Agriculture and Rural Development (MDARD) coordinated field staff to assess the impact of the storm damage on the food and agriculture sector and to determine appropriate follow-up measures necessary to protect public health. During this outreach process, MDARD focused on retail establishments, including gas stations, in the impacted areas. The full extent of damage to crops will likely not be known until harvest occurs, but some large irrigation pivots may take time to fully replace (assuming funding exists). MDARD also reached out to federal partners to see if other types of assistance were available.

ATTACHMENT 2 TO MAJOR DISASTER REQUEST

Socio-economic Profile of Affected Jurisdictions

All information in this socioeconomic attachment was obtained from the American Community Survey’s (ACS) 2022 5-year averages (2018-2022) found at the U.S. Census Bureau’s data.census.gov website during searches completed in May 2024. These averages represent changing conditions such as economic data that might be misrepresented if a single “snapshot” measurement was relied upon. A comparison of national and state statistics has been provided, with yellow-highlighted table cells denoting areas for which county conditions exceed that of the state and nation in some aspect (indicating a greater local vulnerability).

	Population:	Income below poverty (last 12 months)	Pre-disaster unemployment rate (of those in the civilian labor force age 16+)	Aged 65 years and older	Age under 18 years	Non-institutionalized Persons with a disability	Foreign-language speakers speaking English less than “very well”
Data Source	ACS 2022 5yr. CP02	ACS 2022 5yr. CP03	ACS 2022 5yr. CP03	ACS 2022 5yr. CP05	ACS 2022 5yr. CP05	ACS 2022 5yr. CP02	ACS 2022 5yr. CP02
United States	331,097,593	12.5%	5.3%	16.5%	22.1%	12.9%	8.2%
Michigan	10,057,921	13.1%	6.0%	17.8%	21.4%	14.1%	3.4%
Branch County	44,795	15.0%	4.9%	18.8%	23.2%	14.7%	4.8%
Cass County	51,604	12.9%	5.0%	21.5%	20.4%	16.3%	0.6%
Kalamazoo County	261,426	13.4%	6.4%	15.5%	21.4%	12.4%	2.0%
St. Joseph County	60,887	12.9%	5.3%	18.2%	24.3%	16.8%	3.0%
4-county TOTAL	418,712	~13.4%	5.9%	17.0%	21.9%	13.8%	2.3%

These statistics indicate that the disaster-affected counties have higher rates of poverty than the rest of the nation, with two also higher than Michigan’s poverty rate. Kalamazoo County had a higher unemployment rate than the state’s. Three out of the four counties had a greater percentage of elderly residents and persons with disabilities than the state or nation. Two of the four counties had higher percentages of persons under the age of 18. The following table focuses upon the extent of area residents’ supplemental income sources, compared with state and national statistics.

Percentage of the population already receiving:	<i>governmental assistance: social security</i>	<i>retirement income</i>	<i>governmental assistance: supplemental security income</i>	<i>governmental assistance: cash public assistance</i>	<i>governmental assistance: food stamp/ SNAP benefits (past 12 months)</i>
Data Sources:	ACS 2022 5-yr. CP03	ACS 2022 5-yr. CP03	ACS 2022 5-yr. CP03	ACS 2022 5-yr. CP03	ACS 2022 5-yr. CP03
United States	31.2%	23.1%	5.1%	2.7%	11.5%
Michigan	34.8%	27.2%	5.8%	2.8%	12.7%
Branch County	37.2%	28.0%	4.8%	2.1%	12.9%
Cass County	38.1%	27.0%	6.2%	3.4%	10.9%
Kalamazoo County	29.8%	23.3%	4.9%	2.1%	10.1%
St. Joseph County	39.3%	25.5%	7.1%	2.3%	13.0%
4-county TOTAL	32.9%	24.5%	5.4%	2.3%	10.9%

The statistics from this table show that three of the disaster-impacted counties have high proportions of residents who receive social security income. Some of the counties also have a greater than average dependence upon other types of government income provisions: supplemental security (Cass and St. Joseph Counties), Food Stamp/SNAP benefits (Branch and St. Joseph Counties), and cash public assistance (Cass County). Branch County has a greater proportion of residents receiving retirement income.

The next table includes information about the relative predominance of school enrollments within the affected counties. Kalamazoo County has a large proportion of college-aged

students. The City of Kalamazoo includes Western Michigan University (public) and Kalamazoo College (private). The university is large enough to make the entire 4-county region exceed the state and national college enrollment proportions. Three community colleges are also present: Kalamazoo Valley Community College, Southwestern Michigan College (in Cass County), and Glen Oaks Community College (in St. Joseph County). Within the K-12 educational range, Branch, Cass, and St. Joseph Counties all have higher-than-average proportions enrolled at the elementary and high school levels. Branch County has a level of pre-school enrollment that is a bit above state and national norms. The table also presents census information showing how some communities have higher percentages of local residents not participating in the labor force (Branch and Cass Counties), and lower per capita incomes (all four counties within the disaster area). The rural counties have lower average incomes than the county that contains an urbanized area (Kalamazoo). Overall, the four impacted counties have a lower per capita income than the US average and the state average.

	<i>Nursery or pre-school enrollment</i>	<i>Kindergarten and elementary K-8 enrollment</i>	<i>High school enrollment</i>	<i>College enrollment</i>	<i>Ages 16+ not in labor force</i>	<i>Per capita income</i>
Data Sources:	ACS 2022 5-yr. CP02	ACS 2022 5-yr. CP02	ACS 2022 5-yr. CP02	ACS 2022 5-yr. CP02	ACS2022 5-yr. CP03	ACS2022 5-yr. CP03
United States	5.8%	45.5%	21.4%	27.3%	36.5%	\$41,261
Michigan	5.7%	44.8%	22.0%	27.5%	38.5%	\$37,929
Branch County	6.0%	57.4%	24.0%	12.5%	43.2%	\$29,824
Cass County	4.1%	50.9%	26.6%	18.3%	40.7%	\$36,851
Kalamazoo County	5.1%	38.2%	16.4%	40.3%	33.4%	\$37,852
St. Joseph County	5.1%	56.6%	25.6%	12.7%	38.3%	\$30,171
4-county TOTAL	5.1%	43.4%	19.2%	32.4%	36.0%	~\$35,753

The following table presents racial/ethnic identification among the 4-county disaster-area population.

	<i>Identifying as Black or African-American</i>	<i>Identifying as Native American/Alaskan</i>	<i>Identifying as Asian/Pacific Islander</i>	<i>Identifying as some other race</i>	<i>Identifying as two or more races</i>	<i>Identifying as Hispanic (of any race)</i>
Data Sources:	ACS 2022 5-yr. CP05	ACS 2022 5-yr. CP05	ACS 2022 5-yr. CP05	ACS 2022 5-yr. CP05	ACS 2022 5-yr. CP05	ACS 2022 5-yr. CP05
United States	12.5%	0.8%	6.0%	6.0%	8.8%	18.7%
Michigan	13.6%	0.5%	3.3%	1.6%	5.4%	5.5%
Branch County	1.9%	0.4%	0.5%	1.7%	4.4%	5.6%
Cass County	4.9%	1.2%	0.9%	1.6%	5.1%	4.2%
Kalamazoo County	11.0%	0.3%	2.5%	1.3%	6.8%	5.4%
St. Joseph County	2.2%	0.0%	0.5%	1.2%	7.3%	8.6%
4-county TOTAL	8.0%	0.4%	1.8%	1.4%	6.4%	5.7%

The table shows that Native Americans are present in Cass County in a proportion that is more than twice that of the entire state, and also significantly higher than that for the entire United States. This involves the Pokagon Band of Potawatomi, a Native American community located north of the City of Dowagiac.

The final table on the next page presents information about housing within the disaster-impacted area, and characteristics that can indicate a higher-than-normal level of local vulnerability. This includes data for mobile home units, those not part of a utility natural gas system, and other factors. Please note that two mobile home parks with roughly 700 residents were heavily impacted by this incident.

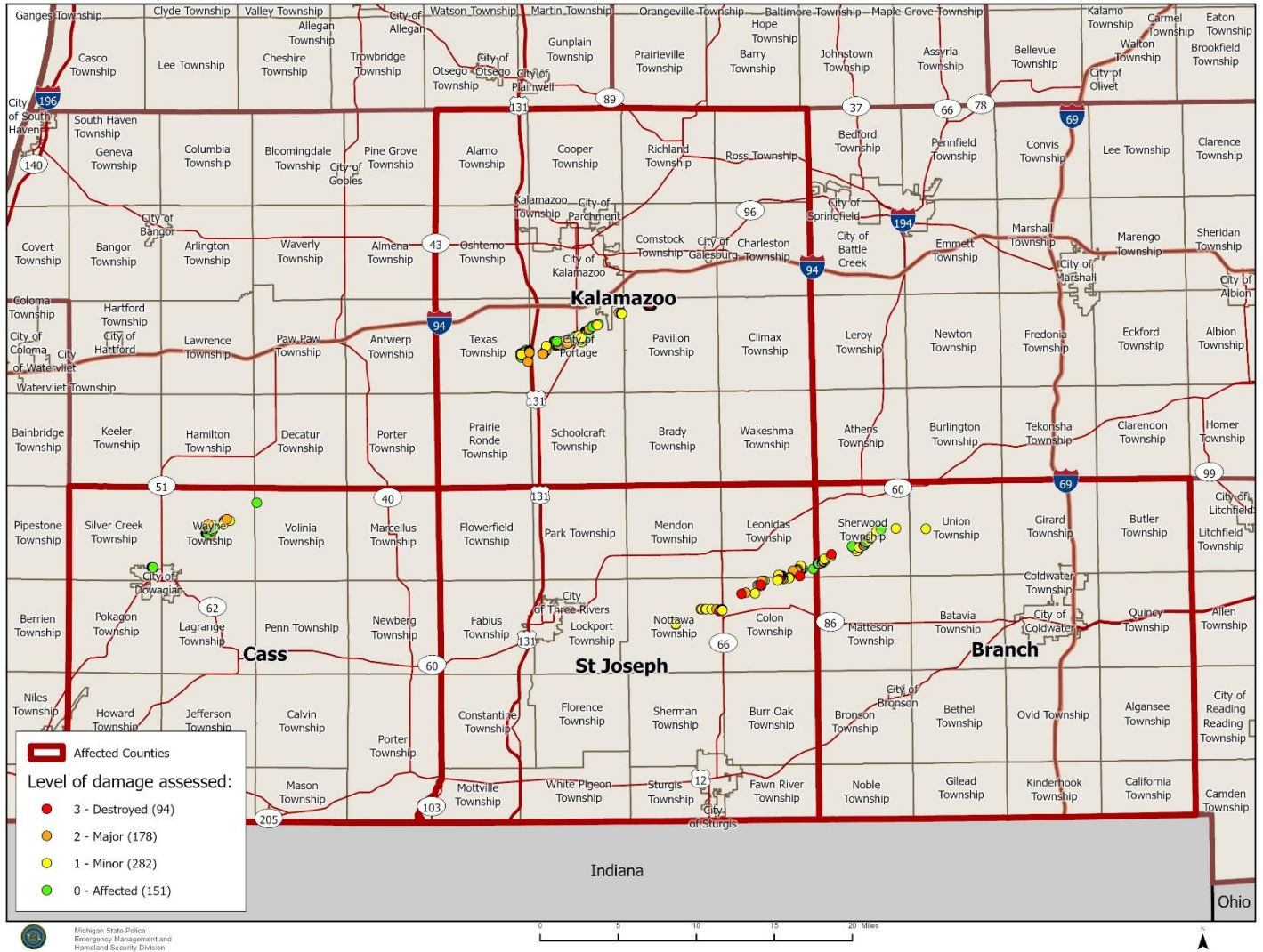
	<i>Housing Units</i>	<i>Mobile home housing units</i>	<i>Housing units using bottled/tank/LP gas heating fuel</i>	<i>Occupied housing units with more than 1 occupant per room</i>	<i>Median value of owner-occupied housing units</i>
Data Sources:	ACS 2022 5-yr. CP02	ACS 2022 5-yr. CP04	ACS 2022 5-yr. CP04	ACS 2022 5-yr. CP04	ACS 2022 5-yr. CP04
United States	125,736,353	5.8%	4.9%	3.3%	\$281,900
Michigan	4,009,253	5.1%	8.5%	1.6%	\$201,100
Branch County	16,769	13.3%	20.3%	2.3%	\$140,200
Cass County	20,779	7.5%	24.3%	2.0%	\$181,100
Kalamazoo County	105,797	3.2%	5.8%	1.2%	\$209,700
St. Joseph County	23,478	7.5%	19.9%	1.4%	\$152,800
4-county TOTAL	166,823	5.5%	11.5%	1.4%	N/A

Mobile homes tend to be more vulnerable to wind and tornado impacts, and while such units are present in all of the disaster-impacted counties, the three more rural counties have a disproportional share of their housing units that are of the mobile home type. Similarly, outside of Kalamazoo County, there are substantial proportions of area housing units that rely upon bottled/tank or liquid propane gas heating fuels. This type of heating system tends to predominate in rural areas, separate from municipal systems. When damage occurs, this type of heating system can be more difficult for homeowners to individually repair, since their heat is not reliant upon a municipal utility system that could benefit from systematic regional repair efforts by a major utility company or municipal department. All of the impacted areas except for Kalamazoo County have median property values that are below the state and national averages.

ATTACHMENT 3 TO MAJOR DISASTER REQUEST

Supporting Maps and Photographs

Declared Counties and Damage Assessment (May 7, 2024, Storms) Horizontal Map View



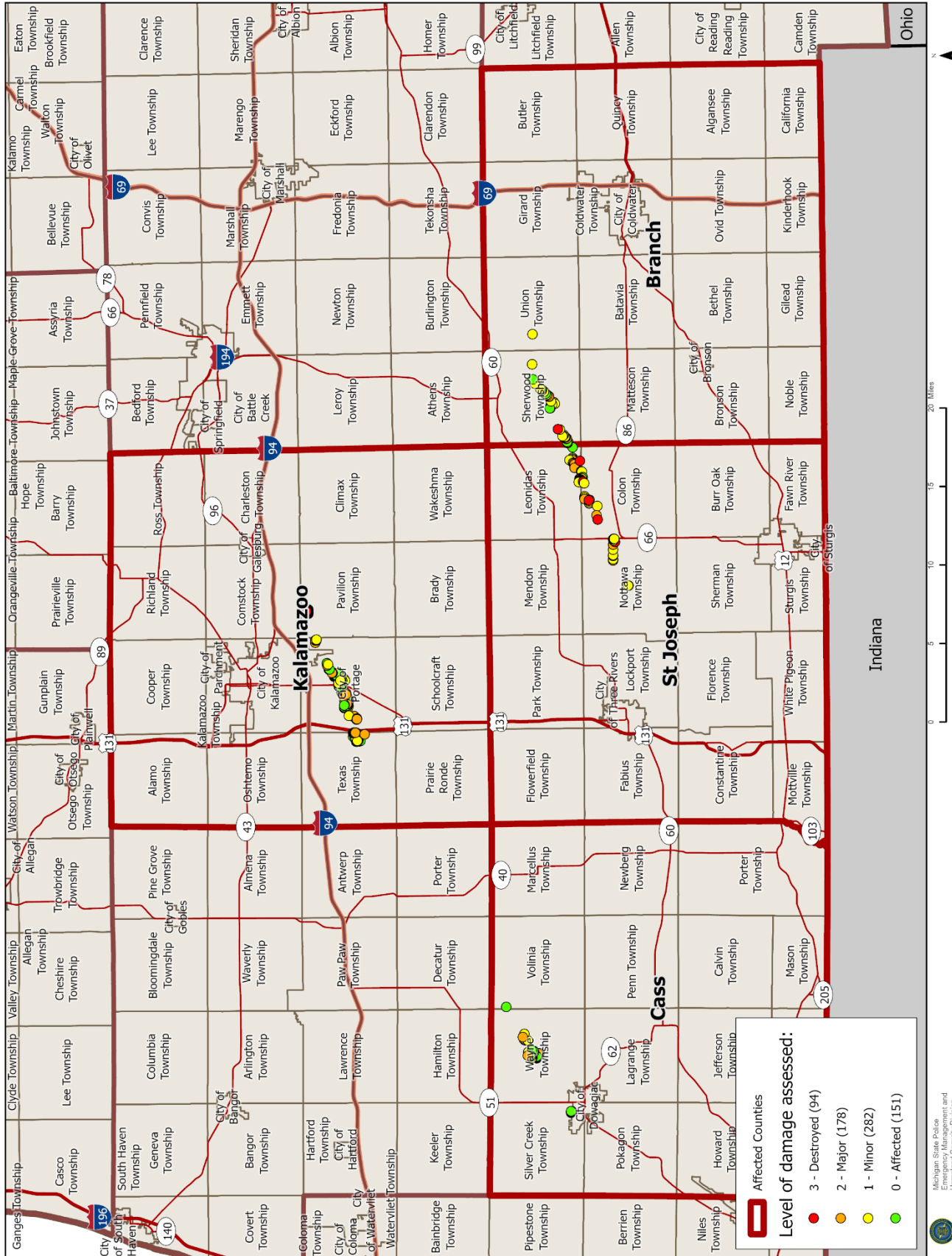
Source: MSP/EMHSD, Geographic Information System Unit

The map is repeated on the next page in a vertical orientation to aid in the identification of township areas and damage plot points. It is followed by county level Social Vulnerability Index (SVI) maps for each jurisdiction. Additional maps are available on NWS event summary webpages:

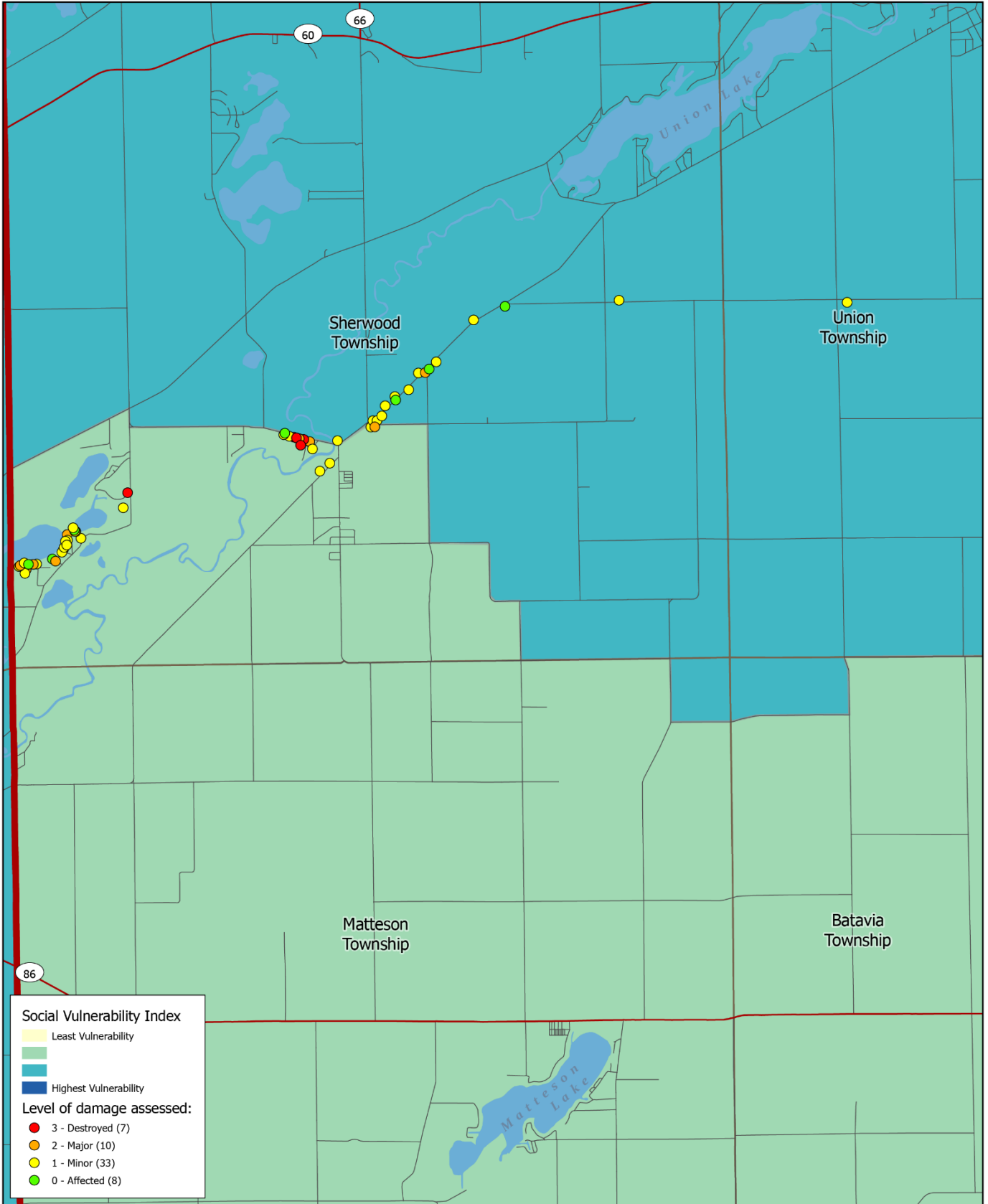
- https://www.weather.gov/grr/7_May_2024_SevereWeather
- https://www.weather.gov/iwx/20240507_TornadoesSevereWx
- <https://mesonet.agron.iastate.edu/lsr/#APX,DTX,GRR,IWX/202405071727/202405081727/111010>

Declared Counties and Damage Assessment (May 7, 2024, Storms)

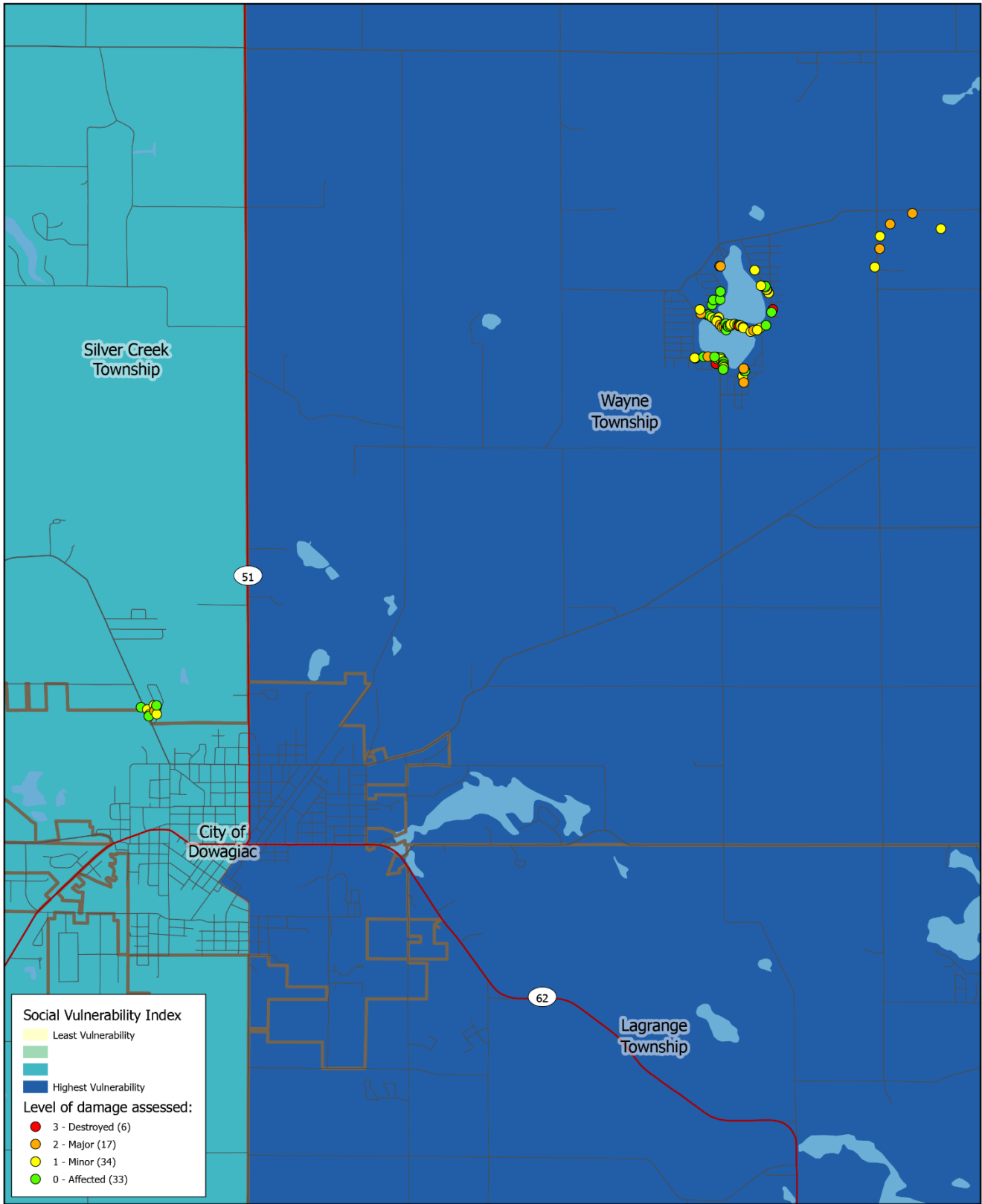
Vertical Map View



BRANCH COUNTY TORNADO DAMAGE



CASS COUNTY DAMAGE

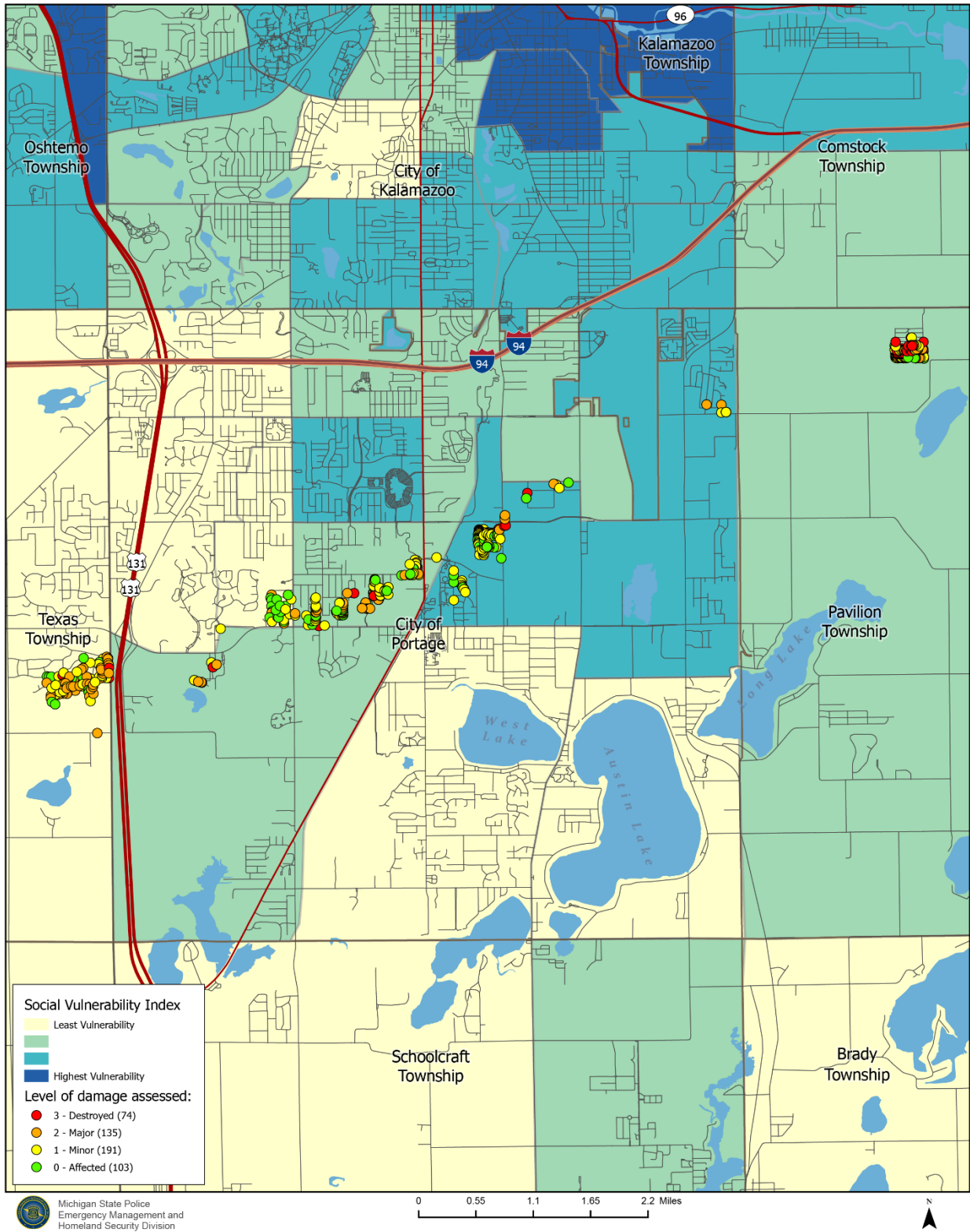


Michigan State Police
Emergency Management and
Homeland Security Division

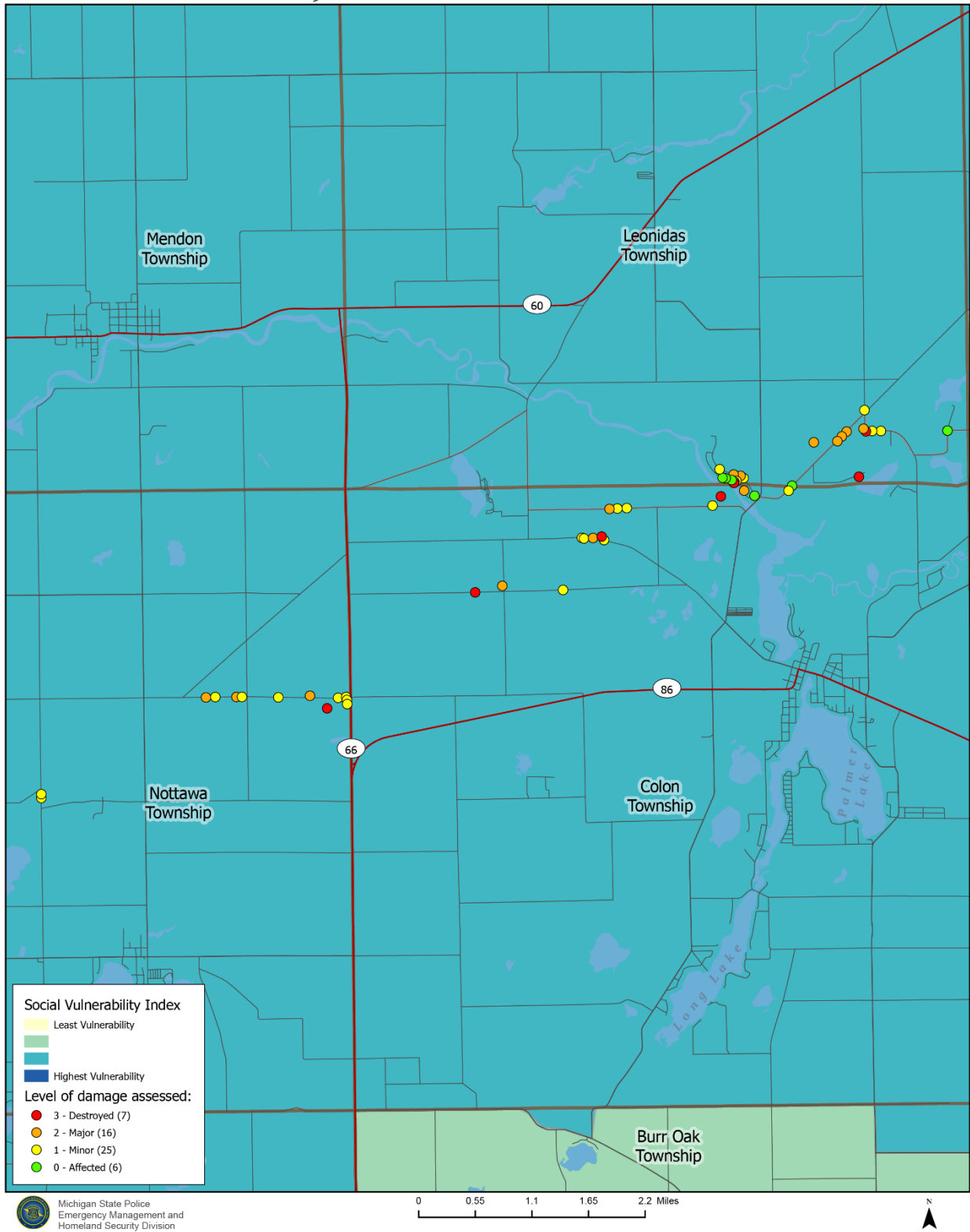
0 0.35 0.7 1.05 1.4 Miles



KALAMAZOO COUNTY TORNADO DAMAGE



ST. JOSEPH COUNTY DAMAGE



Selected Photographs of Disaster Damage and Impacts



Image 1: Tornado damage in Sherwood, MI. Photo courtesy of MSP Helicopter Survey.



Image 2: Tornado damage in Sherwood, MI. Photo courtesy of MSP Helicopter Survey.

Additional photographs from the MSP Helicopter Survey can be found at:

- <https://storymaps.arcgis.com/stories/3b4ddc3ae280441faee296a02fccfbc8>



Image 3: Destruction of a single story house near Arney Road (Branch / St. Joseph County tornado).
NWS Northern Indiana damage survey picture.



Image 4: Large tree uprooted in the Twin Lakes area near Lakeshore Drive (Cass County tornado).
NWS Northern Indiana damage survey picture.



*Image 5: Roof damage to the FedEx facility in Portage, MI (Kalamazoo County tornado).
Photo courtesy of Jake Taylor/WWMT.*



*Image 6: Tornado damage to a home in Portage, MI (Kalamazoo County tornado).
Photo courtesy of Samantha Jacquest, WZZM*



Image 7: Fire damage (lightning suspected) to the Ramona Skating Rink, Sister Lakes, MI.
Photo courtesy of WSBT.

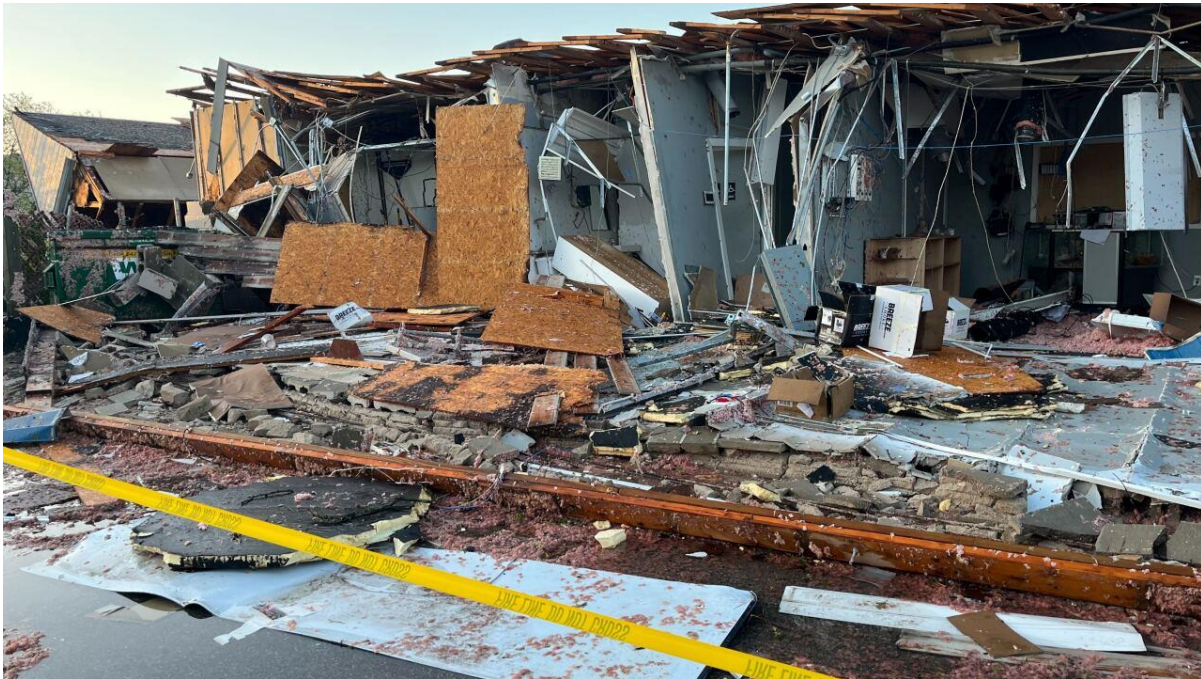


Image 8: Tornado damage at the Pavilion Estates Mobile Home Park (Kalamazoo County).
Photo courtesy of Lauren Kummer, WXMI

ENCLOSURES TO MAJOR DISASTER REQUEST
(FEMA Enclosures B and D Not Applicable to Incident)

ENCLOSURE A
(Estimated Requirements for Individual Assistance)

Verified Home Damages

Preliminary Damage Assessments (PDA) - Individuals and Households Program (IHP) Cost Calculator												
STATE:	Michigan											
DATE(S):	5/7/2024											
INCIDENT TYPE:	Tornado											
What percent of the Affected damage level dwellings will be eligible for IHP?	80%											
County Name	Destroyed	Major	Minor	Affected	Affected Getting Assistance	Total	% Owner	% Insured	% Low Income	HUD FMR for 2 bedroom - 1 month	HUD FMR for 2 bedroom - 2 month	
Kalamazoo	86	157	219	126	101	563	39.70%	56.78%	22.10%	\$1,057.00	\$2,114.00	
Cass	6	17	34	34	27	84	46.15%	67.19%	18.40%	\$1,187.00	\$2,374.00	
Branch	7	10	33	8	6	56	36.20%	59.31%	24.00%	\$1,233.00	\$2,466.00	
St. Joseph	6	15	24	6	5	50	70.58%	62.76%	24.30%	\$1,277.00	\$2,554.00	
TOTAL/AVG	105	199	310	174	139	753	48.16%	61.51%	22.20%	\$1,188.50	\$2,377.00	

Individuals and Households Program (IHP) Cost Estimates

Preliminary Damage Assessments (PDA) - Individuals and Households Program (IHP) Cost Estimates Summary				
STATE/TRIBE/TERRITORY:				
INCIDENT START DATE(S):				
INCIDENT TYPE:				
ESTIMATED HOUSING ASSISTANCE (HA)	NUMBER OF HOUSEHOLDS (Uninsured)	COST	TOTAL COST	CATEGORY TOTAL COST
TEMPORARY HOUSING				
Rent (Pre-Disaster Renters) (Owners w/Minor, Major or Destroyed) - 2 month	255		\$ 530,603.50	\$ 530,603.50
REPAIR ASSISTANCE				
Repair Costs (Owners w/Affected)	23	\$ 2,692.09	\$ 58,822.17	
Repair Costs (Owners w/Minor)	54	\$ 5,826.22	\$ 298,885.09	
Repair Costs (Owners w/Major)	35	\$ 13,559.87	\$ 450,865.68	
REPLACEMENT ASSISTANCE				
Replacement Cost (Owners w/Destroyed)	19	\$ 42,500.00	\$ 767,125.00	
Total Estimated Housing Assistance (HA)	386		\$ 2,106,301.43	\$ 2,106,301.43
ESTIMATED OTHER NEEDS ASSISTANCE (ONA)				
ONA (All Renters and Owners w/Affected, Minor, Major, and Destroyed)	313	\$ 2,132.33	\$ 2,002,257.87	
Total Estimated Other Needs Assistance (ONA)	313		\$ 2,002,257.87	\$ 2,002,257.87
Total Estimated Federal Share (75%)		\$ 1,501,693.40		
Total Estimated State Share (25%)		\$ 500,564.47		
Total Estimated HA and ONA (75% Federal Share)			\$ 3,607,994.83	
Total Estimated HA and ONA (100% Costs)			\$ 4,108,559.30	

ENCLOSURE C
(Estimated Requirements from Other Federal Agency Programs)

Jurisdiction/ Agency	SBA Home Loans	SBA Business Loans	FSA Loans	NRCS	FHWA	USACE	BIA	OTHER
Branch County	\$1,319,000	\$35,000	TBD	TBD	TBD	N/A	N/A	TBD
Cass County	\$2,270,000	\$80,000	TBD	TBD	TBD	N/A	N/A	TBD
Kalamazoo County	\$12,265,000	\$1,143,000	TBD	TBD	TBD	N/A	N/A	TBD
St. Joseph County	\$1,197,000	\$81,000	TBD	TBD	TBD	N/A	N/A	TBD
MDARD	N/A	N/A	TBD	TBD	N/A	N/A	N/A	TBD
MDOT	N/A	N/A	N/A	N/A	TBD	N/A	N/A	TBD
Totals	\$17,051,000	\$1,339,000	TBD	TBD	TBD	N/A	N/A	TBD

- As of May 28, 2024, the Michigan Department of Agriculture and Rural Development (MDARD) was not aware of any eligible requirements for Farm Services Agency (FSA) loans or Natural Resources Conservation Services (NRCS) disaster assistance.
- As of May 28, 2024, the Michigan Department of Transportation (MDOT) was not aware of any eligible requirements for the U.S. Federal Highway Administration (FHWA) Emergency Relief program.