



STATE OF MICHIGAN
OFFICE OF THE GOVERNOR
LANSING

GRETCHEN WHITMER
GOVERNOR

GARLIN GILCHRIST II
LT. GOVERNOR

**REQUEST FOR PRESIDENTIAL DISASTER DECLARATION
COVER LETTER
MAJOR DISASTER FEMA-4607-DR**

August 27, 2021

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

Through: Mr. Kevin M. Sligh, Acting Regional Administrator
FEMA Region V
536 South Clark Street, 6th Floor
Chicago, Illinois 60605

Dear Mr. President:

On July 13, 2021, I requested 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, that you declare a Major Disaster for the counties of Washtenaw and Wayne in response to severe weather leading to flooding and, in other parts of the state, tornado damage, that occurred on June 25 and June 26. This request included activation of all Individual Assistance (IA) programs for these two counties and was granted on July 15 (FEMA-4607-DR). On August 9, the Michigan State Police/Emergency Management and Homeland Security Division (MSP/EMHSD) sought an extension for requesting additional program areas and counties to be added to your declaration, which was approved on August 11 for the timeframe until August 30.

Based on further assessment and verification of the disaster impacts, I request that Major Disaster declaration FEMA-4607-DR is amended to:

- include the counties of Ionia, Macomb, and Oakland (in addition to the counties of Wayne and Washtenaw);
- activate Categories A-G of the PA program for the counties of Ionia, Washtenaw, and Wayne; and
- activate all IA program areas for the counties of Macomb and Oakland.

At the time of my initial request, assessments of public damages to verify eligible costs related to Public Assistance (PA) programs were still ongoing in the counties described in my first letter (counties of Huron, Ionia, Washtenaw, and Wayne). As these assessments concluded on August 25, it has become clear that public damages in the counties of Ionia, Washtenaw, and Wayne are of such severity and magnitude that effective response and recovery are beyond the capabilities of the state of Michigan and the affected local governments.

In addition to the impacts described for the counties included in my initial request, significant damage to homes and personal property resulting from the June 25 and June 26 weather event were also identified in the counties of Macomb and Oakland. In response to these conditions, I requested a Joint Preliminary Damage Assessment (PDA) to verify damages applicable to IA programs under the Stafford Act on August 9. The results of the Joint PDA, which concluded on August 11, showed that supplemental federal assistance is also needed to cope with the impacts of this disaster in these two counties.

A detailed description of the severe weather event that caused these damages, and a discussion of specific impacts in the counties of Ionia, Washtenaw, and Wayne were already included in my letter from July 13. The letter also outlined state and local response actions, states of emergency declared by me and by local jurisdictions, voluntary and private sector assistance, the history of disasters and emergencies in Michigan over the past 24 months, state fiscal capacity, and other information relevant to this request.

Activation of Public Assistance programs for the counties of Ionia, Washtenaw, and Wayne

The Joint PDA for PA confirmed the impacts described in my initial letter and verified extensive public damages in three impacted counties. The counties of Ionia and Wayne significantly exceed the \$3.89 countywide per-capita indicator threshold for applicability of PA programs, with verified costs of \$673,563 in Ionia County (\$10.54 per capita, exceeding the countywide per capita indicator by a factor of 2.7), and \$13,682,256 in Wayne County (\$7.52 per capita, exceeding the indicator by a factor of 1.9). Substantial public damages were also verified in Washtenaw County (\$150,661 total verified cost, \$0.44 per capita).

My letter from July 13 described the dedication of the impacted jurisdictions to make their communities as disaster resilient as possible through hazard mitigation planning and the implementation of mitigation projects. I again want to highlight the example of Oakwood Hospital in the City of Dearborn (Wayne County), which suffered damages of more than \$45 million during the 2014 flooding that resulted in Major Disaster declaration FEMA-4195-DR. Following the 2014 disaster, a \$7 million hazard mitigation project that constructed new storm sewers that facilitate water flow from hospital property to a relief outfall in the Rouge River was implemented. This has been the most expensive Hazard Mitigation Assistance project implemented to date in Michigan. Although the City of Dearborn and the area surrounding the hospital were hit as hard as or harder than during the 2014 flooding, Oakwood Hospital did not report any damages that were sustained as a result of the current disaster.

In the City of Ann Arbor in Washtenaw County, mitigation efforts in the Allen Creek watershed prevented further damage to private and public property during this incident. A \$5.4 million mitigation project that included the installation of culverts in a railroad berm to facilitate drainage of the watershed into the Huron River during flood incidents likely prevented the flooding of nearby buildings and infrastructure.

Collectively, the counties that were included in the Joint PDA for PA have invested more than \$23 million in hazard mitigation measures through 44 Hazard Mitigation Assistance (HMA) grants. Their HMA efforts have primarily focused on flood risk reduction through a variety of project types, including sewer infrastructure upgrades, floodplain acquisition and demolition, localized flood control, and sewer backup prevention.

Many of these mitigation projects likely lessened the impact of this disaster, and therefore reduced applicable county and state per-capita cost indicators. I want to emphasize that the earlier discussed Oakwood Hospital project in the City of Dearborn alone likely prevented damages that would have been substantial enough to increase total PA-eligible costs far above the statewide PA per-capita indicator of \$1.55, or \$15.319.642 total (as compared to the verified statewide eligible per-capita cost of \$1.47 and total cost of \$14,506,480).

With over \$5.3 million in verified costs for the counties included in this request, Category A – Debris Removal was the category with the highest share of eligible cost (36.83% percent of all eligible cost). Particularly hard hit were the cities of Dearborn (over \$1.4 million) and Detroit (over \$2.1 million) in Wayne County. The City of Dearborn estimates that over 20,000 homes in a municipality with approximately 33,000 housing units required removal of flood-related debris. Many jurisdictions in the area reported that residents had so much debris in their homes that they were not able to fully remove and place it at the curb by the time that debris removal crews visited their areas, requiring multiple debris collection passthroughs through the same areas in the following weeks.

35.3 percent of eligible costs were identified in Category B – Emergency Protective Measures (over \$5 million). Most of these costs (over \$3.2 million) were borne by the Detroit Water and Sewerage Department for emergency response actions they were required to take. The Detroit Public Schools Community District had over \$7 million in cost for emergency measures. However, except for a deductible of \$1 million, these costs are covered by insurance.

Category E – Buildings and Equipment accounts for 10.86 percent of eligible damages in the counties included in this request (approximately \$1.575 million). It is important to note that damages in these categories did not only impact administrative facilities or government equipment, but also institutions that have significant social value, promote community cohesion, and facilitate educational opportunities. Damaged facilities for example include the Charles H. Wright Museum of African American History in the City of Detroit, and buildings of the Detroit Public Library system. The social impact of the damage to these facilities far exceeds the cost required to make necessary repairs, and it is imperative to restore them as quickly as possible to ensure that they can fully resume their important functions within their communities.

In Washtenaw County, Eastern Michigan University sustained substantial damages to its facilities. While the university estimates over \$4 million in restoration and repair costs related to Category E, insurance coverage is fortunately in effect for most of these damages.

With over \$1.3 million in damages, Category D – Water Control Facilities accounts for 9.09 percent of eligible costs. These costs for damages to sewer and water control systems were exclusively borne by the Great Lakes Water Authority (GLWA), which is a regional water authority that provides drinking water to nearly 40 percent of Michigan residents, and sewer and wastewater services to almost 30 percent of the state’s population.

Over \$824,000 in cost for the counties of Wayne and Ionia were confirmed for Category C – Roads and Bridges (5.68 percent of all eligible cost). This is the only PA category in which Ionia County sustained eligible damages. Their eligible cost of approximately \$675,000 account for impacts to roads that included damage to bridges and culverts, and gravel washouts. Some residences in the county were temporarily inaccessible in the days following the severe weather event due to impacts to roads.

Eligible damages were also verified for Categories F – Utilities (over \$220,000 borne by the City of Westland in Wayne County; 1.52 percent of all eligible costs) and G - Parks, Recreational, Other (over \$100,000 borne by the City of Dearborn in Wayne County; 0.72 percent).

I want to emphasize that impacted jurisdictions estimated that costs for emergency response and repairs to public facilities and infrastructure exceed \$120 million. While only a fraction of these costs has been found eligible for reimbursement under the requirements of the PA program, and a portion of them will be covered by insurance policies, these estimates still reflect real damage to the impacted communities. Remaining cost will have to be covered by local and state, which will ultimately put further fiscal strain on budgets and negatively impact the availability of other government services. Therefore, it is imperative that supplemental federal assistance under the PA program is made available.

Activation of Individual Assistance programs for the counties of Macomb and Oakland

The same weather event described in detail in my initial request that caused flooding in the counties of Washtenaw and Wayne also impacted the neighboring counties of Macomb and Oakland (Wayne County borders the counties of Oakland and Macomb to the south, and Washtenaw County borders Oakland County to the southeast). The severe weather event led to over four inches of rain in parts of these counties (see Attachment 2).

The rainfall resulted in flooding and temporary closure of local roads and freeways in both counties. Many local jurisdictions reported localized flooding in residential areas and subdivisions. In the City of Birmingham in Oakland County, the Rouge River exceeded its banks, which impacted two apartment buildings. One bridge over the river needed to be closed. The Henry Ford West Bloomfield Hospital (Oakland County) and Henry Ford Macomb Hospital (Macomb County) experienced secondary impacts from the flooding of the health system’s data center in Wayne County, which affected their IT systems, radiology data system, and monitors in emergency rooms. The West Bloomfield location had to

temporarily close its emergency room, and transports needed to be rerouted. The DMC Huron Valley Hospital in Oakland County also experienced some facility flooding. Public safety concerns were exacerbated in southern Oakland County, where municipalities experienced several failures of their public safety communications network during and in the days following the incident. In the immediate aftermath of the event, approximately 90,000 homes also lost power. Some homes remained without power for several days, and additional outages were caused by other severe weather events in the following weeks. In response to these conditions, local governments took appropriate action under state law, issued emergency public information, implemented emergency response activities, and activated local Emergency Operations Centers.

In the weeks since this disaster, new reports of damages to homes and personal property were received. After the Federal Emergency Management Agency (FEMA) started to accept applications for assistance from residents in the counties of Washtenaw and Wayne, over 1,000 reports of damages were also received from residents in the counties of Macomb (573 reports) and Oakland (473 reports). This is noteworthy as residents from these two counties have not even been eligible to apply for IA assistance under your Major Disaster declaration so far, and it had not been advertised or requested that damages should be reported to FEMA.

Based on the impacts described above and the damage reports received by FEMA, MSP/EMHSD requested a Joint PDA to assess IA-eligible damages in the two counties on August 9. On August 11, assessment teams with representatives from FEMA, state, and local jurisdictions verified damages at 74 of the over 1000 self-reported locations. The assessments identified a total of 31 damaged homes, three of which had incurred major damage (all in Macomb County), 12 with minor damage (seven in Macomb County, five in Oakland County), and 16 that were affected (all in Oakland County).

While these numbers seem small, they do not take into account potential damages at the over 900 other households that reached out to FEMA, or homes in surrounding areas that have not yet reported their damages. As pointed out in my initial request, it has been our experience that Joint PDAs for IA in densely populated urban areas like those affected by this disaster cannot fully account for a complete picture of damages. This was exemplified during Major Disaster FEMA-4195-DR, which was declared for the counties of Macomb and Oakland alongside Wayne County in 2014, when the number of IA applicants exceeded the number of impacted homes identified during the Joint PDA by a factor of 32.

Unfortunately, the map included in Attachment 2 also illustrates that the IA damages in Macomb and Oakland County are concentrated in some of these counties' most socially vulnerable areas. Demographic indicators that show that disaster survivors in affected areas may be particularly vulnerable include elevated levels of persons with disabilities, persons living below the poverty level, unemployment, and renter-occupied housing units. Per-capita incomes in the affected areas are lower than countywide, statewide, and national averages. Therefore, it is likely that many impacted individuals are members of population groups that urgently require support for their recovery from this disaster and would benefit most from federal assistance. Attachment 1 provides a more detailed socioeconomic profile of the two counties and municipalities with concentrated verified damages.

Table 1: Demographics of the Disaster Impacted Population

| Percentage of the Population: | In Poverty | Receiving Food Stamps or SNAP | Pre-Disaster Unemployment Rate | 65 years of age and older | Under 18 years of age | With a Disability | Households speaking English less than very well |
|-------------------------------|------------|-------------------------------|--------------------------------|---------------------------|-----------------------|-------------------|---|
| U.S. | 13.4% | 11.7% | 5.8% | 15.6% | 22.6% | 12.6% | 8.4% |
| Michigan | 14.4% | 13.3% | 5.0% | 16.7% | 21.9% | 14.2% | 3.4% |
| Macomb County | 10.6% | 11.2% | 4.4% | 16.6% | 21.2% | 14.0% | 6.0% |
| Oakland County | 8.2% | 7.1% | 3.4% | 16.4% | 21.2% | 11.5% | 4.7% |

This table has been aligned with the criteria suggested in the FEMA Major Disaster/Emergency request template to the maximum extent possible. Additional tables with socio-economic information can be found in Attachment 1.

Source: U.S. Census Bureau American Community Survey 2015-2019 five-year average, except Bureau of Labor Statistics for Unemployment Rate.

Table 2: Socioeconomic Indicators of Increased Disaster Vulnerability in Affected Municipalities

| Percentage of the Population: | In Poverty | Per Capita Income (\$) | Renter-occupied housing units | Persons with Disability | Received Supplemental Security Income | Received cash public assistance income | Received Food Stamp/SNAP benefits in past year |
|-------------------------------|------------|------------------------|-------------------------------|-------------------------|---------------------------------------|--|--|
| U.S. | 13.4% | 34,103 | 36.0% | 12.6% | 5.3% | 2.4% | 11.7% |
| Michigan | 14.4% | 31,713 | 28.8% | 14.2% | 6.1% | 2.3% | 13.3% |
| Macomb County | 10.6% | 32,238 | 26.7% | 14.0% | 5.8% | 1.9% | 11.2% |
| Oakland County | 8.2% | 44,629 | 29.0% | 11.5% | 4.1% | 1.4% | 7.1% |
| City of Eastpointe | 16.2% | 23,292 | 35.9% | 16.1% | 9.9% | 2.5% | 19.4% |
| City of Hazel Park | 22.6% | 21,792 | 50.5% | 24.5% | 10.3% | 2.8% | 24.0% |
| City of Oak Park | 14.3% | 26,585 | 44.2% | 17.4% | 10.3% | 2.1% | 18.1% |
| City of Southfield | 11.3% | 33,104 | 52.2% | 18.4% | 7.6% | 2.1% | 11.6% |
| City of Warren | 17.5% | 25,803 | 30.9% | 17.0% | 8.3% | 2.7% | 18.0% |

Yellow shading denotes greater potential levels of disaster sensitivity or vulnerability.

Source: U.S. Census Bureau American Community Survey 2015-2019 five-year average.

Disaster-related unemployment may further exacerbate socioeconomic issues affecting survivors in the area. Unfortunately, post-disaster unemployment rates for the month of July 2021 are not available yet. However, it is noteworthy that unemployment rates in both counties had already increased from May to June (from 4.4 to 4.5 percent in Macomb County, and 3.4 to 3.6 percent in Oakland County), and may have been further impacted by this disaster.

Recognizing their responsibility to make their communities as resilient as possible, be advised that the counties of Macomb and Oakland both have current Disaster Mitigation Act of 2000-compliant hazard mitigation plans in place. They have invested over \$740,000 in hazard mitigation planning activities through 11 separate Hazard Mitigation Assistance (HMA) program grants. The jurisdictions have used their hazard mitigation plans to fund more than \$6.6 million in hazard mitigation measures through 40 HMA grants. Their HMA activities have primarily focused on flood risk reduction through project types including

sewer infrastructure and culvert upgrades, stormwater improvement projects, streambank stabilization, acquisition and demolition of property, and home elevations.

As you can see, all impacted jurisdictions have prepared their communities and responded to this severe weather event in an appropriate manner, but do not have the financial resources available to fully recover from this disaster in a timely manner, or potentially at all in some cases, without receiving supplemental assistance from the federal government.

The State of Michigan can provide limited financial assistance to help offset the cost-share for Individual Assistance, but it does not have funding to address all disaster-related losses without federal assistance. State law mandates that the Michigan Disaster and Emergency Contingency Fund be capped at \$10 million and that grants awarded to individual jurisdictions for reimbursement of public damages only do not exceed between \$250,000 and \$1 million, depending on population size. This cannot adequately cover the private and public damages incurred during this disaster.

Available funds in the Michigan Disaster and Emergency Contingency Fund are also being impacted by incidents that have taken place following this disaster. As of August 25, an additional six significant severe weather events have occurred in Michigan. Unfortunately, the counties of Macomb, Oakland, and Wayne, which are all included in this request, were hit particularly hard.

Table 3: July/August 2021 severe weather events in Michigan

| Incident | Affected counties |
|---------------------------------------|---|
| July 7 Severe Weather | Macomb County, Oakland County |
| July 14 Severe Weather | Macomb County, Oakland County |
| July 16 Heavy Rainfall | Wayne County |
| July 24/25 Severe Weather and Tornado | Huron County, Macomb County, Oakland County |
| July 27 Severe Weather | Gogebic County |
| August 11 Severe Weather | Arenac County, Antrim County, Branch County, Clare County, Calhoun County, Eaton County, Hillsdale County, Ingham County, Ionia County, Isabella County, Jackson County, Kalkaska County, Kent County, Lenawee County, Livingston County, Macomb County, Muskegon County, Newaygo County, Oakland County, Ogemaw County, Ottawa County, St. Joseph County, Washtenaw County, Wayne County |

Yellow shading highlights counties included in this request.

Source: State Emergency Operations Center

In addition to the recent disaster and emergency declarations listed in my initial letter, I have since issued five additional states of emergencies for areas of Michigan. Two of these emergencies were declared for the counties of Oakland and Macomb (July 7 and July 24 Severe Weather), one declaration was made in response to a building fire in Menominee County (which is not a part of this request), and one for high winds in the counties of Branch, Hillsdale, and St. Joseph (not part of this request). While these incidents individually may not exceed the capabilities of our state, they collectively strain the financial and physical resources available to facilitate effective response and recovery from all ongoing incidents, including Major Disaster FEMA-4607-DR, and the COVID-19 pandemic.

Therefore, and as I already outlined in my prior letter, the state of Michigan and the affected local jurisdictions do not have sufficient resources available to recover from the

June 25 and June 26 severe weather event without receiving supplemental assistance from the federal government.

Activation of Categories A-G of the PA program for the counties of Ionia, Washtenaw, and Wayne, and activation of all IA program areas for the counties of Macomb and Oakland, is critically needed. An overview of verified eligible damages for these counties are included in Enclosures A and B.

I certify that for this Major Disaster and the requested amendments, the state and local governments will continue to assume the applicable non-federal share of costs required by the Stafford Act. Inspector Michele Sosinski remains the State Coordinating Officer for this incident. She will work with the Federal Emergency Management Agency on recovery program implementation and may provide further information or justification on my behalf.

Sincerely,



Gretchen Whitmer
Governor

Attachments and Enclosures:

- Attachment 1 – Demographic Profile for the counties of Macomb and Oakland
- Attachment 2 – Supporting Maps and Photographs
- Attachment 3 – Weather-related information

- Enclosure A – Individual Assistance
- Enclosure B – Public Assistance
- Enclosure C - Requirements for Other Federal Agency Programs
- Enclosure D – Historic and Current Snowfall (Not applicable to this request)

July 13 Request for Presidential Disaster Declaration Cover Letter

ATTACHMENT 1 TO MAJOR DISASTER REQUEST

Demographic Profile for the counties of Macomb and Oakland

| | Population | Black or African American | Hispanic origin (of any race) | Under 18 years old | Elderly (65+ years) | Persons with Disability |
|--------------------|-------------|---------------------------|-------------------------------|--------------------|---------------------|-------------------------|
| National | 324,697,795 | 12.7% | 18.0% | 22.6% | 15.6% | 12.6% |
| State | 9,965,265 | 13.8% | 5.1% | 21.9% | 16.7% | 14.2% |
| Macomb County | 870,325 | 11.7% | 2.6% | 21.2% | 16.6% | 14.0% |
| Oakland County | 1,253,185 | 13.6% | 4.1% | 21.2% | 16.4% | 11.5% |
| City of Eastpointe | 32,443 | 47.7% | 2.0% | 23.5% | 11.3% | 16.1% |
| City of Hazel Park | 16,525 | 13.3% | 1.5% | 19.9% | 12.9% | 24.5% |
| City of Oak Park | 29,726 | 56.1% | 2.0% | 20.3% | 15.7% | 17.4% |
| City of Southfield | 73,174 | 69.4% | 1.8% | 18.4% | 20.4% | 18.4% |
| City of Warren | 134,797 | 19.3% | 2.7% | 21.3% | 16.2% | 17.0% |

Yellow shading denotes greater potential levels of disaster sensitivity or vulnerability.

Data Sources

Population, Race/Ethnicity, Under 18, Elderly, Disability: U.S. Census Bureau American Community Survey 2015-2019 five-year average, Tables DP02, DP03, DP04, and DP05.

Accessed August 13 and 16, 2021, from data.census.gov

The counties of Macomb and Oakland are large, urbanized counties in the northern portion of the Detroit Metropolitan Area. Since these two counties have very large populations (21.3% of the total state population), the tables in this section include information for the five cities that had multiple verified flood-damaged properties. The tables present comparisons between national, state, county, and municipal data, and where municipal data was found to suggest a socioeconomic vulnerability that was significantly higher than that for the State of Michigan, the cell containing that data has been highlighted in yellow.

The table above compares data for six demographic variables. The first distinctive indicator in the tables involves the importance of the flood impacts upon the African American community concentrated within several cities—Eastpointe (formerly known as East Detroit), Oak Park, Southfield, and Warren—which are located just north of disaster-declared Wayne County and the City of Detroit. These can be considered “inner ring” suburbs that have substantial areas of aging housing, facilities, and infrastructure, especially where some infrastructure is adjacent to or reliant upon that for the metropolitan region’s central city of Detroit, which has long had levels of racial segregation that have been unusually high in comparison with other metropolitan areas throughout the nation. Some of these inner-ring suburbs reflect this history, as noted by comparing their demographics with that for the counties, state, and nation as a whole. For example, although each county appears similar to state and national racial distributions, more than 40% of Macomb County’s African American population resides within that county’s two most heavily disaster-impacted cities listed above (Eastpointe and Warren), and more than 40% of Oakland County’s African American population similarly resides within that county’s three most heavily disaster-impacted cities listed in the table (Hazel Park, Oak Park, and Southfield). Therefore, there is an understandable consciousness of the unequal impacts caused by disasters,

and assistance to Macomb and Oakland counties will help residents in these cities redress historically higher risks that their communities have faced in the past and will continue to face until hazard mitigation activities can eventually reduce such risks.

As also noted in the preceding table, these additional disaster-impacted counties include some distinctive vulnerabilities on the basis of age, with a couple of the most heavily impacted cities containing more than the expected proportion of young children under five years old (the City of Eastpointe, in Macomb County), or containing a higher-than-average proportion of senior citizens, including those on limited budgets and recipients of government aid programs (the City of Southfield, in Oakland County). All five of the most heavily affected cities have a significantly higher percentage of residents with disabilities than the state or nation as a whole.

| | Persons Below Poverty Level (past 12 months) | Per Capita Income (\$) | Unemployment Rate (of ages 16+) | Renter-occupied housing units | Households speaking language other than English | Households speaking English less than "very well" |
|--------------------|--|------------------------|---------------------------------|-------------------------------|---|---|
| National Average | 13.4% | 34,103 | 5.3% | 36.0% | 21.6% | 8.4% |
| State Average | 14.4% | 31,713 | 5.9% | 28.8% | 9.7% | 3.4% |
| Macomb County | 10.6% | 32,238 | 5.4% | 26.7% | 14.2% | 6.0% |
| Oakland County | 8.2% | 44,629 | 4.4% | 29.0% | 15.3% | 4.7% |
| City of Eastpointe | 16.2% | 23,292 | 8.3% | 35.9% | 2.9% | 1.0% |
| City of Hazel Park | 22.6% | 21,792 | 6.8% | 50.5% | 5.3% | 1.8% |
| City of Oak Park | 14.3% | 26,585 | 5.6% | 44.2% | 14.4% | 5.2% |
| City of Southfield | 11.3% | 33,104 | 6.9% | 52.2% | 9.4% | 3.3% |
| City of Warren | 17.5% | 25,803 | 7.7% | 30.9% | 18.7% | 9.2% |

| | Received Social Security income | Received Retirement income | Received Supplemental Security Income | Received cash public assistance income | Received Food Stamp/SNAP benefits in past year |
|--------------------|---------------------------------|----------------------------|---------------------------------------|--|--|
| National Average | 31.2% | 19.9% | 5.3% | 2.4% | 11.7% |
| State Average | 34.7% | 23.7% | 6.1% | 2.3% | 13.3% |
| Macomb County | 34.3% | 23.8% | 5.8% | 1.9% | 11.2% |
| Oakland County | 30.7% | 21.8% | 4.1% | 1.4% | 7.1% |
| City of Eastpointe | 31.6% | 19.1% | 9.9% | 2.5% | 19.4% |
| City of Hazel Park | 33.7% | 19.3% | 10.3% | 2.8% | 24.0% |
| City of Oak Park | 34.4% | 21.7% | 10.3% | 2.1% | 18.1% |
| City of Southfield | 38.0% | 28.2% | 7.6% | 2.1% | 11.6% |
| City of Warren | 34.6% | 22.1% | 8.3% | 2.7% | 18.0% |

Yellow shading denotes greater potential levels of disaster sensitivity or vulnerability.

Data Sources

Poverty Level, Median Household Income, Per Capita Income, Renter-occupied, Unemployment, Limited English-Speaking, Income types: U.S. Census Bureau American Community Survey 2015-2019 five-year average, Tables DP02, DP03, DP04, and DP05.
 Accessed August 13 and 16, 2021, from data.census.gov

The impacts of this disaster have affected a densely populated area of great social and ethnic diversity, including some areas in which language barriers exist and create challenges in accessing political and resource networks, and other socioeconomic resources. A couple of areas have been noted--in the City of Oak Park (in Oakland County) and the City of Warren (in Macomb County) where there are higher proportions of linguistically distinct households than Michigan normally sees.

In addition to the higher percentage of Social Security recipients and seniors receiving retirement income within the City of Southfield, all five of the most heavily affected cities noted in the table above had above average percentages of residents receiving Supplemental Security Income. Three of the five most-impacted cities had higher percentages of residents receiving cash public assistance income. Four of the five most-impacted cities had relatively high levels of Food Stamp/SNAP benefit recipients.

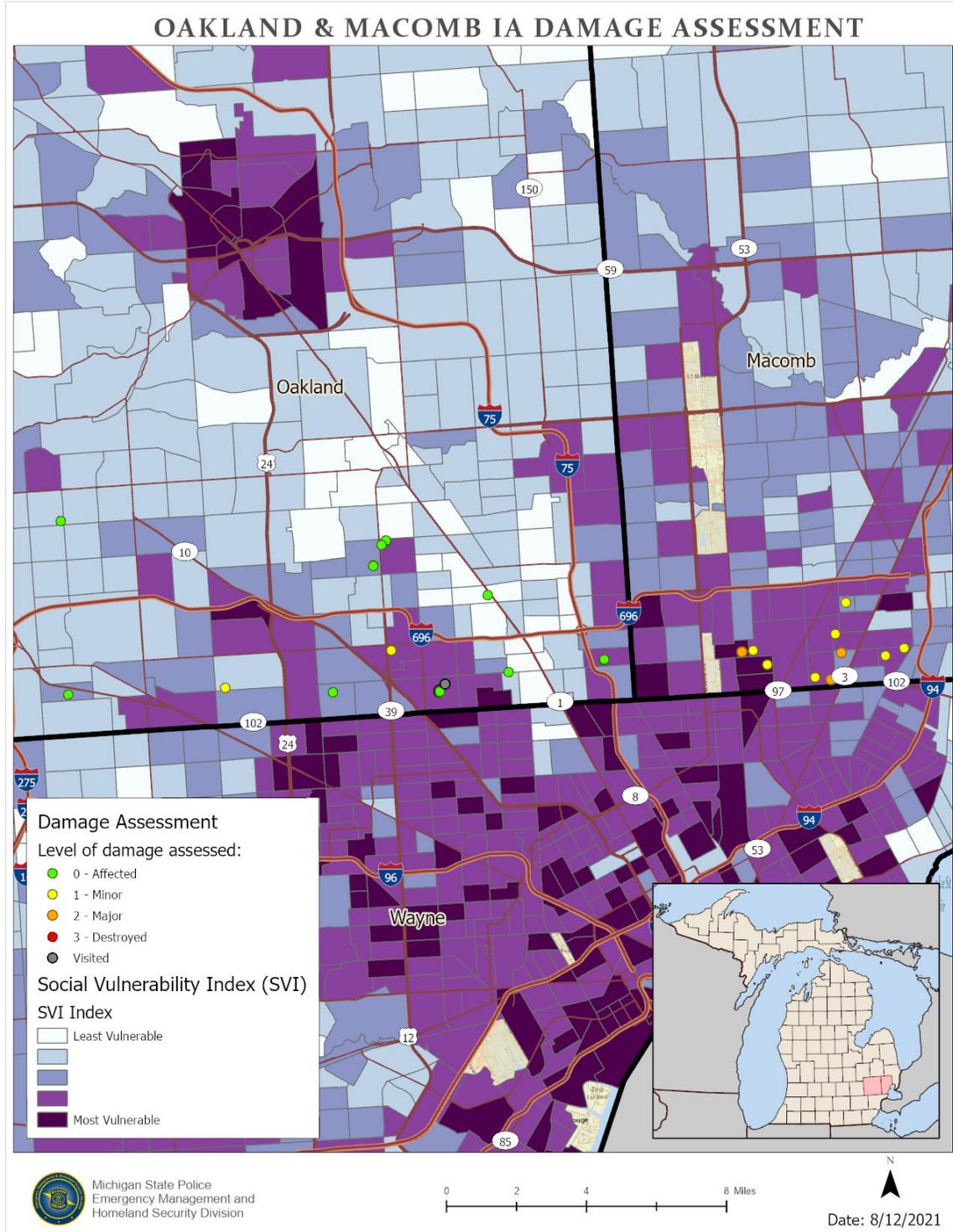
The preceding tables add information about other important socioeconomic indicators. The percentage of renters was unusually high in most of the impacted cities, as were the unemployment rates. Correspondingly, four of the five most-impacted cities also had notably lower income levels, per capita. Three of the cities had poverty rates higher than Michigan's (which was already a bit higher than the national average).

Therefore, it can be seen that most of the indicators of potential socioeconomic vulnerability that have been identified by FEMA are present within one or more of the cities most heavily affected by the recent flood disaster.

ATTACHMENT 2 TO MAJOR DISASTER REQUEST

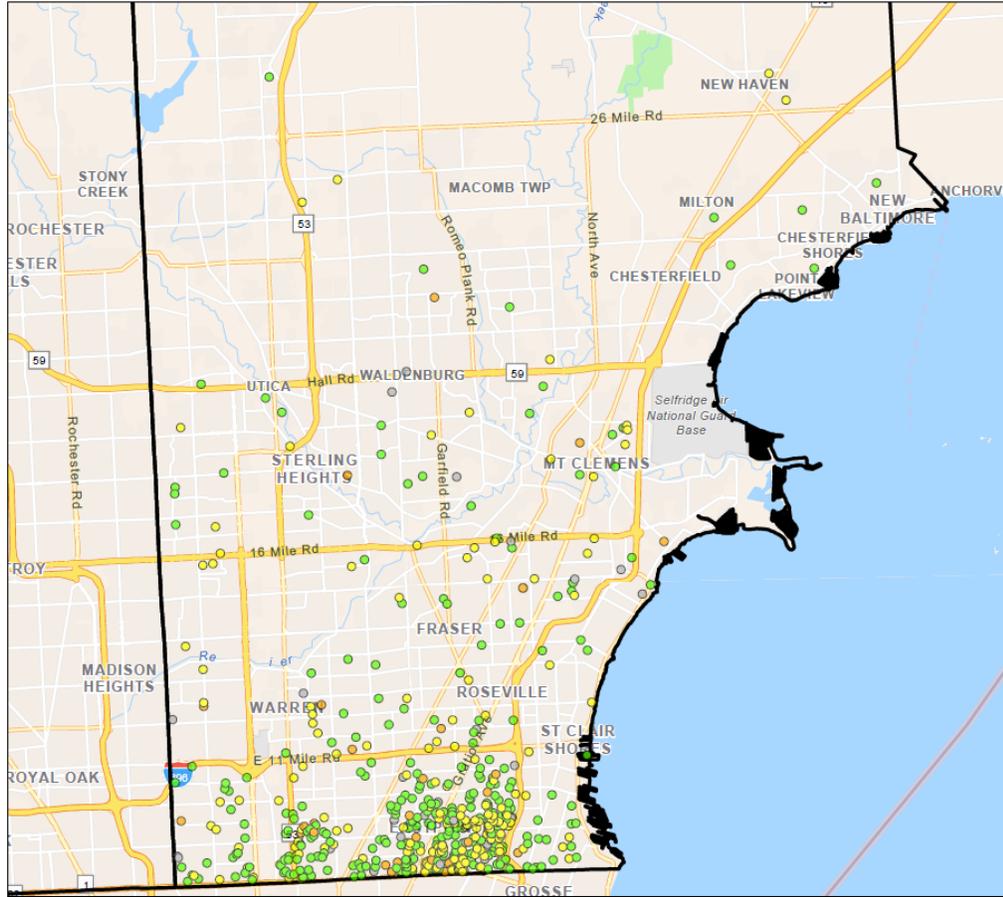
Supporting Maps and Photographs

Disaster Area Map



Source: State Emergency Operations Center, Geographic Information System Unit

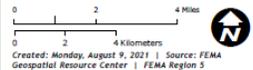
FEMA-4607-DR-MI - Severe Storms, Flooding, and Tornadoes
 Self-Assessed Damage Assessments - Macomb County



Data Layer / Map Description:
 This product displays self-assessed damages by location for Macomb County, MI.

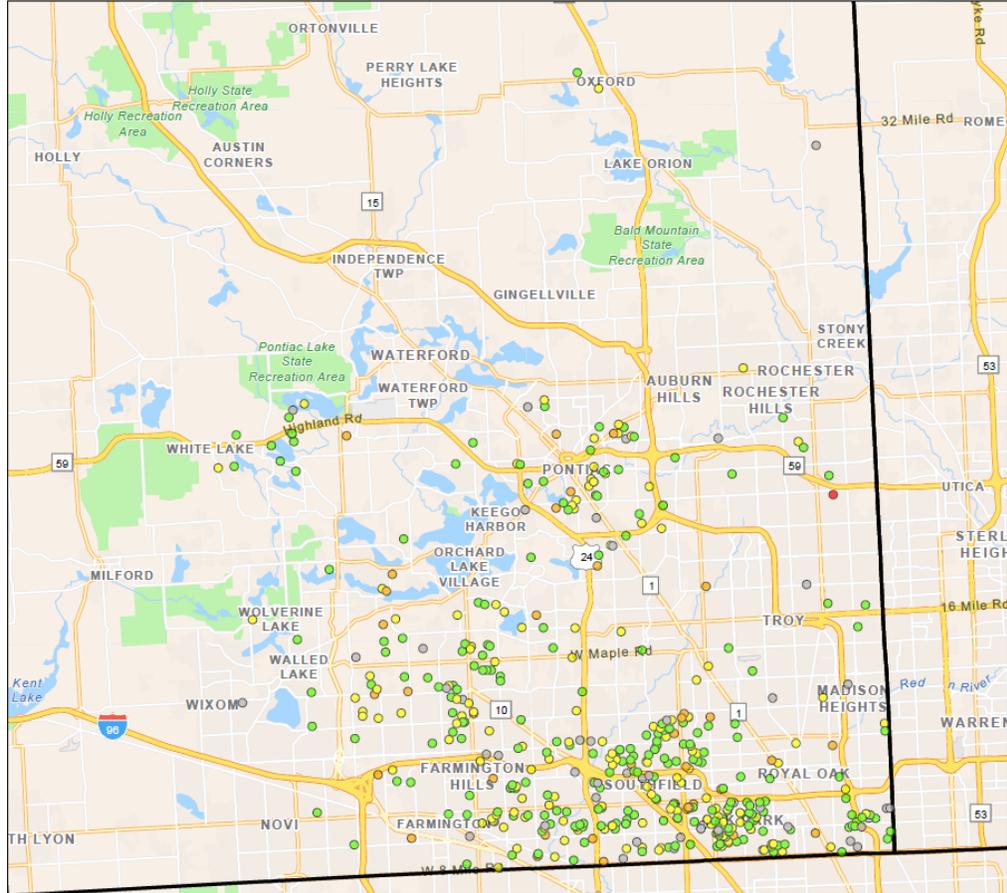
County Boundary
 Self-Assessed Damage by Location

- Level of Damage
- I had minor damage, but I am able to live in my home. (340)
 - I had damage to my home or personal property that requires a lot of repair. I may not be able to live in my home. (175)
 - I had damage to my home or personal property that requires major repairs. I am not able to live in my home. (28)
 - My home was completely destroyed. (0)
 - Unknown (30)



Source: FEMA Region V

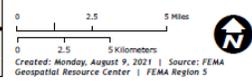
FEMA-4607-DR-MI - Severe Storms, Flooding, and Tornadoes
Self-Assessed Damage Assessments - Oakland County



Data Layer / Map Description:
 This product displays self assessed damages by location for Oakland County, MI.

Self-Assessed Damage by Location
Level of Damage

- I had minor damage, but I am able to live in my home. (236)
- I had damage to my home or personal property that requires a lot of repair. I may not be able to live in my home. (153)
- I had damage to my home or personal property that requires major repairs. I am not able to live in my home. (34)
- My home was completely destroyed. (1)
- Unknown (49)



Source: FEMA Region V

Selected Photographs of Disaster Damage and Impacts

Please note: Due to COVID-19 social distancing considerations, no pictures of damage were taken in residences during damage assessments.



Row 1, L-R: Road flooding, Macomb County (source: www.macombdaily.com); Flooded drain, Macomb County

Row 2, L-R: Flooded building, Oakland County; Emergency protective measures, Oakland County

ATTACHMENT 3 TO MAJOR DISASTER REQUEST

Weather-related information

National Weather Service Precipitation Report

**Select rainfall totals in Macomb County
Three-day Precipitation Reports as of June 28, 2021**

| Location | Rainfall |
|------------------|-----------------|
| Richmond | 4.36 in |
| Shelby | 3.84 in |
| Sterling Heights | 3.62 in |
| Roseville | 2.62 in |
| Chesterfield | 2.18 in |
| Clinton | 2.17 in |
| Mount Clemens | 2.13 in |

Source: National Weather Service – Detroit/Pontiac

**Select rainfall totals in Oakland County
Three-day Precipitation Reports as of June 28, 2021**

| Location | Rainfall |
|---------------------|-----------------|
| Bloomfield Township | 4.39 in |
| Franklin | 4.34 in |
| Bloomfield Hills | 4.11 in |
| Davisburg | 4.01 in |
| Fenton | 3.79 in |
| Farmington | 3.53 in |
| Farmington Hills | 3.44 in |
| Rochester Hills | 3.15 in |
| Pleasant Ridge | 3.05 in |
| Clarkston | 2.99 in |
| Berkley | 2.97 in |
| Troy | 2.95 in |
| Southfield | 2.90 in |
| Novi | 2.77 in |
| Holly | 2.73 in |
| Oakland | 2.72 in |
| Beverly Hills | 2.53 in |
| White Lake | 2.42 in |
| Lake Orion | 2.35 in |
| West Bloomfield | 2.06 in |
| Waterford | 2.04 in |
| Milford Township | 2.03 in |
| Leonard | 2.02 in |

Source: National Weather Service – Detroit/Pontiac

ENCLOSURE A TO MAJOR DISASTER REQUEST

**Estimated Requirements for Individual Assistance
Under the Stafford Act**

Joint Preliminary Damage Assessment Verified Damages

| County | Destroyed | Major | Minor | Affected | Total |
|---------------|------------------|--------------|--------------|-----------------|--------------|
| Macomb | 0 | 3 | 7 | 0 | 10 |
| Oakland | 0 | 0 | 5 | 16 | 21 |
| Total | 0 | 3 | 12 | 16 | 31 |

ENCLOSURE B TO MAJOR DISASTER REQUEST

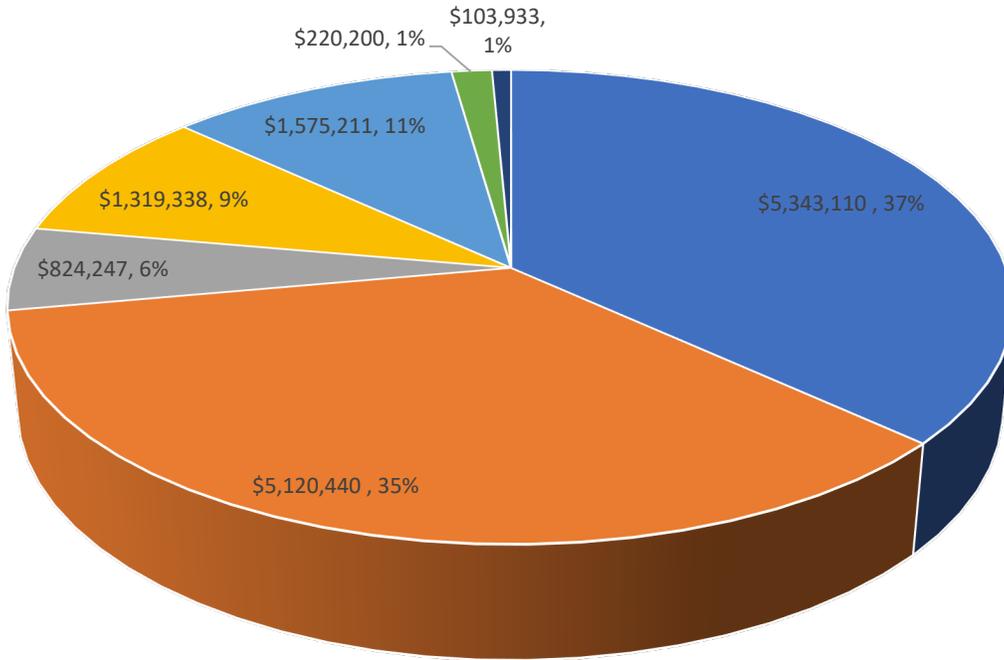
Estimated Stafford Act Public Assistance Requirements



FEMA

**TABLE A-1 SUMMARY OF ELIGIBLE PUBLIC ASSISTANCE
PDA CONDUCTED August 2-25, 2021**

| STATE: | | Michigan | | | | | | | POPULATION: | | 9,883,640 |
|---------------------|--------------------|--------------------|------------------|--------------------|--------------------|------------------|------------------|---------------------|--------------------|--------------------|------------------|
| Applicant | A | B | C | D | E | F | G | TOTAL | Population | Per/Cap Loss | |
| County of Ionia | \$0 | \$0 | \$673,563 | \$0 | \$0 | \$0 | \$0 | \$673,563 | 63,905 | \$10.54 | |
| County of Wayne | \$5,335,156 | \$5,077,733 | \$150,684 | \$1,319,338 | \$1,475,211 | \$220,200 | \$103,933 | \$13,682,256 | 1,820,584 | \$7.52 | |
| County of Washtenaw | \$7,954 | \$42,707 | \$0 | \$0 | \$100,000 | \$0 | \$0 | \$150,661 | 344,791 | \$0.44 | |
| County of Huron | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 33,118 | \$0.00 | |
| TOTAL | \$5,343,110 | \$5,120,440 | \$824,247 | \$1,319,338 | \$1,575,211 | \$220,200 | \$103,933 | \$14,506,480 | 9,883,640 | 1.467726438 | |
| Category Percentage | A | B | C | D | E | F | G | federal share (75%) | | | |
| | 36.83% | 35.30% | 5.68% | 9.09% | 10.86% | 1.52% | 0.72% | \$10,879,859.80 | | | |



- Category A - Debris Removal
 - Category C - Roads and Bridges
 - Category E - Buildings and Equipment
 - Category G - Parks and Recreation / Other
- Category B - Emergency Protective Measures
 - Category D - Water Control Facilities
 - Category F - Public Utilities

ENCLOSURE C TO MAJOR DISASTER REQUEST

Estimated Requirements from other Federal Agency Programs

| Jurisdiction /Agency | SBA Home Loans | SBA Business Loans | FSA Loans | NRCS | FHWA | USACE | BIA | OTHER |
|-----------------------------|-----------------------|---------------------------|------------------|-------------|-------------|--------------|------------|--------------|
| Ionia County | N/A | N/A | TBD | TBD | TBD | N/A | N/A | TBD |
| Macomb County | TBD | TBD | TBD | TBD | TBD | N/A | N/A | TBD |
| Oakland County | TBD | TBD | TBD | TBD | TBD | N/A | N/A | TBD |
| Washtenaw County | \$2,065,000 | \$280,000 | TBD | TBD | TBD | N/A | N/A | TBD |
| Wayne County | \$38,365,000 | \$4,210,000 | TBD | TBD | TBD | N/A | N/A | TBD |
| MDOT | N/A | N/A | N/A | N/A | TBD | N/A | N/A | TBD |
| Totals | TBD | TBD | TBD | TBD | TBD | N/A | N/A | TBD |

ENCLOSURE D TO MAJOR DISASTER REQUEST

Historic and Current Snowfall Data

Not Applicable to this Request.