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MICHIGAN ECONOMIC
DEVELOPMENT CORPORATION

ACTION PLAN

FOR THE STATE OF MICHIGAN
2020 & 2021 DISASTER EVENTS
Substantial Amendment #1





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Summary of Changes



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Summary of Action Plan Amendment #1 Changes

Summary of Action Plan Amendment #1 Changes

Section 1 was added to show changes to the Action Plan. By adding Section 1, the numeric sequence changed for the remaining sections.

Minor formatting changes were made and tables and figures were renumbered to follow numerical order.

Executive Summary

The Executive Summary has been updated to reflect the Federal Register Notice (FRN) that provides an additional allocation for 2021 disaster events and the amount allocated to Michigan. Table 2 Unmet Needs and Proposed Allocations -2021 has been updated to reflect the additional allocation and percent of program allocation for infrastructure.

General Requirements

Inserted Federal Register Notice 88 FR 3198 (FR-6368-N-01) in places where applicable Federal Register Notices are cited.

Grantee Proposed Use of Funds

The national objectives of LMI Limited Clientele and Urgent Need were added to the 2020 Public Infrastructure and Public Facilities and 2021 Public Infrastructure Programs in Table 87 to include all eligible national objectives for those programs.

Inserted Federal Register Notice 88 FR 3198 (FR-6368-N-01) in places where applicable Federal Register Notices are cited throughout this section.

Added budget for State-identified MIDs in 2020 Public Infrastructure and Public Facilities Program

1.2.1.1 Expenditure and Compliance Requirements

Clarified mitigation activities 15 percent is calculated using the allocation of unmet needs in the Federal Register Notice.



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1.2.1.2 Expenditure and Compliance Requirements

Updated Table 88 Program Budget – 2021 and to reflect the breakout for the second allocation across programs.

Clarified mitigation activities 15 percent is calculated using the allocation of unmet needs in the Federal Register Notice.

Added a planning program for 2021 disaster to meet the CDBG-DR mitigation set aside requirement to spend 15% of the allocation for mitigation activities. The program will encourage long-term resiliency by encouraging planning approaches and community planning techniques that benefits a whole community.

Leveraging Funds

Updated language to allow flexibility in leveraging funding in Wayne County

Program Details

Public Infrastructure and Public Facilities Program

- Changed name of program to Public Infrastructure and Public Facilities
- Updated 2021 Public Infrastructure Program budget to reflect new program budget
- Included LMI Limited Clientele and Urgent Need as a national objective
- Included State MIDs, Arenac and Iosco, as eligible geographic locations in the 2020 Public Infrastructure and Public Facilities Program
- Added budget for State-identified MIDs in Public Infrastructure and Public Facilities Program
- Removed non-profits as eligible applicants

Planning Program

- Updated Table 95: Planning Program to add a budget for new 2021 Planning Program
- Changed the partner's name for the program to Michigan State Police
- Updated Geographic Eligibility to include Wayne county
- Program Maximum Assistance section updated to clarify maximum amount for State Hazard Mitigation Plan, local Hazard Mitigation Plans and other plans and resiliency activities.
- Program Timeline section updated to reflect start of the program in Q3 of 2023

Administration

- Updated Table 97: Administration Budget to reflect the updated amount for 2021



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Executive Summary



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Executive Summary

Overview

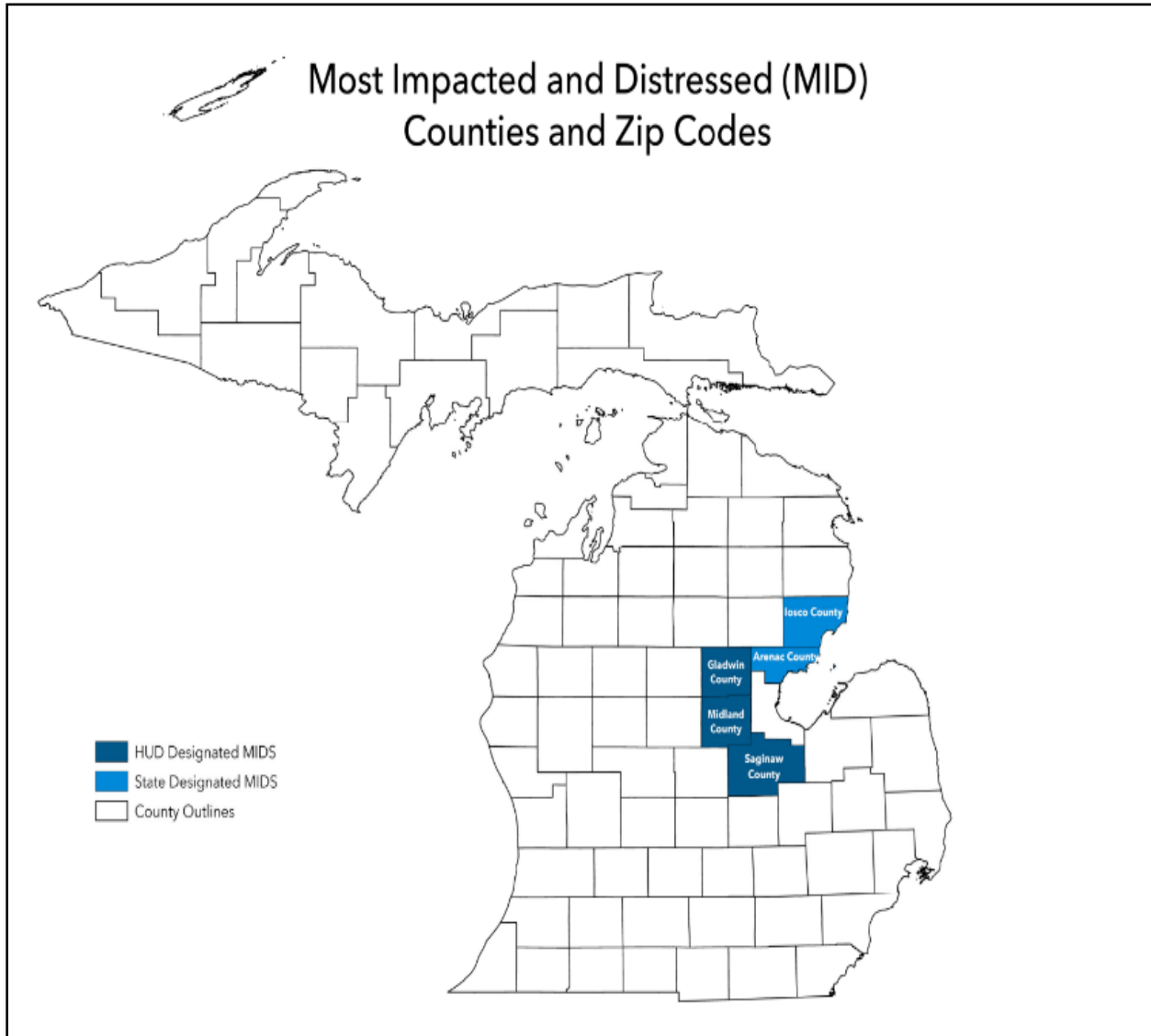
In May 2022, the U.S. Department of Housing and Urban Development (HUD) announced that the State of Michigan will receive \$71,931,000 in 2020 and 2021 funding to support long-term recovery and mitigation efforts following severe storms and flooding. In January 2023, HUD announced an additional allocation of \$7,864,000 for 2021 funding. The Michigan Strategic Fund (MSF) is the recipient of HUD's Community Development Block Grant – Disaster Recovery (CDBG-DR) funds. The MSF has a Memorandum of Understanding with the Michigan Economic Development Corporation (MEDC) (the “State” or “Grantee”) to administer the CDBG-DR funds on behalf of the State of Michigan. The CDBG-DR funding is designed to address the needs that remain after all other assistance has been exhausted. This plan details how funds will be allocated to address the remaining unmet needs in Michigan due to these disasters.

To meet disaster recovery needs, the statutes making CDBG-DR funds available have imposed additional requirements and authorized HUD to modify the rules that apply to the annual CDBG program to enhance flexibility and allow for a quicker recovery. HUD has allocated \$59,898,000 in CDBG-DR funds to the State of Michigan in response to 2020 severe storms and flooding (DR-4547) through FR-6303-N-01 (Allocation Notice) made on February 3, 2022. This allocation was made available through the Disaster Relief Supplemental Appropriations Act of 2022 for major disasters occurring in 2020. In March 2022, HUD allocated an additional \$12,033,000 in CDBG-DR funds to the State of Michigan from the Appropriations Act for disasters occurring in 2021 (DR-4607) through FR-6326-N-01 (Public Law 117-43) made on May 24, 2022. An additional allocation of \$7,864,000 was made by HUD on January 18, 2023 for disasters occurring in 2021 through FR-6368-N-01. These CDBG-DR funds are for necessary expenses for activities authorized under Title I of the Housing and Community Development Act of 1974 (42 United States Code [U.S.C.] 5301 et seq.) (HCDA) related to disaster relief, long-term recovery, restoration of infrastructure and housing, economic revitalization, and mitigation in the “most impacted and distressed” (MID) areas resulting from a qualifying major disaster in 2020 or 2021.



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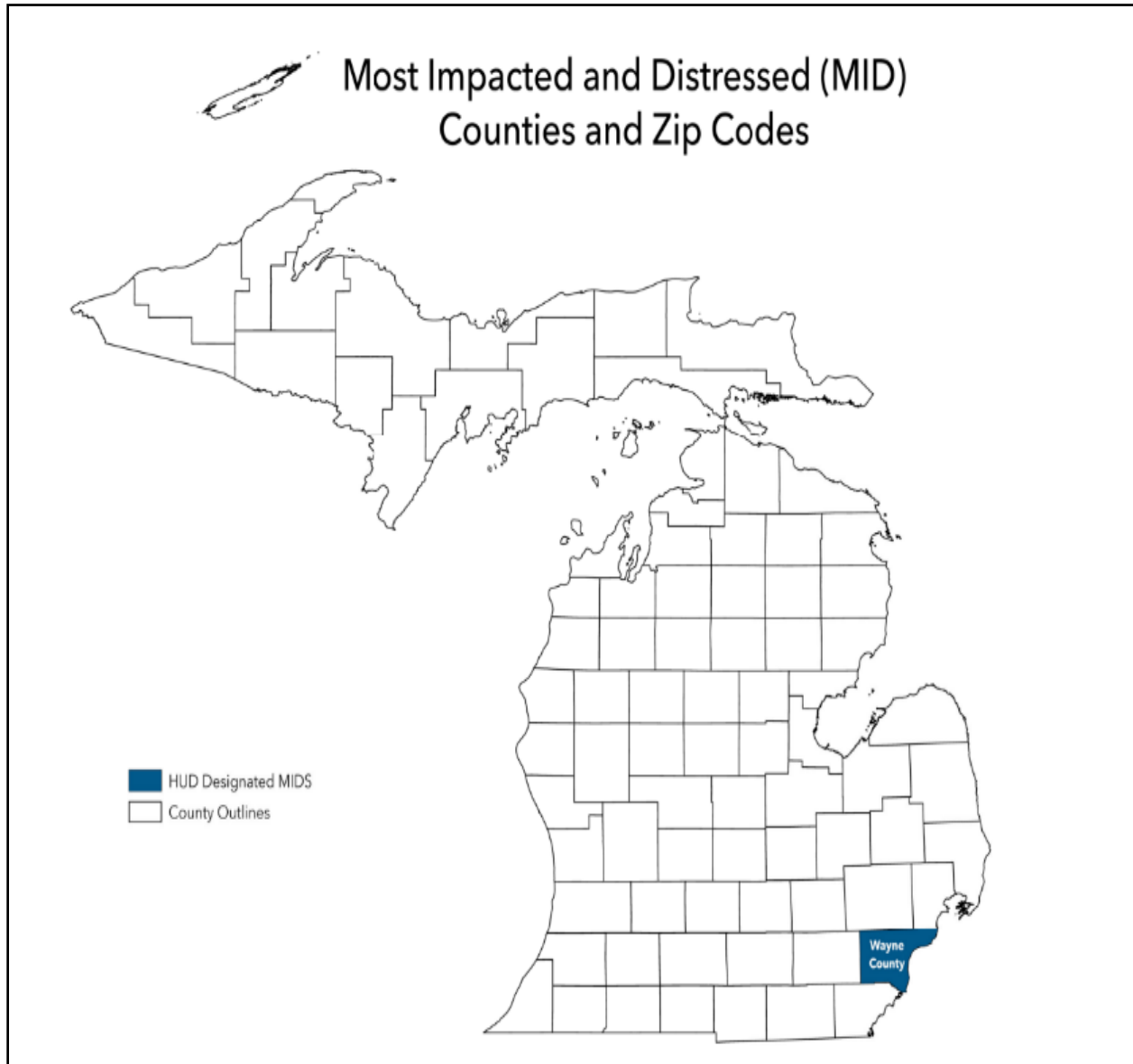
Figure 1: HUD and State Identified Most Impacted and Distressed (MID) Areas From 2020 Disasters (DR-4547)





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Figure 2: HUD Identified Most Impacted and Distressed (MID) Areas from 2021 Disasters (DR-4607)

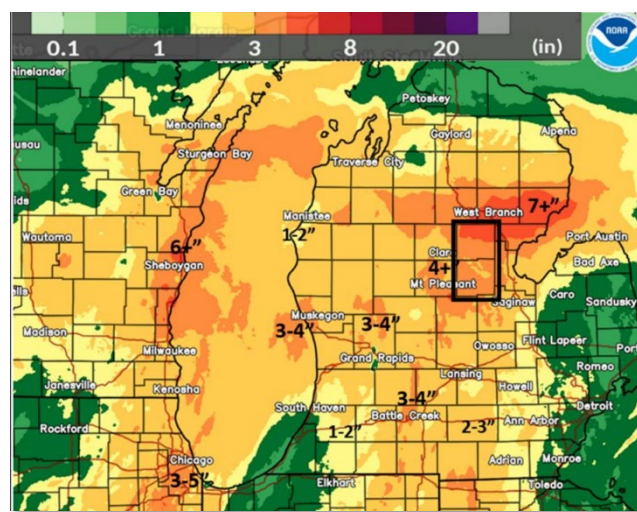




Disaster-Specific Overview

Days of heavy rain and severe storms triggered the first disaster across Central Michigan in May 2020, flooding homes and businesses in several counties along the Tittabawassee River, causing two aging dams to fail, destroying roadways and bridges, and forcing the evacuation of more than 10,000 residents. The flooding threatened to breach the walls of a Dow Chemical Company plant that operates along the river, which surged toward a Superfund toxic cleanup site, causing fear of an environmental disaster.¹ Figure 3 illustrates the total rainfall from May 17 through May 19, 2020.

Figure 3: Total Rainfall from May 17 to May 19, 2020, with Gladwin and Midland counties located within the black box



The heavy rain in the Tri-Cities region resulted in the catastrophic failures of the Edenville and Sanford Dams. Both dams collapsed on Tuesday, May 19, 2020, leading to devastating and life-threatening flooding across Midland County². By Wednesday morning, the City of Midland was under nine feet of water. Michigan Governor Gretchen Whitmer characterized the event as a 500-year flood. In its aftermath, 800 homes in Midland alone received significant damage caused by the dam failure; of these, 500 have serious unmet needs for repair or rehabilitation. Preliminary damage estimates placed the total costs of the flood at more than \$250 million.³

¹ Grzelewski, K. H. and J. (2020, May 21). Flooding of Dow's Midland facilities raises contamination fears at Superfund Site. The Detroit News. Retrieved August 2, 2022, from <https://www.detroitnews.com/story/business/2020/05/20/dow-moves-shut-down-midland-operations-amid-historic-flooding/5227509002/>

² United States. National Weather Service. *Historic Flooding May 17-20, 2020*. Retrieved from <https://www.weather.gov/dtx/HistoricFlooding-May-17-20-2020>

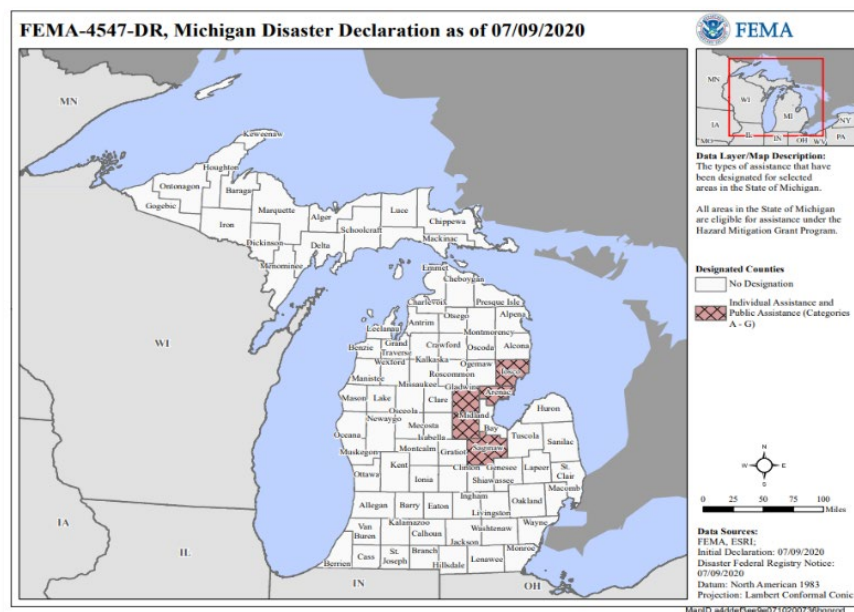
³ Steele, A. S. (2021, July 26). *Midland County estimated flood damage well over \$350,000*. newswest9.com. Retrieved August 2, 2022, from <https://www.newswest9.com/article/news/local/midland-county-estimated-flood-damage/513-cc170f81-3807-4458-8db6-a68f13f554e5>



In addition to the heavy rainfall, the National Weather Service reported that “a tight pressure gradient resulting from the area of low pressure further exacerbated already high Great Lakes water levels and enabled strong east to northeast winds to produce significant lakeshore flooding along the shorelines of Lake Huron (particularly Saginaw Bay), Lake St. Clair, and Western Lake Erie⁴.” This led to significant river flooding along the St. Clair River and in portions of two counties.

The first disaster was declared on July 9, 2020; in response to Governor Whitmer’s request, Michigan was granted a disaster declaration (DR-4547), covering five counties (i.e., Arenac, Gladwin, Iosco, Midland, and Saginaw) that were eligible for Federal Emergency Management Agency (FEMA) Public Assistance (PA) and Individual Assistance (IA).⁵

Figure 4: FEMA DR-4547, Michigan Presidentially Declared Disasters by County ⁵



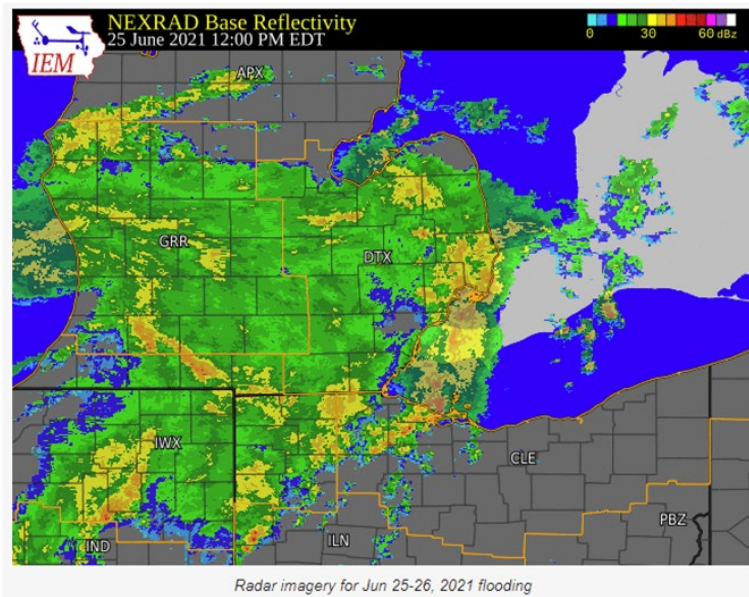
In June 2021, after several weeks of moderate to severe drought conditions, an active weather pattern brought widespread rainfall and flooding to Metropolitan Detroit and surrounding areas the weekend of June 25 through June 27. Low-pressure tracking along a stalled stationary boundary interacted with a very moist subtropical air mass to produce widespread rainfall, resulting in numerous reports of major flooding within the vicinity of Metropolitan Detroit, especially in Wayne County. The heavy rain was accompanied by damaging winds, and isolated tornado threats. Figure 5 illustrates the weather pattern on June 25, 2021.

⁴ United States. National Weather Service. Historic Flooding May 17-20, 2020. Retrieved from <https://www.weather.gov/dtx/HistoricFlooding-May-17-20-2020>

⁵ United States. Federal Emergency Management Agency (FEMA). *Designated Areas: Disaster 4547*. Retrieved from <https://www.fema.gov/disaster/4547/designated-areas>



Figure 5: Next Generation Weather Radar (NEXRAD) Base Reflectivity ⁶



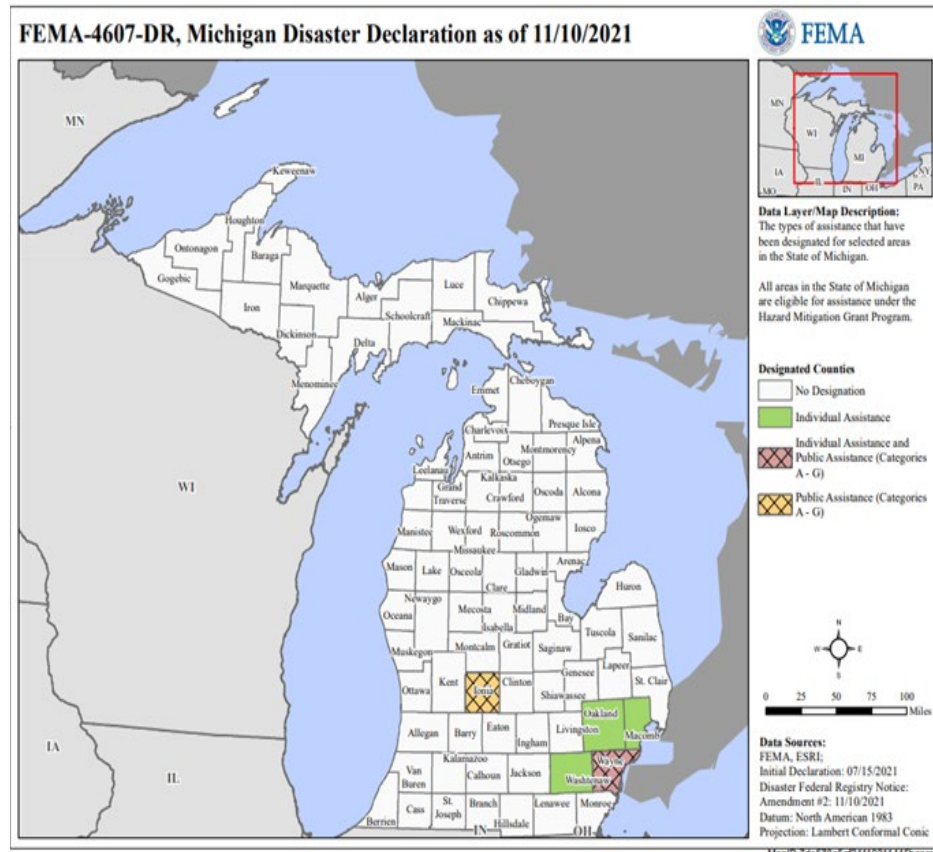
The hardest hit areas were Detroit and surrounding communities in Wayne County. The torrential downpours caused flooded roadways in Oakland and Macomb Counties. Wind damage caused power outages for 40,000 homes and businesses. On July 15, 2021, at the request of Governor Gretchen Whitmer, Michigan was granted a disaster declaration (DR-4607) (Ionia, Macomb, Washtenaw, Oakland and Wayne counties) which was eligible for Federal Emergency Management Agency (FEMA) Public Assistance (PA) and or Individual Assistance (IA). Preliminary damage estimates placed the total costs of the flood at more than \$14 million.⁷

⁶ United States. National Weather Service. (June 26, 2021). *Metro Detroit Flooding and Port Austin Tornado*. Retrieved from https://www.weather.gov/dtx/MetroDetroitFlooding_PortAustinTornado_June2021

⁷ United States. Federal Emergency Management Agency (FEMA). *Preliminary Damage Assessment Report: Michigan – Severe Storms, Flooding, and Tornadoes FEMA-4607-D*. Retrieved from https://www.fema.gov/sites/default/files/documents/PDARReport_FEMA4607DR-MI.pdf



Figure 6: FEMA DR-4607, Michigan Presidentially Declared Disasters by County



The U.S. Congress made supplemental disaster assistance funding available for the two separate events. On November 1, 2021, HUD announced the allocation of \$59,898,000 in CDBG-DR and CDBG-Mitigation (MIT) funds to Michigan in response to the May 16 through May 22, 2020, event. In addition, HUD allocated \$12,033,000 in CDBG-DR and CDBG-MIT funds for the June 25 through June 26, 2021, event. An additional allocation of \$7,864,000 in CDBG-DR and CDBG-MIT funds was made by HUD on January 18, 2023 for disasters occurring in 2021. For the first time, HUD included a “mitigation set-aside” in the CDBG-DR allocation, which provides an additional 15% in funds for mitigation activities and comes with its own requirements.⁸

Summary

To fulfill the requirements of this allocation, the State must submit to HUD an Action Plan for Disaster Recovery that identifies its unmet recovery and resilience needs. This Action Plan

⁸ United States. Department of Housing and Urban Development (HUD). (Content current as of July 19, 2022). 2020 AND 2021 CDBG-DR Grantees, Retrieved from https://www.hud.gov/program_offices/comm_planning/cdbg-dr/grantees



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outlines the proposed use of CDBG-DR funds and eligible activities available to assist impacted counties to meet unmet housing, infrastructure, planning, and other needs that have resulted from the impacts of dam failures and subsequent flooding events, and the flooding due to heavy rains. Specifically, this plan aims to promote and ensure fair access to housing for low-to-moderate income residents, and strengthen neighborhoods impacted by the disaster by investing in multi-family housing, infrastructure, and public facilities. In addition, the Action Plan describes how CDBG-DR funds will be targeted toward and meet the needs of vulnerable communities, including those with low to moderate income, limited English proficiency, racially and ethnically concentrated communities, and individuals experiencing homelessness.

The State has been engaging local communities and gathering data for the unmet needs assessment since the 2020 and 2021 disasters. To ensure consistency of the CDBG-DR Action Plan with applicable regional redevelopment plans and other recovery initiatives, the State has initiated meetings with various county and municipal officials, and non-profit organizations. These meetings have been beneficial in gathering information about the impacts of the storm, existing challenges to address, and solutions. The State continues to work with local governments and non-profit organizations to collect information.

The State will provide citizens and units of local government with reasonable notice and opportunity to comment on the Action Plan and its substantial amendments. The State will convene at least two public hearings on the draft CDBG-DR Action Plan after being posted on its disaster recovery website for public comment and prior to submission to HUD. Notice of all hearings will be posted a minimum of 10 business days prior to public hearings. The State has published this draft CDBG-DR Action Plan in a manner that affords citizens, units of local governments, public agencies, and other interested parties a reasonable opportunity to examine its contents and to submit comments. The plan will remain available on the MEDC's CDBG-DR website throughout the 30-day comment period.

MEDC will expand its existing communications capacity to meaningfully engage the public and meet HUD's requirements for engagement. Intentional engagement during the Public Action Plan development process will pave the way for good communications as MEDC implements its programs.

The State used best available data sources to perform the analyses of the demographic characteristics of the areas of impact; the losses sustained; and the available resources in response to housing, infrastructure, and economic revitalization. The overall unmet need for the 2020 disaster totals more than \$34 million, with housing and infrastructure showing the greatest need at 31.08% and 68.30% respectively.⁹ For 2021, the overall unmet need totals more than

⁹ United States. Department of Housing and Urban Development (HUD). (November 1, 2021). *HUD Allocates More than \$2 Billion to Advance Equitable Disaster Recovery, Build Climate Change Resilience*. Retrieved from https://www.hud.gov/press/press_releases_media_advisories/hud_no_21_181



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\$694 million with 98.95% unmet need in infrastructure. These estimates are incomplete. The State utilized FEMA IA data sets provided by HUD and publicly available SBA data; however, the State awaits SBA data sets from HUD to complete the unmet needs assessment. In addition, the State continues to work with local governments to calculate a more accurate value of unmet infrastructure needs.

CDBG-DR funds will be used to primarily address unmet infrastructure needs for both 2020 and 2021 disaster allocations. Investing in infrastructure will provide the most benefit and long-term recovery solutions to the impacted communities. CDBG-DR funding will be directed to the communities most impacted and with the greatest unmet needs. The Multifamily will be implemented in the HUD MID areas, while the Public Infrastructure and Public Facilities and Planning Programs will be implemented in the HUD and State MID areas. The State will directly implement all programs.

Unmet Needs and Proposed Allocation – 2020

The table below¹⁰ gives losses across all categories (housing, economic development, and infrastructure) before and after adjusting for identified funding sources. The unmet need is calculated by subtracting the resources available from the value of the total damages. The housing unmet need number represents the impact on housing that needs to be rehabilitated, reconstructed, or newly built. The infrastructure unmet need number represents the impact on public facilities that needs to be restored or mitigated. The table below reflects the most recent data available at the time of publication of this Draft Action Plan. The State has requested updated FEMA Individual Assistance and Small Business Administration data and will update the unmet needs assessment when the data becomes available. Section 2.8 – Unmet Needs Summary provides a full breakdown of the disasters total impacts, total available resources, and remaining unmet needs.

Table 1: Unmet Needs and Proposed Allocations - 2020

Category	Remaining Unmet Need	% of Unmet Need	Program Allocation Amount	% of Program Allocation
Public Infrastructure (FEMA PA Cat C-G, HMGP)	\$23,561,587	68.30%	\$40,000,000	67%
Housing (FEMA IA)	\$10,720,635	31.08%	\$7,918,400	13%
Economic (SBA Registrations)	\$214,572	0.62%	-	-
Total	\$34,496,794		\$47,918,400	80%

¹⁰ Federal Emergency Management Agency Public Assistance, Individual Assistance, Hazard Mitigation Grant Program, and Small Business Administration program data provided by the Michigan State Police July 2022.



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**Allocation Amount includes project delivery costs and does not include administration and planning costs.*



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Unmet Needs and Proposed Allocation – 2021

Table 2: Unmet Needs and Proposed Allocations - 2021



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Category	Remaining Unmet Need	% of Unmet Need	Original Allocation Program Allocation Amount	Second Allocation Program Allocation Amount	Original Allocation Program Allocation Amount	Second Allocation Program Allocation Amount
Public Infrastructure (FEMA PA Cat C-G ¹¹ , HMGP) ¹²	\$687,501,764	98.95%	\$9,145,080	\$15,917,600	98.95%	80%



Housing (FEMA IA)	\$7,149,052	1.03%	-	-	-
Economic (SBA Registrations)	\$170,017	.02%	-	-	-
Total	\$694,820,833			\$15,917,600	80%

*Allocation Amount includes project delivery costs and does not include administration and planning costs.

¹¹ FEMA PA includes 15% resilience mark up.

¹² 2021 HMGP unmet needs amount is based on preliminary Notice of Intent applications submitted to the State as of July 2022. These amounts will change as projects are scaled and scoped through the review process.



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Unmet Needs Assessment



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Unmet Needs Assessment

Overview

This section follows U.S. Department of Housing and Urban Development (HUD) requirements and details the losses and needs resulting from the 2020 and 2021 disasters, including identifying any remaining unmet recovery needs within the eligible impacted areas. The qualifying 2020 and 2021 disasters both included severe rain and flood events that caused catastrophic dam failures and widespread flooding.

The unmet needs analysis includes the Most Impacted and Distressed MID counties identified by HUD in the Federal Register Notice (FRN):

2020

1. Midland
2. Saginaw
3. Gladwin*

2021

1. Wayne

**The FRN notes that grantees may expand a HUD identified MID zip code to the whole county. The State proposes to expand eligibility of the zip code 48612 to the full Gladwin county.*

The FRN requires at least 80% of all allocations address unmet disaster needs or mitigation activities in the HUD identified MID areas. The FRN allows grantees to determine where to use the remaining 20% of the allocation, provided that the funds are used to address unmet needs within areas that received a presidentially declared disaster declaration identified within DR 4547 or DR 4607. For DR 4547, two additional counties were also presidentially declared as part of the disaster but did not get included in the HUD MIDs. The State has determined to identify both counties as State identified MIDs. Therefore, in addition to the HUD MIDs identified above, the unmet needs analysis includes the State MIDs:

1. Arenac
2. Iosco

There are no State identified MIDs for the 2021 allocation.

The Unmet Needs Assessment relies on the methodology published by HUD in the 2020–2021 Federal Register Notice.¹³ The analysis uses the best available information from federal, state,

¹³ United States. Department of Housing and Urban Development (HUD). (May 24, 2022). *87 F.R. 31636 - Allocations for*



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and local resources to fully identify the total impacts, resources, and remaining unmet recovery needs and inform the programming of the State's Community Development Block Grant – Disaster Recovery (CDBG-DR) resources. To prepare this assessment, the State consulted with state agencies, local governments impacted by the disaster, Continuum of Care agencies, Public Housing Authorities, housing counseling agencies, nonprofits and private companies working in the impacted areas. For a full list of consultations, see the General Requirements Citizen Participation section.

Housing Unmet Need

Pre-Disaster Housing Conditions

Prior to the disaster, Michigan homeowners and renters were under health and economic pressure due to the ongoing COVID-19 pandemic. Economic losses and job layoffs impacted renters' ability to stay in affordable units and homeowners' ability to finance mortgages.¹⁴ Even in the years leading up to the pandemic, the State suffered from a variety of housing challenges; including the low availability of affordable homes, gaps in the awareness of supportive services and financial assistance, few housing options for elderly populations, and many other problems. Across the State, 1.5 million households, or 38%, struggle to afford basic necessities, one of these being housing. The State also suffers from extreme racial disparities—52% of the homeless population in the State is Black, despite only being 14% of the state's overall population.¹⁵ The Black population also has the lowest homeownership rates in the State, around 40%.

In 2022, the State published a statewide housing plan. This plan set five statewide housing targets, with the largest goal aiming to establish more than 75,000 new/rehabilitated housing units. This plan is important as research found that between 2013 and 2021 the average home in Michigan increased in price around 84%. Meeting these goals is important as the State has a large number of homes that are vacant or in need of repair. This is a result of large declines in population and households in the late 20th century.¹⁵ One of the larger barriers to new construction and rehabilitation has been development costs. This has been compounded by the increasing cost of material, land values, and permitting times that have made it more challenging to create a consistently affordable and available housing stock. The Michigan State Housing Development Authority (MSHDA) published conducted a Housing Survey and Interview Findings

Community Development Block Grant Disaster Recovery and Implementation of the CDBG-DR Consolidated Waivers and Alternative Requirements Notice. Retrieved from https://www.hud.gov/sites/dfiles/CPD/documents/CDBG-DR/87_FR_31636.pdf

¹⁴ Benfer, E. A., Vlahov, D., Long, M. Y., Walker-Wells, E., Pottenger, J. L., Gonsalves, G., & Keene, D. E. (2021, February). *Eviction, health inequity, and the spread of covid-19: Housing policy as a primary pandemic mitigation strategy.* Journal of urban health: Bulletin of the New York Academy of Medicine. Retrieved July 28, 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7790520/>

¹⁵ Michigan State Housing Development Authority (MSHDA). (April, 2019). Michigan Statewide Housing Needs Assessment. Retrieved from <https://www.michigan.gov/-/media/Project/Websites/mshda/developers/housing-plan/MSHDAStatewideHousingNeedsweb.pdf?rev=91271d4107a14f0695c929d9399044f4>



Report in 2021 which found that potential homebuyers were more interested in purchasing homes that required rehabilitation than buying traditional or manufactured homes¹⁶.

The tables below show the distribution of housing units across the impacted counties. In total there are approximately 4.6 million housing units across the state. Roughly 86.3% of housing units are occupied and, 71.7% of occupied housing units are occupied by homeowners. For 2020 impacted counties, the majority consist of owner-occupied housing units, – with Gladwin County having the highest percentage of owner-occupied units among the HUD MID areas (86.41%). Saginaw County was the MID with the highest percentage of renter-occupied units (28.45%). The HUD MID for 2021, Wayne County, consists of 62.49% owner-occupied housing units and 37.51% renter-occupied units. As seen in the tables below, most of Michigan has a relatively high rate of homeownership.

Table 3: Pre-Disaster Renter- and Owner-Occupied Housing, by County for 2020

County	Owner-Occupied (#)	Owner-Occupied (%)	Renter Occupied (#)	Renter Occupied (%)
HUD MIDs				
Midland	26,466	77.27%	7,787	22.73%
Saginaw	56,509	71.55%	22,471	28.45%
Gladwin	9,662	86.41%	1,519	13.59%
State MIDs				
Arenac	5,587	84.84%	998	15.16%
Iosco	9,509	80.78%	2,263	19.22%

Table 4: Pre-Disaster Renter—and Owner-Occupied Housing, by County for 2021

County	Owner-Occupied (#)	Owner-Occupied (%)	Renter Occupied (#)	Renter Occupied (%)
HUD MIDs				
Wayne	434,235	62.49%	260,623	37.51%

Source: American Community Survey 5-Year Estimates (2015-2020)

Michigan's housing stock of newly constructed affordable housing units is limited. Roughly 40% of residential units (both owner and renter occupied) were built before 1960. While this may indicate that the newer housing stock is relatively affordable and newer, this is not the case. According to Michigan's Statewide Housing Plan, areas with newer housing stock "tend to have

¹⁶ Michigan State Housing Development Authority (MSHDA). (September 2021). *2021 Michigan Housing Survey and Interview Findings*. Retrieved from https://www.michigan.gov/mshda/-/media/Project/Websites/mshda/developers/housing-plan/HousingSurveyandInterviewFindingsReport_111021.pdf?rev=53b95b669f354be9b592f1a3ca8bd18e&hash=3205D07AB2E9BD58C0249E159A1E75A1



higher-priced units.” This has limited the availability and location for lower-income households to purchase homes. This also has reinforced patterns of affluence that has existed in the State for years prior. In 2019, MSHDA conducted a case study in Saginaw and found that the county suffered from significant economic and population decline, resulting in a very high vacancy rate. Between 2014 and 2019, the city demolished over 1,000 housing units that were acquired because of delinquent property tax payments.¹⁷ The decrease in overall housing units has made it more difficult for the city to maintain homes and provide civil services. The decrease in the county’s housing market has depressed home and land values, creating a situation where “construction and selling new ownership product is financially infeasible.”¹⁷ While Saginaw has a unique housing situation, it is one of the MID areas with the greatest number of households and highest vacancy rates.

The table below shows the homeowner and renter vacancy rates for impacted communities. Statewide census data indicates that of the total housing stock in 2016–2020, the rental vacancy rate was approximately 5.0% and an owner-occupied vacancy rate around 1.3%. This is compared with national averages of 6.7% and 1.4% respectively.

Table 5: Pre-Disaster Vacancy Rates of Renter and Owner-Occupied Housing by MID County for 2020

County	Renter-Occupied Vacancy Rate (%)	Owner-Occupied Vacancy Rate (%)
HUD MIDs		
Midland	4.9	1.3
Saginaw	8	1.5
Gladwin	1.8	2.5
State MIDs		
Arenac	2.9	2.2
Iosco	6.2	3.6

Source: American Community Survey 5-Year Estimates (2015-2020)

Table 6: Pre-Disaster Vacancy Rates of Renter and Owner-Occupied Housing by MID County for 2021

County	Renter-Occupied Vacancy Rate (%)	Owner-Occupied Vacancy Rate (%)
HUD MIDs		
Wayne	4.7	2.1

Source: American Community Survey 5-Year Estimates (2015-2020)

According to the National Low Income Housing Coalition, the State lacks around 200,000 affordable and available homes for extremely low-income renters. Statewide, 28% of renters are

¹⁷ Michigan State Housing Development Authority (MSHDA). (March, 2019). *Michigan Homeowner Study: Understanding and Advancing Homeownership in Michigan*. Retrieved from <https://www.michigan.gov/mshda/-/media/Project/Websites/mshda/developers/housing-plan/MSHDAMichiganHomeownershipStudyFINAL.pdf?rev=ceb725310abc47adbdeea0694a7b0826&hash=30FC51246B66983CC6001E7C2B2447F2>



extremely low-income, of those, 71% experience severe cost burden, which means that these households spend more than half of their income on housing. It's also important to note that a majority of these households are actively in the workforce, indicating that they have one or more sources of income. A lack of appropriately priced housing can cause problems such as increased susceptibility to illnesses and homelessness.¹⁸

The table below shows the median home value, median gross rent, and building permits issued in the various impacted counties. While the median home values in impacted counties are significantly lower than the average U.S. home value (\$229,800), those impacted by the disaster have significantly lower incomes than the rest of the nation.

Table 7: Evidence of Cost Burden, by MID County, for 2020

County	Median Home Value (in \$)	Median Gross Rent (in \$ per month)	Building Permits Issued (2020)
HUD MIDs			
Midland	\$145,900	\$807	159
Saginaw	\$106,200	\$783	195
Gladwin	\$111,000	\$593	89
State MIDs			
Arenac	\$98,600	\$550	21
Iosco	\$98,200	\$650	181

Source: American Community Survey 5-Year Estimates (2015-2020)

Table 8: Evidence of Cost Burden, by MID County, for 2021

County	Median Home Value (in \$)	Median Gross Rent (in \$ per month)	Building Permits Issued (2020)
HUD MIDs			
Midland	\$145,900	\$807	159

Source: Census Bureau American Community Survey 5-Year Estimates (2015-2020)

The disaster significantly impacted an already weakening housing market, creating dire situations for both homeowners and renters. Residents were forced to relocate and move to shelters. Any affordable units available after the disaster were quickly filled due to the higher demand for housing. Because of the lack of housing and the lack of resources to fix their homes, some residents were forced to find substandard housing or leave their neighborhoods. The data in the above sections highlights the need for reconstruction and rehabilitation of housing units to ensure that homes remain affordable in the State.

¹⁸ National Low Income Housing Coalition (NLIHC). *Housing Needs By State: Michigan*. Retrieved from <https://nlihc.org/housing-needs-by-state/michigan>



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Disaster Damage and Impacts

This section provides an analysis of the housing damages resulting from flooding. It utilizes Federal Emergency Management Individual Assistance (FEMA IA) and Small Business Administration (SBA) data as the basis of analysis. The disaster from flooding came as a result of dam failures and those infrastructure failures resulted in cascading impacts to both rental and homeowner properties throughout the impacted area.

Severe storms, flooding, and tornadoes impacted Wayne County in June 2021, resulting in the FEMA DR-4607 disaster declaration. Under the declaration, 94,356 households applied for FEMA IA assistance resulting from the FEMA DR-4607 disaster. Of the total registrants, 54,913 (58%) are homeowners and 39,443 (42%) are renters. Of the FEMA IA applicants, 62,498 were found to have a FEMA verified loss over \$0, including 38,451 homeowners (63%) and 24,047 renters (37%). Under the FEMA DR-4547 disaster declaration, 5,235 households applied for FEMA IA assistance. Of the total registrants, 4,129 (79%) are homeowners and 1,071 (21%) are renters.

Of the 3,063 total households that had over \$0 in FEMA verified loss for DR-4547, only 4 applicants identified the property as a second home. The following table provides the percentage of Seasonal Vacant Homes within each of the impacted Counties, with Gladwin and Iosco leading in percentage of total and total number of vacant seasonal vacation homes. During consultations with local governments across the 2020 impacted area, many local governments noted the impact to vacation homes and second homes. MEDC will continue to collect data to understand the impacts to second homes and vacation properties, but the proposed programing does not provide support for these property types.

Table 9: Seasonal Vacancy Compared to Total Housing Units¹⁹ for 2020 disaster declared Counties

County	Seasonal Vacant	Total Housing Units	Percent Seasonal Vacant Homes
HUD MIDs			
Midland	1,170	36,867	3.2%
Saginaw	479	85,953	0.6%
Gladwin	6,231	16,862	37.0%
State MIDs			
Arenac	2,692	9,504	28.3%
Iosco	7,824	19,856	39.4%

¹⁹ United States. Census Bureau. (March 17, 2022). *American Community Survey 5-Year Data 2016-2020*. Retrieved from <https://www.census.gov/newsroom/press-kits/2021/acs-5-year.html>

Table 10: Seasonal Vacancy Compared to Total Housing Units¹⁹ for 2021 disaster declared Counties

County	Seasonal Vacant	Total Housing Units	Percent Seasonal Vacant Homes
HUD MIDs			
Wayne	3,364	790,191	0.4%

Disaster recovery programs must spend 70% of funding to benefit low- and moderate-income households and to meet HUD's LMI national objective. According to HUD's FY 2022 Income Limits, the Median Family Income for households in Michigan is \$84,200. The table below shows the HUD income limits by Area Median Income (AMI) and by number of persons within a household.²⁰

Table 11: HUD Income Limits – State of Michigan, 2022

2022 Income Level - State of Michigan	1 Person	2 Person	3 Person	4 Person	5 Person	6 Person	7 Person	8 Person
Extremely Low Income (30% AMI)	17,700	20,200	22,750	25,250	27,300	29,300	31,300	33,350
Very Low Income (50% AMI)	29,450	33,700	37,900	42,100	45,450	48,850	52,200	55,550
Low and Moderate Income (80% AMI)	47,150	53,900	60,600	67,350	72,750	78,150	83,550	88,900

Single-family versus Multi-family Needs: Owner Occupied versus Tenant

For the 2020 disasters, Midland and Saginaw Counties have the highest number of homeowner FEMA IA program registrations with damage. The number of applicants is the total number of households that applied for FEMA IA assistance, the number of inspections shows those who received an inspection by FEMA staff, and the number inspected with damage shows households with more than \$0 in FEMA-verified losses.

Across the areas impacted by FEMA DR-4547²¹, a total of 5,235 individuals registered for FEMA Individual Assistance (FEMA IA). Of those applicants, 4,129 (79%) are homeowners, 1,071 (21%) are renters and the remaining 35 are not identified as owners or renters in their application. Within these applicants, FEMA also tracks applicants who have FEMA-verified

²⁰ United States. Department of Housing and Urban Development (HUD). (April 18, 2022). Fair Market Rents and Income Limits. Retrieved from <https://www.huduser.gov/portal/datasets/il.html>

²¹ United States. Federal Emergency Management Agency (FEMA). (July 9, 2020). DR-4547-MI Initial Notice. Retrieved from <https://www.fema.gov/disaster-federal-register-notice/dr-4547-mi-initial-notice>



losses, the determined amount of damage related to the disaster. In total 2,559 homeowners have a FEMA verified loss over \$0, and 504 renters have FEMA-verified losses over \$0.²²

For the 2021 disaster impacting Wayne County, a total of 54,913 homeowners applied for assistance, and a total of 38,451 of those properties inspected by FEMA were found to have FEMA-verified losses more than \$0.

Table 12: FEMA IA Owner Occupied - 2020

County	# of Applicants	# of Inspections	# Inspected with Damage	# Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Amount
Arenac	220	99	98	88	\$635,411	\$6,484
Gladwin	1,057	483	483	452	\$5,160,474	\$10,684
Iosco	89	46	46	35	\$238,244	\$5,179
Midland	1,697	1,220	1,219	1,075	\$23,703,017	\$19,445
Saginaw	1,066	719	713	553	\$5,939,209	\$8,330
Total	4,129	2,567	2,559	2,203	\$35,676,355	\$13,942

Table 13: FEMA IA Owner Occupied - 2021

County	# of Applicants	# of Inspections	# Inspected with Damage	# Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Amount
Wayne	54,913	40,241	38,451	34,633	\$127,433,078	\$3,314

For the 2020 disasters, Saginaw County renters have the highest concentration of disaster impacted renters (377 renters) with more than \$0 in FEMA-verified losses, followed by Midland County (98 renters). For the 2021 disaster, the impact to renters was also extensive, with 24,040 applicants that received an inspection and were found to have FEMA-verified losses more than \$0.

Table 14: FEMA IA Tenants Applications - 2020

County	# of Applicants	# of Inspections	# Inspected with Damage	# Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Amount
Arenac	51	38	17	13	\$54,488	\$3,205
Gladwin	37	26	9	6	\$31,032	\$3,448

²² United States. Federal Emergency Management Agency (FEMA). (Last Data Refresh: 07-26-2022). *OpenFEMA Dataset: Individuals and Households Program – Valid Registrations – v1*. Retrieved from <https://www.fema.gov/openfema-data-page/individuals-and-households-program-valid-registrations-v1>



Iosco	22	12	3	1	\$12,141	\$4,047
Midland	294	226	98	89	\$394,708	\$4,028
Saginaw	667	488	377	255	\$838,168	\$2,223
Total	1,071	790	504	364	\$1,330,537	\$2,640

Table 15: FEMA IA Tenants Applications - 2021

County	# of Applicants	# of Inspections	# Inspected with Damage	# Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Amount
Wayne	39,443	28,799	24,040	19,184	\$28,380,756	\$1,181

The table below provides a breakdown of housing type by applicants for the 2020 disasters. For owner-occupied households, a majority of residences were categorized as a house/duplex (4553 out of 5,235). 151 mobile home residents applied for assistance, and a majority, 89% are homeowners and 11% are renters.

Table 16: FEMA IA Applications by Housing Type - 2020

Residence Type	# of Applicants	% Owner Occupied	% Tenants	% Unknown	% Type
Apartment	205	0%	100% (205)	0%	3.9%
Assisted Living Facility	7	0%	100% (7)	0%	0.1%
College Dorm	1	0%	100% (1)	0%	0.0%
Condo	89	81% (72)	18% (16)	1% (1)	1.7%
House/Duplex	4,533	83% (3769)	16% (737)	16% (27)	86.6%
Military Housing	1	0%	100% (1)	0%	0.0%
Mobile Home	151	89% (134)	11% (17)	0%	2.9%
Other	152	76% (115)	20% (31)	20% (6)	2.9%
Townhouse	82	34% (28)	66% (54)	0%	1.6%
Travel Trailer	14	79% (11)	14% (2)	14% (1)	0.3%

The table below shows the breakdown of residence types from FEMA IA applications for the 2021 disaster. A majority of households impacted by the 2021 disaster were houses and duplexes for both renters and homeowners.



Table 17: FEMA IA Applications by Housing Type - 2021

Residence Type	# of Applicants	% Owner Occupied	% Tenants	% Unknown	% Type
Apartment	2,354	1.4%	98.3%	0.3%	2.5%
Assisted Living Facility	20	5.0%	95.0%	0.0%	0.0%
Boat	2	100.0%	0.0%	0.0%	0.0%
Condo	433	61.0%	38.6%	0.5%	0.5%
Correctional Facility	4	0.0%	100.0%	0.0%	0.0%
House/Duplex	88,675	60.4%	39.2%	0.4%	93.6%
Military Housing	7	0.0%	100.0%	0.0%	0.0%
Mobile Home	160	63.8%	36.3%	0.0%	0.2%
Other	1,401	48.5%	48.3%	3.2%	1.5%
Townhouse	1,657	13.8%	86.2%	0.0%	1.7%
Travel Trailer	15	73.3%	26.7%	0.0%	0.0%

The 2020/2021 Federal Register Notice establishes damage categories for both owner-occupied and rental units. The following categories are used to calculate the total damage caused by the qualifying disaster.¹³

- Owner-occupied damage category for FEMA inspected units
 - Minor-High: \$3,000 to \$7,999 of FEMA inspected real property damage
 - Major-Low: \$8,000 to \$14,999 of FEMA inspected real property damage and/or 1 to 3.9 feet of flooding on the first floor
 - Major-High: \$15,000 to \$28,800 of FEMA inspected real property damage and/or 4 to 5.9 feet of flooding on the first floor
 - Severe: Greater than \$28,800 of FEMA inspected real property damage or determined destroyed and/or 6 or more feet of flooding on the first floor
- Renter-occupied damage category for FEMA inspected units
 - Minor-Low: Less than \$1,000 of FEMA inspected personal property damage
 - Minor-High: \$1,000 to \$1,999 of FEMA inspected personal property damage or determination of “Moderate” damage by the FEMA inspector
 - Major-Low: \$2,000 to \$3,499 of FEMA inspected personal property damage or 1 to 3.9 feet of flooding on the first floor or determination of “Major” damage by the FEMA inspector
 - Major-High: \$3,500 to \$7,500 of FEMA inspected personal property damage or 4 to 5.9 feet of flooding on the first floor



- Severe: Greater than \$7,500 of FEMA inspected personal property damage or determined destroyed and/or 6 or more feet of flooding on the first floor or determination of “Destroyed” by the FEMA inspector

The following table shows the number of FEMA IA owner-occupied applicants by HUD damage category. For the 2020 disaster, a total of 1,351 owner-occupied properties fall under the Major/Severe categories, indicating the highest level of damage. Midland County has the highest concentration of Major/Severe damaged owner-occupied homes, but significant impacts occurred across the MID counties. For the 2021 disaster, a majority of owner-occupied FEMA IA applicants with FEMA-verified losses, fall into the Minor-Low or Minor-High category, but a total of 1,594 homeowners experienced Major/Severe damage.

Table 18: FEMA Real Property Damage Owner Occupied Units - 2020

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Arenac	47	24	20	4	3
Gladwin	219	59	62	112	31
Iosco	22	11	13	0	0
Midland	169	180	387	215	268
Saginaw	277	200	138	78	20
Total	734	474	620	409	322

Table 19: FEMA Real Property Damage Owner Occupied Units - 2021

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Wayne	27,487	9,370	1,308	280	6

Overall, for the 2020 disaster, fewer renters applied for FEMA IA and fewer renters fall under the Major/Severe damage categories. Of the disaster impacted counties, Midland and Saginaw have the highest concentration of renters with Major/Severe damage. In total 229 renter-occupied properties fall into the Major/Severe categories across the declared disaster area. The scale of the 2021 disaster impacted significantly more households than the 2020 disaster. A majority of impacts to renters fall under the Minor-Low and Minor High damage categories, but a total of 3,048 renter households experienced Major/Severe damage from the disaster.

Table 20: FEMA Real Property Damage Rental Units - 2020

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Arenac	4	2	1	10	0



Gladwin	2	0	3	4	0
Iosco	0	1	1	0	1
Midland	16	12	14	45	11
Saginaw	129	109	61	71	7
Total	151	124	80	130	19

Table 21: FEMA Real Property Damage Rental Units - 2021

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Wayne	13,424	7,575	2,429	601	18

Public Housing and Affordable Housing

The following section provides tables for documenting any damages to HUD-assisted Multi-family Housing. MEDC reached out to local governments and housing authorities on July 18, 2022 to confirm any damages from the qualifying disasters, but no damages have been identified at the date of this publication. MEDC will update the tables when data becomes available. Through consultations with local governments impacted by the 2020 disasters, there are reports of damage to multifamily housing including a senior living facility, but at the time of publication MEDC has not received information about the project's financing.

Table 22: Multi-family Assisted Housing - 2020

Type of Damage	# of Properties	# of Units	# of Units Assisted	# of Units Waiting Assistance	Remaining Unmet Need
No damage reported	N/A	N/A	N/A	N/A	N/A

Table 23: Multi-family Assisted Housing – 2021

Type of Damage	# of Properties	# of Units	# of Units Assisted	# of Units Waiting Assistance	Remaining Unmet Need
No damage reported	N/A	N/A	N/A	N/A	N/A

Public Housing Authorities Damaged

The tables below indicate the number of Public Housing Authorities (PHAs) in the disaster-impacted counties. MEDC reached out to the impacted PHAs on July 18, 2022, however, as of the



date of publication, no damages have been reported. MEDC will update the tables when data becomes available.

Table 24: Public Housing Authorities Damaged – 2020

County/Municipality	Total # PHAs	Total PHAs Damaged	# of Units Damaged	Remaining Unmet Need
Gladwin	1	N/A	N/A	N/A
Iosco	1	N/A	N/A	N/A
Saginaw	6	N/A	N/A	N/A

Table 25: Public Housing Authorities Damaged – 2021

County/Municipality	Total # PHAs	Total PHAs Damaged	# of Units Damaged	Remaining Unmet Need
Wayne	17	N/A	N/A	N/A

The 2020 disaster event resulted from the failure of dams, resulting in the flooding of communities near the dam failures. The following table uses FEMA IA data for homeowners and renters, along with HUD income limits.²³ HUD income limits include low and moderate income (80% of AMI), very low income (between 30% AMI and 50% AMI), and extremely low income (30% AMI and below). FEMA collects information about FEMA IA applicants with and without flood insurance. Most of the FEMA IA applicants do not have flood insurance. Not all FEMA registrations include household income information, so there is a discrepancy between the total number of households and the number of households that reported income.

Table 26: Owner with Unmet Needs in a Floodplain - 2020

Income Category	Count	# Without Flood Insurance	% Without Flood Insurance
Low and Moderate Income	1,108	990	89%
Extremely Low Income	1,311	1,268	97%
Very Low Income	1,149	1,045	91%
Over 80% AMI	638	584	92%
All Households	5,235	4,852	93%

²³ This table uses 2022 HUD Income Limits for the State of Michigan, accessed July 19, 2022 - <https://www.huduser.gov/portal/datasets/il.html>



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Table 27: Owner with Unmet Needs in a Floodplain - 2021

Income Category	Count	# Without Flood Insurance	% Without Flood Insurance
Low and Moderate Income	6,299	5,995	95%
Extremely Low Income	21,837	21,334	98%
Very Low Income	13,753	13,307	97%
Over 80% AMI	2,181	2,066	95%
All Households	54,909	53,191	97%

The following table shows FEMA IA program applicants who noted payments from their homeowner insurance. The following data shows limited direct insured loss information. MEDC continues to conduct outreach to impacted jurisdictions to gather more accurate data on insurance claims and disaster impacts. The following table only considers properties with FEMA-verified losses great than \$0.

Table 28: Insurance Claims and Losses in Disaster-Impacted Areas - 2020

County/City/Etc.	# of Claims	# of Claims Resulting in Loss	Direct Incurred Losses (\$)
Arenac (County)	272	115	16,800
Gladwin (County)	1,102	492	2,400
Iosco (County)	112	49	2,400
Midland (County)	2,009	1,317	74,400
Saginaw (County)	1,740	1,090	124,800
Grand Total	5,235	3,063	220,800

Table 29: Insurance Claims and Losses in Disaster-Impacted Areas - 2021

County/City/Etc.	# of Claims	# of Claims Resulting in Loss	Direct Incurred Losses (\$)
Wayne	28,781	19,524	\$65,972,792

Total Home Loans Approved by SBA

The previous tables use applicants to the FEMA IA program; however, the Small Business Administration also collects information on applicants for its Disaster Loan Program. The FEMA program can only cover the cost for repair and replacement of a damaged home, while the SBA home loans are based on inspections for the full cost to rebuild a home. For example, the average



FEMA-verified loss for Major/Severe damaged properties is \$23,630, compared with the average inspection and cost of reconstruction for SBA home loan applicants, which is \$343,445 per household. The table below describe the number of claims provided by SBA in each impacted county.

Table 30: Number of SBA Home Loans (Provided by SBA July 2022)

County	# of Claims
Arenac	63
Gladwin	219
Iosco	26
Midland	562
Saginaw	314
Total	1184

Calculating Housing Unmet Need

At the time of the development of this Action Plan, MEDC has not received full data from SBA Home Loan data. The calculations for the unmet recovery needs section utilizes publicly available data from SBA and FEMA data sets from HUD to complete the calculations below.

As stated in the Federal Register Notice, HUD notes:

The average cost to fully repair a home for a specific disaster to code within each of the damage categories noted above is calculated using the median real property damage repair costs determined by the SBA for its disaster loan program based on a fuzzy match at the block group level comparing FEMA and SBA inspections.²⁴

However, due to the lack of data to conduct this analysis, MEDC does not have SBA Home Loan data at the addresses level to conduct this approved methodology. The publicly available data for SBA Home Loans for 2020 had less than 10 houses, but the average cost for reconstruction of the limited number of SBA Home Loans for the 2020 disaster is \$343,445 and the average verified loss of FEMA IA properties with Major/Severe Damage is \$23,251. The FEMA IA-verified losses undervalue the cost of reconstruction for the damaged properties, and under 10 households for SBA does not represent an adequate sample. Despite these limitations, MEDC will use the HUD multiplier using Major/Severe damaged properties (\$23,251) for its multiplier.

²⁴ <https://www.govinfo.gov/content/pkg/FR-2022-02-03/pdf/2022-02209.pdf#70>



Table 31: Housing Impact by Damage Category - 2020

Damage Category	Owner - Count	Owner - Total Damage	Renter - Count	Renter - Damage	Total - Count	Total - Damage
Major-Low	620	\$6,478,443	80	\$80,112	700	\$6,558,555
Major-High	409	\$9,397,401	130	\$262,576	539	\$9,659,977
Severe	322	\$15,537,444	19	\$110,880	341	\$15,648,324
Total	1,351	\$31,413,288	229	\$453,568	3,063	\$36,262,865

Table 32: Housing Impact by Damage Category - 2021

Damage Category	Owner - Count	Owner - Total Damage	Renter - Count	Renter - Damage	Total - Count	Total - Damage
Major-Low	1,308	\$12,808,356	2429	\$6,150,616	3,737	\$18,958,972
Major-High	280	\$4,235,016	601	\$2,699,120	881	\$6,934,136
Severe	6	\$171,251	18	\$153,378	24	\$324,629
Total	1,594	\$17,214,622	3,048	\$9,003,115	4,642	\$26,217,737

Social Equity, Fair Housing and Civil Rights

The State of Michigan is committed to Affirmatively Furthering Fair Housing through its disaster recovery efforts. All MEDC programs will comply with all relevant fair housing laws including the Fair Housing Act, Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act. As well as the Elliot-Larsen Civil Rights Act (also known as Public Act 220 of 1976) which provides additional protection against housing discrimination based on religion, race, color, national origin, age, sex, height, weight, familial status, or marital status, and the Michigan Persons with Disabilities Civil Rights Act (also known as Public Act 220 of 1976) which guarantees the opportunity to obtain employment, housing, and other real estate and full and equal utilization of public accommodations, public services, and educational facilities without discrimination because of a disability. The Program Design section of this Action Plan provides further details on how fair housing requirements will be incorporated into CDBG-DR and CDBG-MIT program design, policies and procedures, and program implementation. MSHDA's last Analysis of Impediments to Fair Housing Choice was approved in 2016 and will guide the development of MEDC's disaster recovery programs. Key recommendations include the following:²⁵

- Increasing public awareness of fair housing rights

²⁵ Michigan State Housing Development Authority (MSHDA). (October, 2016). Analysis Of Impediments To Fair Housing Choice: State of Michigan. Retrieved from <https://www.michigan.gov/-/media/Project/Websites/mshda/assets/Folder2/MSHDAMichiganAnalysisOfImpedimentsFINAL.pdf?rev=b024f5d0f67342a3bf87069a02373744>



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- Promoting fair housing within other State departments
- Targeting resources to areas of the most need
- Improving access for persons with disabilities, particularly in rural areas

Along with the State's Analysis of Impediments, some local jurisdictions within the HUD MID's and State MID's have their own Analysis of Impediments/Fair Housing Plans listed below with the key recommendations:

City of Midland, MI (Midland County) Created, 2020²⁶

- Promote testing on a regular and frequent basis
- Promote accessible resources and materials to renters and landlords regarding fair housing practices
- Maintain an up-to-date list of all affordable housing resources

City of Saginaw, MI (Saginaw County) Drafted 2015²⁷

- Increase production and preservation of affordable housing units
- Increase the number of accessible housing units based on need
- Address concentration and balance housing investments between minority areas and non-minority areas
- Promote education on reasonable accommodation and support services for persons with mental disabilities
- Expanding education and outreach, particularly for underrepresented populations

City of Detroit, MI (Wayne County) Created 2009²⁸

- Increase awareness, education, and training in fair housing practices
- Establishing standards for neighborhood conditions to address equity in housing choice

City of Livonia, Charter Township of Redford, City of Westland (Wayne County) Created 2011²⁹

- Increase the development and implementation of programs designed to address special needs populations
- Incentivize affordable housing development through utilization of Federal grant funding

²⁶ City of Midland MI *City of Midland Fair Housing Plan 2014* City of Midland Fair Housing Plan 2014 (cityofmidlandmi.gov)

²⁷ City of Saginaw, MI Draft Analysis of Impediments to Fair Housing (Saginaw-AI-Draft-7-10-15.pdf (revize.com))

²⁸ City of Detroit Analysis of Impediments to Fair Housing Microsoft Word - AI final.doc (detroitmi.gov)

²⁹ City of Livonia, Charter Township of Redford, City of Westland (Wayne County) Analysis of Impediments to Fair Housing Choice 2011-Analysis-of-Impediments-to-Fair-Housing-Choice-PDF (livonia.gov)



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MEDC does not anticipate that any of its programs will create or exacerbate barriers to housing. The programs will support communities in their development by investing in infrastructure. The multifamily housing program will increase and/or improve affordable housing units that helps remove the barrier of available housing.

This section focuses on reviewing available data to understand the make-up of populations impacted by the 2020 and 2021 disasters, which will serve as the basis for disaster recovery program design.

This section includes analysis of the following within HUD-identified MIDs and State-identified MIDs:

- Racial and ethnic makeup of populations
- Renter and homeowner demographics
- Limited English Proficiency populations
- Persons with disabilities
- Federally Protected Classes
- Indigenous populations and tribal communities
- Racially and ethnically concentrated areas of poverty

Racial and ethnic makeup of populations

According to the 2016-2020 ACS 5-Year Estimates³⁰, White was the largest racial group in Michigan (79.2%), followed by Black or African American (14.0%). All other races made up the remaining 6.9%. Approximately 4.6% of the population identify as ethnically Hispanic (persons can identify as both ethnically Hispanic and racially as another group). Looking at the HUD and State MID's, the majority of the County's population have a higher White population.

Almost half of Wayne County (43.08%) was non-white. The largest difference from a minority race group was Black or African American: while the Statewide rate is 14%, Wayne County was 40.25% Black or African American. All other minority race groups fell within 2% of their total County population. As Wayne County (Detroit) is the primary metro area and transportation hub in Michigan, the population in the county makes up approximately 18% of the total population of the state.

³⁰ American Community Survey 5-year estimates 2016-2020 Table S0201 Selected Population Profile in the United States
[Census Bureau Tables](#)

Figure 7: Race and Ethnicity Makeup for MID Counties³¹

Race and Ethnicity						
	HUD MID				State MID	
	Saginaw County	Midland County	Gladwin County	Wayne County	Arenac County	Iosco County
Total Population	200169	83629	25692	1820584	15899	25887
# White, Non-Hispanic	141187	77846	24904	902180	15231	24710
% White, Non-Hispanic	70.53%	93.08%	96.93%	49.55%	95.80%	95.45%
# Black, Non-Hispanic	37222	983	60	732801	29	121
% Black, Non-Hispanic	18.60%	1.18%	0.23%	40.25%	0.18%	0.47%
# Native American Non-Hispanic	660	336	116	5635	183	161
% Native American Non-Hispanic	0.33%	0.40%	0.45%	0.31%	1.15%	0.62%
# Asian/Pacific Islander Non-Hispanic	2122	1601	77	45894	38	137
% Asian/Pacific Islander Non-Hispanic	1.06%	1.91%	0.30%	2.52%	0.24%	0.53%
# Hispanic	15573	1704	310	95260	225	403
% Hispanic	7.78%	2.04%	1.21%	5.23%	1.42%	1.56%
# Other Non-Hispanic	173	57	3	2387	8	11
% Other Non-Hispanic	0.09%	0.07%	0.01%	0.13%	0.05%	0.04%
# Multiracial Non-Hispanic	3232	1102	222	36427	185	344
% Multiracial Non-Hispanic	1.61%	1.32%	0.86%	2%	1.16%	1.33%
*U.S. Department of Housing and Urban Development Affirmatively Furthering Fair Housing Mapping Tool: https://egis.hud.gov/affht/						

Renter and Homeowner Demographics

Saginaw and Wayne County both have the highest number of occupied housing units as they are the counties with the largest populations. Of these two counties, the highest percentage of occupied housing units by race are renter occupied housing units by Black or African American households with Saginaw County at 32.1% renter vs. 12.2% owner-occupied. For Wayne County, the highest percentage of occupied housing units by race are renter occupied housing units by Black or African American households with 57.7% renter occupied vs 27.8% owner occupied. While the percentages are higher for Black renter occupied households in these two counties, the opposite is true for White households in these two counties. For Saginaw County, the percentage of white owner-occupied housing units is 83.9% vs. 60.4% renter occupied units and in Wayne County, the percentage of white owner-occupied units is 66.3% vs renter housing units at 35.9%. With such high renter-occupied housing units in these two most populous counties, correlated with higher rates of poverty, protected classes, such as African Americans could experience difficulty with decreasing housing affordability, segregated housing patterns, and lack of housing choice.

³¹United States. Department of Housing and Urban Development (HUD). *Affirmatively Furthering Fair Housing (AFFH)*. Retrieved from https://www.hud.gov/program_offices/fair_housing_equal_opp/affh



Figures 8 and 9: County Demographics from Census ACS Data

	Saginaw County, Michigan			Wayne County, Michigan		
	Occupied housing units	Percent owner-occupied housing units	Percent renter-occupied housing units	Occupied housing units	Percent owner-occupied housing units	Percent renter-occupied housing units
RACE AND HISPANIC OR LATINO ORIGIN OF HOUSEHOLDER						
One race --						
White	60,888	83.9%	60.4%	373,729	66.3%	35.9%
Black or African American	14,165	12.2%	32.1%	267,158	27.8%	57.7%
American Indian and Alaska Native	264	0.4%	0.1%	2,305	0.3%	0.4%
Asian	821	0.7%	1.8%	17,659	2.6%	2.6%
Native Hawaiian and Other Pacific Islander	0	0.0%	0.0%	84	0.0%	0.0%
Some other race	1,254	1.3%	2.4%	9,874	1.3%	1.8%
Two or more races	1,541	1.5%	3.1%	11,473	1.7%	1.7%
Hispanic or Latino origin	5,177	5.7%	8.6%	29,354	4.1%	4.6%
White alone, not Hispanic or Latino	57,356	79.9%	54.8%	355,543	63.6%	33.3%

	Arenac County, Michigan			Gladwin County, Michigan			Iosco County, Michigan			Midland County, Michigan	
	Occupied housing units	Percent owner-occupied housing units	Percent renter-occupied housing units	Occupied housing units	Percent owner-occupied housing units	Percent renter-occupied housing units	Occupied housing units	Percent owner-occupied housing units	Percent renter-occupied housing units	Occupied housing units	Percent owner-occupied housing units
RACE AND HISPANIC OR LATINO ORIGIN OF HOUSEHOLDER											
One race --											
White	6,434	98.1%	96.8%	10,852	98.3%	98.2%	11,284	97.3%	94.4%	32,538	96.9%
Black or African American	4	0.0%	0.4%	8	0.1%	0.1%	34	0.1%	0.9%	510	0.5%
American Indian and Alaska Native	50	0.6%	1.4%	68	0.7%	0.4%	137	1.2%	0.9%	98	0.3%
Asian	17	0.3%	0.2%	11	0.1%	0.0%	63	0.5%	0.7%	605	1.2%
Native Hawaiian and Other Pacific Islander	0	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	12	0.0%
Some other race	2	0.0%	0.0%	11	0.1%	0.0%	34	0.0%	1.3%	187	0.3%
Two or more races	64	0.9%	1.2%	87	0.7%	1.4%	117	0.8%	1.8%	249	0.7%
Hispanic or Latino origin	71	0.8%	2.5%	185	1.6%	2.2%	202	0.6%	6.3%	646	1.5%
White alone, not Hispanic or Latino	6,368	97.4%	94.6%	10,703	97.0%	96.0%	11,142	96.8%	90.3%	32,103	95.8%

Limited English Proficiency populations³²

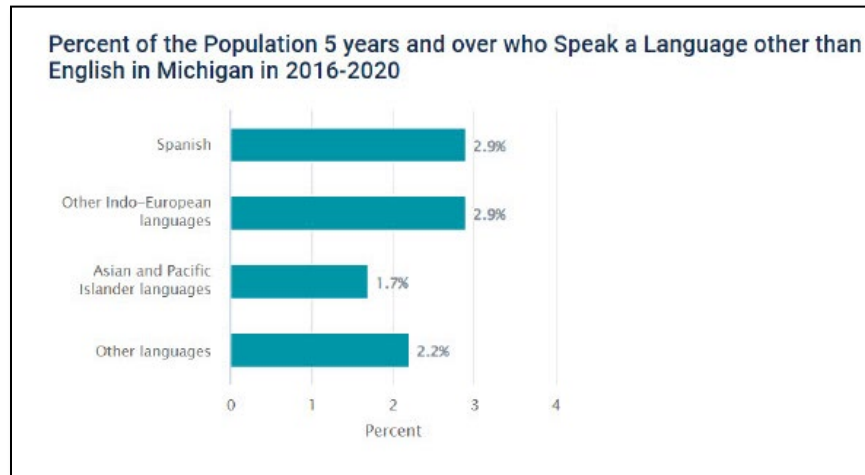
Among people at least five years old living in Michigan in 2016-2020, 9.7 percent spoke a language other than English at home. Spanish was spoken by 2.9 percent of people at least five years old; 3.4 percent reported that they did not speak English 'very-well'.³³

³² United States. Census Bureau. *American Community Survey Data Tables*. Retrieved from <https://www.census.gov/programs-surveys/acs/data/data-tables.html>

³³ 2016-2020 ACS 5-year Narrative Profile [Narrative Profiles | American Community Survey | U.S. Census Bureau](#)



Figure 10: Percent of the Population 5 years and over who Speak a Language other than English in Michigan in 2016-2020



According to the language access plan, MEDC completed a four-factor analysis for the six counties in order to determine an appropriate level of language access for each of its CDBG-DR programs and in order to ensure meaningful access by LEP individuals to critical services. The tables below show the breakout by language across the affected counties.

Table 33: Top LEP Populations across the 5-county service area - 2020

Primary Language Spoken	Number who speak English less than very well	Percentage who speak English less than very well
Spanish	1,749	.54%
German	490	.15%
Chinese	436	.13%
Other Indo-European	386	.12%
Arabic	211	.06%
Other Asian	143	.04%
Russian	127	.04%
Tagalog	92	.03%
Vietnamese	77	.02%
Korean	54	.02%

Table 34: Top LEP Populations across the Wayne County service area - 2021

Primary Language Spoken	Number who speak English less than very well	Percentage who speak English less than very well
Arabic	36,275	2.21%
Spanish	23,298	1.42%



Other Indo-European Languages	16,356	.99%
Russian, Polish, or Other Slavic Languages	3,845	.23%
Other Asian and Pacific Island Languages	2,356	.14%
Chinese (incl. Mandarin, Cantonese)	2,219	.14%
Other and Unspecified Languages	1,264	.08%
Tagalog (incl. Filipino)	1,080	.07%
Vietnamese	1,036	.06%
French, Haitian, or Cajun	926	.06%

Persons with Disabilities

According to 2016-2020 ACS 5-year estimates ³⁴, 14.2% of the total state population had a disability, which is 1.6% higher than the national rate. In addition to barriers such as housing discrimination and the difficulty of finding accessible units, people with disabilities face financial hardships at rates much higher than the average person. In Michigan, only 22.8% of disabled individuals are currently in the labor force. The statewide employment rate for persons without a disability was almost twice as high at 74.1% percent³⁵. Furthermore, when disabled persons are employed, they earn significantly less than the non-disabled. In 2020 the median earnings for disabled persons was \$21,627, which was less than the non-disabled population with a median earning of \$34,788. In light of these challenging economic conditions, decent and affordable housing remains a difficulty for a large portion of the disabled population. Across age groups the disability numbers vary and there is no one county with a larger population than the other. The data suggests that the higher percentage of those with disabilities fall into the age 18-64 group, only because that age group is significantly larger than the other two. The county which holds the largest disabled population relative to the other counties is Arenac County.³⁶

³⁴ 2016-2020 ACS 5-Year Narrative Profile *Disability Status*

³⁵ 2016-2020 ACS 5-year estimates *Selected economic characteristics for the civilian noninstitutionalized population by disability status*. Retrieved from <https://data.census.gov/cedsci/table?q=Disability%20and%20wages%20Michigan&tid=ACST5Y2020.S1811>

³⁶ United States. Department of Housing and Urban Development. *Affirmatively Furthering Fair Housing (AFFH)*. Retrieved from https://www.hud.gov/program_offices/fair_housing_equal_opp/affh



Figure 11: Disability Status by Age for MID Counties

	Disability Status by Age				State MID	
	HUD MID					
	Saginaw County	Midland County	Gladwin County	Wayne County	Arenac County	Iosco County
Total Population	200169	83629	25692	1820584	15899	25887
# age 5-17 with any disability	2586	808	316	20706	172	393
% age 5-17 with any disability	1.41	1.02	1.3	1.25	1.17	1.63
# age 18-64 with any disability	17081	5692	2640	166954	1753	2613
% age 18-64 with any disability	9.39	7.23	10.97	10.109	12	10.8
# age 65+ with any disability	11507	4501	2250	94441	1254	2540
% age 65+ with any disability	6.32	5.71	9.35	5.71	8.57	10.56

**U.S. Department of Housing and Urban Development Affirmatively Furthering Fair Housing Mapping Tool Age and Disability Status:
<https://egis.hud.gov/affht/>*

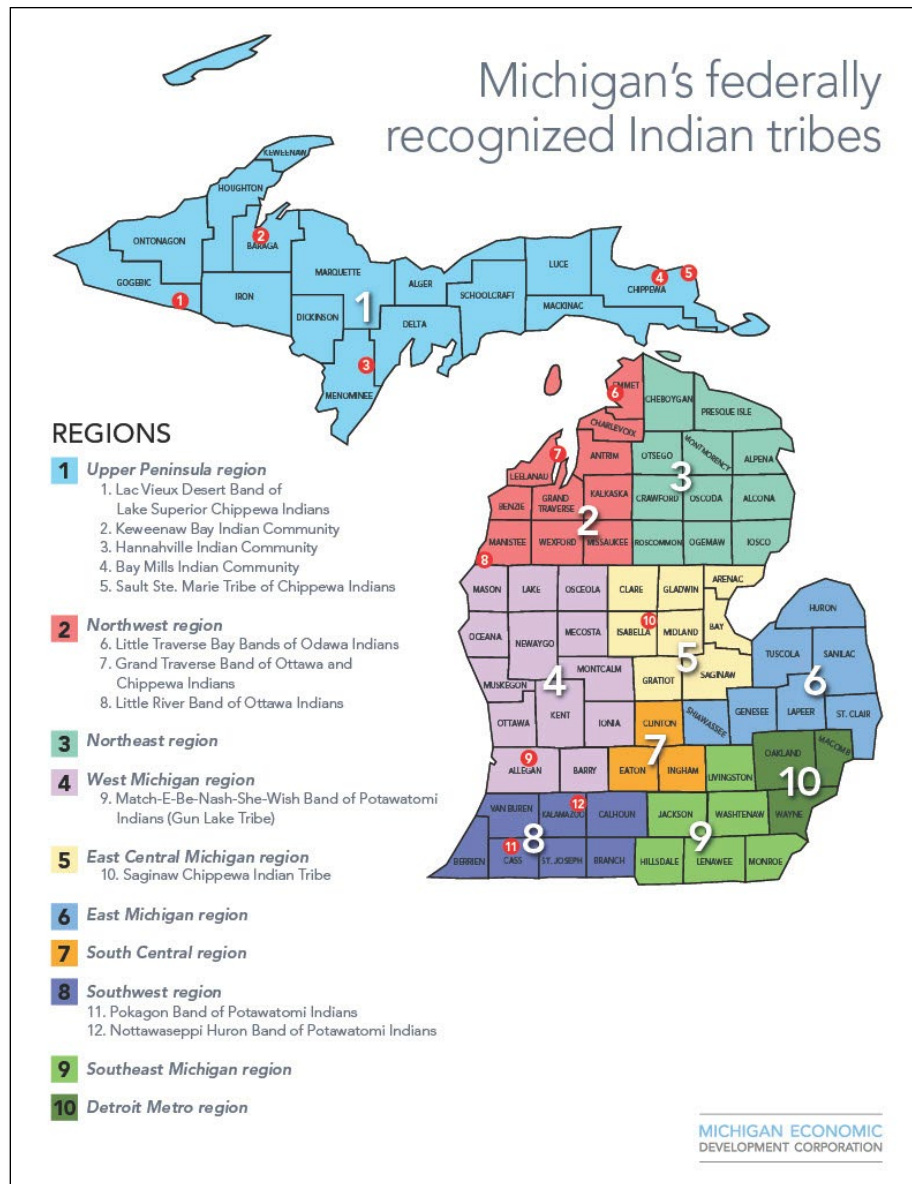
Indigenous populations and tribal communities

The majority of the federally recognized tribes in the State of Michigan are located in the Upper Peninsula region (Region 1), and the Northwest region (Region 2). Of the affected HUD and State MID areas the only region which contains a federally recognized tribe is Region 5, the East Central Region, home to the Saginaw Chippewa Indian Tribe.³⁷ The Saginaw Chippewa Indian Tribe of Mount Pleasant, Michigan comprises mainly the Saginaw, Black River, and Swan Creek Ojibwe bands. The Although the Saginaw Chippewa Indian Tribe is located in the region of the impacted areas, it is located in Isabella County, which is not a designated HUD MID or state identified MID.

³⁷ Michigan Economic Development Corporation Tribal Map [tribes_map.pdf \(michiganbusiness.org\)](#)



Figure 12: Michigan's Federally Recognized Indian Tribes



Historically distressed and underserved communities

There are four counties listed in the HUD and State MID areas which are listed as Distressed and Underserved areas. These Counties are Iosco, Arenac, Wayne, and Gladwin counties. The Office of the Comptroller of the Currency through the Community Reinvestment Act has defined the criteria of a distressed and underserved area following the June 2020 rule.³⁸ Following this 2020 rule, Iosco County is defined as a remote-rural area which is both distressed and underserved.

³⁸ U.S. Department of the Treasury Office of the Comptroller of the Currency Designation for Distressed and Underserved areas Community Reinvestment Act: Bank Type Determinations, Distressed and Underserved Areas, and Banking Industry Compensation Provisions of the June 2020 CRA | OCC (treas.gov)

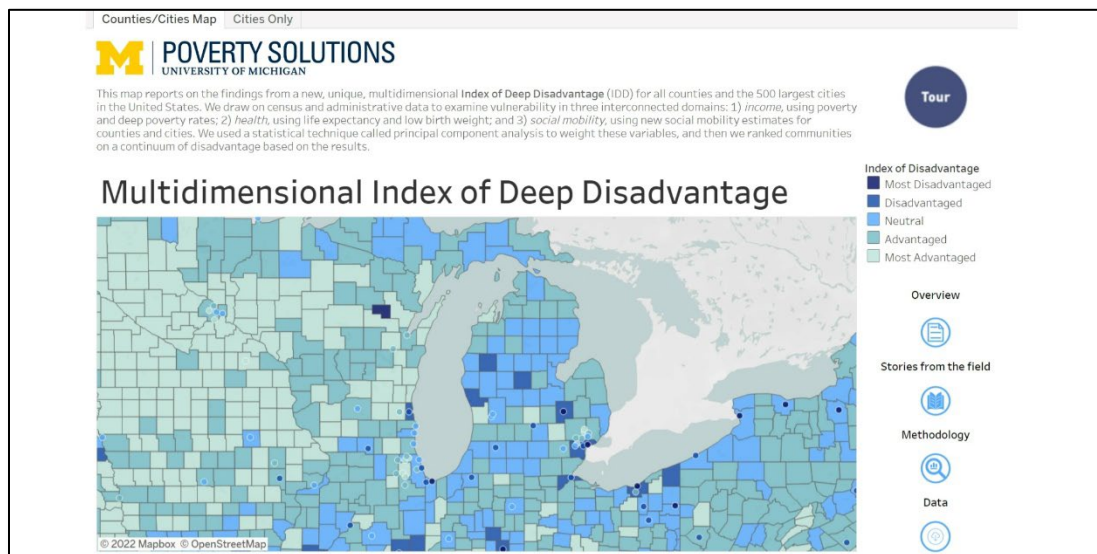


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Arenac County is facing population loss, and defined as both remote-rural, and distressed and underserved. Wayne County is facing population loss and distressed. Gladwin County has a high unemployment rate, is in a banking desert, and is both distressed and underserved.

Additionally, a new Index of Deep Disadvantage has been developed by the University of Michigan which utilizes data on three interconnected types of disadvantage-income, including rates of poverty and deep poverty; health, including life expectancy and low birth weight; and social mobility, using intra-generational mobility estimates-to shift attention from the individual to the ways in which disadvantage affects entire communities. Utilizing this tool, Wayne County is one of the most disadvantaged counties in the State. The index of disadvantage for Wayne County is 2.75% with 23.7% of the population living in poverty, 11.3% living in deep poverty, 10.6% of infants with low birth weight, and low variables of mobility.³⁹

Figure 13: University of Michigan's Index of Deep Disadvantage



Racially Concentrated Areas of Poverty (R/ECAP)

HUD defines Racially or Ethnically Concentrated Areas of Poverty (R/ECAP) as an area where a significant number of racial and/or ethnic minorities living in poverty. HUD has developed a census tract-based definition of R/ECAPs.⁴⁰ The definition involves a racial/ethnic concentration threshold and a poverty test. The racial/ethnic concentration threshold is straightforward: R/ECAPs must have a non-white population of 50 percent or more. HUD uses a definition of extreme poverty as census tracts with 40% or more of individuals living at or below the poverty

³⁹ Poverty Solutions, University of Michigan *Multidimensional Index of Deep Disadvantage Workbook: Index of Deep Disadvantage* (umich.edu)

⁴⁰ United States. American Community Survey (ACS), 2009-2013; Decennial Census (2010). Retrieved from <https://www.arcgis.com/home/item.html?id=56de4edea8264fe5a344da9811ef5d6e>



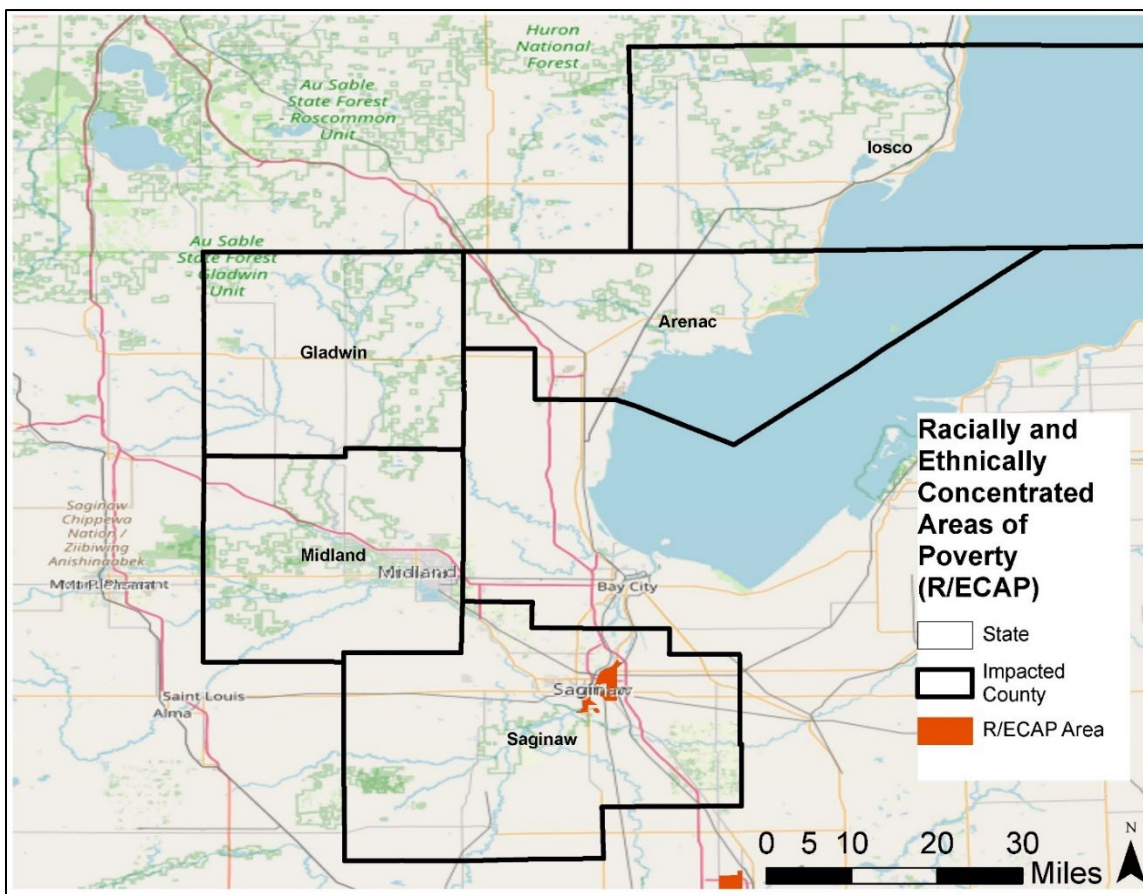
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line.⁴¹ Because overall poverty levels are substantially lower in many parts of the country, HUD supplements this with alternate criterion. Thus, a neighborhood can be a R/ECAP if it has a poverty rate that exceeds 40 percent or is three more times the average tract poverty rate for the metropolitan/micropolitan area, whichever threshold is lower. Census tracts with this extreme poverty that satisfy racial/ethnic concentration threshold are deemed R/ECAPs.

According to the HUD R/ECAP mapping tool, there are 6 R/ECAP census tracts in Saginaw County and Wayne County has 170 R/ECAP census tracts.

The following maps show the R/ECAP areas by census tract within the 2020 and 2021 disaster-impacted counties. The orange areas represent a R/ECAP census tract.

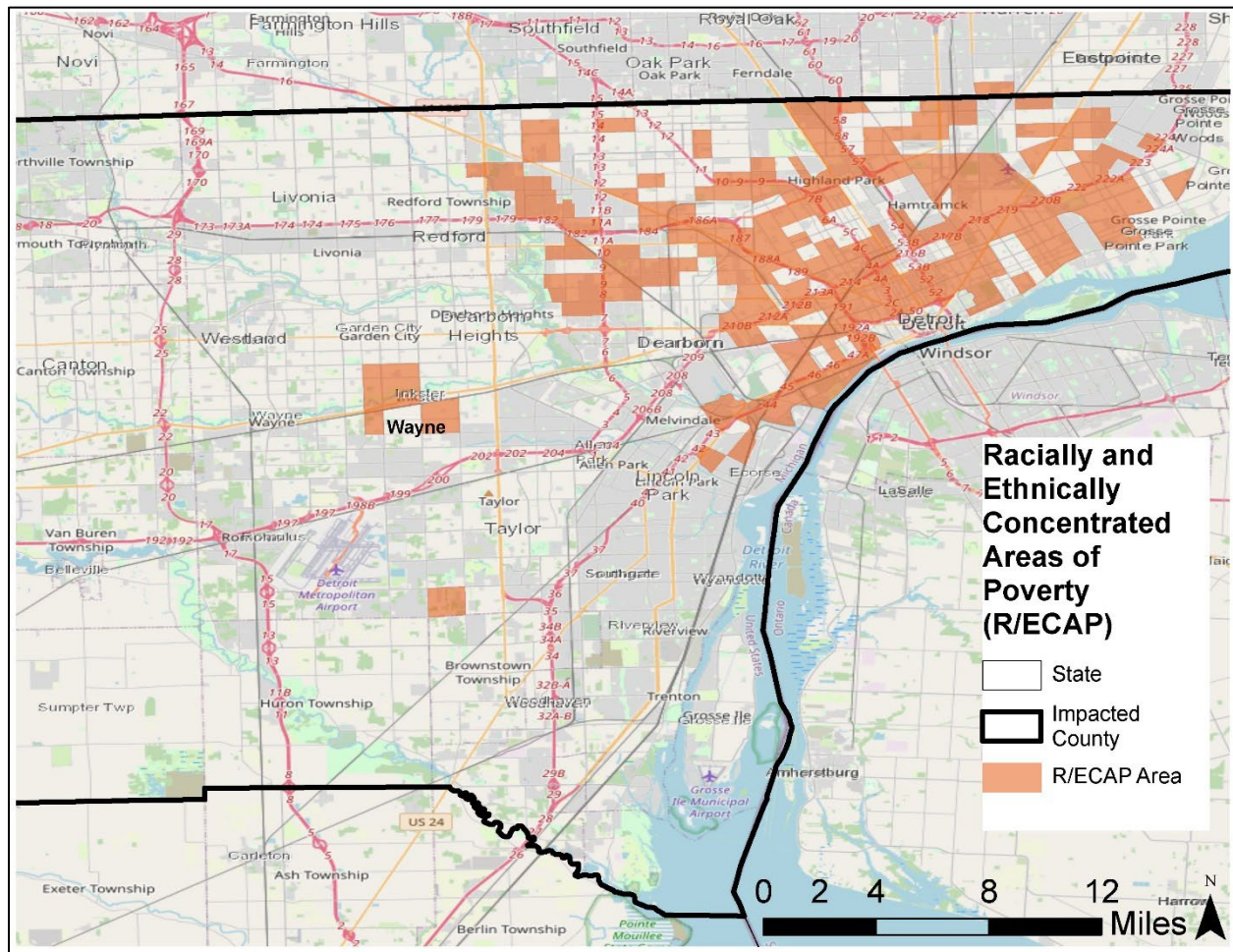
Figure 14: Racially and Ethnically Concentrated Areas of Poverty (R/ECAP) for 2020



⁴¹ United States. American Community Survey (ACS), 2009-2013; Decennial Census (2010). *Brown Longitudinal Tract Database (LTDB) based on decennial census data, 1990, 2000 & 2010.*
www.arcgis.com/home/item.html?id=56de4edea8264fe5a344da9811ef5d6e



Figure 15: Racially and Ethnically Concentrated Areas of Poverty (R/ECAP) for 2021



Proximity of Natural Hazards

The Michigan Department of Environment, Great Lakes, and Energy provides data showing the location of environmental sites including Superfund clean-up sites (SFC), waterfront redevelopment grants (WRG), environmental assessments, and Brownfield Loans within the disaster impacted areas.



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Figure 16: Environmental Mapper of 2020 Counties

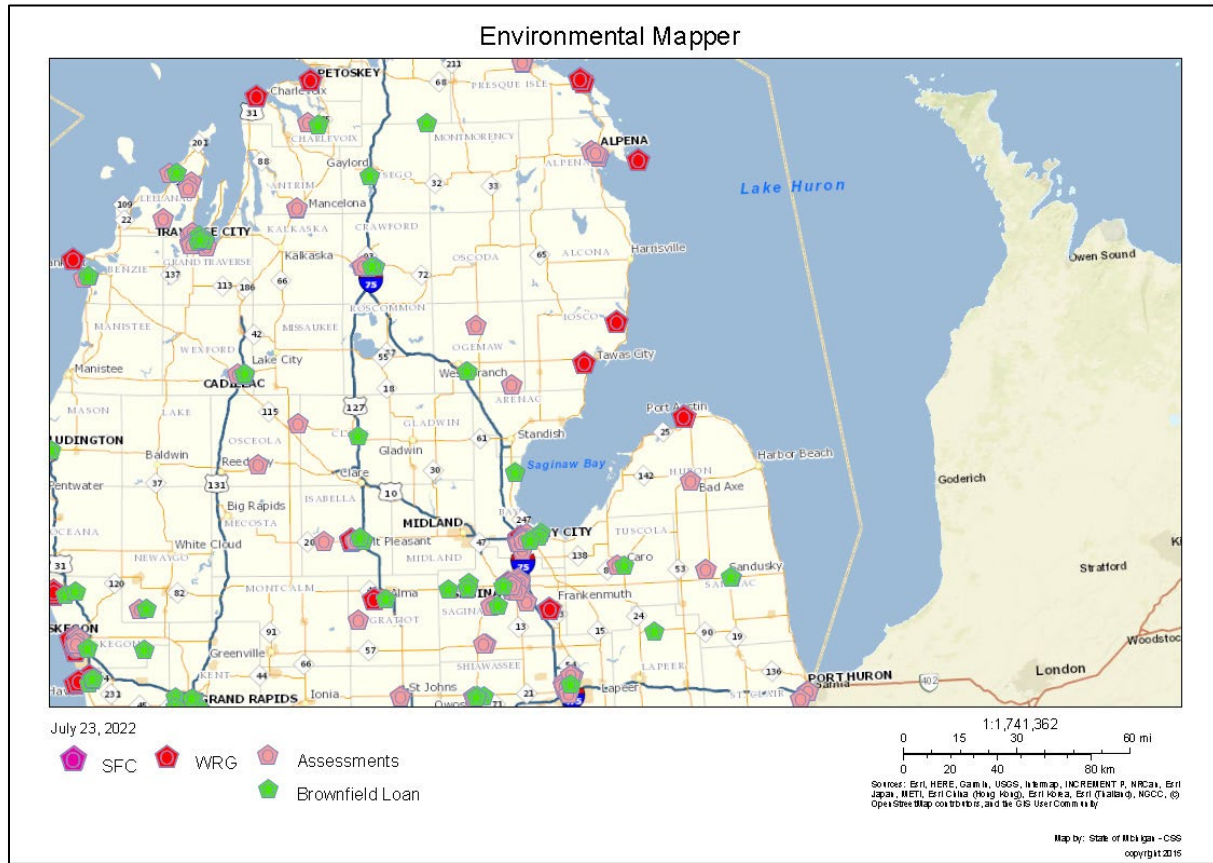
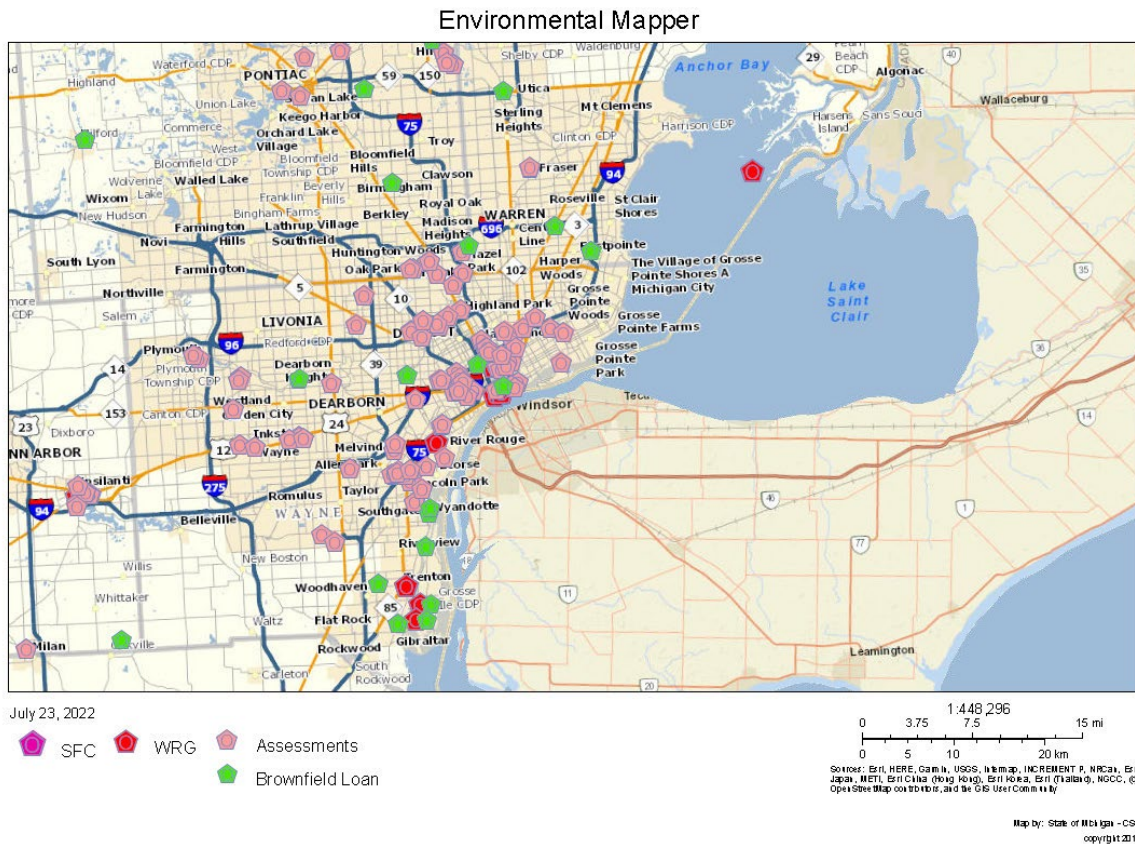




Figure 17: Environmental Mapper of 2021 County

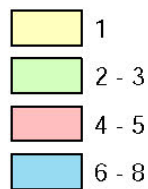


The following map, from fiscal year 2020 Federal Superfund Legislative Report of the Michigan Department of Environmental, Great Lakes, and Energy shows the number of superfund sites per county that are currently on the National Priorities List. Of the areas impacted by the disaster, only Wayne and Iosco counties have sites on this list.⁴²

⁴² Michigan Department of Environment, Great Lakes, and Energy (EGLE). (June, 2021) *Fiscal Year 2020 Federal Superfund Legislative Report*. Retrieved from <https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Reports/RRD/Report-2021-06-Federal-Superfund-FY20.pdf?rev=36b2d5c0206c4dd5a1a8cb2b7bda42da&hash=AB3204C067F733F8845721B3B7BEB29A>

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SUPERFUND SITES PER COUNTY*



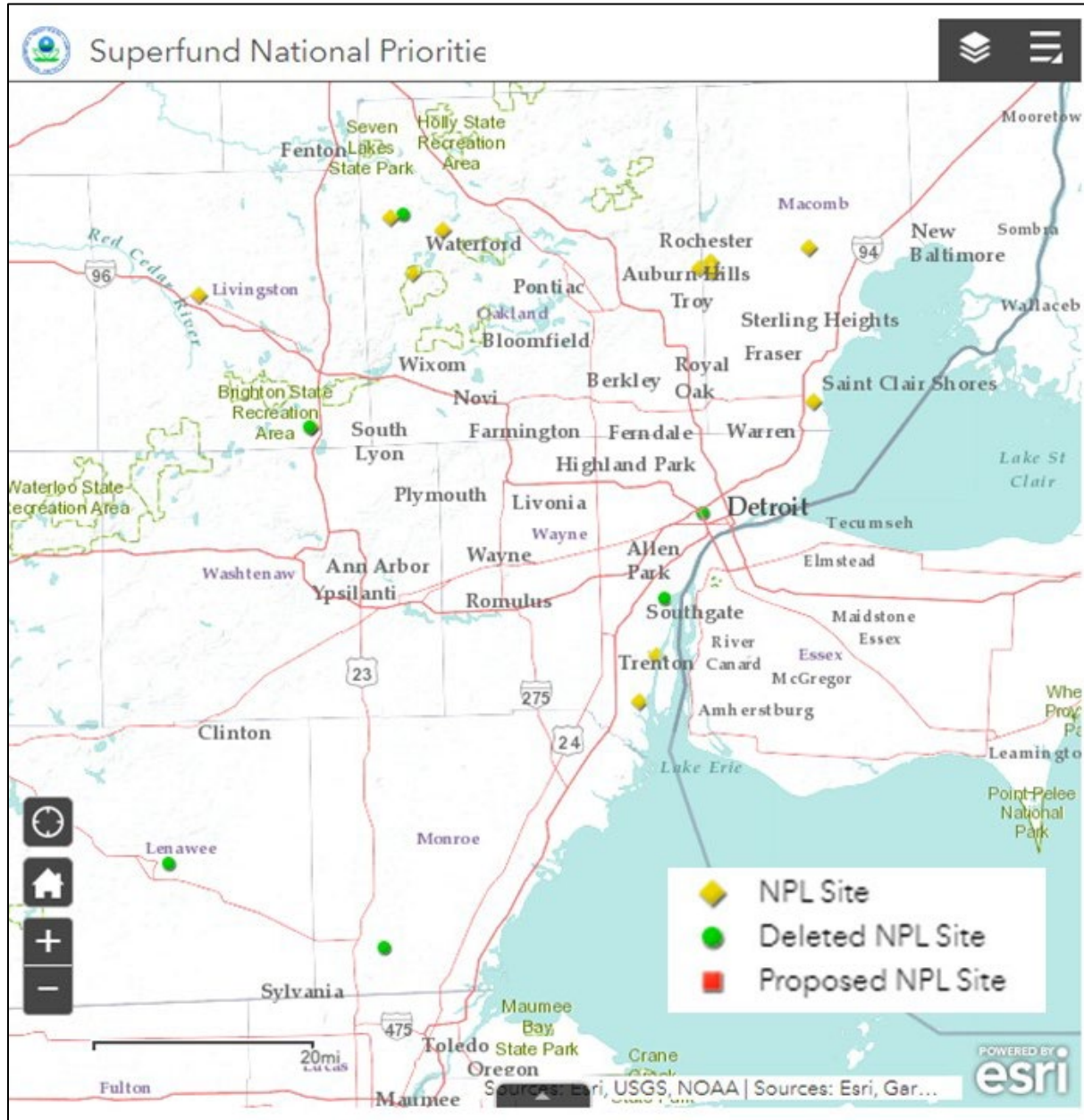
*Currently on the
National Priorities List

⁴³ United States. Environmental Protection Agency (EPA). (Last Updated On September 15, 2021) *National Priorities List and Superfund Alternative Approach Sites* Retrieved from <https://www.epa.gov/superfund/search-superfund-sites-where-you-live>



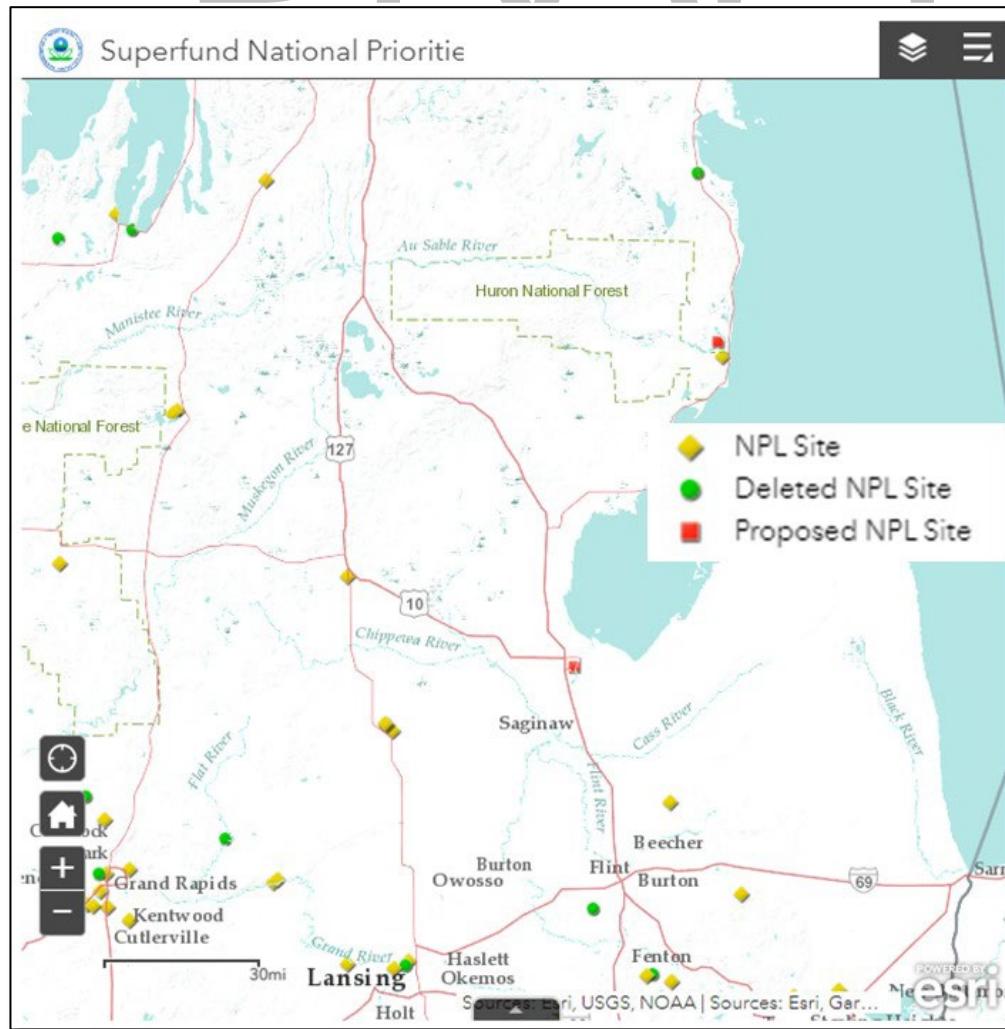
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Figures 19 and 20: Superfund Sites Across Michigan and Disaster Impacted Areas





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EPA EJSCREEN

To measure environmental justice, exposure to polluting and toxic environmental harms, and socioeconomic factors, the following maps were pulled from the Environmental Protection Agency's EJScreen: Environmental Justice and Mapping Tool. The socioeconomic indicators shown for each County include population under 5, population over 64, People of Color - percent of individuals in a block group who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino, and limited English speakers – percent of people in a block group living in limited English speaking households, defined as a household in which all members age 14 years and over speak a non-English language and also speak English less than "very well"⁴⁴. The colors on the map correlate with national percentile concentrations of these subpopulations. The EJScreen explains the percentiles this way: "if your results indicate that an area is 48% minority and is at the 69th national percentile, this means that 48% of the area's

⁴⁴ <https://www.epa.gov/ejscreen/overview-socioeconomic-indicators-ejscreen>



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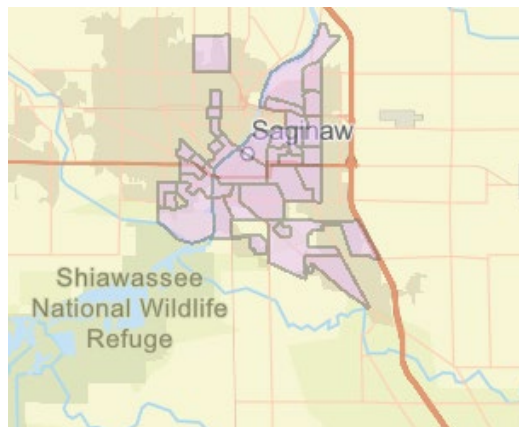
population is minority, and that is an equal or higher % minority than where 69% of the US population lives.”⁴⁵

For the environmental indicator maps, four different indicators were chosen including:

- Air toxics cancer risk – a 2017 dataset showing lifetime risk from inhalation of air toxics, superfund proximity;
- Hazardous waste proximity – a 2022 dataset showing the count of hazardous waste facilities (TSDFs and LQGs) within 5 km (or nearest beyond 5 km), each divided by distance in kilometers;
- Superfund proximity – a 2022 dataset showing the count of proposed or listed NPL - also known as superfund - sites within 5 km (or nearest one beyond 5 km), each divided by distance in kilometers, and wastewater discharge If all four indicators in the area are at 50th percentile or above nationally then the area was shown in the County’s environmental indicator map.
- Wastewater discharge – a 2019 dataset showing RSEI modeled toxic concentrations at stream segments within 500 meters, divided by distance in kilometers (km)⁴⁶.

A threshold was set at 50th percentile nationwide, and if all four indicators were at 50th percentile or above, then the area was outlined in the environmental indicators map in purple like shown around the City of Saginaw below.

Figure 21: City of Saginaw



Arenac

The maps below show that compared to national percentiles Arenac does not have a higher than national concentration of People of Color or limited English speaking but does have a high

⁴⁵EPA “How to Interpret a Standard Report in EJScreen”, <https://www.epa.gov/ejscreen/how-interpret-standard-report-ejscreen>

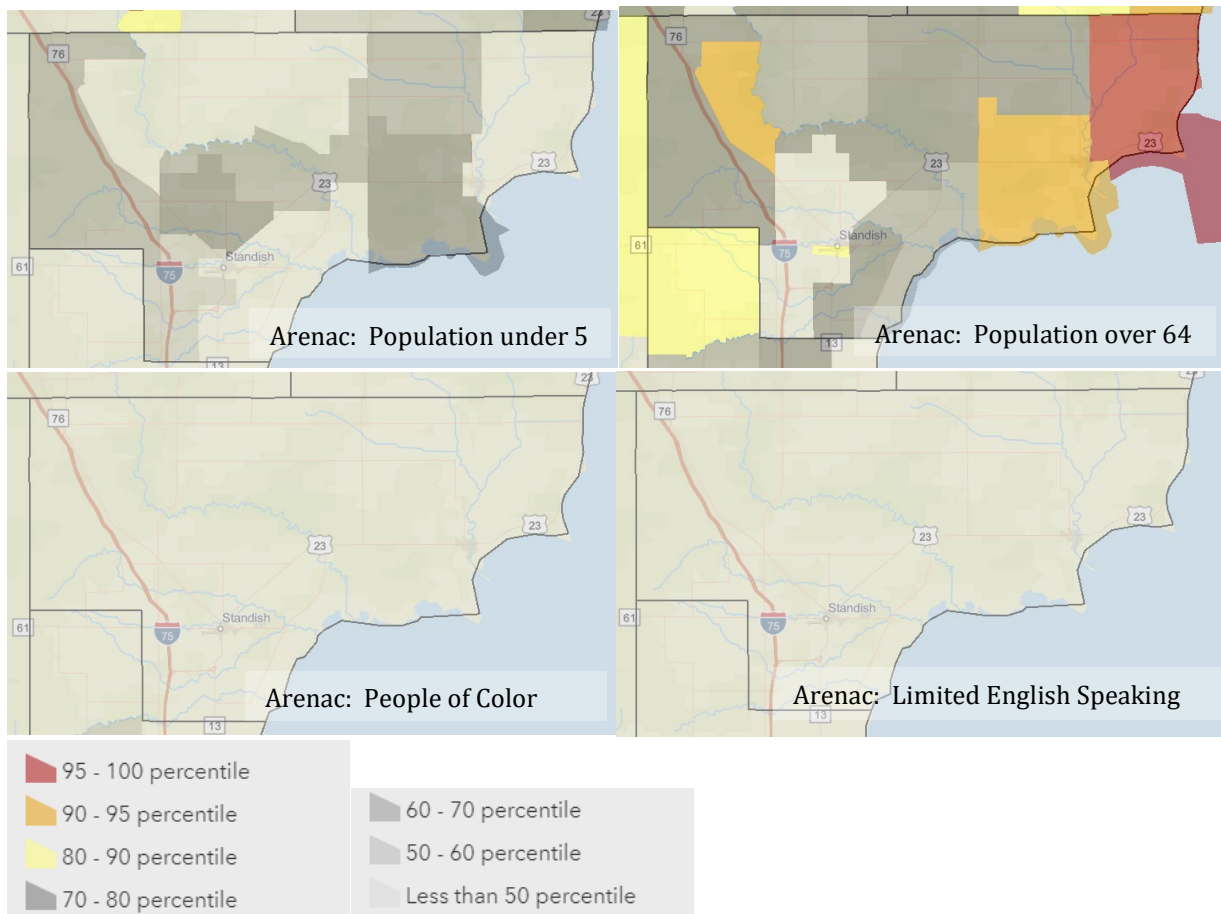
⁴⁶EPA “Overview of Environmental Indicators in EJScreen”, <https://www.epa.gov/ejscreen/overview-environmental-indicators-ejscreen>



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concentration of population over 64 on the east side of the County. The environmental justice screening shows that Arenac does not have any areas where there are four or more indicators (air toxic cancers risk, superfund proximity, hazardous waste proximity, and wastewater discharge) are all 50th percentile nationally or above.

Figure 22-25: EJ Screen Arenac Demographic Maps





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Figure 16: Arenac EJScreen Environmental Thresholds Maps



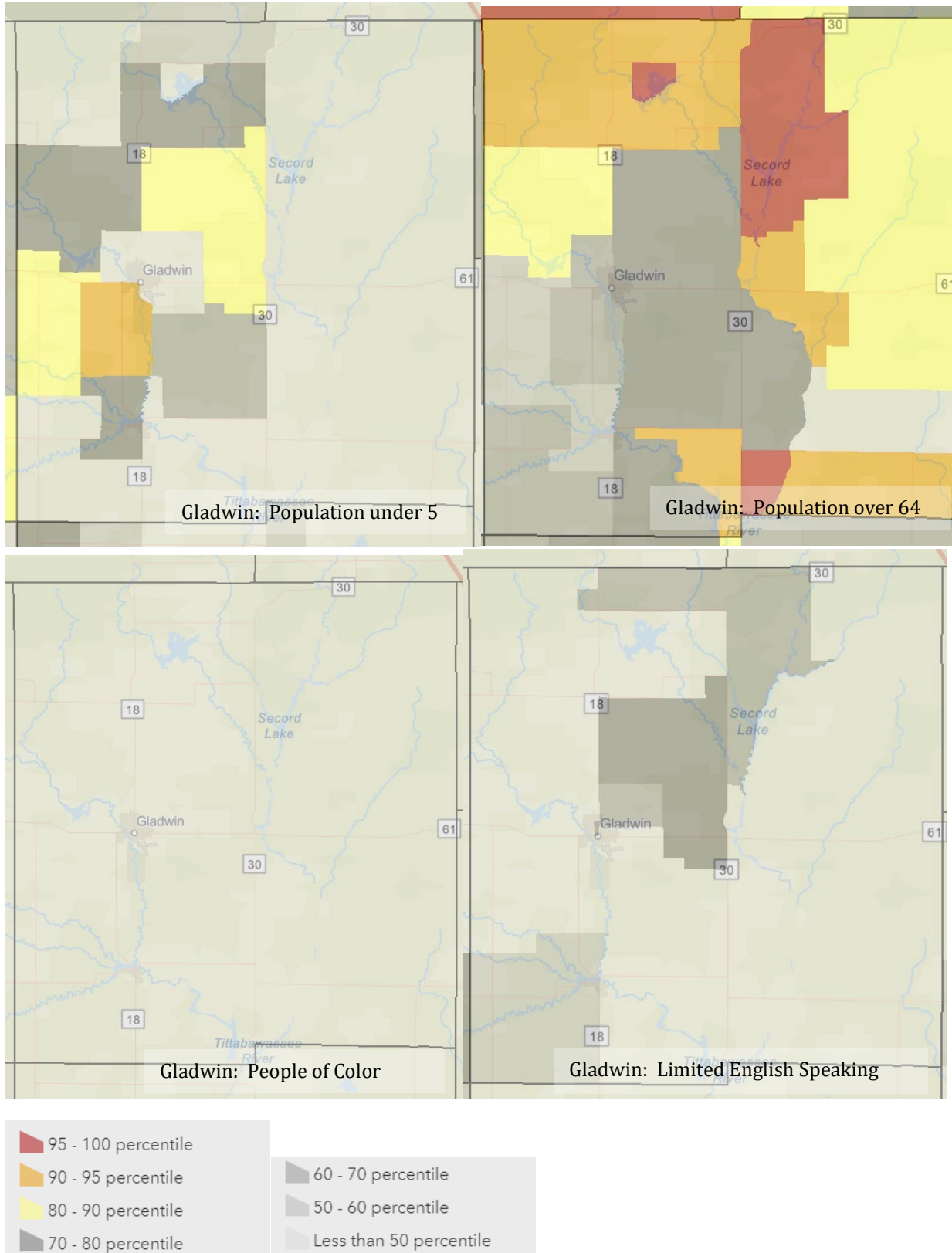
Gladwin

The maps below show that compared to national percentiles Gladwin does not have a higher than national concentration of People of Color, has slightly more limited English-speaking residents in the center of the County, has a concentration of children under five on the west of the County, and has a higher concentration of population over 64 in the north of the County. The environmental justice screening shows that Gladwin does not have any areas where there are four or more indicators (air toxic cancers risk, superfund site, hazardous waste proximity, and wastewater discharge) are all 50th percentile nationally or above.



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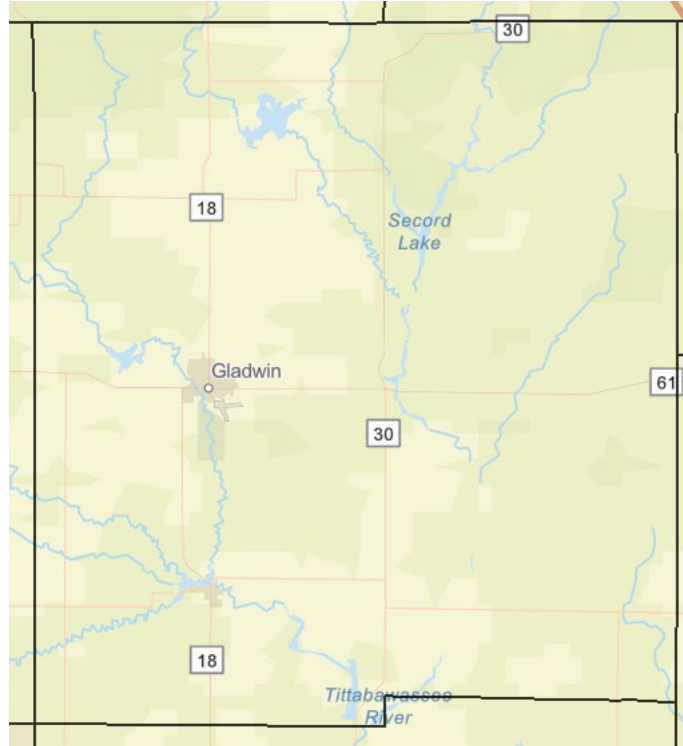
Figures 27-30: EJ Screen Arenac Demographic Maps





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Figure 31: Gladwin EJScreen Environmental Thresholds Maps



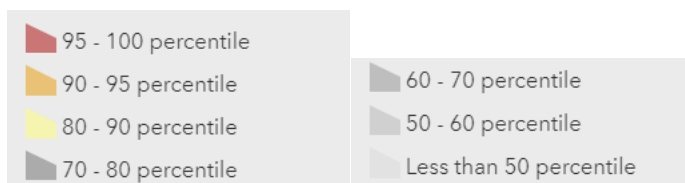
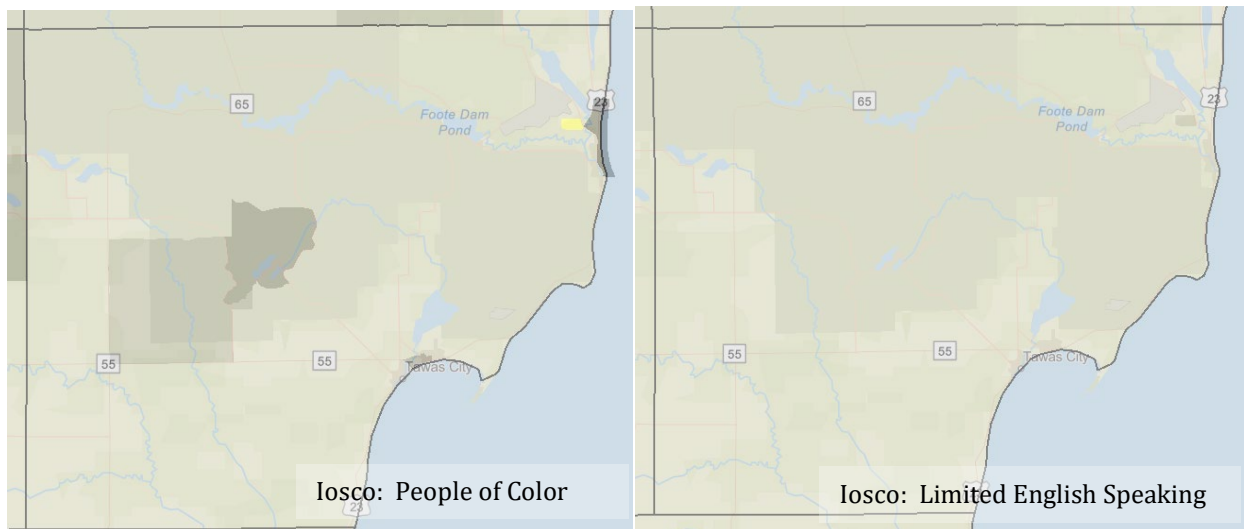
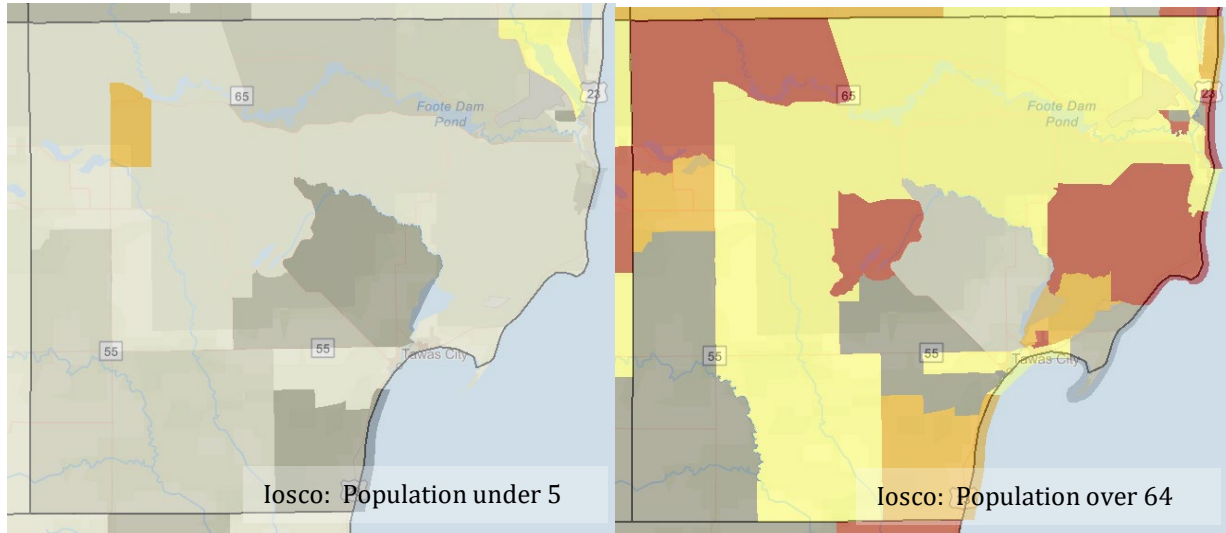
Iosco

The maps below show that compared to national percentiles Iosco has a small higher than national concentration of children under 5, large areas of higher than national concentration of people over 64, a small area of mid-range concentration of People of Color, and no higher than national concentration of limited English speakers. The environmental justice screening shows that Iosco does not have any areas where there are four or more indicators (air toxic cancers risk, superfund site, hazardous waste proximity, and wastewater discharge) are all 50th percentile nationally or above.



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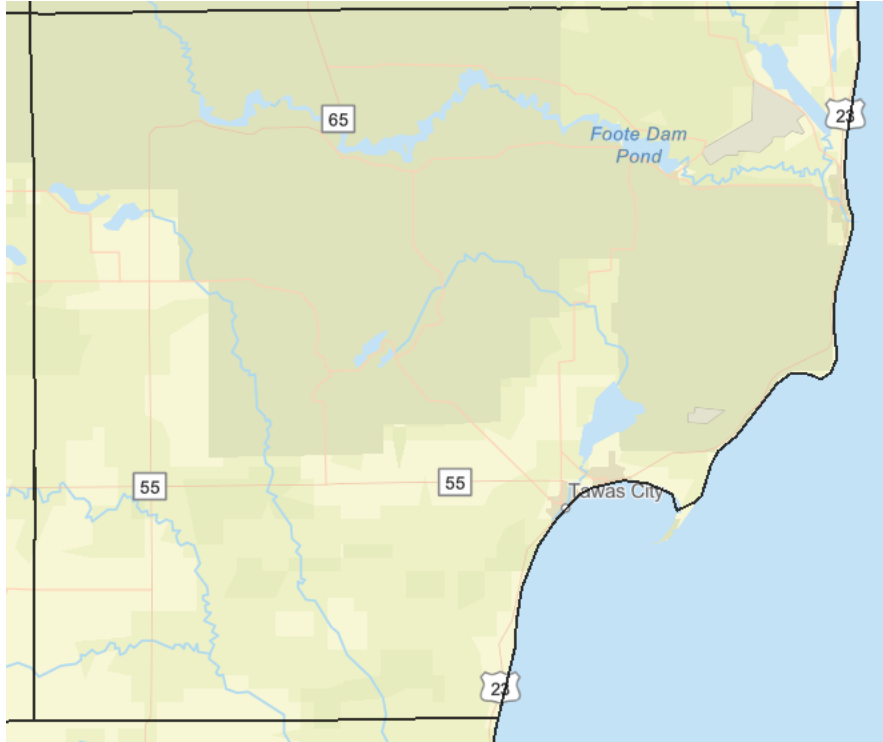
Figures 32-35: EJ Screen Iosco Demographic Maps





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Figure 36: Iosco EJScreen Environmental Thresholds Maps



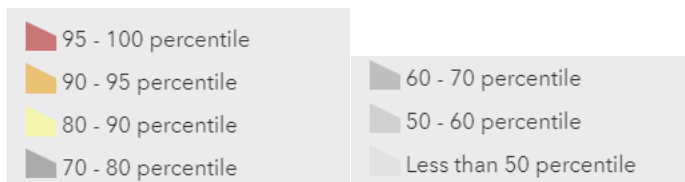
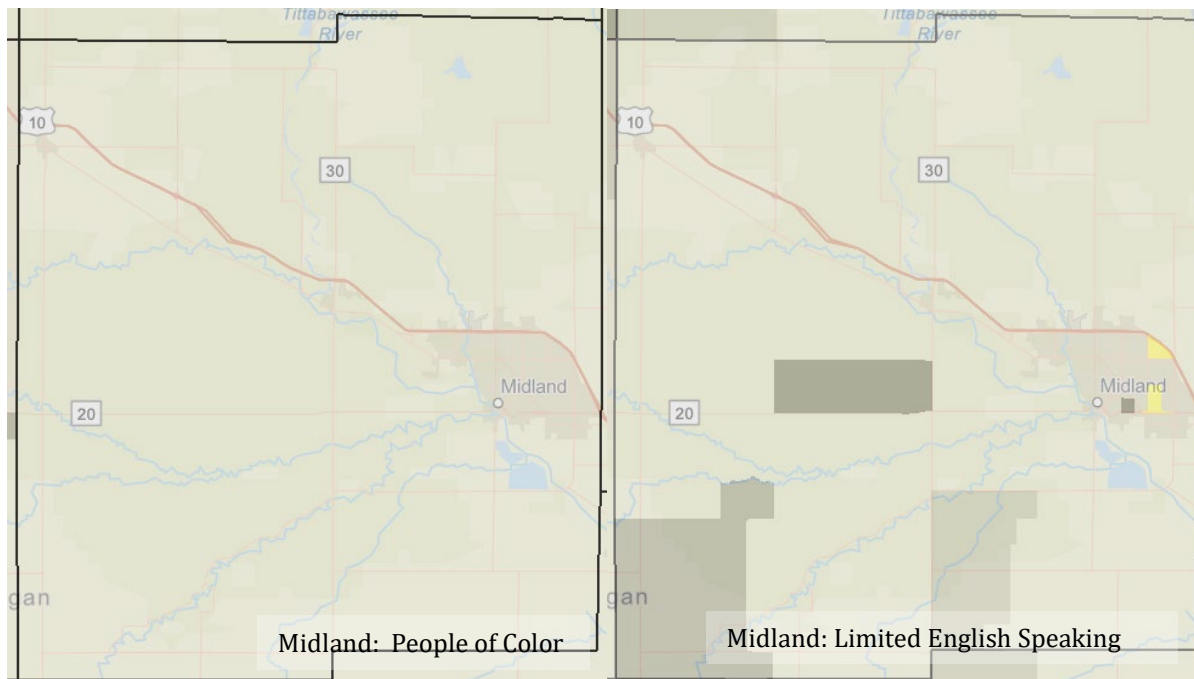
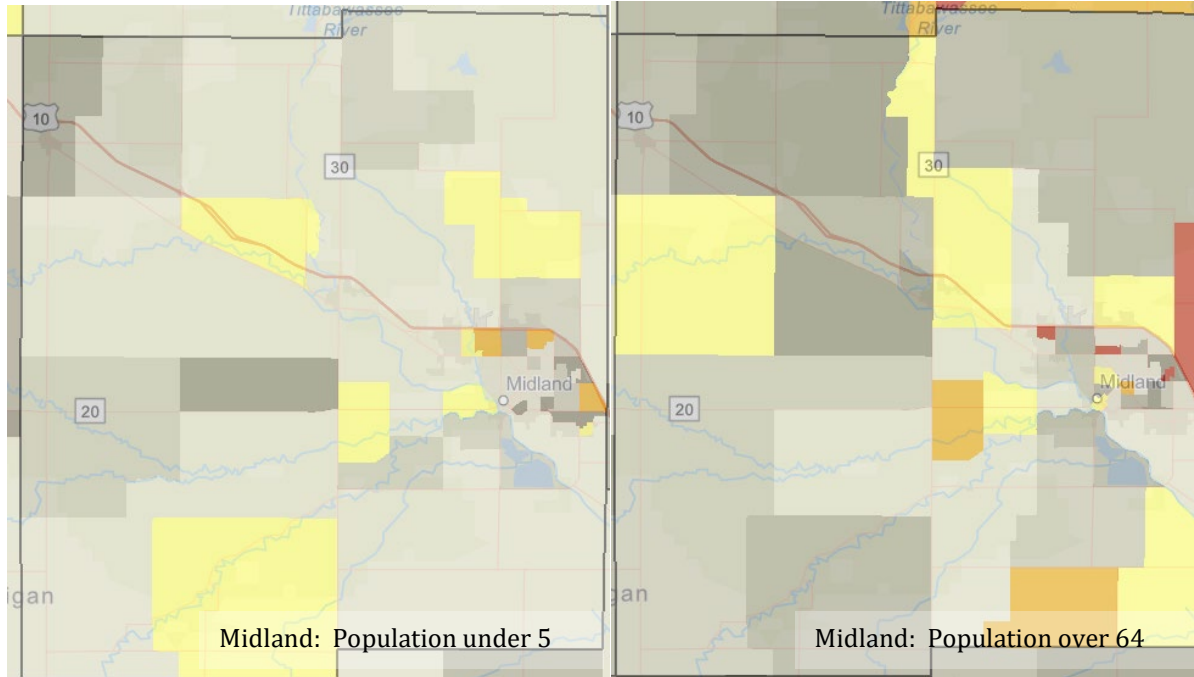
Midland

The maps below show that, compared to national percentiles, Midland has some areas higher than national percentile concentration of children under 5, some area higher than national concentration of people over 64, no areas of higher than national concentration of People of Color, and small areas higher than national concentration of limited English speakers. The environmental justice screening shows that Midland has areas where there are four or more indicators (air toxic cancers risk, superfund site, hazardous waste proximity, and wastewater discharge) are all 50th percentile nationally or above around the City of Midland in the east of the county.



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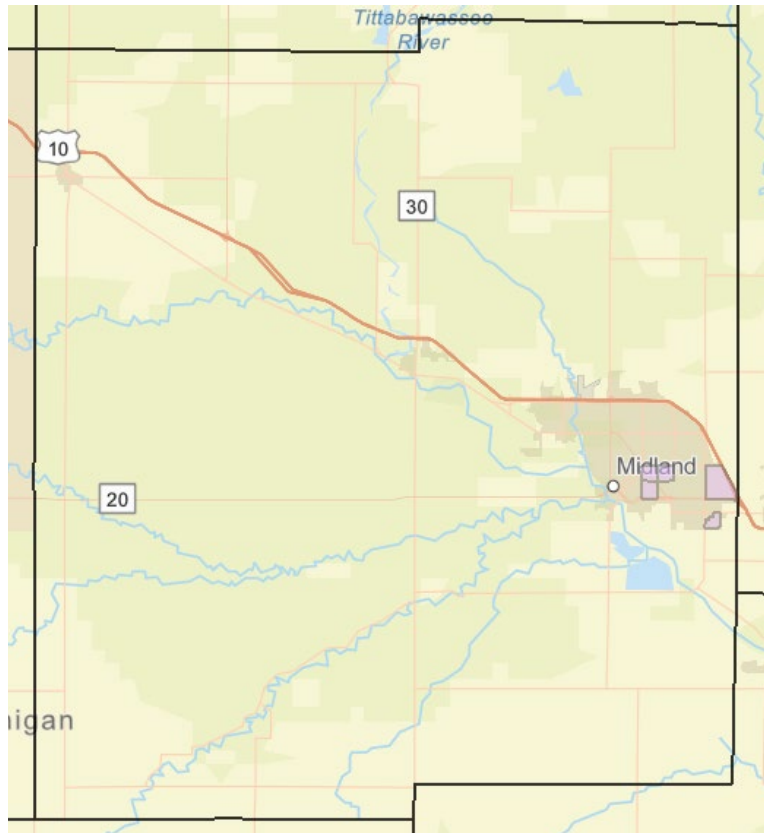
Figures 37-40: EJ Screen Midland Demographic Maps





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Figure 41: Midland EJSreen Environmental Thresholds Maps



Saginaw

The maps below show that, compared to national percentiles, Midland areas higher than national percentile concentration of children under 5, people over 64, People of Color, and limited English speakers all around the City of Saginaw. Similarly, the environmental justice screening shows a concentration of the four or more indicators (air toxic cancers risk, superfund site, hazardous waste proximity, and wastewater discharge) that are all 50th percentile nationally or above around the City of Saginaw.



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Figures 42-45: EJ Screen Saginaw Demographic Maps

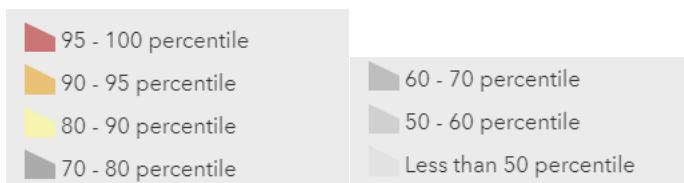
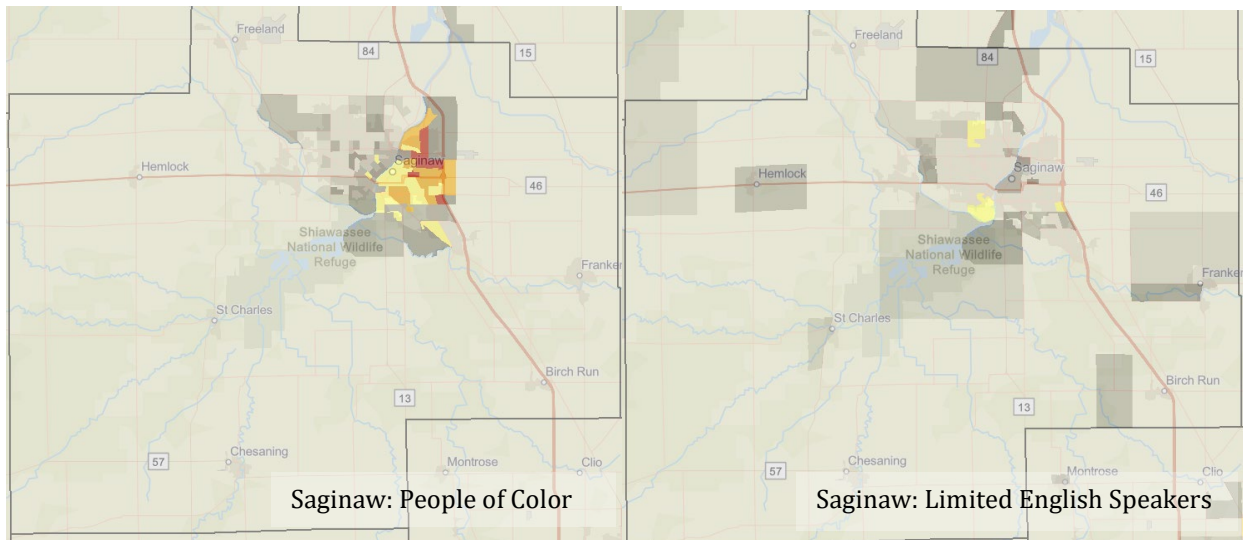
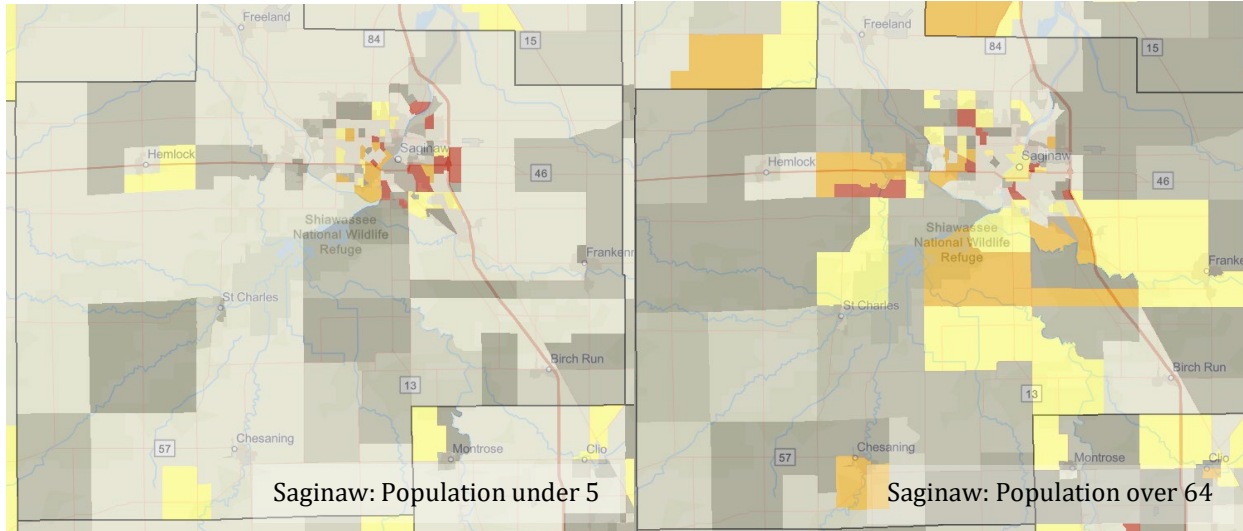
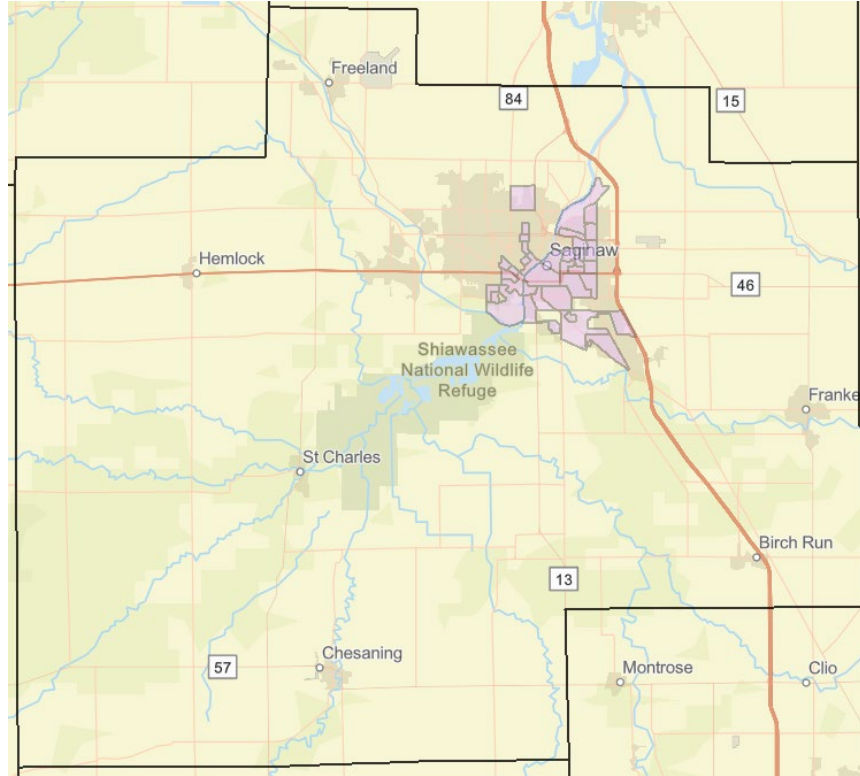




Figure 46: Saginaw EJScreen Environmental Thresholds Maps



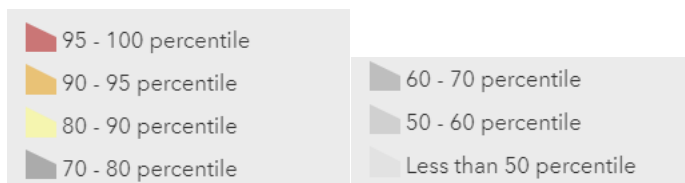
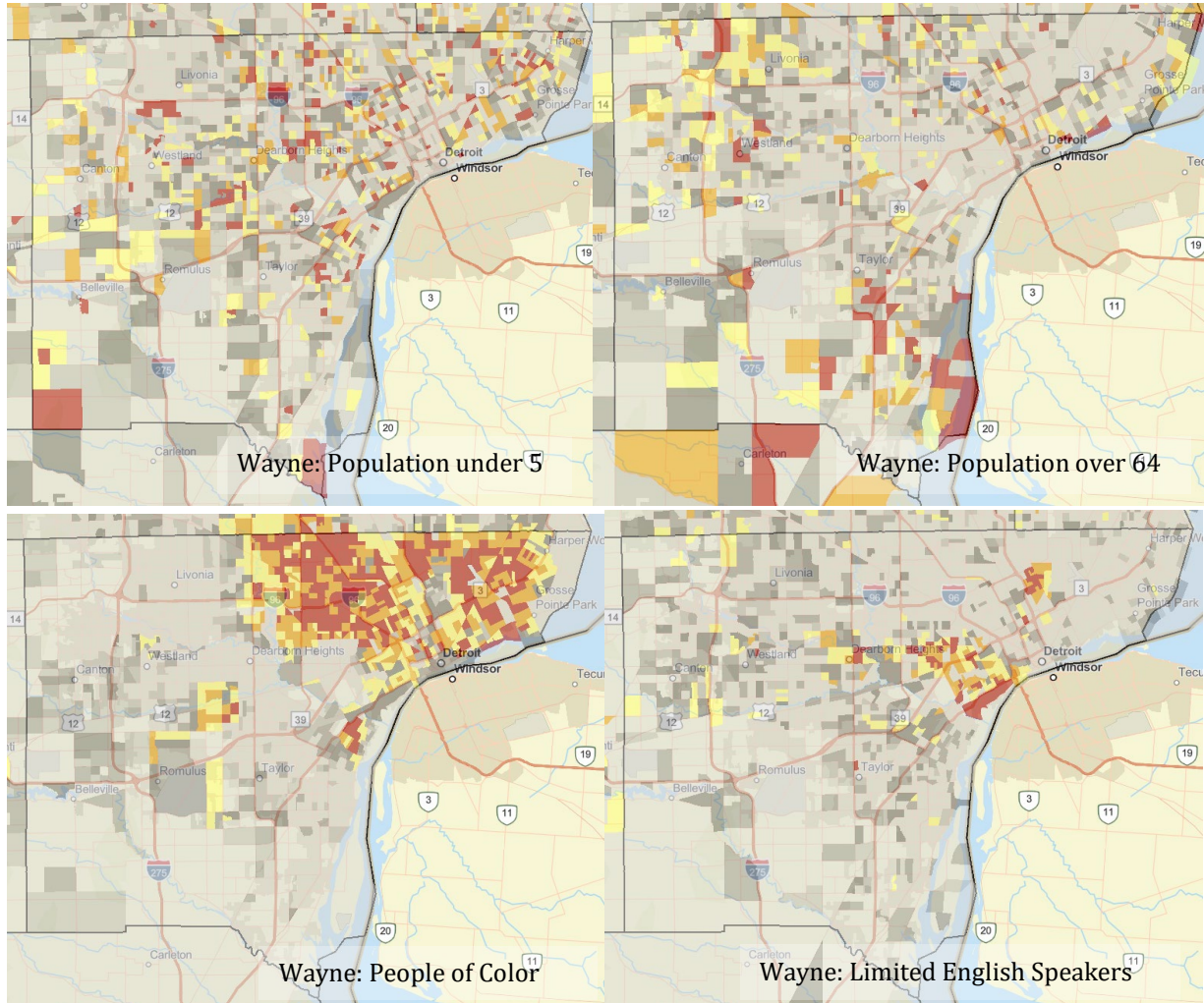
Wayne

The maps below show that, compared to national percentiles, Wayne has areas higher than national percentile concentration of children under 5, people over 64, People of Color, and limited English speakers scattered throughout the County, with specific concentration of People of Color around Detroit in the northeast of the County. Similarly, the environmental justice screening shows a concentration of the four or more indicators of environmental pollution (air toxic cancers risk, superfund site, hazardous waste proximity, and wastewater discharge) around most of Wayne County and especially concentrated along the water on the East and through the center of the County.



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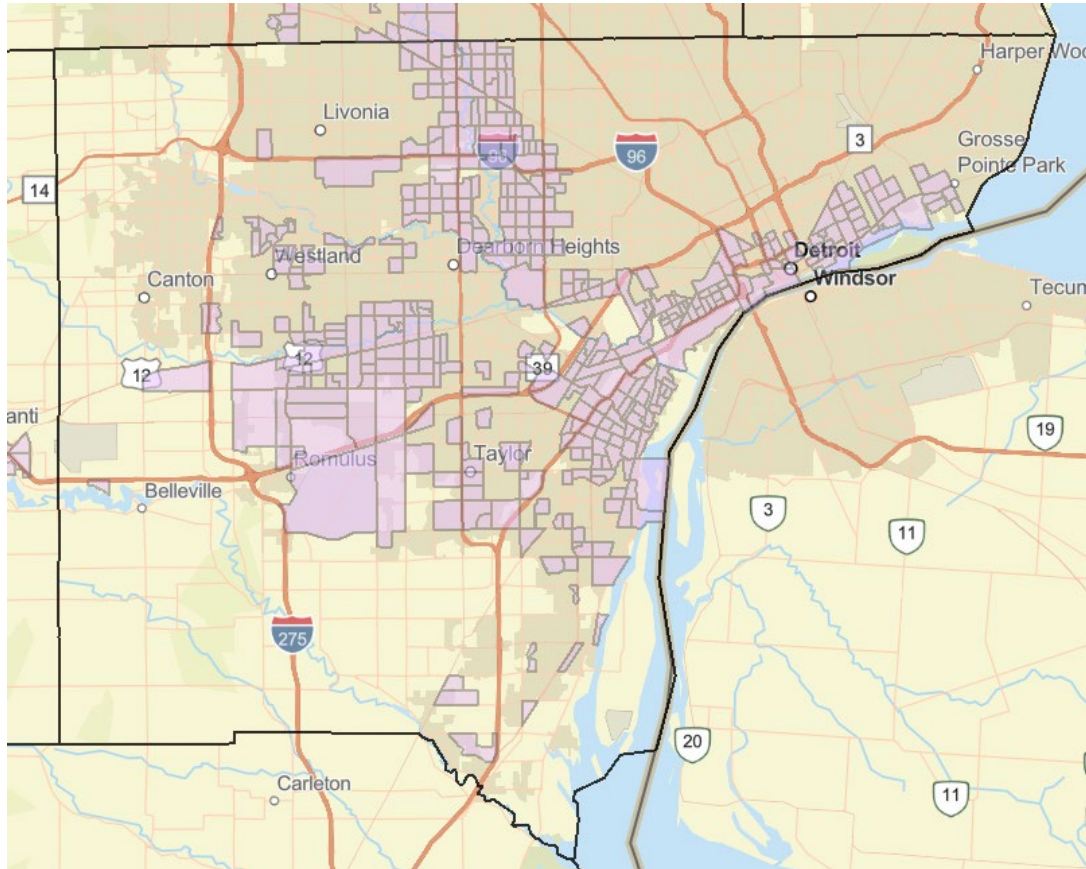
Figures 47-50: EJ Screen Wayne Demographic Maps





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Figure 51: Wayne EJSreen Environmental Thresholds Maps



The MEDC will aim to mitigate environmental concerns identified above through its CDBG-DR programs by:

- Limiting the proximity of new multifamily housing to these sites
- Encouraging local resilience planning that focuses on climate risks and preparedness
- Encouraging green infrastructure building and practices across the Public Infrastructure and Public Facilities and Multifamily Housing programs
- Screening and evaluating scope in the applications to consider the specific location of projects and plan accordingly for the specific hazards and natural features that would affect impacted and vulnerable populations

Federally Protected Classes Analysis

In 2021, President Joe Biden signed Executive Order 14008, Tackling the Climate Crisis at Home and Abroad. The Executive Order states that “40% of the overall benefits” of federal investments



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from covered programs should flow to disadvantaged communities.⁴⁷ This ensures that any federal funds directed toward climate mitigation and adaptation largely benefit historically underserved communities. One of the ways that agencies and covered programs benefit disadvantaged communities is by identifying target populations with the Centers for Disease Control and Prevention's (CDC) Social Vulnerability Index.

The CDC's Agency for Toxic Substances and Disease Registry's (ATSDR) Social Vulnerability Index (SVI) ranks counties and census tracts on 15 social factors, including unemployment, minority status, and disability, and then further groups them into four related themes. The SVI ranking variables for the four themes include Socioeconomic Status, Household Composition & Disability, Minority Status & Language, and Housing Type & Transportation. These indicators help support analysis on the relative vulnerability of a given census tract and help identify communities that will need continued support to recover following an emergency or natural disaster.

Table 36 compares the demographics of disaster-declared counties (Arenac, Gladwin, Iosco, Midland, and Saginaw), MID declared counties (Gladwin, Midland, and Saginaw), overall State, and 2021 disaster (Wayne County). The disaster-declared counties represent 34.1% of the overall population of the State while the MID-declared counties represent 30.07 percent of the total state population, largely due to Saginaw being the most populous county of the five counties at 191,166 people in the 2020 5-Year American Community Survey. The other four counties have fewer than 100,000 people with Arenac as the least populous at 15,013 people in the 2020 5-Year American Community Survey.¹⁹

The disaster-declared and MID counties have a slightly larger population under age 5 and a larger population over age 65 than the State estimates. These are important metrics for vulnerability as the Centers for Disease Control and Prevention's (CDC) Social Vulnerability Index states "children and elders are the most vulnerable groups in disaster events."⁴⁸ It is important to account for households with children in disaster planning and recovery as children face increased vulnerability to psychological stress and post-traumatic stress disorder, educational disruptions, and physical vulnerability from disasters.⁴⁹ Parents with young children may face increasing financial difficulties and stress from interrupted childcare and may face difficulties in returning to work.⁵⁰ Households with adults over age 65 also face increased hardships from disasters due to an increased likelihood of "chronic illness, functional limitations,

⁴⁷ Office of Management and Budget, Implementation Guidance for the Justice40 Initiative, <https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf>

⁴⁸ United States. Centers for Disease Control and Prevention (CDC). (2020, January 31). *CDC SVI Documentation 2018*. Retrieved from https://www.atsdr.cdc.gov/placeandhealth/svi/documentation/SVI_documentation_2018.html

⁴⁹ Lori Peek, "Children and Disasters: Understanding Vulnerability, Developing Capacities and Promoting Resilience: An Introduction", *Children Youth and the Environment*, 2008. <https://www.jstor.org/stable/10.7721/chilyoutenvi.18.1.0001>

⁵⁰ Carolyn Kousky, "Impacts of Natural Disasters on Children", Spring 2016. <http://www.futureofchildren.org/publications/docs/Climate%20Change%20Full%20Issue.pdf> (ed.gov)



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or dementia” which can complicate both the danger of the disaster event and recovery.⁵¹ A 2005 AARP poll found that “13 million persons age 50 or older in the United States say they will need help to evacuate, and about half of these individuals will require help from someone outside of their household.”⁵² During the recovery phase of a disaster, it may be more difficult for older adults to access needed medicines or travel to social service agencies. Furthermore, many older adults live on a fixed income and may suffer from financial hardships after a disaster.

Another indicator of the increased vulnerability of both disaster-declared counties and MID counties is the larger percentage of population with a disability. People with disabilities have increased disaster vulnerability. The World Health Organization states that “people with disabilities may be less able to escape from hazards, may lose essential assistive devices such as spectacles, hearing and mobility aids and/or medications, or may be left behind when a community is forced to evacuate” as well as having “greater difficulty accessing basic needs” and also may face a reduced “capacity of caregivers and care settings”.⁵³ In 2021, the Americans with Disabilities Act was expanded to include provisions that all programs and services from States and local governments prohibit any discrimination against people with disabilities, and also address the need to include access and accommodation in all aspects of emergency planning and recovery.⁵⁴

The following table shows the CDC and Agency for Toxic Substances and Disease Registry’s (ATSDR) Social Vulnerability Index for 2018. The following percentile ranking provides a comparison of the particular geography with the rest of the nation—a higher percentage indicates higher vulnerability. The table below shows the overall summary from the most recent CDC data available.

Table 35: Overall Social Vulnerability Index (SOVI), Percentile Ranking, 2018⁵⁵

County	Overall SOVI Percentile Ranking 2018
Midland	15%
Iosco	52%
Arenac	59%

⁵¹ CDC “Disaster Planning Tips for Older Adults and their Families”.
https://www.cdc.gov/aging/pdf/disaster_planning_tips.pdf

⁵² AARP, Mary Jo Gibson & Michelle Hayunga, “We Can Do Better: Lessons Learned for Protecting Older Persons in Disasters”, 2006. <https://assets.aarp.org/rgcenter/il/better.pdf>

⁵³ World Health Organization, “Guidance note on disability and emergency risk management for health”, December 2, 2013. <https://www.who.int/publications/i/item/guidance-note-on-disability-and-emergency-risk-management-for-health>

⁵⁴ <https://www.fema.gov/blog/three-ways-americans-disabilities-act-supports-equity-and-independence-people-disabilities>

⁵⁵ Centers for Disease Control and Prevention/ Agency for Toxic Substances and Disease Registry/ Geospatial Research, Analysis, and Services Program. CDC/ATSDR Social Vulnerability Index 2018 Database Michigan. https://www.atsdr.cdc.gov/placeandhealth/svi/data_documentation_download.html. Accessed on July 18, 2022.



Gladwin	71%
Saginaw	93%
Wayne	99%

The final important indicator of vulnerability represented in the demographic table below is race, compared with data from the 2020 5-Year American Community Survey. Disaster-declared and MID counties have a higher percentage of White or Caucasian people, and a lower percentage Black or African American, Asian, Native Hawaiian and other Pacific Islander, and Other peoples than the statewide demographics. While the disaster-impacted counties are more disproportionately White or Caucasian than statewide geography, except for Wayne County, it is important to understand any recovery program impact by race as race is a protected class under the Fair Housing Act. As such, MEDC must assess all programs to evaluate the equity and impact on protected classes. Disaster impacts racial and ethnic minorities disproportionately due to an increased exposure to disasters caused by racial bias in housing, socioeconomic differences and potential lack of resources, and potential cultural and language barriers that threaten recovery resources.⁵⁶

Statewide Demographics and Disaster Impacted Populations

In planning the use of funds, it is critical to include vulnerable and historically underserved populations. Minority populations are more likely to be uninsured and not have sufficient resources to recover from a disaster. The table below shows the number and percentages of persons, according to race and ethnicity, within the state, the 2020 and 2021 disaster declared counties, Disaster Declaration Estimates), and the most impacted and distressed counties (MID Estimates). In the most impacted distressed areas Black or African American individuals represent over 13 percent of the total population, and minority individuals represent just under 9 percent of the total population. This information is critical for Michigan to consider as it designs programs with targeted strategies that will help minorities overcome barriers that have historically resulted in exclusionary housing outcomes. The following section provides a data analysis by federally protected classes. Based on data availability, the analysis covers information that is available at the County level for the 2020 and 2021 disasters.

⁵⁶<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5314923/#:~:text=While%20all%20members%20of%20population s.and%20more%20affected%20by%20disasters.&text=During%20Hurricane%20Katrina%2C%20the%20large.designat ed%20shelters%20were%20disproportionately%20black.>



Table 36: Demographics and Disaster Impacted Populations

Demographic	Area-Wide Estimates	Area-Wide Percent	2020 Disaster Declaration Estimate	2020 Disaster Declaration Percent	2020 MID Estimates	2020 MID Percent	2021 Disaster Estimate (Wayne County)	2021 Disaster Percent (Wayne County)
Total Population	9,973,907	NA	340,149	3.4%	299,923	3.0%	1,753,059	17.6%
Under 5 years	568,326	5.7%	18,950	5.6%	17,065	5.7%	115,077	6.6%
65 years and over	1,712,841	17.2%	70,034	20.6%	58,839	19.6%	270,442	15.43%
Population with a disability	1,400,782	14.2%	57,718	17.0%	49,613	16.5%	273,347	15.70%
White or Caucasian	7,735,902	77.6%	282,141	82.95%	243,806	81.3%	917,413	52.3%
Black or African American	1,360,149	13.6%	37,622	11.1%	37,377	12.5%	671,837	38.3%
American and Indian and Alaska Native	50,035	0.5%	1,619	0.5%	1,154	0.4%	5,936	0.3%
Asian	316,844	3.2%	4,408	1.3%	4,196	1.4%	59,977	3.4%
Native Hawaiian and other Pacific	3,117	0.03%	63	0.02%	57	0.02%	426	0.0%
Other	507,860	5.1%	14,296	4.2%	13,333	4.5%	97,470	5.6%

Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates.

When disaster strikes, households with children and/or seniors have additional needs including helping children cope with recurring trauma from being displaced from their communities and schools, and the loss of all their belongings. Seniors disproportionately face additional costs related to replacing medical equipment and face similar temporary and permanent housing accessibility challenges faced individuals living with disabilities. The table above shows the number of children and seniors living in the disaster impacted counties. There are 130,000 children under the age of 5 and nearly 330,000 seniors living in disaster impacted and distressed areas. While all these residents may not have experienced direct housing losses from DR-4547 and DR-4607, the trauma and additional strains on existing resources may have a disproportionate impact on services and housing available to accommodate children and seniors.



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Persons who are socially vulnerable are more likely to be adversely impacted by a disaster and have more challenges in recovering. Persons with disabilities have less mobility, need special equipment to evacuate, and many have service animals that need to be considered when a disaster occurs. Persons with disabilities face disproportionate challenges in finding suitable housing to accommodate their special needs and the additional costs for accessible safe permanent housing. The table above illustrates the number and percentages of socially vulnerable persons living in the impacted and distressed areas within the disaster declared counties. People with disabilities represent 16 percent and 15 percent of the population living in the areas that are identified as most impacted and distressed from the 2020 and 2021 disasters. While not every person with a disability may have experienced a direct impact from the disasters, the data informs how the programs will be made available to any person with a disability that was directly impacted by the disaster and making their social community more resilient for any future disasters.

The below table shows the number and percent of households in each county that have children in the household under 18. Wayne, Saginaw, and Midland County have the highest percent of households with children with at least 25 percent of households, while Arenac and Iosco have the lowest percent of households with children at less than 20 percent.

Table 37: Households with Children Under 18 – Total for 2020 Disasters

County/Municipality	Total Households	Number of Households with Children under 18	Percent Households with Children under 18
HUD MIDs			
Midland	34,253	9,450	27.6%
Saginaw	78,980	19,850	25.1%
Gladwin	11,181	2,234	20.0%
State MIDs			
Arenac	6,585	1,262	19.2%
Iosco	11,772	2,092	17.8%

Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates.

Table 38: Households with Children Under 18 – 2021 Federally Declared Disaster Areas

County/Municipality	Total Households	Number of Households with Children under 18	Percent Households with Children under 18
HUD MIDs			
Wayne	694,858	176,574	25.4%
State Overall	3,980,408	1,017,313	25.6%



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Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates.

Data sources on sexual orientation and gender identity, are not available at the County level in the most recent Census and American Community Survey data, but the table below estimates same sex households in the 2020 and 2021 impacted areas. The 2018 ACS 5-Year data is the most recent and comprehensive census data available for unmarried same-sex households but this only measures same-sex relationships of people who both live together and are unmarried. The data it undercounts the Lesbian, Gay, Bisexual, Transgender, Queer/Questioning (LGBTQ) population and does not include people who are married, single, or other relationship statuses. At the state level, unmarried, partnered households count for only 6 percent of all households and same-partnered households represent .22 percent of all households, so LGBTQ households were at least 1.3 percent of all households but likely much more. Arenac has the highest percent of same-sex, unmarried households while Iosco had the least.

Table 19: Unmarried, same-sex households – Total for 2020 Disaster

County/Municipality	Total households	Unmarried-partner households	Male householder and male partner	Percent Male householder and male partner	Female householder and female partner	Percent Female householder and female partner
HUD MIDs						
Midland	34,017	2,137	38	0.11%	36	0.11%
Saginaw	78,648	5,285	68	0.09%	173	0.22%
Gladwin	10,999	620	13	0.12%	8	0.07%
State MIDs						
Arenac	6,684	501	10	0.15%	9	0.13%
Iosco	11,631	925	2	0.02%	0	0.00%

Source: U.S. Census Bureau, 2014 – 2018 American Community Survey



Table 20: Unmarried, same-sex households – 2021 Federally Declared Disaster Areas

County/ Municipality	Total households	Unmarried- partner households	Male householder and male partner	Percent Male householder and male partner	Female householder and female partner	Percent Female householder and female partner
HUD MIDs						
Wayne	676,587	42,253	681	0.10%	1,093	0.16%
State Overall	3,909,509	252,799	4,784	0.12%	6,314	0.16%

Source: U.S. Census Bureau, 2014 – 2018 American Community Survey

The below tables shows the total foreign-born population in each disaster impacted County and the continent of origin of the foreign born population. For the disaster impacted counties, Wayne and Midland have the highest percent population of foreign born at 9.1 percent and 3.4 percent respectively. Gladwin and Arenac have the lowest percent population of foreign born at less than 1.5 percent of the population.

Table 41: Foreign Born Population by Continent of Origin – Total for 2020 Disaster

County/ Municipality	Total population	Total foreign-born population	Born in Europe	Asia	Africa	Oceania	Americas
HUD MIDs							
Midland	83,445	3.4%	0.7%	1.7%	0.1%	0.0%	0.9%
Saginaw	191,166	2.4%	0.4%	1.3%	0.0%	0.0%	0.7%
Gladwin	25,312	1.3%	0.7%	0.3%	0.0%	0.0%	0.3%
State MIDs							
Arenac	15,013	1.0%	0.5%	0.2%	0.0%	0.0%	0.4%
Iosco	25,213	2.2%	0.7%	0.6%	0.0%	0.0%	1.0%

Source: U.S. Census Bureau, 2016-2020 American Community Survey



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Table 42: Foreign Born Population by Continent of Origin – 2021 Federally Declared Disaster Areas

County/ Municipality	Total population	Total foreign-born population	Born in Europe	Asia	Africa	Oceania	Americas
HUD MIDs							
Wayne	1,753,059	9.1%	1.1%	5.4%	0.5%	0.0%	2.1%
State Overall	9,973,907	6.9%	1.3%	3.5%	0.4%	0.0%	1.6%

Source: U.S. Census Bureau, 2016-2020 American Community Survey

The below tables show the percentage of persons by religious affiliation for each disaster impacted county. Out of these religious groups, there are more persons affiliated with Catholic and Evangelical Protestant in all of the disaster impacted counties. The data displayed below is not inclusive of all religious categories and reflects information on the religious groups participating in the census. More details about the data can be found on the U.S. Religion Census and the Public Religion Research Institute's websites.

Table 43: Percentage of Persons by Religious Affiliation – 2020 Federally Declared Disaster Areas

County/ Municipality	Total Population		Percentage of Adherents that are:				
		Catholic	Evangelical Protestant	Mainline Protestant	Black Protestant	Other	Religiously Unaffiliated
HUD MIDs							
Midland	83,494	16.8%	15.9%	8.9%	0.2%	2.3%	28%
Saginaw	190,124	16.7%	16.9%	4.6%	7.7%	1.3%	21%
Gladwin	25,386	10.5%	13.3%	4%	0.4%	1.0%	25%
State MIDs							
Arenac	15,002	13.5%	9.2%	2.5%	0%	0.9%	22%
Iosco	25,237	9.8%	13.8%	6%	0%	1.8%	21%

Source: U.S. Religion Census, 2020 Study and PPRI Census of American Religion



Table 44: Percentage of Persons by Religious Affiliation – 2021 Federally Declared Disaster Areas

County/ Municipality	Total Population	Percentage of Adherents that are:					
		Catholic	Evangelical Protestant	Mainline Protestant	Catholic	Other	Religiously Unaffiliated
HUD MIDs							
Wayne	1,793,561	13.7%	9.4%	3.5%	8.7%	10.4%	27%

Source: U.S. Religion Census, 2020 Study and PPRI Census of American Religion

Income Demographics

The income table below illustrates that both disaster-impacted counties and MID areas have a lower median household income and per capita income than the statewide amount. Of the impacted counties, the lowest median household income counties include Iosco at \$42,628, Arenac at \$45,679, and Gladwin at \$45,957. The areas impacted by disaster also have 50,290 people for whom income during the past 12 months was below poverty level. This is 15.1% of the population for whom poverty status is determined. People living in poverty are especially vulnerable to disasters because they are more oftentimes at greater risk of exposure due to being more likely to live in high-risk areas, losing a greater portion of their wealth when disaster hits, and having a lower ability to recover from disasters.

Table 45: Medium Household Incomes in the HUD and State MIDs

Income/Economic Demographics	Statewide	Areas Impacted by Disaster – 2020	HUD MIDs – 2020	State MIDs – 2020	Wayne County
Median Household Income	\$59,234	\$49,581	\$53,200	\$45,203	\$49,359
Per Capita Income	\$32,854	\$28,413	\$30,496	\$26,327	\$28,403
Income in the past 12 months below poverty level	1,337,256	50,290	44,520	375,342	369,572

Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates.

The table below illustrates the number and percentage of LMI persons at the disaster-impacted counties, MID, and State level. Because all HUD recovery programs must meet an overall LMI benefit to expend 70% of the total allocation on activities that benefit LMI persons, it is important to understand the geography of low- and moderate- income persons in disaster impacted areas. While the impacted counties and MID have a lower percentage of LMI persons than the state, it is still more than 40% of all residents for all geographies.

Table 46: LMI Analysis – Overall for 2020 Disasters

Category	Total LMI Persons	Total Population	Percent LMI
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Disaster Impacted County Total	140,830	337,890	41.7%
MID Total	121,870	297,685	40.9%
State Total	2,586,069	5,963,275	43.4%

Source: HUD 2011 – 2015 LMI. <https://www.hudexchange.info/programs/acs-low-mod-summary-data/acs-low-mod-summary-data-block-groups-places/>

Table 47: LMI Analysis – 2021 Federally Declared Disaster Areas

County	Total LMI Persons	Total Population	Percent LMI
Wayne County	926,275	1,757,325	52.7%
State Total	2,586,069	5,963,275	43.4%

Source: HUD 2011 – 2015 LMI. <https://www.hudexchange.info/programs/acs-low-mod-summary-data/acs-low-mod-summary-data-block-groups-places/>

The table below shows that Wayne, Gladwin, and Iosco have the highest percentage of LMI persons at 52.7%, 47.9%, and 47.8% of their population. Arenac follows at 46.2% and Midland County has the lowest number of LMI persons.

Table 48: LMI Analysis – Federally Declared Disaster Areas – 2020

County/Municipality	Total LMI Persons	Low/Mod Universe	Percentage LMI
HUD MIDs			
Midland	31,765	82,295	38.6%
Saginaw	78,030	190,160	41.0%
Gladwin	12,075	25,230	47.9%
State MIDs			
Arenac	7,015	15,200	46.2%
Iosco	11,945	25,005	47.8%

Source: HUD 2011 – 2015 LMI.

Table 49: LMI Analysis – Federally Declared Disaster Areas – 2021

County/Municipality	Total LMI Persons	Low/Mod Universe	Percentage LMI
HUD MIDs			
Wayne	926,275	1,757,325	52.7%



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Source: HUD 2011 – 2015 LMI.

Mobile homes faced increased risk of disaster exposure and increased barriers to disaster recovery. Mobile homes are more likely to be built in flood prone areas, may be more structurally prone to disaster damage, and often receive less resources in post disaster recovery due to higher rates of local government stigmatization.⁵⁷ In addition, many mobile home residents may lack legal protections due to owning their home but renting the land, which makes residents particularly at risk of evictions⁵⁸. The below table shows that Arenac and Gladwin have the highest percentage of housing stock that is mobile homes at more than 14% of all housing.

Table 50: Manufactured Housing Units Impacted by Disaster – 2020

County/ Municipality	Number of Units	Number of Units Impacted by the Disaster	% of Total Units in County/Municipality	Remaining Unmet Need
HUD MIDs				
Midland	3,274	20	0.6%	\$472,607
Saginaw	3,203	3	0.1%	\$70,891
Gladwin	2,624	38	1.4%	\$897,954
State MIDs				
Arenac	1,461	2	0.1%	\$47,261
Iosco	1,344	3	0.2%	\$70,891

Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates; FEMA Individual Assistance.

Table 51: Manufactured Housing Units Impacted by Disaster – 2021

County/ Municipality	Number of Units	Number of Units Impacted by the Disaster	% of Total Units in County/Municipality	Remaining Unmet Need
HUD MIDs				
Wayne	13,951	37	0.02%	\$22,606

Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates; FEMA Individual Assistance.

Michigan Supplementary Nutrition Assistance Program (SNAP) provides nutrition benefits to families who may struggle with food budgets so that they can “purchase healthy food and move

⁵⁷ Andrew Rumbach, Esther Sullivan, and Carrie Makarewicz, “Mobile Home Parks and Disasters: Understanding Risk to the Third Housing Type in the United States: Natural Hazards Review: Vol 21, No 2,” Natural Hazards Review, American Society of Civil Engineers, January 21, 2020. [https://ascelibrary.org/doi/abs/10.1061/\(ASCE\)NH.1527-6996.0000357](https://ascelibrary.org/doi/abs/10.1061/(ASCE)NH.1527-6996.0000357).

⁵⁸ E.L. Raymond, T. Green, and M. Kaminski, “Preventing Evictions After Disasters: The Role of Landlord-Tenant Law,” Housing Policy Debate, 2021. <https://www.nlihc.org/sites/default/files/Preventing-Evictions-After-Disasters-The-Role-of-Landlord-Tenant-Law.pdf>



towards self-sufficiency”.⁵⁹ Eligibility for the program is based on the financial situation of all members in a household. Everyone who lives together and purchases and prepares food together is considered a member of the same household group and considered together in the application process. The Disaster-Supplementary Nutrition Assistance Program (D-SNAP) provides a one-time benefit during the disaster benefit period to aid in food-assistance for households that are not covered under regular SNAP.⁶⁰ The tables below shows the number of SNAP households and individuals impacted. The number of issued D-SNAP to households and individuals will be completed when information becomes available to the State.

Table 52: SNAP and D-SNAP Applicants Impacted by the Disaster – 2020

County	# of SNAP Households Impacted	# of SNAP Individuals Impacted	# of Households Issued D-SNAP Benefits	# of Individuals Issued D-SNAP Benefits
HUD MIDs				
Midland	4,071	7,114	N/A	N/A
Saginaw	18,206	32,530	N/A	N/A
Gladwin	1,954	3,241	N/A	N/A
State MIDs				
Arenac	1,152	1,959	N/A	N/A
Iosco	2,267	3,806	N/A	N/A

Source: SNAP data retrieved from <https://www.fns.usda.gov/pd/supplemental-nutrition-assistance-program-snap>, July 2020 Snapshot.

Table 53: SNAP and D-SNAP Applicants Impacted by the Disaster – 2021

County	# of SNAP Households Impacted	# of SNAP Individuals Impacted	# of Households Issued D-SNAP Benefits	# of Individuals Issued D-SNAP Benefits
HUD MIDs				
Wayne	225,512	399,814	N/A	N/A

Source: SNAP data retrieved from <https://www.fns.usda.gov/pd/supplemental-nutrition-assistance-program-snap>, July 2020 Snapshot.

It is important to note the amount of population with Limited English Proficiency in disaster areas as language and cultural differences could serve as a serious barrier to understanding disaster directives and communicating with first responders and emergency providers during a

⁵⁹ USDA Food and Nutrition Services US Department of Agriculture, “Supplemental Nutrition Assistance Program (SNAP), accessed July 2020, <https://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program>

⁶⁰ Michigan.gov “Disaster Food Assistance Program Benefits”, accessed July 2021, <https://www.michigan.gov/mdhhs/assistance-programs/food/disaster-food-assistance-program>



disaster. After the disaster, the barriers may affect accessing recovery services.⁶¹ The Civil Rights Act of 1964 prohibits discrimination on the basis of national origin and requires that government entities ensure that persons with Limited English Proficiency (LEP) have access to the same benefits, services, and information as English-speaking residents. As such, disaster preparedness and recovery must consider and plan for those who need translators and translated materials.

The tables below show the total and percentage LEP populations in all disaster-impacted counties. All impacted counties have a percentage who speak English less than “very well” that is much less than the statewide percentage with the highest being Wayne at 5.5% followed by Saginaw at 1.6% of the total population. Nonetheless, disaster recovery should take into account any impacted groups who may need translations for outreach and materials.

Table 54: Limited English Proficiency Breakdown of Disaster-Related Areas – 2020

County/Municipality	Estimate Speak English Less than ‘Very Well’	Percent Speak English Less than ‘Very Well’
HUD MIDs		
Midland	809	1.0%
Saginaw	2,837	1.6%
Gladwin	304	1.3%
State MIDs		
Arenac	91	0.6%
Iosco	347	1.4%

Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates.

Table 55: Limited English Proficiency Breakdown of Disaster-Related Areas – 2021

County/Municipality	Estimate Speak English Less than ‘Very Well’	Percent Speak English Less than ‘Very Well’
HUD MIDs		
Wayne	89,882	5.5%

Source: U.S. Census Bureau, 2016-2020 American Community Survey, 5-Year Estimates.

The table below illustrates which translation services may be needed by showing that most non-English speakers speak Spanish (1,769 residents), followed by German, Chinese, and other Indo-European languages.

⁶¹ Sharyne Shiu-Thornton, Joseph Balabis, et al., “Disaster Preparedness for Limited English Proficient Communities: Medical Interpreters as Cultural Brokers and Gatekeepers, Public Health Reports, 2007 Jul-Aug. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1888520/>



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Table 56: Languages Spoken within Michigan State

Language Spoken	Estimate Number Population	Percentage of the Population
Spanish	1,769	0.5%
German	507	0.2%
Chinese	436	0.1%
Other Indo-European	386	0.1%

Comprehensive disaster recovery needs to take into account the needs of people experiencing homelessness as many formal supports (shelters and supportive services) and informal supports (e.g., community resource sharing) may be impacted. People experiencing homelessness are especially vulnerable to disasters as they could be at heightened risk of losing what HUD terms their “margin of stability” leading to an increased risk of death, injuries, illness, and mental health crises.⁶² The Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, which authorizes presidentially declared disaster areas, protects individuals from discrimination on many bases including economic status in all disaster assistance programs in presidentially declared disaster areas⁶³.

The tables below illustrate a one-night count of unhoused people in each appropriate county for January 2020. These counts measured the number of sheltered and unsheltered persons experiencing homelessness in each of the continuum of care region. The results of the count indicate that there were 1,502 homeless persons in the Michigan Balance of State Continuum of Care (CoC) jurisdiction, 431 homeless persons in the City of Saginaw and Saginaw County, 169 homeless persons in Dearborn, Dearborn Heights, and Westland/Wayne County; and 1,589 homeless persons in Wayne. It should be noted, however, that homeless counts often undercount the unsheltered population as it may miss people who are hidden from view—especially due to the January weather—as well as does not count those who are “couch surfing” or may have other precarious living arrangements (e.g., motels, hotels, camping grounds)⁶⁴.

⁶² HUD Exchange, Disaster Recovery Homelessness Toolkit, “Why this Guide: The Consequences of Disasters for Homeless and Other Vulnerable People”, Accessed July 2022. <https://www.hudexchange.info/homelessness-assistance/disaster-recovery-homelessness-toolkit/response-guide/>

⁶³ HUD Exchange, Disaster Recovery Homelessness Toolkit, “Why this Guide: The Consequences of Disasters for Homeless and Other Vulnerable People”, Accessed July 2022 <https://www.hudexchange.info/homelessness-assistance/disaster-recovery-homelessness-toolkit/recovery-guide/>

⁶⁴ Alastair Boone, “Is There a Better Way to Count the Homeless?” CityLab, March 4, 2019. <https://www.bloomberg.com/news/articles/2019-03-04/the-problem-with-hud-s-point-in-time-homeless-count>



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Table 57: Affected Continuum of Care Entities

CoC Number	CoC Entity	Impacted County	Homeless Count
MI-500	Michigan Balance of State	Arenac, Gladwin, Iosco, Midland, and 55 other counties	1,502
MI-510	Saginaw City and County	Saginaw	431
MI-501	Dearborn, Dearborn Heights, Westland/Wayne County	Wayne	169
MI-502	Detroit	Wayne	1,589

Source: HUD 2020 Continuum of Care Homeless Assistance Programs Homeless Populations and Subpopulations Point-in-Time County.

The table below shows that a significant amount of the total population known to be homeless during the January 2020 count were “unsheltered homeless”. Unsheltered people are at especially high-risk during disasters as it may be difficult to find all residents for evacuation and the provision of services.

Table 58: Point-in-Time Count – Type of Shelter

Geography	Emergency Shelter	Transitional Housing	Unsheltered Homeless	Total Known Homeless
Michigan	5,743	1,856	1,039	8,638
Balance of state	937	293	272	1,502
Saginaw	280	141	10	431
Dearborn, Dearborn Heights, Westland/Wayne County	70	77	22	169
Detroit	990	513	86	1,589

Source: HUD 2020 Continuum of Care Homeless Assistance Programs Homeless Populations and Subpopulations Point-in-Time County.

Data to complete the Point-in-Time Count Impacted by Disaster was not available at the time this Action Plan was drafted. This table will be completed when information becomes available to the State.

Table 59: Point-in-Time Count – Impacted by Disaster

Geography	Emergency Shelter	Transitional Housing	Unsheltered Homeless	Total Known Homeless
Michigan	N/A	N/A	N/A	N/A
Balance of State	N/A	N/A	N/A	N/A



Saginaw	N/A	N/A	N/A	N/A
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The tables below list the total Housing Choice Vouchers, Low-Income Housing Tax Credit (LIHTC) units, and public housing dwelling units in every disaster-impacted county as well as statewide. The tables show that every county has Housing Choice Voucher recipients and LIHTC developments, with Wayne County having the most units of both with 16,308 vouchers and 25,463 LIHTC units. The tables also show that Gladwin, Iosco, and Saginaw have public housing units in the county, with Wayne also having the most public housing units at 6,966. Data to complete the tables was not available at the time this Action Plan was drafted. These tables will be completed when information becomes available to the State.

Table 60: Assisted Housing Impacted by Disaster – 2020

County/ Municipality	Total Housing Choice Vouchers	Total Impacted Housing Choice Voucher Units	Total LIHTC Units	Total Impacted LIHTC Units	Total Public Housing Dwelling Units	Total Impacted Public Housing Dwelling Units	Remaining Unmet Need
HUD MIDs							
Midland	287	N/A	454	N/A	N/A	N/A	N/A
Saginaw	1,799	N/A	2,038	N/A	653	N/A	N/A
Gladwin	51	N/A	183	N/A	70	N/A	N/A
State MIDs							
Arenac	17	N/A	115	N/A	N/A	N/A	N/A
Iosco	89	N/A	245	N/A	41	N/A	N/A

Source: Housing Choice Vouchers retrieved via <https://hudgis-hud.opendata.arcgis.com/datasets/HUD::housing-choice-vouchers-by-tract/explore?location=4.314173%2C0.315564%2C1.93> July 11 2022, LIHTC retrieved via <https://hudgis-hud.opendata.arcgis.com/datasets/low-income-housing-tax-credit-properties/explore?location=11.287208%2C1.719700%2C1.99> July 11 2022, Public Housing Dwelling Units retrieved via <https://hudgis-hud.opendata.arcgis.com/datasets/HUD::public-housing-developments/about> July 11 2022

Table 61: Assisted Housing Impacted by Disaster – 2021

County/ Municipality	Total Housing Choice Vouchers	Total Impacted Housing Choice Voucher Units	Total LIHTC Units	Total Impacted LIHTC Units	Total Public Housing Dwelling Units	Total Impacted Public Housing Dwelling Units	Remaining Unmet Need
HUD MIDs							
Wayne	16,308	N/A	25,643	N/A	6,966	N/A	N/A



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Source: Housing Choice Vouchers retrieved via <https://hudgis-hud.opendata.arcgis.com/datasets/HUD::housing-choice-vouchers-by-tract/explore?location=4.314173%2C0.315564%2C1.93> July 11 2022, LIHTC retrieved via <https://hudgis-hud.opendata.arcgis.com/datasets/low-income-housing-tax-credit-properties/explore?location=11.287208%2C1.719700%2C1.99> July 11 2022, Public Housing Dwelling Units retrieved via <https://hudgis-hud.opendata.arcgis.com/datasets/HUD::public-housing-developments/about> July 11 2022

Infrastructure Unmet Need

Michigan State Police, the State's emergency agency, have identified considerable impacts on public facilities and infrastructure from the May 2020 heavy rains that led to the catastrophic failure of the Edenville and Sanford dams. While FEMA has determined more than \$250 million in damages to be eligible under its Public Assistance Program, that number does not reflect the entirety of the dam failure. Not only was the damage considerable in scale, but the dam failure also impacted a wide range of facility types, including public buildings, roads and bridges, utility infrastructure and parks.

On the evening of May 19, 2020, the Edenville dam failed when a section of the dam started sloughing, which rapidly progressed to slope failure along structure's embankment wall. The breach sent an uncontrolled release of water down the already flooded Tittabawassee River toward Sanford Lake and the Sanford Dam⁶⁵. Figure 20 shows aerial footage of the failure of the Edenville dam.⁶⁶



⁶⁵ FEMA Michigan Dam Incident Response Review Report

https://www.fema.gov/sites/default/files/documents/fema_michigan-dam-incident-response-review_report.pdf

⁶⁶ <https://www.weather.gov/dtx/HistoricFlooding-May-17-20-2020> photo credit Midland Daily News.



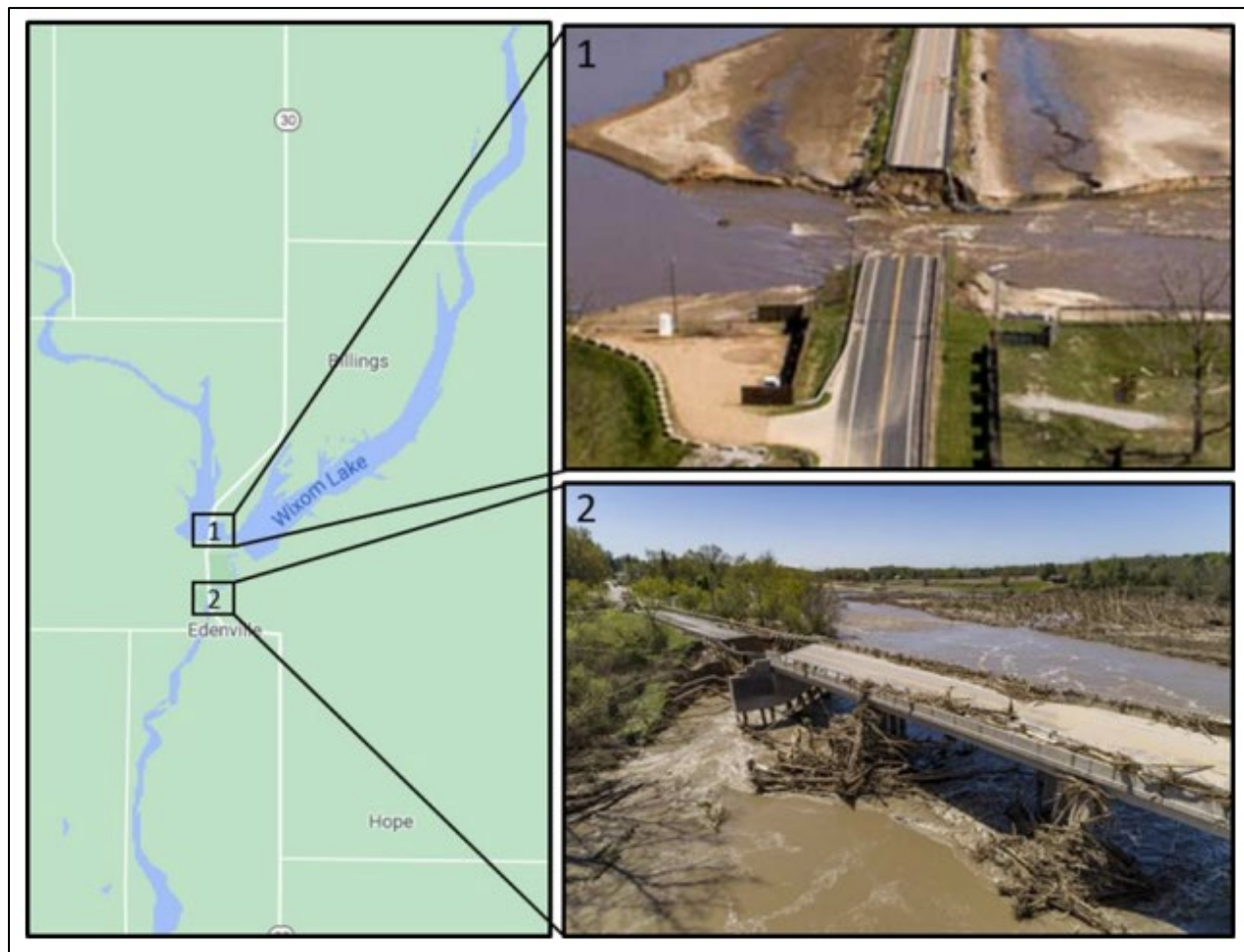
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Figure 52: Ariel Footage of Edenville Dam Failure

Roads and Bridges

Floodwaters washed out several bridges and roadways, including multiple sections of M-30, a state trunk-line highway that runs north to south through Gladwin and Midland counties, and caused the temporary closure of hundreds of other roads and bridges until the waters receded. Closures of local roadways and bridges greatly increased commuting times and negatively impacted response times for emergency services. Figure 21 below shows M-30 bridges over the Tobacco River and Tittabawassee River following the Edenville dam failure.⁶⁷

Figure 53: M-30 bridges over Tobacco River (Box 1) and Tittabawassee River (Box 2) following the Edenville dam failure.



⁶⁷ FEMA Michigan Dam Incident Response Review Report

https://www.fema.gov/sites/default/files/documents/fema_michigan-dam-incident-response-review_report.pdf



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Buildings and Equipment

The dam failures and subsequent flooding also had a devastating impact on numerous public facilities, government buildings, schools, police and fire stations, medical services and offices, and other businesses.

Northwood University, located in Midland along the Tittabawassee River, had several buildings and athletic facilities were inundated by floodwaters ranging from six inches to eight feet deep. The campus was fully evacuated, and the power was shut down.

Midland's public library sustained major water damage from flooding. The mechanical rooms on the lowest floor were submerged, affecting climate control systems. The lower floor also housed book collections, historical editions and artifacts. Prior to the dam failures, efforts were made to move library materials to higher ground and sandbag the doorways.

The Midland County Courthouse was flooded with approximately 18 inches of water on its lowest level. The courthouse temporarily lost power, air handler system submerged, and the elevators were destroyed.

Utilities

Drinking Water and Wells

A major unexpected consequence of the dam failures was drinking water loss at hundreds of private residential wells. The flood waters caused pump issues, clogging with silt, damage by debris, and potential contamination. Local community water mains and infrastructure also experience damage causing multiple boil water advisories. During consultations with 2020 impacted local governments many noted the disruption to the water table from the flood events. Many areas, including Gladwin County have seen an increase in permit application for wells.

Wastewater Infrastructure

Floodwaters inundated the area's wastewater systems, which are a combination of sanitary and combined sewers. Officials estimated that the system was taking in about three to four times its normal daily inflow. Impacts included overcapacity that led to sewer overflows and backups. In the City of Gladwin, flooding came within a few feet of knocking out the electrical systems for the sewage treatment plant. The City of Midland was forced to shut down five pump stations, including Valley Street station that services the largest area of the city, including the MidMichigan Medical Center.⁶⁸ Communities impacted by the 2020 disaster note that damage to or a lack of a sewer system prior to the disaster will impact their availability to recover from the 2020 disaster.

⁶⁸ FEMA Michigan Dam Incident Response Review Report
https://www.fema.gov/sites/default/files/documents/fema_michigan-dam-incident-response-review_report.pdf



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Parks, Recreation and Other Facilities

The Midland Center for the Arts housed auditorium, theater, lecture hall, art studios, museums, and historical heritage facilities. The main building lost power and sustained major water damage. Floodwaters reached as high as five feet.

Portions of the Currie Golf Course, owned by Midland City, were submerged up to ten feet of water, including the clubhouse and restaurant. Once the water receded, several inches of sediment and debris covered fairways and greens.

The Midland Area Farmers Market circular pavilion, located beside the Tittabawassee River, was nearly submerged by the flooding. The photos below depict the before and after images during the dam failure and flooding.



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Figure 54: Before Flooding Depiction Beside the Tittabawassee River



Figure 55: After Flooding Depiction Beside the Tittabawassee River



Disaster Damage and Impacts – Infrastructure

FEMA's Public Assistance Program (PA) provides supplemental grants to State, tribal, territorial and local governments, and certain types of private nonprofits so that communities can quickly respond to and recover from major disasters or emergencies. FEMA also encourages the



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protection of these damaged facilities from future events by providing assistance for hazard mitigation measures during the recovery process.

To access FEMA PA funds, eligible applicants must submit a request for grant funds to the PA primary grant recipient, which in the case of Michigan is the Michigan State Police Emergency Management and Homeland Security, which evaluates eligibility for PA with FEMA. For DR-4547 and DR-4607, FEMA is authorized to reimburse not less than 75% of the eligible costs of specific types of disaster response and recovery work undertaken by eligible applicants. FEMA may recommend that the President increase the federal cost share, where warranted for small, impoverished communities.

FEMA PA-eligible activities include short-term emergency work and long-term permanent work. Emergency work is divided into two categories: Debris Removal (Category A) and Emergency Protective Measures (Category B). Direct assistance for debris removal is provided if FEMA determines that such work is in the public interest. Permanent work is broken down into five categories: Roads and Bridges (category C); Water Control Facilities (Category D); Buildings and Equipment (Category E); Utilities (Category F); and Park, Recreational, Railway, Beaches, Piers, Ports, and Harbors (Category G). Permanent work may only be authorized under a major disaster declaration⁶⁹. For the purposes of the needs assessment, HUD only considers needs associated with categories C through G (Permanent Work).

On March 18, 2022, FEMA announced that additional disaster funding is available to all states, tribal nations, and territories with Presidential major disaster and emergency declarations occurring in 2020. Through March 15, 2022 H.R. 2471 Consolidated Appropriations Act, 2022, Congress granted a minimum 90% federal cost share for disasters that include DR-4547 and DR-4607. This applies to Public Assistance and Hazard Mitigation Grant Program. During consultations with local governments impacted by the 2020 disaster all noted that debris removal remains a primary concern for recovery efforts. Significant levels of debris remain in waterways and remain a hazard for impacted communities and those down river.

FEMA Public Assistance Program

Table 62: FEMA Public Assistance Program (FEMA) – 2020

PA Category	# Damaged Sites	Sum of Approx. Cost	Sum of Federal Share	Sum of Non-Federal Share
A – Debris Removal	36	\$3,353,646	\$1,618,678	\$1,734,968
B – Protective Measures	74	\$17,489,444	\$7,923,323	\$9,566,121
C – Roads and Bridges	57	\$8,980,117	\$4,107,344	\$4,872,773
D – Water Control Facilities	9	\$390,426	\$307,397	\$83,029

⁶⁹ Congressional Research Service, FEMA PA Overview, <https://crsreports.congress.gov/product/pdf/IF/IF11529>, p. 1-2



E – Public Buildings	54	\$20,480,056	\$9,264,684	\$11,215,372
F – Public Utilities	21	\$961,615	\$597,204	\$364,411
G – Recreational or Other	30	\$5,173,350	\$2,331,369	\$2,841,981
Z – State Management	26	\$3,393,271	\$3,393,271	\$0

Table 63: FEMA Public Assistance Program (FEMA) – 2021

PA Category	# Damaged Sites	Sum of Approx. Cost	Sum of Federal Share	Sum of Non-Federal Share
A – Debris Removal	10	\$491,358	\$330,648	\$160,710
B – Protective Measures	7	\$82,358	\$57,788	\$24,570
C – Roads and Bridges	6	\$147,314	\$132,583	\$14,731
D – Water Control Facilities	2	\$40,507	\$36,457	\$4,051
E – Public Buildings	13	\$118,232	\$101,864	\$16,369
F – Public Utilities	9	\$365,505	\$328,954	\$36,550
G – Recreational or Other	1	\$7,470	\$6,723	\$747
Z – State Management	3	\$1,099,733	\$1,099,733	\$0

The table below builds off of the previous FEMA PA table for both the 2020 and 2021 disasters. HUD allows grantees to include a 15% mark up for resilience improvements, so the following table shows the total local match by category with the additional 15%, resulting in the Total Need column.

Total Cost and Need by PA Category

Table 64: Total Cost and Need by PA Category (FEMA) – 2020

PA Category	Estimated PA Cost	Local Match	Resiliency	Total Need (Match + Resiliency)
A – Debris Removal	\$3,353,646	\$1,734,968	\$260,245	\$1,995,213
B – Protective Measures	\$17,489,444	\$9,566,121	\$1,434,918	\$11,001,039
C – Roads and Bridges	\$8,980,117	\$4,872,773	\$730,916	\$5,603,689
D – Water Control Facilities	\$390,426	\$83,029	\$12,454	\$95,484
E – Public Buildings	\$20,480,056	\$11,215,372	\$1,682,306	\$12,897,678
F – Public Utilities	\$961,615	\$364,411	\$54,662	\$419,073



PA Category	Estimated PA Cost	Local Match	Resiliency	Total Need (Match + Resiliency)
G – Recreational or Other	\$5,173,350	\$2,841,981	\$426,297	\$3,268,278
Z – State Management	\$3,393,271	\$0	\$0	\$0

Table 65: Total Cost and Need by PA Category (FEMA) – 2021

PA Category	Estimated PA Cost	Local Match	Resiliency	Total Need (Match + Resiliency)
A – Debris Removal	\$330,648	\$160,710	\$24,106.48	\$184,816.37
B – Protective Measures	\$57,788	\$24,570	\$3,685.46	\$28,255.22
C – Roads and Bridges	\$132,583	\$14,731	\$2,209.72	\$16,941.17
D – Water Control Facilities	\$36,457	\$4,051	\$607.61	\$4,658.33
E – Public Buildings	\$101,864	\$16,369	\$2,455.28	\$18,823.83
F – Public Utilities	\$328,954	\$36,550	\$5,482.57	\$42,033.05
G – Recreational or Other	\$6,723	\$747	\$112.05	\$859.05
Z – State Management	\$1,099,733	\$0	\$0.00	\$0.00

Previous tables provide data by FEMA PA damage categories, but to understand the type of organizations that applied for FEMA PA assistance, the following table provides a full list of the Agency that applied and the approximate cost requested by each agency for both the 2020 and 2021 disasters.

Approximate Recovery Cost per Agency

Table 66: Approximate Recovery Cost per Agency (FEMA) – 2020

Agency	Approximate Cost
ARENAC (COUNTY)	\$203,942
ARENAC COUNTY ROAD COMMISSION	\$1,156,285
BEAVERTON	\$264,780
BILLINGS (TOWNSHIP OF)	\$118,317
DEARBORN	\$97,100
DEARBORN HEIGHTS	\$35,220
EDENVILLE (TOWNSHIP OF)	\$56,743



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Agency	Approximate Cost
FIRST LATIN AMERICAN BAPTIST	\$0
GARDEN CITY	\$295,043
GLADWIN	\$687,984
GLADWIN (COUNTY)	\$8,617
GLADWIN CNTY ROAD COMM-GARAGE	\$3,672,753
GREAT LAKES WATER AUTHORITY	\$0
GROSSE POINTE	\$112,036
GROSSE POINTE FARMS	\$7,470
GROSSE POINTE PARK	\$14,731
GROSSE POINTE WOODS	\$4,150
HAMTRAMCK	\$142,730
HARPER WOODS	\$16,157
INKSTER	\$135,596
IONIA (COUNTY)	\$147,314
IOSCO (COUNTY)	\$132,011
JAMES (TOWNSHIP OF)	\$22,726
JEROME (TOWNSHIP OF)	\$60,435
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY	\$28,368
MICHIGAN DEPARTMENT OF TRANSPORTATION	\$33,660
MICHIGAN MILITARY & VETERANS AFFAIRS, DEPT. OF	\$287,204
MICHIGAN STATE POLICE /EMHSD	\$2,441,115
MIDLAND	\$8,982,013
MIDLAND (COUNTY)	\$3,087,599
MIDLAND (TOWNSHIP OF)	\$70,069
MIDLAND CENTER FOR THE ARTS	\$839,979
MIDLAND COUNTY ROAD COMMISSION	\$1,630,251
MIDLAND COUNTY WATER DISTRICT	\$253,934
MIDLAND PUBLIC SCHOOLS	\$383,700



Agency	Approximate Cost
NORTHWOOD UNIVERSITY	\$28,229,417
SAGINAW	\$32,307
SAGINAW (CHARTER TOWNSHIP OF)	\$130,204
SAGINAW (COUNTY)	\$129,515
SAGINAW COUNTY ROAD COMMISSION	\$2,004,945
SANFORD	\$2,408,161
SANFORD HISTORICAL SOCIETY	\$28,783
STANDISH	\$132,460
TAWAS CITY	\$129,994
THOMAS (TOWNSHIP OF)	\$318,642
TOBACCO (TOWNSHIP OF)	\$88,644
TRI COUNTY ELECTRIC CO-OP	\$45,623
WAYNE	\$205,917
WESTLAND	\$0
WINDOVER HIGH SCHOOL	\$907,282
Total – 2020	\$60,221,925

Table 67: Approximate Recovery Cost per Agency (FEMA) – 2021

Applicant Name	Approximate Cost
DEARBORN	\$97,100
DEARBORN HEIGHTS	\$35,220
FIRST LATIN AMERICAN BAPTIST	\$0
GARDEN CITY	\$295,043
GREAT LAKES WATER AUTHORITY	\$0
GROSSE POINTE	\$112,036
GROSSE POINTE FARMS	\$7,470
GROSSE POINTE PARK	\$14,731
GROSSE POINTE WOODS	\$4,150
HAMTRAMCK	\$142,730



Applicant Name	Approximate Cost
HARPER WOODS	\$16,157
INKSTER	\$135,596
IONIA (COUNTY)	\$147,314
MICHIGAN STATE POLICE /EMHSD	\$1,093,390
TRI COUNTY ELECTRIC CO-OP	\$45,623
WAYNE	\$205,917
WESTLAND	\$0
Total – 2021	\$2,352,478

Hazard Mitigation Grant Program

FEMA's Hazard Mitigation Grant Program (HMGP) provides funding to State, local, tribal and territorial governments so that they can rebuild in a way that reduces, or mitigates, future disaster losses in their communities. HMGP assists communities in rebuilding in a better, stronger, and safer manner to become more resilient to future natural disaster events. This grant funding is available after a presidentially declared disaster and can fund a wide variety of mitigation projects.

HMGP can be used to fund projects to protect either public or private property, as long as the project fits within State and local government mitigation strategies to address areas of risk and complies with HMGP guidelines.⁷⁰

The Michigan State Police manages the HMGP funding for the State of Michigan. The following table provides an overview of HMGP applicants from the DR-4547 disaster. Proposals range from request for generators, the development an update of multiphaser plan updates, to the acquisition of real property post landslides. The data below is current as of July 2022 and will change as additional program applications are received.

Hazard Mitigation Needs per County or Known Project

Table 68: Hazard Mitigation Needs per County or Known Project – 2020

Project	Cost	Funding Source	Unmet Need
2020 Disaster			
Gladwin	\$78,802	HMGP	\$7,880

⁷⁰



Iosco	\$57,114	HMGP	\$5,711
Macomb	\$148,000	HMGP	\$14,800
Midland	\$9,233,708	HMGP	\$923,371
Saginaw	\$49,800	HMGP	\$4,980
Shiawassee	\$93,840	HMGP	\$9,384
Wayne	\$3,112,590	HMGP	\$311,259
Grand Total – 2020	\$12,773,855	HMGP	\$1,277,385

The following table shows the current Notice of Intent responses for the DR-4607 as of July 2022. These amounts will change as projects are further developed.

Notice of Intent Responses

Table 69: Notice of Intent Responses

Project	Cost	Funding Source	Unmet Need
2021 Disaster			
Macomb	\$25,385,000	HMGP	\$6,346,250
Oakland	\$39,938,665	HMGP	\$9,984,666
Wayne	\$1,926,241,265	HMGP	\$1,238,822,816
2021 NOI Total – July 2022	\$1,991,564,930	HMGP	\$1,255,153,733

Economic Revitalization Unmet Need

Disaster Damage and Impacts – Economic Revitalization.

All disasters result in economic impacts, from business disruption to disaster related unemployment. Businesses and private industry structures, including restaurants, shops, grocery stores, gas stations and other businesses, were destroyed, threatening the ability for communities to have access to the services needed for residents to come back. The impact varied from community to community.

Unemployment Rates

Prior to the May 2020 disaster, the State was already experiencing a significant economic downturn due to COVID-19 pandemic. According to data released by Michigan Department of



Technology, Management & Budget, in April 2020, the Michigan's seasonally adjusted jobless rate was 22.7 percent with 1,048,000 unemployed.⁷¹

Small Business Administration (SBA) Commercial Losses

The SBA offers Economic Injury Disaster Loans (EIDL) and Business Disaster Loans to businesses to repair or replace disaster-damaged property owned by the business, including real estate, inventories, supplies, machinery, equipment, and working capital until normal operations resume. Businesses of all sizes are eligible. Private, nonprofit organizations, such as public service, faith-based, and private universities, also are eligible. The law limits business loans to \$2 million and the amount cannot exceed the verified uninsured disaster loss.

For the 2020 disaster, DR 4547, there were 108 SBA business loan applications from impacted counties, totaling nearly \$36 million in verified losses. Of these applications, only \$2 million in total verified losses, or 6% of the total verified losses. In total, around 1.8 million were loaned to impacted businesses. For the 2021 disaster, nearly \$3.8 million in verified losses with over \$3.5 million loaned to impacted businesses.

While the SBA data provides insight into businesses that applied for assistance, this does not reflect the full impacts of the disaster. MEDC continues to work with the local governments, chambers of commerce, state agencies, and impacted areas to further refine the economic impact and unmet economic recovery needs.

Total Business Loans Approved by the SBA

Table 70: Total Business Loans Approved by the SBA

County	Business Code/Category	Business/EIDL Loans	Total Business/EIDL Loan Applications	Total Approved
Arenac	N/A	1	14	\$1,158,300
Gladwin	N/A	3	19	\$6,949,253
Iosco	N/A	1	2	\$295,000
Midland	N/A	10	47	\$22,763,100
Saginaw	N/A	3	26	\$4,704,992
Total	N/A	18	108	\$35,870,645

⁷¹ Michigan Department of Technology, Management and Budget
<https://www.michigan.gov/dtmb/about/newsroom/all-news/2020/05/20/michigans-unemployment-rate-increases-to-historic-level-in-april-as-a-result-of-covid-19-related-l>



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SBA Applicant Breakdown

Table 71: SBA Applicant Breakdown

Application Type	# of Applications	Percent
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Estimating Business Operations Losses

Table 72: Estimating Business Operations Losses

Operational Loss Category	Count of Businesses with Verified Losses	Average Verified Loss	Estimated Additional Losses to Businesses
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

SBA Business Loan Data

Table 73: SBA Business Loan Data – 2020 Disaster

Damaged Property County Name	Total Verified Loss	Total Approved Loan Amount	Total Unmet Need
Saginaw	\$94,915	\$60,600	\$34,315
Gladwin	\$0	\$35,500	\$0
Saginaw	\$7,850	\$7,900	\$0
Midland	\$ 1,898,539	\$1,682,700	\$ 215,839
Iosco	\$59,369	\$59,400	\$0
Total	\$2,060,672	\$1,846,100	\$250,155

Table 74: SBA Disaster Loan Data – 2021

Damaged Property County Name	Total Verified Loss	Total Approved Loan Amount	Total Unmet Need
Wayne	\$3,759,017	\$3,589,000	\$170,017



Unmet Needs Summary

This section includes a summary of the total impacts from the 2020 and 2021 disasters, the total resources available, and the total unmet recovery needs. MEDC will continue to monitor the data available and continue its consultations with impacted areas and residents to ensure it collects the most current data available.

Unmet Needs Summary

Table 75: 2020 Unmet Needs Summary

Category	Data Type	Total Damage	Total Resources	Unmet Need	Percentage
Housing	FEMA IA	\$32,450,920	\$21,730,285	\$10,720,635	31.08%
Infrastructure	FEMA PA (C-G Only)	\$35,985,564	\$16,607,998	\$22,284,202	68.30%
	HMGP	\$12,773,855	\$11,496,469	\$1,277,385	
Economic	SBA Business/EIDL	\$2,060,672	\$1,846,100	\$214,572	0.62%
Total		\$83,271,011	\$51,680,852	\$34,496,794	

The 2021 disaster includes the HMGP Notice of Intent received by the Michigan State Police as of July 2022. While eligible and allowable costs will be determined once applications are submitted, the total applications show the high need and interest in mitigating future disasters.

Table 76: 2021 Unmet Needs Summary

Category	Data Type	Total Damage	Total Resources	Unmet Need	Percentage
Housing	FEMA IA	\$27,556,532	\$20,407,480	\$7,149,052	1.03%
Infrastructure	HMGP ⁷²	\$1,926,241,265	\$1,238,822,816	\$687,418,449	98.95%
	FEMA PA (C-G Only)	\$679,029	\$606,580	\$83,315	
Economic	SBA Business/EIDL	\$3,759,017	\$3,589,000	\$170,017	0.02%
Total		\$1,958,235,843	\$1,263,425,876	\$694,820,833	

The Department of Housing and Urban Development awarded \$5,476,035 dollars in Declared Disaster Recovery Funds (DDRF) to Midland, Michigan to assist with rebuilding natural infrastructure, retrofit low and moderate income households damaged by the 2020 disaster and funds to increase energy efficiency. At the time of publication, MEDC is collecting additional information on these funds and they are currently not included in the unmet needs calculation, but will be considered in any future duplication of benefits calculations.

⁷² This represents the Notice of Intent (NOI's) received by the Michigan State Police as of July 2022.



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Mitigation Needs Assessment

The Mitigation Needs Assessment is a risk-based assessment that summarizes the natural threats and hazards in Gladwin, Arenac, Iosco, Midland, and Saginaw counties, the five counties HUD and the State defined as Most Impacted and Distressed (MID) by the 2020 disaster. Additionally, the natural threats and hazards in Wayne County, the county HUD and the State defined as Most Impacted and Distressed (MID) by the 2021 disaster is outlined in the Mitigation Needs Assessment. The Mitigation Needs Assessment was undertaken to inform the use of the state's 15% CDBG-MIT set-aside and to help build resilience and mitigation measures into recovery programs and projects.

Importantly, this assessment does not only look at hurricane and tropical storm risk, but rather, that of any natural hazard likely to affect the MID counties, including flooding, extreme heat, severe winter weather, tornado, and drought. These hazards were identified in Michigan's FEMA-approved Hazard Mitigation Plan (HMP) as well as the plans for Midland, Saginaw, Gladwin, and Wayne counties.

In addition to current hazards posed to the counties most impacted by 2020 and 2021 disaster events, the Mitigation Needs Assessment considers future threats, particularly as severe weather events become more frequent and severe. In this way, the state can ensure it minimizes vulnerabilities to the impacts of future extreme events through its recovery and mitigation projects and programs.

This assessment will provide a basis upon which to propose programs and projects as part of this plan that will mitigate current and future hazards. In addition, it will inform all projects undertaken through CDBG-DR such that, at a minimum, they do not exacerbate natural hazard threats and make use of scarce resources for recovery and mitigation.

As part of this assessment, the state also sought to identify and address risks to indispensable services, or those services that enable continuous operation of critical business and government functions and/or are critical to human health and safety, and economic security.

State Hazard Mitigation Plan

The Michigan Hazard Mitigation Plan (HMP) examines natural hazards and mitigation activities in the state of Michigan. The Hazard Analysis identifies and analyzes those hazards that have historically caused or could potentially cause significant threats to life, health, social welfare, and the economy. The plan also assesses the current strengths and weaknesses of the State's hazard mitigation and emergency management capabilities and resources, examines specific hazard mitigation measures that have been undertaken, and recommends both short-term and long-term hazard mitigation opportunities that the state should consider implementing. Importantly, the HMP is required by FEMA for states to access Hazard Mitigation Assistance funds.



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The HMP identifies 11 natural hazards as “top” or “high” priority, including

1. Floods
2. Severe Winds
3. Tornadoes
4. Extreme Heat
5. Ice Storms
6. Hail
7. Wildfires
8. Extreme Cold
9. Drought
10. Great Lakes Shoreline Hazards
11. Lightning

Local and Regional Hazard Mitigation Plans

Arenac, Gladwin, Iosco, Midland, Saginaw, and Wayne Counties (through the City of Detroit) have each produced a Hazard Mitigation Plan that profiles the natural and human-caused hazards that could impact their counties. Each natural hazard profile includes a description of the hazard; the location of the hazard; the severity and extent of the hazard; the occurrence of the hazard and losses; and a vulnerability assessment.

Arenac

The risk assessment of Arenac County’s Hazard Mitigation Plan identifies 18 hazards based on input from the County, review of the State of Michigan’s 2019 Hazard Mitigation Plan, and local input and research. The 18 hazards are identified in Table below.

Table 77. HMP Identified Hazards

Hazard
Thunderstorm Hazards (Hail, Lightning, and Severe Winds)
Severe Winter Weather Hazards (Ice/Sleet and Snowstorms)
Wildfire
Infrastructure Failures
Hazard Material Incidents – Transportation
Structural Fires
Oil/Gas Well Incidents
Dam Failures



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Hazard
Sabotage/Terrorism
Transportation Accidents: Air, Land, and Water
Petroleum and Natural Gas Pipeline Accidents
Civil Disturbances
River Line Flooding
Extreme Temperatures
Drought
Public Health Emergencies
Scrap Tire Fires
Hazard Material Incidents – Fixed Site

Gladwin

The risk assessment of Gladwin County's Hazard Mitigation Plan identifies 30 hazards based on input from the County, review of the State of Michigan's 2019 Hazard Mitigation Plan, and local input and research. The 30 hazards are identified in Table 78 below.

Table 78. HMP Identified Hazards

Hazard
Hail
Lightning
Tornados
Severe Winds
Fog
Extreme Temperatures (Heat)
Ice/Sleet Storms
Snowstorms
Extreme Temperatures (Cold)
Dam Failures
Riverine Flooding
Drought
Transportation Accidents: Air, Land, and Water



Hazard
Horse-Drawn Vehicles
Hazard Material Incidents – Transportation
Oil/Gas Well Incident
Petroleum and Natural Gas Pipeline Accidents
Hazard Material Incidents – Fixed Site and Propane Storage Sites
Nuclear Power Plant Accidents
Infrastructure Failures
Wildfires
Structural Fires
Scrap Tire Fires
Seasonal Population Increase
Civil Disturbances
Nuclear Attack
Sabotage (Terrorism)
Public Health Emergency
Earthquakes
Subsidence

Iosco

The risk assessment of Iosco County's Hazard Mitigation Plan identifies 30 hazards based on input from the County, review of the State of Michigan's 2019 Hazard Mitigation Plan, and local input and research. The 30 hazards are identified in the Table below.

Table 79. HMP Identified Hazards

Hazard
Hail
Lightning
Tornados
Severe Winds
Fog
Extreme Temperatures (Heat)



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Hazard
Ice/Sleet Storms
Snowstorms
Extreme Temperatures (Cold)
Dam Failures
Riverine Flooding
Great Lakes Shoreline Flooding and Erosion
Drought
Transportation Accidents: Air, Land, and Water
Hazard Material Incidents – Transportation
Oil/Gas Well Incident
Petroleum and Natural Gas Pipeline Accidents
Hazard Material Incidents – Fixed Site and Propane Storage Sites
Nuclear Power Plant Accidents
Infrastructure Failures
Wildfires
Structural Fires
Scrap Tire Fires
Seasonal Population Increase
Civil Disturbances
Nuclear Attack
Sabotage (Terrorism)
Public Health Emergency
Earthquakes
Subsidence

Midland

The risk assessment of Midland County's Hazard Mitigation Plan identifies 15 hazards based on input from the County, review of the State of Michigan's 2019 Hazard Mitigation Plan, and local input and research. The 15 hazards are identified in the Table below.



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Table 80. HMP Identified Hazards

Hazard
Severe Winds
Winter Weather (Ice/Sleet Storms and Snowstorms)
River Flooding
Flash Flooding
Dam Failure
Tornado
Public Health Emergencies
Wildfire
Infrastructure Failures
Terrorism
Hazardous Material – Fixed Site
Transportation Accidents
Petroleum and Natural Gas Pipeline Accidents
Hazardous Material Incident – Transportation
Oil and Gas Well Accidents

Saginaw

The risk assessment of Saginaw County's Hazard Mitigation Plan identifies 16 hazards based on input from the County, review of the State of Michigan's 2019 Hazard Mitigation Plan, and local input and research. The 16 hazards are identified in the Table below.

Table 81. HMP Identified Hazards

Hazard
Inclement Weather (Hail, Lightning, Severe Winds, and Snow/Ice Storms)
Tornadoes
Flooding
Transportation Accident – Bus, Airplane, Train
Structural Fires
Hazardous Materials Transportation Incidents
Public Health Emergency



Hazardous Material Incidents at Fixed Sites (Including Industrial Accidents)
Extreme Temperatures
Civil Disturbance
Infrastructure Failure
Oil and Natural Gas Pipeline Accidents
Drought
Wildfires
Oil and Natural Gas Well Accidents
Dam Failure

Wayne

The risk assessment of the City of Detroit's Hazard Mitigation Plan (which encompasses Wayne County) identifies 14 hazards based on input from surrounding counties (including Wayne County), review of the State of Michigan's 2019 Hazard Mitigation Plan, and local input and research. The 14 hazards are identified in the Table below.

Table 82. HMP Identified Hazards

Hazard
Flooding
Infrastructure Failure – Energy Emergency
Structural Fires
Extreme Winter Weather
Extreme Summer Weather
Hazardous Materials Releases
Public Health Emergencies
Civil Disturbance
Public Transportation Accidents
Petroleum and Natural Gas Pipeline Accidents
Drought
Nuclear Power Plant Accident
Oil and Natural Gas Well Accidents
Earthquakes



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Greatest Risk Hazards

Analysts identified the greatest risk hazards as those natural hazards designated as “Top Priority” or “High Priority” in the Michigan Hazard Mitigation Plan and were identified in all of the county hazard mitigation plans.

Riverine flooding

A flood or flooding refers to the general or temporary conditions of partial or complete inundation of normally dry land areas from the overflow of inland or tidal water and surface water runoff from any source. Floodplains are defined as any land areas susceptible to being inundated by water from any flooding source.

A riverine flood is a temporary condition of partial or complete inundation of normally dry land areas from the overflow of stream banks. Flooding results when the flow of water is greater than the normal carrying capacity of the stream channel. Floods can be slow or fast-rising but generally develop over a period of days. Flooding is a natural and expected phenomenon that occurs annually, usually restricted to specific streams, rivers, or watershed areas.

Floods can damage or destroy property, make roads and bridges impassable, disable utilities, destroy agricultural lands, cause disruption to emergency services, and result in fatalities. People may be stranded in their homes, or they may be unable to reach their homes at all. Long-term collateral dangers include widespread animal death, the outbreak of disease, broken utility lines, fires, and the release of hazardous materials.

Most riverine flooding occurs in early spring and is the result of excessive rainfall and/or snowmelt. Ice jams also cause flooding in winter and early spring. Ice jam flooding generally occurs when warm weather and rain break up frozen rivers or any time there is a rapid cycle of freezing and thawing. The broken ice floats downriver until it is blocked by an obstruction such as a bridge or shallow area, where an ice jam forms, blocking the channel and causing flooding upstream.

FEMA has identified and mapped areas of flood risk on Flood Insurance Rate Maps (FIRMs), with the highest risk zones, called the Special Flood Hazard Areas (SFHA). The 100-year floodplain is considered a high-risk area and is denoted as Zone A. The 500-year floodplain is shown by the notation Zone C or Zone X. The areas between the 100 and 500-year floodplains are shown using Zone B and Zone X. This information is shown in the Table below.



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Table 83. FEMA-Designated Flood Zones

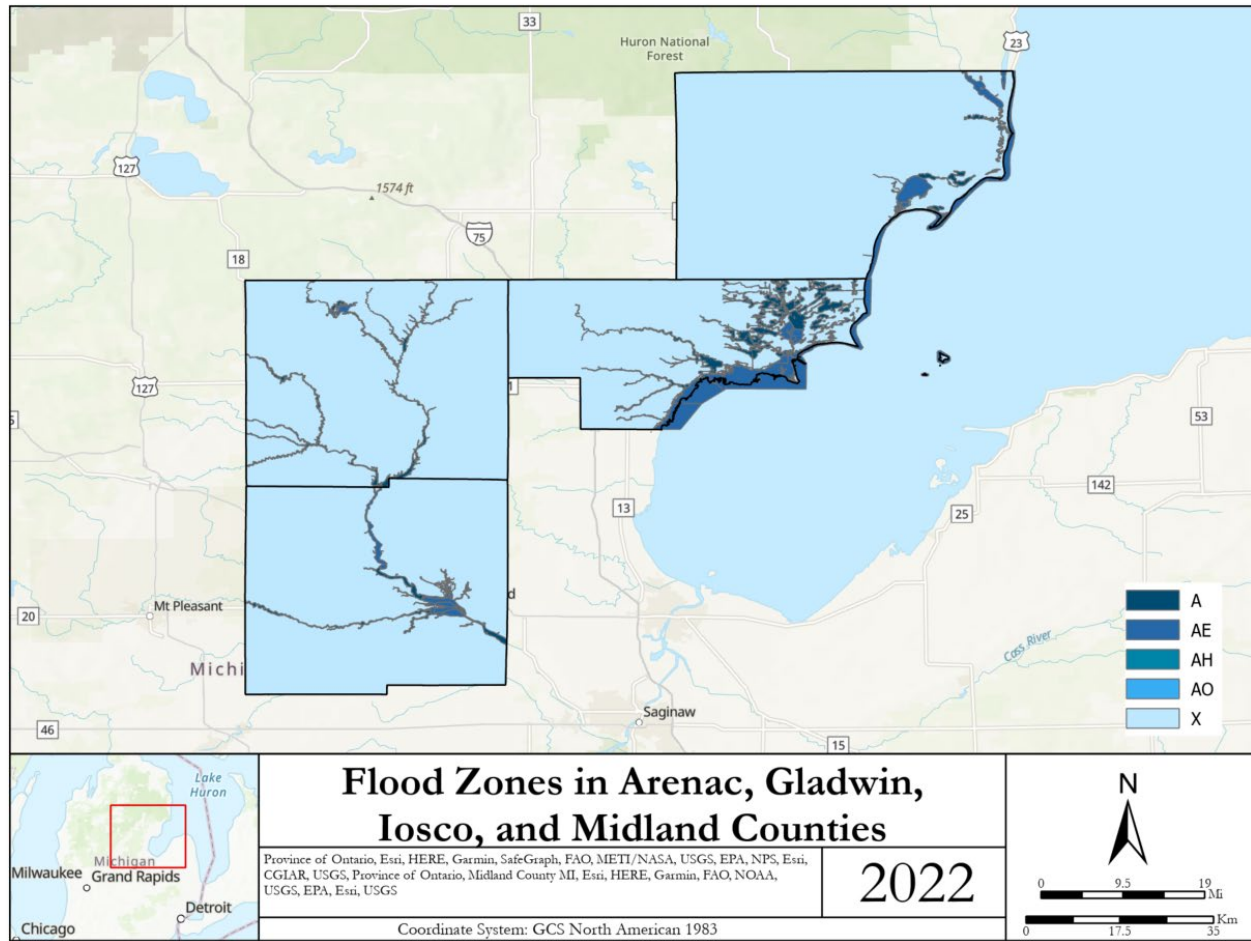
Zone	Description
Low to Moderate Risk Areas	
C and X (Unshaded)	Area of minimal flood hazard is usually depicted on FIRMs as above the 500-year flood level. Zone C may have ponding and local drainage problems that don't warrant a detailed study or designation as a base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by a levee from the 100-year flood.
B and X (Unshaded)	Area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. B Zones are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year floods, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
High-Risk Areas	
A	Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 20-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
AE	The base floodplain where base flood elevations are provided.
AH	Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
AO	
High-Risk Coastal Areas	
V	Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. No base flood elevations are shown within these zones.
Undetermined Risk Areas	
D	Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk.

[ALT TEXT]: A table containing FEMA-designated flood zones with descriptions. Includes low-to-moderate risk areas (C and X unshaded, B and X unshaded), high-risk areas (A, AE, AH, and AO), high-risk coastal areas (V), and undetermined risk areas (D).

The flood zones in Arenac, Gladwin, Iosco, and Midland counties can be found in Figure 24. The flood zones for Wayne County can be found in Figure 25. As Saginaw County does not have publicly accessible digital FEMA flood zone data, a flood zone map for the county, created by the Saginaw Area GIS Authority, is shown in Figure 26.



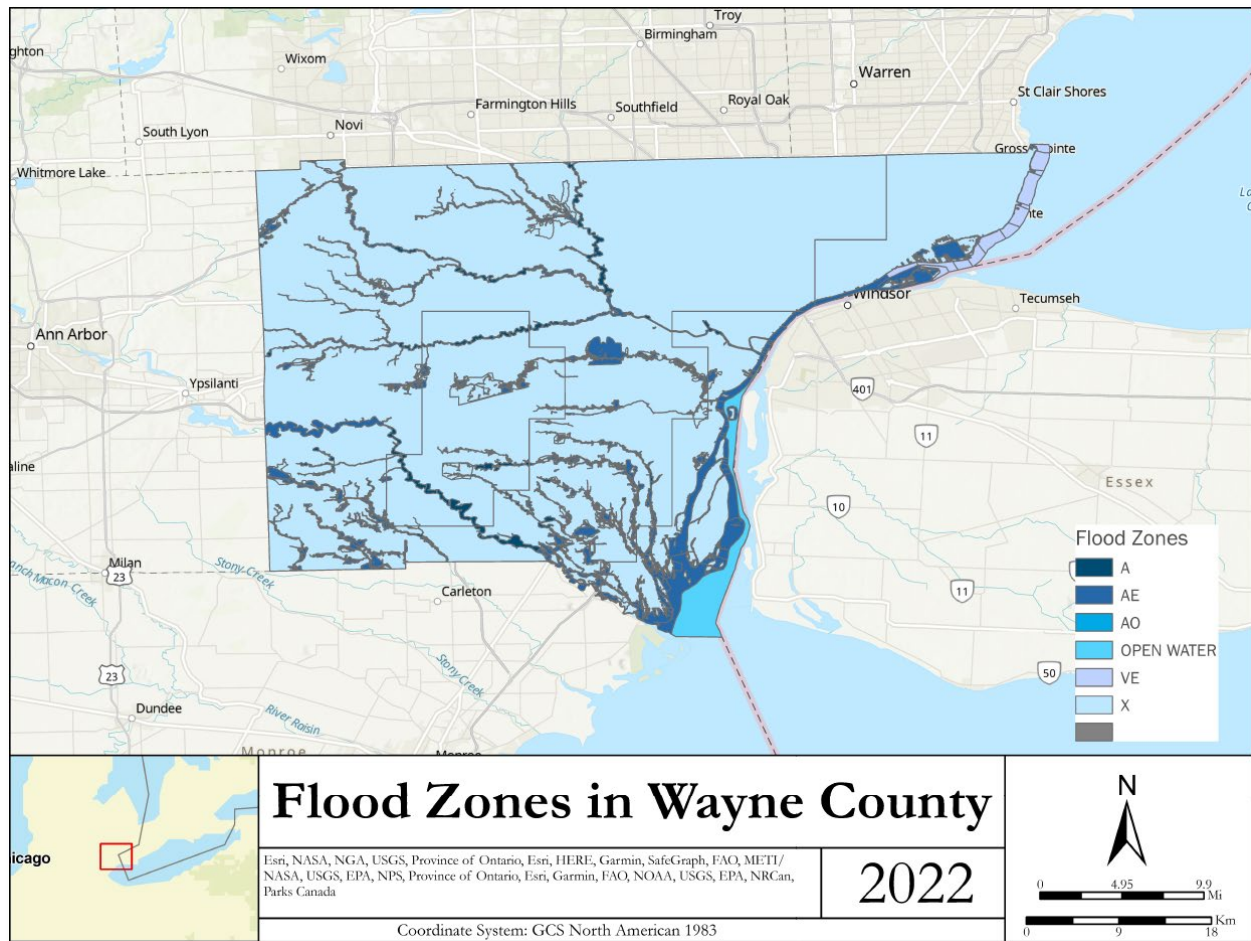
Figure 56. Flood Zones in Arenac, Gladwin, Iosco, and Midland Counties



[ALT TEXT]: Map of flood zones in Arenac, Gladwin, Iosco, and Midland counties. There are large AE zones along the eastern shoreline and along major water features in the counties.



Figure 57. Flood Zones in Wayne County

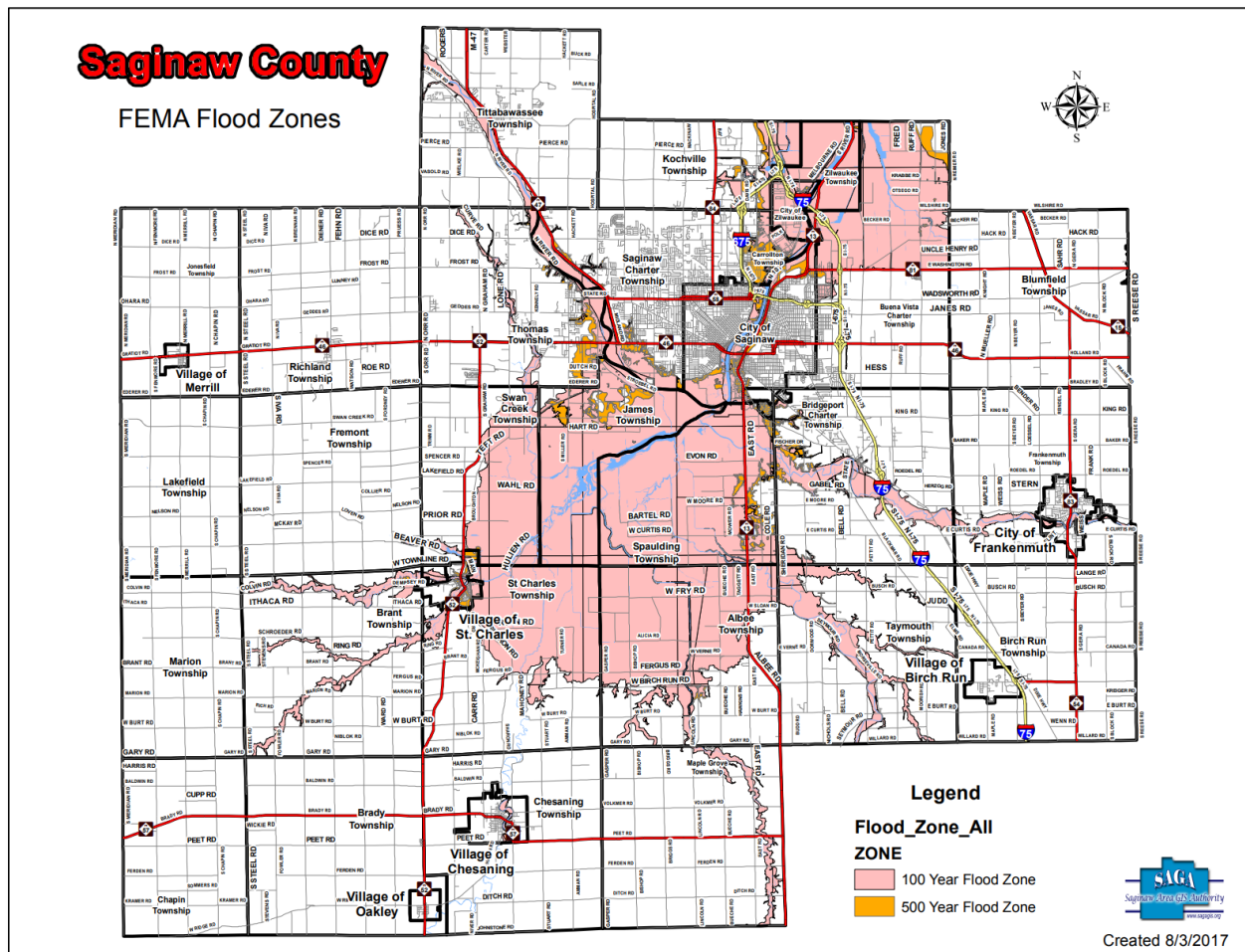


[ALT TEXT]: Map of flood zones in Wayne County. There are large AE zones along the eastern shoreline and along major water features in the county.



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Figure 58. Flood Zones in Saginaw County⁷³



[ALT TEXT]: Map of flood zones in Saginaw County. There are large 100-year flood zones southwest and northeast of the City of Saginaw.

There have been 83 flood events across Arenac, Gladwin, Iosco, Midland, Saginaw, and Wayne counties between 2012 and 2022. These floods caused over \$1.670 billion in property damage. Major flood events in disaster-declared counties between 2012 and 2022 can be found in Table 76.

⁷³ FEMA Flood Zones-letter 8 3 17.pdf (sagagis.org)



Table 84. Major Flood Events with Deaths, Injuries, or Property Damage > \$10,000 in Disaster-Declared Counties Between 2012-2022

County	Location	Date	Event Type	Property Damage
Saginaw	Merrill	4/10/2013	Flood	\$250,000
Midland	Coleman	4/10/2013	Flood	\$150,000
Midland	Alamanda	4/19/2013	Flood	\$1,400,000
Saginaw	MBS Airport	4/19/2013	Flood	\$1,300,000
Gladwin	Gladwin	4/14/2014	Flood	\$80,000
Wayne	East Rockwood	8/11/2014	Flash Flood	\$1,100,000,000
Wayne	Grosse Pt Farms	9/29/2016	Flash Flood	\$1,000,000
Midland	Coleman	6/22/2017	Flash Flood	\$116,400,000
Gladwin	Beaverton Airport	6/23/2017	Flood	\$120,000
Gladwin	Dale	6/23/2017	Flash Flood	\$25,000
Wayne	Lincoln Park	5/1/2019	Flash Flood	\$64,000,000
Saginaw	Bridgeport	5/25/2019	Flood	\$300,000
Wayne	Cherry Hill	7/16/2019	Flash Flood	\$250,000
Iosco	Iosco	10/21/2019	Lakeshore Flood	\$45,000
Wayne	East Rockwood	11/1/2019	Flood	\$2,500,000
Gladwin	Gladwin Fortier Airport	5/18/2020	Flood	\$11,000,000
Midland	Pleasant Valley	5/18/2020	Flood	\$10,000,000
Saginaw	Fordney	5/18/2020	Flood	\$9,000,000
Gladwin	Dale	5/18/2020	Flash Flood	\$6,500,000
Arenac	Alger	5/18/2020	Flood	\$4,400,000
Iosco	Alabaster	5/18/2020	Flood	\$1,200,000
Saginaw	Fenmore	5/18/2020	Flood	\$1,000,000
Midland	Edenville	5/19/2020	Flash Flood	\$100,000,000
Midland	Sanford	5/19/2020	Flash Flood	\$100,000,000
Wayne	Northville	6/21/2021	Flash Flood	\$139,000,000
Wayne	Grosse Pt Shores	8/27/2021	Flash Flood	\$100,000

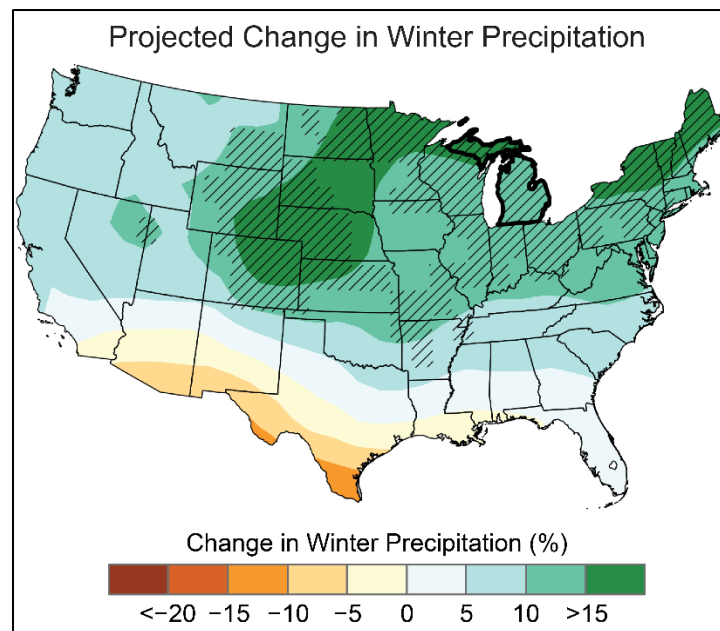


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[ALT TEXT]: Table containing data on major flood events in Arenac, Gladwin, Iosco, Midland, Saginaw, and Wayne counties between 2012 and 2022 that resulted in property damage greater than \$10,000. There was one major event in Arenac that resulted in \$4.4 million in damages. There were five events in Gladwin County that resulted in \$17,725,000 in damages. There were two events in Iosco County that resulted in \$1,245,000 in damages. There were six events in Midland County that resulted in \$328,050,000 in damages. There were five events in Saginaw County that resulted in \$13,400,000 in damages. There were seven events in Wayne County that resulted in \$1,307,000,000 in damages.

Winter and spring precipitation and extreme precipitation events are projected to increase during the 21st century (see Figure 27 for precipitation map). The projections of increasing precipitation and heavy precipitation events are true for a large area of the Northern Hemisphere in the northern middle latitudes. This may result in inland flooding risks throughout the state.

Figure59: Projected Change in Winter Precipitation⁷⁴



[ALT TEXT]: A map of the United States showing project changes in winter precipitation. Map demonstrates that southern Michigan will receive approximately 10% more winter precipitation.

Severe winter weather

Severe winter weather is typically categorized by ice, sleet, and/or snowstorms. Winter storms usually occur when cold arctic air from Canada meets warmer, moist air from the Gulf of Mexico, producing heavy snow and sometimes blizzard conditions. Severe winter storms can be characterized by heavy and/or snow blowing snow, freezing rain, sleet, and extreme cold. Winter storms usually occur between October and April and can cause considerable damage, with heavy snow immobilizing transportation systems, downing trees and power lines, collapsing buildings, and resulting in crop and livestock losses.

⁷⁴ Michigan - State Climate Summaries 2022 (ncics.org)

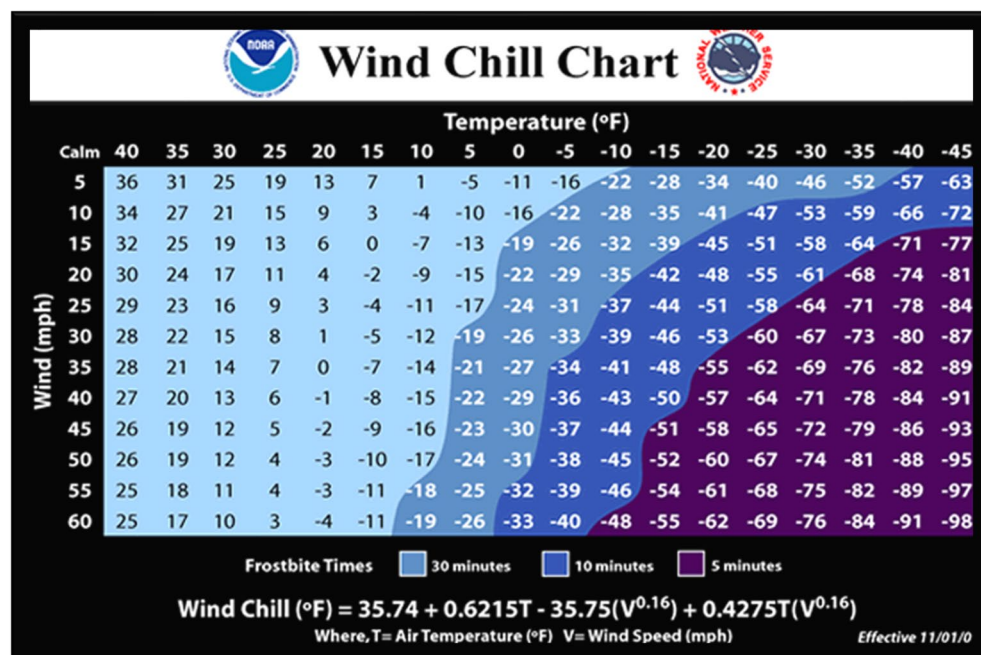


As a result of being surrounded by the Great Lakes, Michigan experiences large differences in snowfall in relatively short distances. The annual mean snow accumulation in Michigan ranges from 30 to 170 inches of snow⁷⁵.

Blizzards are winter storms lasting at least three hours with sustained wind speeds exceeding 35 mph, visibility of ¼ mile or less, and white-out conditions. When heavy snow or freezing rain accumulates in excess of six inches in a 12-hour period or ¼ inch, it can disrupt the flow of vital supplies as well as disrupt emergency and medical services. Severe ice storms can also result in electric power loss to large areas of Iowa, impeded emergency assistance, and stranded motorists.

The frigid temperatures and wind chills associated with severe winter storms are also dangerous to people, particularly children and the elderly, sometimes resulting in hypothermia, frostbite, and in rare cases, death. Such temperatures can also freeze pipes and kill livestock, fish, wildlife, and pets. The figure below illustrates frostbite potential relative to the duration of bare skin exposure.

Figure 60. NOAA Wind Chill Chart



[ALT TEXT]: A graph of the National Weather Service's wind chill chart. The x-axis is temperature in Fahrenheit and the y-axis is wind in miles per hour. Based on wind speed and temperature, the NWS calculated the time to incur frostbite, divided into three categories: 30 minutes, 10 minutes, and five minutes.

Since 1972, Michigan has had 6 severe winter-related Presidential Major Disaster Declarations, as depicted in the table below:

⁷⁵ Arenac County Hazard Mitigation Plan



Table 85. Presidentially Declared Winter-Related Disasters in Michigan

Date/Event	Counties Impacted	Description
1972, Severe Storm & Freezing	10	Approximately 20 inches of snow stranded over 6,000 and is attributed to the deaths of at least 3 people.
1977, Snowstorms	12	Over 20 inches of snow caused the closure of most roads in the affected area, and the death of at least one person.
1978, Blizzards & Snowstorms	83 (Entire State)	The merging of two storms system caused one of the largest blizzards in the state's history causing approximately 20 deaths.
1994, Severe Deep Freeze	10	A result of an extended North American cold wave, several cities in Michigan set records for length of time below freezing and over 100 people died nationwide.
1999, MI – Severe Weather	31	The Great Lakes Region was struck with blizzard conditions with almost 30 inches of snow falling in some areas. The event resulted in 78 deaths nationwide.
2001, Snow	39	Heavy snow and wind caused blizzard conditions in many parts of the state.

[ALT TEXT]: Table demonstrating severe winter-storm-related Presidential Major Disaster Declarations in Michigan. There have been six events in the state's history; in 1972, 1977, 1978, 1994, 1999, and 2001.

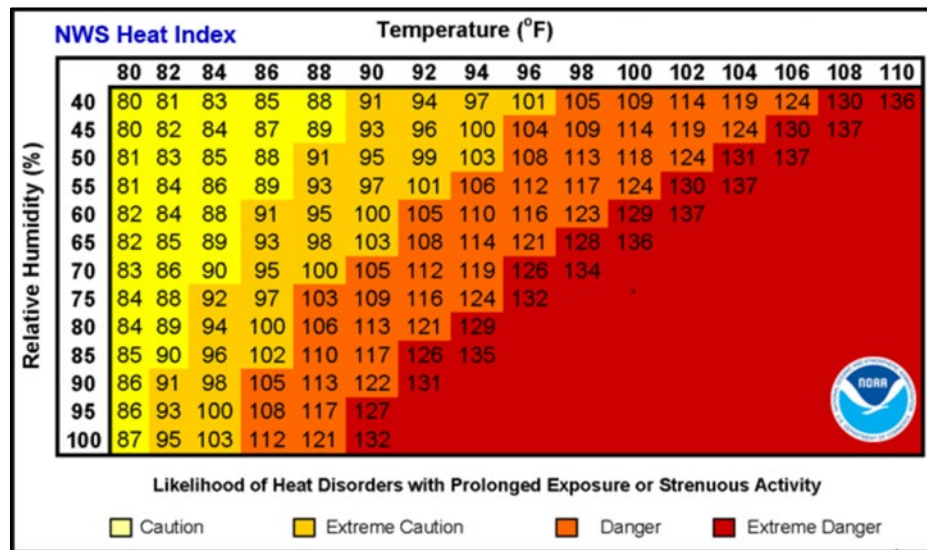
Extreme Heat

Conditions of extreme heat are defined as summertime temperatures that are substantially hotter and/or more humid than average for a location at that time of year. Conditions of extreme heat are defined as summertime temperatures that are substantially hotter and/or more humid than average for a location at that time of year. The heat index is a number in degrees Fahrenheit that tells how hot it feels when relative humidity is factored into actual air temperature. Exposure to full sunshine can increase the heat index by at least 15 degrees. Figure 29 shows the heat index values when both humidity and temperature are considered. It also shows the likelihood of heat disorders with prolonged exposure to or strenuous activity in such conditions.



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Figure 61. NWS Heat Index



[ALT TEXT]: Graph of National Weather Service's heat index. The x-axis is temperature and the y-axis is relative humidity. Based on relative humidity and temperature, the NWS calculated the likelihood of heat disorders with prolonged exposure or strenuous activity, divided into four categories: caution, extreme caution, danger, and extreme danger.

Under extreme heat conditions, the National Weather Service can issue either a heat advisory or an excessive heat warning. A heat advisory is issued when a heat index of 100 degrees Fahrenheit or higher is expected for three hours or more. An excessive heat warning is used when a heat index of 105 degrees Fahrenheit or higher is expected for three hours or more.

Extreme heat can impose stress on humans and animals. Exposure to heat can lead to a variety of adverse health impacts, ranging from cramps to death. Heat exhaustion is a relatively common reaction to excessive heat and can include symptoms such as headaches, dizziness, and fainting. If exposure is prolonged, heatstroke can occur. This reaction is more severe and requires medical attention. Deaths from heat exposure typically occur in individuals with pre-existing conditions, frequently those with heart conditions.

Certain demographic groups are particularly vulnerable to adverse health impacts from extreme heat events. Very young children, seniors, and populations with physical and psychiatric medical conditions are more vulnerable to health impacts from heat events than the general population. Additionally, people of color and low-income residents are at greater risk from adverse extreme heat health impacts.

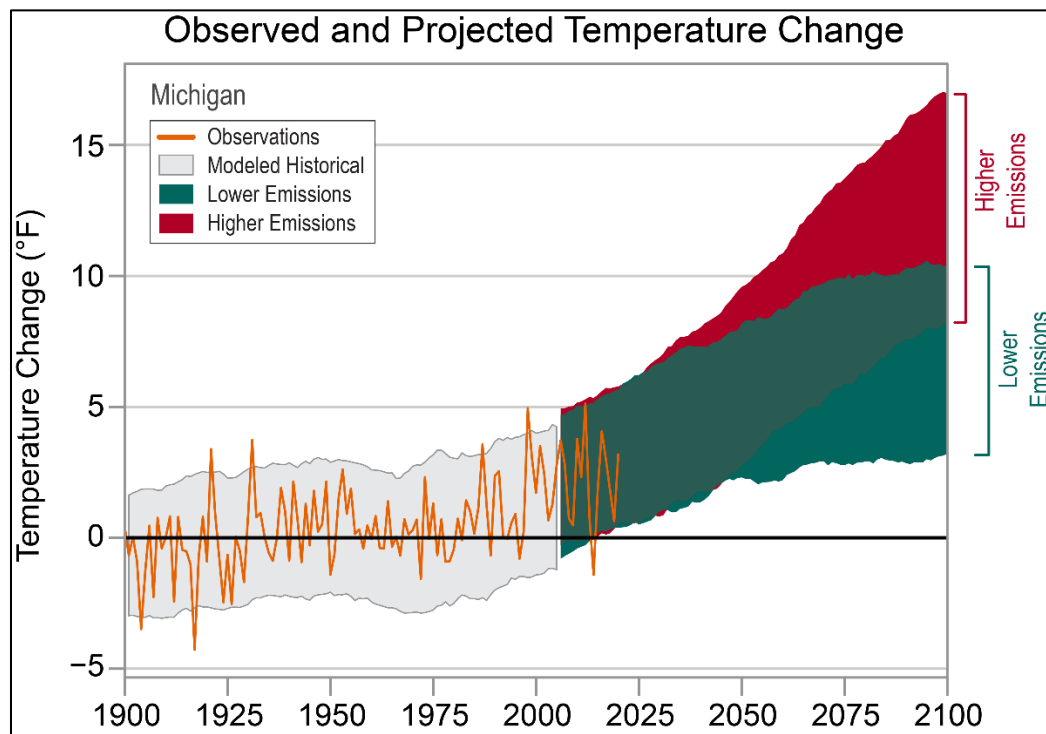
Urban areas are also particularly at risk because of air stagnation and large quantities of heat-absorbing materials such as streets and buildings. Extreme heat can also result in distortion and failure of structures and surfaces such as roadways and railroad tracks.

There were 6 excessive heat events in Arenac, Gladwin, Iosco, Midland, Saginaw, and Wayne counties between 2011 and 2022. The only deaths reported were during an excessive heat in Wayne County in 2011 that resulted in the deaths of two individuals.



Annual average temperatures in Michigan have risen almost 3° F since the early 20th century and are predicted to increase in the coming decades. A higher emissions pathway could lead to unprecedented warming in the 21st century (see Figure 30). By 2050, temperatures in Michigan are expected to increase by approximately 5°F. Michigan can expect to exceed historical record heat levels by the middle of the century under both low and high emission scenarios. Warming has, and likely will continue to be, concentrated to the winter and spring seasons. This is evidenced by the decrease in ice coverage of the Great Lakes where the maximum ice coverage dropped from 58% in 1973-1999 to 47% from 2000-2021.

Figure 62. Predicted Temperature Change in Michigan Under Different Emissions Scenarios⁷⁶



[ALT TEXT]: A graph demonstrating observed and projected temperature change in Michigan under different emissions scenarios. The graph demonstrates that observed temperatures have risen overall from a baseline temperature since the early 20th century. Under a low-emissions scenario, temperatures are projected to increase 3°F -10°F by 2100, and under a high-emissions scenario, increase 9°F -17°F by 2100.

Wildfire

A wildfire is an uncontrolled burning of grasslands, brush, or woodlands. Wildfires can be divided into three categories: interface, wildland, and firestorms. Wildland-urban interface (WUI) communities are areas where structures and other human development meet or intermingle with natural vegetative fuels. Forests cover approximately 55% (20.4 million acres) of Michigan's total land area, providing Michigan with the largest state-owned forest system in

⁷⁶ Michigan - State Climate Summaries 2022 (ncics.org)

The immediate danger from wildfires is the destruction of property, timber, wildlife, and injury or loss of life to persons in the affected area. The statewide expected annual loss from wildfires is approximately \$1.1 million.⁷⁷[Michigan – State Climate Summaries 2022 \(ncics.org\)](#) Fortunately, many decades have gone by without a catastrophic wildfire that involved the widespread loss of private structures. However, wildfires can cause widespread concerns and disruptions even in cases where physical damages have been prevented. Smoke, closed roadways, and infrastructure impacts may interfere with ordinary life, as well as an area's economy.

Wildfires are particularly damaging to the environment. Wildfires leave black soot, deposits of peat, smolder, and charcoal-like ground cover that can contaminate the soil and underground water table. These events also cause dramatic changes in vegetation, eliminating some species or causing others to appear where they were not present before the fire. With the fifth largest timber acreage in the country – contributing approximately 200,000 jobs and \$12 billion annually – preservation of the Michigan's environmental and forest health is critical.

⁷⁷ State Hazard Mitigation Plan, 40

Number of Wildfires

- 1 - 150
- 151 - 299
- 300 - 599
- 600 or More



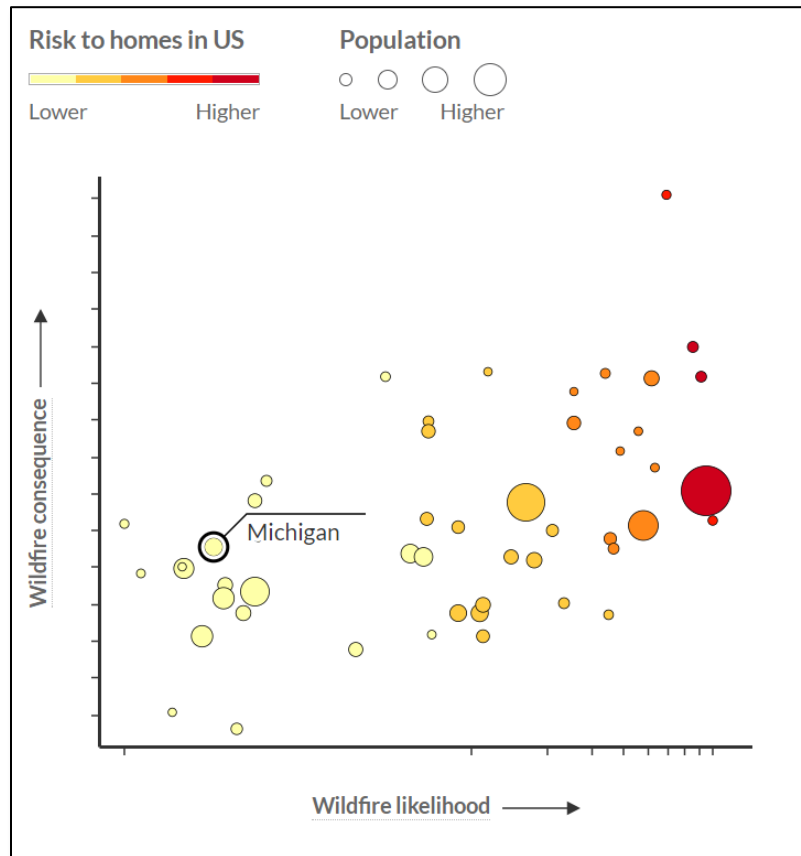
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More recently, Michigan has experienced thirteen wildfires between 2000 – 2018. Improved fire prevention and suppression techniques in the last century have reduced the frequency and destruction of wildfires.

According to the USDA Forest Service, populated areas in Michigan have, on average, greater risk than 18% of states in the US (Figure 32). Iosco County is particularly vulnerable to wildfires. Populated areas in Iosco County have, on average, greater risk of wildfire than 90% of counties in Michigan and a greater wildfire likelihood than 89% of counties in Michigan. This is likely due to its proximity to forests. Furthermore, individuals living in poverty have elevated fire risk and may require additional support recovering from a disaster.⁷⁸

Figure 64: Relative Risk to Michigan Homes.

Source: USDA Forest Service.



Climate change in Michigan exacerbates multiple hazards including the risk of wildfires. Over the last several decades climate conditions have grown hotter and drier which creates more fuel for fires to burn hotter and travel faster. Another aspect that warmer temperatures have on the landscape is they allow non-native creatures to travel to and survive in areas they previously found uninhabitable.⁷⁹ One example of a problematic species is the invasive bark beetle. Climate change has eliminated the seasonal cold spells that would normally kill off the beetles. Bark beetles have killed 100,000 square miles of trees across western North America in the last 20 years and have been reported in Michigan since at least 2011.⁸⁰ The swaths of dead trees are much more susceptible to wildfire and increase the likelihood that a fire can spread faster and farther. Lastly, development trends seem to involve increases in wildfire risk over time and will

⁷⁸ National Fire Protection Association

⁷⁹ USGS

⁸⁰ Michigan State University



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be of particular concern if annual cycles of summer drought do indeed appear in Michigan, as projected by many climate analysts within the coming decades.⁸¹

Tornado

Tornadoes are rapidly rotating columns of air that form during severe thunderstorms during Michigan's warm months. The typical length of a tornado path is approximately 16 miles, however, tracks up to 200 miles have been reported. Tornado path widths are generally less than one-quarter mile wide and can have winds exceeding 200 miles per hour. It should be kept in mind that winds are invisible until they pick up enough material that allows their patterns to be seen, and it is this carried material (including dust) that provides a tornado with a visible form that is easy to recognize as a hazard. Many persons have placed themselves at risk by not realizing that tornadoes do not always appear in their classic, fully visible funnel form. This is one reason why tornado warnings need to be taken seriously.

Michigan lies at the northeastern edge of the nation's primary tornado belt, which extends from Texas and Oklahoma through Missouri, Illinois, Indiana, and Ohio. Tornadoes in Michigan are most frequent in the spring and early summer when warm, moist air from the Gulf of Mexico collides with cold air from the polar air mass to generate severe thunderstorms. This convergence of winds from different directions, heights, and speeds produces the violently rotating columns of wind known as funnel clouds. Tornadoes occur more frequently in the southern-half of the Lower Peninsula than any other area of the state. Most tornadoes in Michigan come from the southwest and travel northeast, with many passing through the most densely populated areas of the state. Notably, Saginaw County has experienced a relatively high occurrence of tornadoes.

Michigan tornadoes present a serious threat, with over a thousand occurrences since 1950. Since 1996, Michigan has averaged about 18 tornadoes per year, including some funnel clouds and dust devils that many definitions and sources would exclude. Even though an average tornado might spend only a few minutes on the ground, those few minutes can result in devastating damages and loss of life. Records indicate that tornadoes in Michigan have been deadlier than in many other tornado-prone states. That is influenced by the high death toll associated with the June 8, 1953, and April 11, 1965, tornadoes. Several Michigan tornadoes have hit relatively densely populated areas, increasing their fatalities. June has been Michigan's most deadly tornado month, with 54% of all deaths. If the June 8, 1953, tornado death toll of 115 people is excluded, April becomes the deadliest tornado month, with 77 deaths (32% of the total). Although deaths had mostly occurred before 1980, property damages have remained very heavy, though not consistently predictable in their pattern. Annual property damage averages more than \$17 million per year, based upon events from 1996-2017.

According to the National Oceanic and Atmospheric Administration, there is no known way to predict whether or how climate change is affecting tornado frequency or severity. Some studies

⁸¹ State HMP, 113



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predict that climate change could produce more severe thunderstorms known as super cells. As global temperatures rise, the hotter atmosphere can hold more moisture. This increases atmospheric instability, an ingredient to supercell formation. On the other hand, as the planet warms, wind shear (another vital ingredient) is likely to decrease. These two forces work against each other, and it is difficult to anticipate which might have a greater impact on tornado formation. Furthermore, more frequent or severe thunderstorms does not necessarily mean that more tornadoes will occur, especially since only about 20 percent of supercell thunderstorms produce tornadoes.⁸²

There is also evidence to suggest that climate change has shifted tornado patterns geographically east due to its impact on the jet stream. The number of tornadoes in the states that make up Tornado Alley are falling, while tornado events have been on the rise in the states of Mississippi, Alabama, Arkansas, Missouri, Illinois, Indiana, Tennessee, and Kentucky.

The fourth National Climate Assessment summarizes the complicated relationship between tornadoes and climate change: “Some types of extreme weather (e.g. Rainfall and extreme heat) can be directly attributed global warming. Other types of extreme weather, such as Tornadoes, are also exhibiting changes which may be linked to climate change, but scientific understanding isn’t detailed enough to project direction and magnitude of future change.”

Drought

Droughts are classified within four different categories—meteorological, hydrologic, agricultural, and socioeconomic. A meteorological drought is based on the departure of precipitation from an expected average or normal amount based on monthly, seasonal, or annual time scales. A hydrologic drought involves the effects of precipitation shortfalls on stream flows and reservoir, lake, and groundwater levels. An agricultural drought involves deficiencies in soil moisture with respect to the water needs of plant life such as crops. A socioeconomic drought is when the effective demand for water exceeds the supply to the extent that costs begin to escalate, sometimes because of weather-related shortfalls.

Drought differs from other natural hazards in several ways. First, there is no exact beginning and end point that is obvious for a drought, whose effects may accumulate slowly and linger even after the event is generally thought of as being over. Second, the lack of clearly visible and universal standards to define a drought can make it difficult to confirm whether one exists, and its degree of severity. Third, drought impacts are often less obvious than other natural hazards, and they are typically spread over a large geographic area. Fourth, most communities do not have any contingency plans in place for addressing drought. This lack of pre-planning can hinder support for drought mitigation capabilities that would otherwise effectively increase awareness and reduce drought impacts.

Common effects of drought include crop failure, water supply shortages, wildlife mortality, and higher prices for water and agricultural goods. Substantial economic impacts can affect the

⁸² [Tornadoes and Climate Change | National Geographic Society](#)



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agricultural and tourist sectors, which are very important for Michigan's economy. Droughts additionally threaten public health and safety by increasing the risk of illnesses and wildfires. Conflicts between water users can also arise, especially when a river or lake has competing uses among municipal, agricultural, industrial, and recreational users.

Despite thousands of miles of rivers and streams and its surrounding Great Lakes, Michigan still experiences occasional drought conditions. Parts of Michigan have tended to experience significant drought conditions about 20% of the time on average (depending upon how it is measured). The most common type of drought is agricultural with severe soil-moisture deficits. One third of Michigan's recent agricultural disaster declarations have involved drought impacts. Between 2012 and 2018, there were 12 drought-related agricultural disaster declarations.⁸³ In August and September 2007, all 83 counties received drought disaster declarations from the U.S. Department of Agriculture due to crop losses from drought. The most severe drought afflicting the counties of interest was in 1931.

Since the effect of climate change on Michigan has involved an overall increase in precipitation, the severity of Michigan's droughts has generally been decreasing over the past half-century. Studies of climate have suggested that a gradual warming pattern has led to an increase in precipitation, since warmer air can carry more humidity. However, shorter duration seasonal droughts are expected to worsen during the warmer half of the year, even though the overall annual averages have been showing increases in precipitation. Therefore, there will still be drought events and dryer seasonal phases, especially in areas that are more susceptible locally.

Indispensable Services

Indispensable services are those that enable the continuous operation of critical business and government functions and/or are critical to human health and safety and economic security. As part of their local HMP's, the MID counties enumerated the municipal and public safety services, community organizations, businesses, and critical facilities that perform this function in their communities.

Gladwin County

In its local HMP, Gladwin County identifies "Community Organization and Resources for Hazard Mitigation." In addition to their office of emergency management and volunteer fire departments, Gladwin County identified a number of other services that "help serve the public in times of disaster and other emergency situations." These include:

- Five active warning sirens, one each in Billings, Butman, Secord, Gladwin, and Beaverton
- The Gladwin County Sheriff Department

⁸³ State Hazard Mitigation Plan



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- Two local police departments
- Gladwin county jail
- One hospital and four other healthcare facilities
- Five county parks
- One county, two city, and 15 township government facilities
- One ambulance service
- Nine public and four private schools
- Six senior centers
- Three financial institutions
- The Gladwin County Fairgrounds
- Consumers Energy
- Michigan Consolidate Gas
- Ameritech telephone
- Three state highways
- The Gladwin Zettel Memorial Airport
- Michigan State University Extension – Gladwin

Saginaw County

In its local HMP, Saginaw County identifies its “Critical facilities, Municipal Services, and Public Safety” facilities, including its two major hospitals, St. Mary’s Medical Center and Covenant Medical Center, both Trauma II Centers, and several satellite facilities throughout the County. In addition to these medical facilities, Saginaw County has an ambulance service, Mobile Medical Response (MMR, that provides emergency medical transportation to 90% of Saginaw County. There are also several dozen nursing home facilities, assisted living facilities, and senior centers in the County.

In addition, Saginaw County lists the following facilities:

- Two utility providers, Consumers Energy and DTE Energy
- Three telecommunications providers, AT&T, Charter Communications, and Frontier Communications One landfill, Waste Management



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- Saginaw Central Dispatch, the primary Public Safety Answering Point (PSAP) for emergencies in Saginaw County
- Mobile Medical Response (MMR) Dispatch Center
- The Saginaw County Sheriff's Office
- 15 municipal police forces, including one for the VA hospital
- 22 fire departments, including The City of Saginaw Fire Department and The City of Buena Vista Fire Department
- The Dow Event Center
- First Merit Event Park

Arenac County

In its local HMP, Arenac County identifies the following "Critical Facilities":

- Arenac County Emergency Management & Homeland Security
- Saginaw-Midland Water Supply Corporation
- City of Au Gres Water & Waste Systems
- City of Standish Water & Waste Systems
- Mobile Medical Response – Emergency Medical Services
- Standish Area Fire Authority
- Four fire departments, including Sterling, Moffatt, Twining-Mason-Turner, and Au Gres-Sims-Whitney
- Ascension Standish Hospital
- Ascension Au Gres Family Clinic
- Michigan Department of Transportation
- I-75
- US23

Iosco County



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In its local HMP, Iosco County identifies the following “Community Organization and Resources for Hazard Mitigation.”

- Iosco County Office of Emergency Management
- The Michigan State Police Post, West Branch post w
- Iosco County Sheriff's Office, Tawas City
- The Tawas Policy Authority
- The Oscoda Township Police Department
- Six fire departments: Grant Township Volunteer Fire Department, Plainfield Township Fire Department, East Tawas Fire Department, Tawas City Fire Department, Oscoda Fire Department, and Whittemore Volunteer Fire Department
- Iosco County Central Dispatch
- Iosco County Emergency Medical Services
- Iosco County Health Department District 2
- Tawas St. Joseph Hospital
- Several nursing home medical recovery facilities
- St. Joseph Hospital/St. Joseph Health Systems
- Iosco County Offices
- 11 township offices
- Three city offices
- DTE Energy
- Consumers Power
- Century Telephone
- Charter Communications
- Merit Fiber
- The Huron Shore Regional Utility Authority
- The Tawas Utilities Authority
- Three major highways
- Iosco County Airport



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- Oscoda-Wurtsmith Airport
- Field of Dreams Airport
- Iosco Transit Corporation
- Lake State Railway

Midland County

In its local HMP, Midland County identifies the following “Key Community Facilities/Organizations”:

- Four law enforcement agencies
- 13 fire departments
- One emergency medical service
- Consumers Energy
- Charter Communications
- AT&T
- Verizon
- TDS Telecom
- Two power generating dams at Sanford and Edenville
- Midland Cogeneration
- United Way of Midland County
- Midland County Senior Services
- Affordable Housing Alliance of Midland County
- Big Brothers/Big Sisters of Midland County
- United Way Volunteer Center
- The Council on Domestic Violence and Sexual Assault shelter
- Northwood University
- Davenport University
- Central Michigan University Midland Center



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- Delta College Midland Center
- The Midland Center for the Arts
- Dow Gardens
- The Chippewa Nature Center
- Midland Farmer's Market
- Four sports facilities
- Midland Civic Arena
- Three community centers
- Pere Marquette Rail Trail
- Three parks
- Midland County History Center
- Two state forests
- Dow Diamond stadium

Wayne County

In Appendix C of its Local HMP, The City of Detroit, which is in Wayne County, identifies the following "Critical Facilities":

- 11 major streets
- 11 hospitals
- Approximately 100 schools, including Elementary, Elementary through Middle, Middle, Elementary through High, and High School
- 37 downtown buildings
- Six places for public assembly
- 14 government facilities
- 10 office buildings
- Detroit News Warehouse
- Detroit City Airport
- 26 electrical water, and sewer utility assets
- Eight industrial facilities



- Six hotels

Social Vulnerability

This analysis utilized the Center for Disease Control and Prevention (CDC) and Agency for Toxic Substances and Disease Registry (ATSDR) Social Vulnerability Index (SVI), and the Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool to analyze social vulnerability in Wayne, Iosco, Arenac, Gladwin, Midland, and Saginaw counties. These tools were chosen because they provide important information that align with Justice40 Initiative aims. The goal of the Justice40 Initiative is to provide 40 percent of the overall benefits of certain Federal investments in seven key areas to disadvantaged communities. These seven key areas are: climate change, clean energy and energy efficiency, clean transit, affordable and sustainable housing, training and workforce development, the remediation and reduction of legacy pollution, and the development of critical clean water infrastructure. An examination of the data reveals that there are disadvantaged communities and socially vulnerable populations in the targeted Wayne, Iosco, Arenac, Gladwin, Midland and Saginaw counties.

According to the CDC/ATSDR's Social Vulnerability Index (SVI), there are several areas of the impacted counties that are socially vulnerable or have a high concentration of residents who are living below the poverty line, have one or more disability, or are a minority. The SVI ranks counties and tracts on 15 social factors, including unemployment, minority status, and disability, and further groups them into four related themes. The CDC SVI ranking variables for the four themes are Socioeconomic Status, Household Composition & Disability, Minority Status & Language, and Housing Type & Transportation. These indicators help support analysis on the relative vulnerability of a given census tract and help identify communities that will need continued support to recover following an emergency or natural disaster. The overall ranking is a percentile ranking calculation that represents the proportion of tracts that are equal to or lower than a tract of interest in terms of social vulnerability. For example, a CDC/ATSDR SVI ranking of 0.60 signifies that 60% of tracts in the nation are less vulnerable than the tract of interest and that 40% of tracts in the nation are more vulnerable. See Table 86 and Figure 65 through Figure 66 for SVI indicators and maps.

Table 86: SVI County-level Data

County	Overall SVI	Percentage minority (All persons except white, non-Hispanic)	Percentage of population with a disability	Percentage of population below poverty
Arenac	.51	5.2%	21%	18.2%
Gladwin	.54	4%	21.2%	18.2%
Iosco	.45	6%	22.6%	16.4%
Midland	.16	8.4%	13.6%	10.8%



Saginaw	.70	30.5%	16.6%	17.7%
Wayne	.87	50.4%	16%	23.1%



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Figure 65: SVI by Census Tract for Counties of Interest

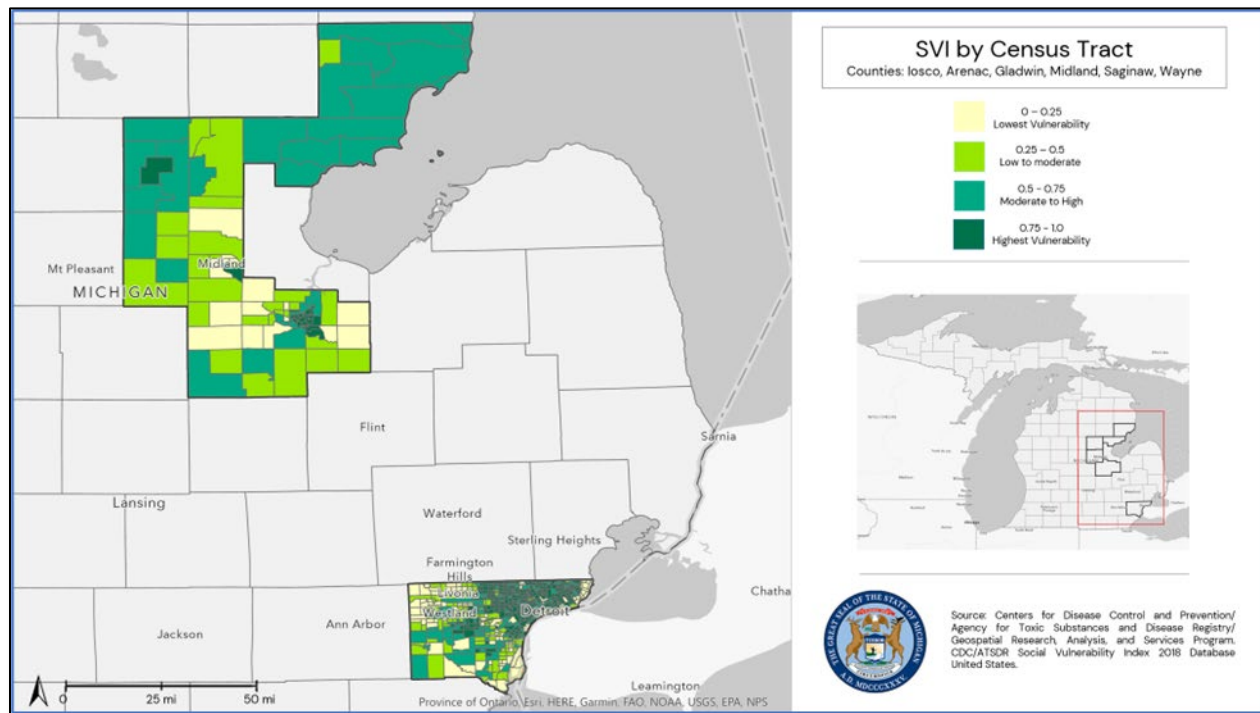


Figure 66: Percent of Population Below Poverty Line by Census Tract in Counties of Interest

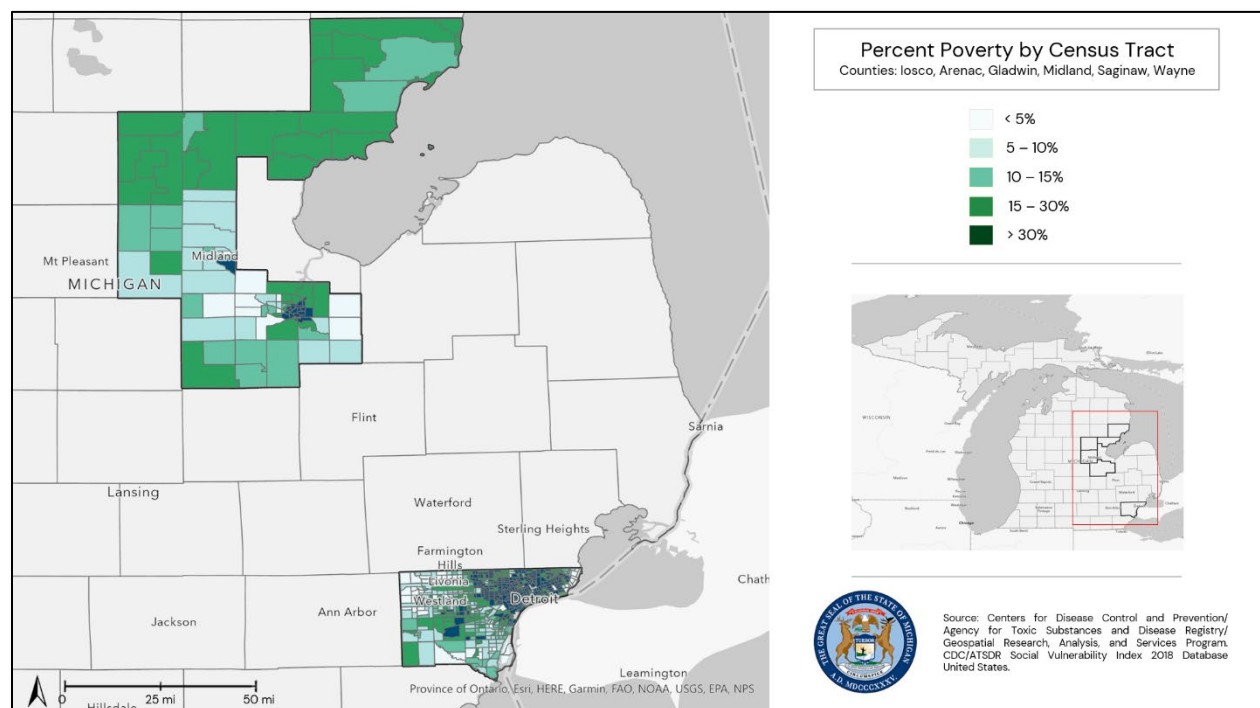




Figure 67: Percent of Population with a Disability by Census Tract in Counties of Interest

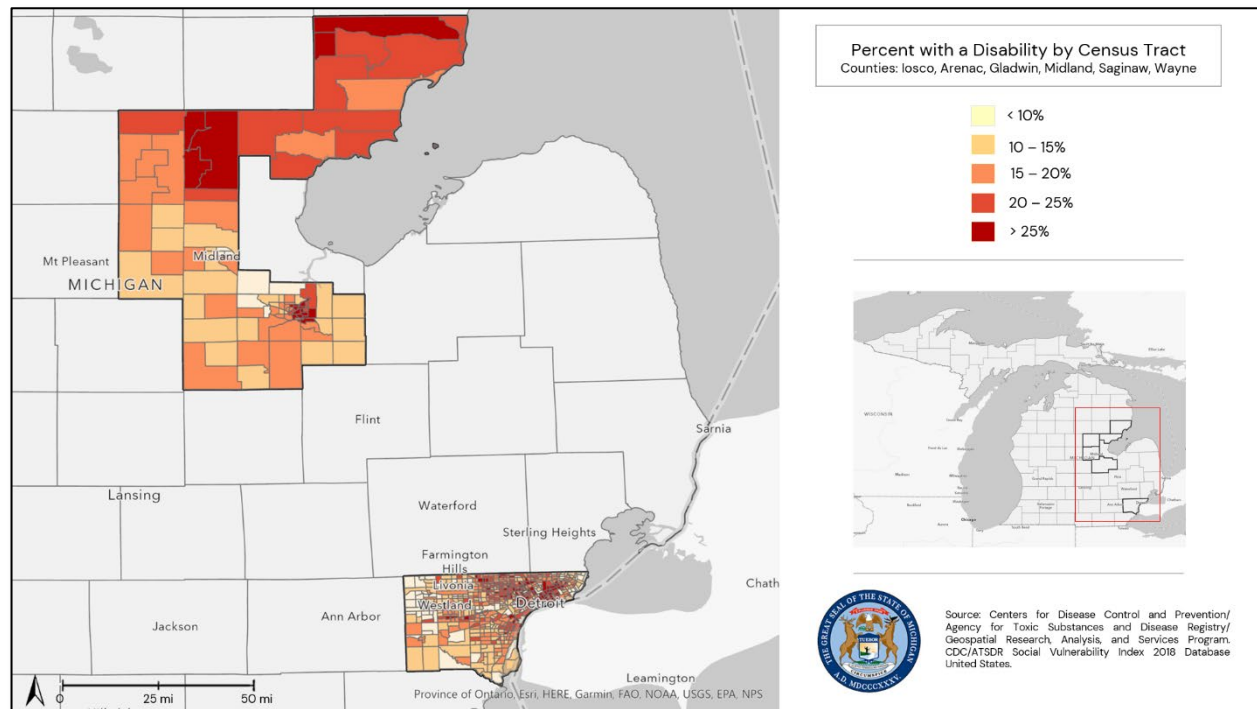
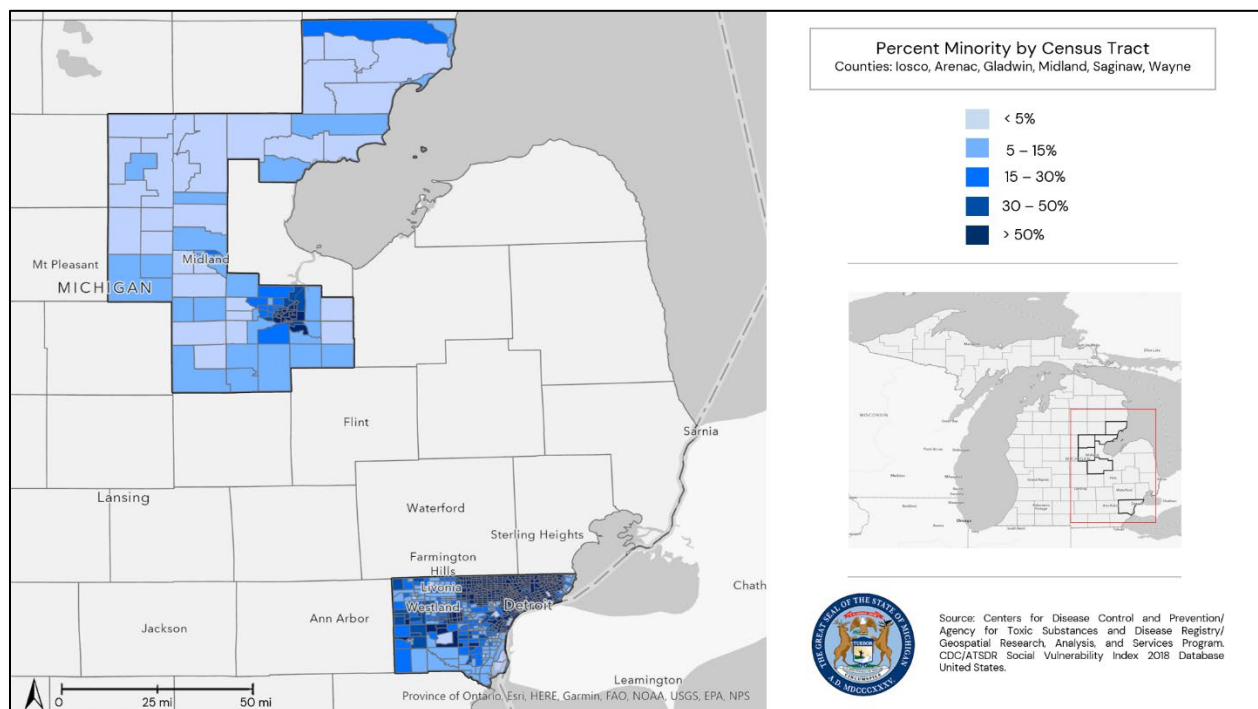


Figure 68: Minority Population by Census Tract in Counties of Interest

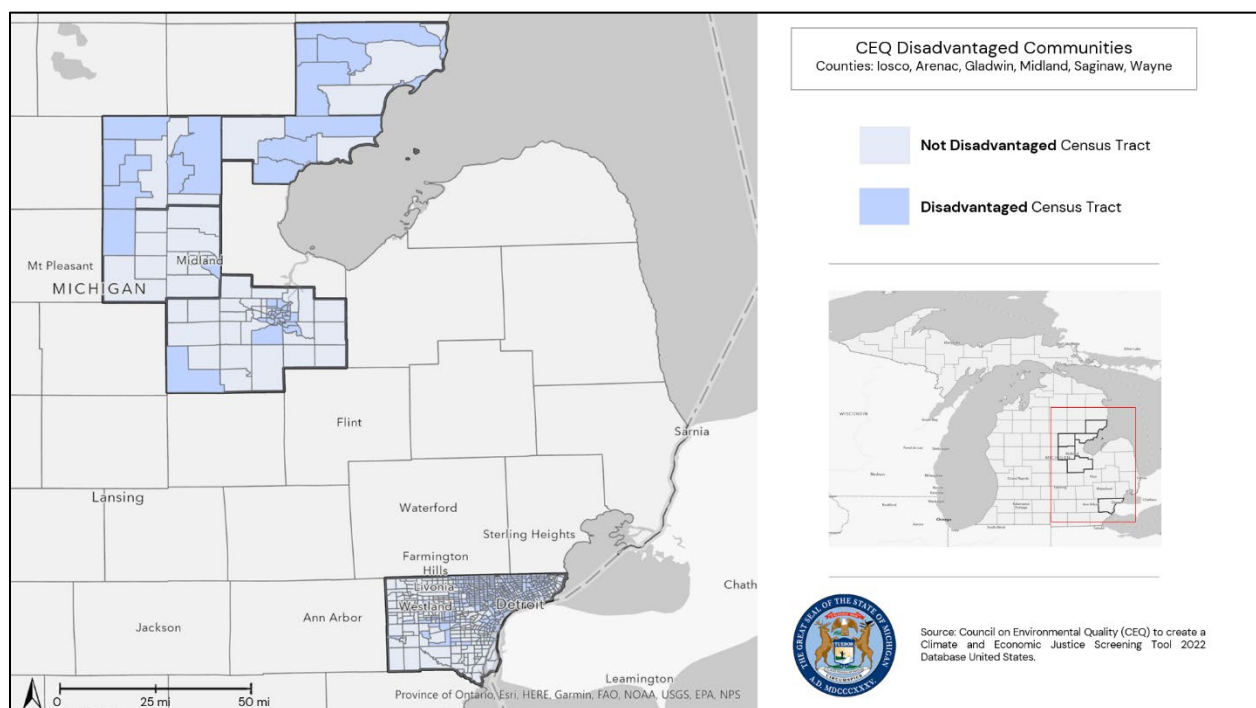




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The Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool also identified socially vulnerable residents in the counties of interest. The CEQ defines disadvantaged communities as those that are, based on census-tract level data, (1) above the 65th percentile for low income, (2) at or below 20% for higher education enrollment rate, and (3) above the threshold for one or more environmental or climate burden related to underinvestment. Environmental and climate burden indicators are grouped into eight categories: climate change, clean energy and energy efficiency, clean transit, affordable and sustainable housing, reduction and remediation of legacy pollution, critical clean water and wastewater infrastructure, health burdens, and training and workforce development. See the following figures for CEQ indicators and maps.

Figure 69: Disadvantaged Communities by Census Tract in Counties of Interest



According to the CEQ there are disadvantaged communities in all five counties of interest. Wayne, Iosco, Arenac, Gladwin, and Midland have communities that are predominantly deemed disadvantaged because they are at or above one or more health burden or clean energy and energy efficiency indicator thresholds. For example, some census tracts in Gladwin County rank in the 99th percentile for average annual energy costs divided by household income. Exhibited in 38 and 39, nearly every census tract in Saginaw and Detroit exceeds at least one threshold, deeming it disadvantaged. Many census tracts in Saginaw are identified as disadvantaged in five and six out of the total eight categories. Parts of downtown Saginaw are burdened with wastewater discharge and rank in the 98th percentile for the amount of toxic concentrations at stream segments within 500 meters.



Figure 70: Disadvantaged Communities by Census Tract in Saginaw, Michigan

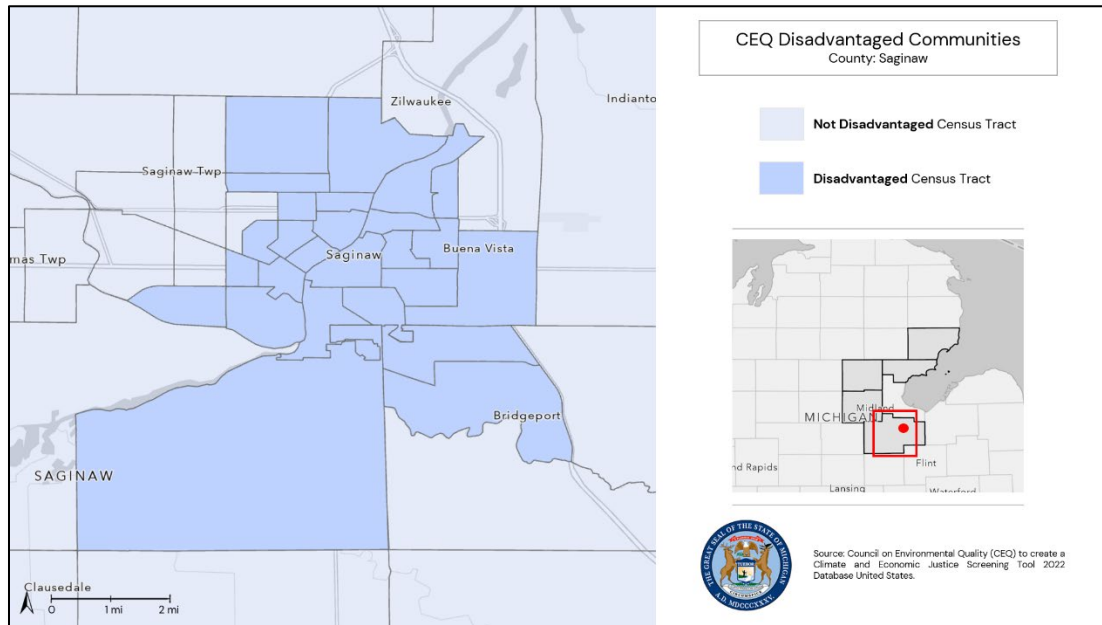
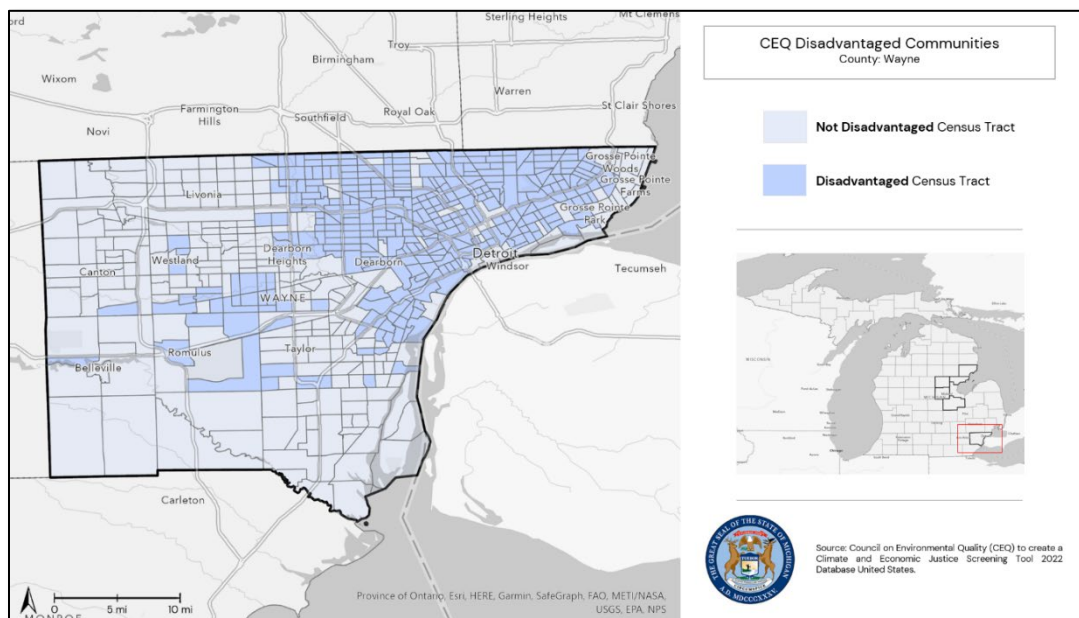


Figure 71: Disadvantaged Communities by Census Tract in Wayne County





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General Requirements



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General Requirements

Citizen Participation

Outreach and Engagement

In the development of this Action Plan, MEDC consulted with disaster-affected residents, stakeholders, local governments, public housing authorities, State agencies, and other affected parties in the surrounding geographic area. In doing so, MEDC ensured that the Action Plan was consistent with the disaster impacts, comprehensive, inclusive, and reflective of input.

To further understand the impacts of the disaster, MEDC conducted outreach to impacted local governments and organizations working on recovery efforts in the 2020 and 2021 impacted areas. The following provides a summary of the impacts as described by local officials, collected starting the week of July 18, 2022 throughout drafting of the Action Plan.

Gladwin County

- Did not have severe water damage, mainly flooding from rainstorms, while others were hit by a wave of water when the dam breached
- Noted that many of the impacted homes were part-time residences or vacation homes
- The County only has three public housing buildings, and a majority of the units are for low-income seniors
- The County has one shelter for the unhoused population (Dime Shelter)
- As a result of the disaster the water table has changed, causing property wells to go dry, this also impacted fire suppression capabilities of fire stations
- Lack of broadband throughout the County limits the County's ability to create an emergency evacuation system and notification plan
- Need for flood and water level gauges to monitor flood conditions and create an early warning system
- City of Gladwin:
 - Damage to the City's wastewater treatment facility by the flood waters from the qualifying disaster, up to \$26 million to move the facility
 - The City's community center was damaged during the disaster, and the City is looking for resources to create a new community center that can also be used during a disaster
 - Park facilities and campgrounds were damaged by the disaster – need to restore these facilities for bringing tourism back to the area

Arenac County



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- High lake levels three years prior to the flood impacted the three river systems that run through Arenac County, much of the damage included commercial properties including agriculture properties.
- City of Au Gres – reported that 300 homes had severe damage due to flooding, major culvert and road damage, but few commercial properties impacted. Agricultural damage was severe due to the heavy rainfall, but not related to the dam breach.
- City of Omer and Arenac Township – Major impacts due to damaged spill way, flooding homes, and major issues with debris (approximately 500 trees pulled from the river to prevent further damage to homes)
- Major impacts to infrastructure – including drainage culverts, roads, bridges.
- Economic impact – the amount of debris in the river caused significant impacts to commerce after the disaster.

Saginaw County

- Homelessness – limited number of people displaced due to the disaster – many stayed with relatives or other housing options, while some remained on the property but not in the house.
- Thomas, James, and Saginaw Townships were hardest hit from the disaster. But noted that a majority of the homes impacted were primary residences.
- No known impacts to Housing Choice Voucher holders, no reported impacts to unhoused residents

Iosco County

- The main impacts were to the beaches and roadways

Midland County

- Impacted by flooding from the dam breach
- Unsheltered Homeless Population – 33 households and 76 individuals were displaced by the flooding and needed assistance locating temporary housing due to their homes being destroyed/damaged (both renters and owners)
- Housing Assistance – Home to Stay in Midland County received 115 calls in 2020/2021 related to the flooding.
- Well failures and water restoration – 165 individuals and 75 households
- Habitat for Humanity has rebuilt five homes for low-income families
- Vulnerable populations – 3 adults with disabilities and 2 adults over the age of 65 were displaced and required assistance relocating due to damage from the disasters.
- City of Midland



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- Received \$5.5 million in hazard mitigation funds from FEMA for housing demolition, repairs to the Riverside Senior Living Center, sewer pump station improvements, and planning dollars for a resilience plan
- Dow Chemical provided \$5 million to nonprofits, Government Agencies for immediate relief, provided limited support to homeowners (limited to Dow employees)
- Damage to a farmers market that supported low- and moderate-income patrons, the market will need to be relocated
- City of Sanford
- The City did not have a stormwater or sewer system before the disaster, but without the system the City is concerned about economic development and bringing business back to the area post-disaster
- Few houses were completely destroyed by the disaster, and several businesses were also destroyed

Wayne County

- Infrastructure is badly needed in the county
- Homeowners experienced extreme flooding in their basements and incurred damage to their furnaces and hot water heaters
- Dearborn Heights – part of two watersheds Ecorse Creek and Rouge River that were identified as being troublesome with flooding

MEDC recognizes that affected stakeholders are partners in the development and implementation of this plan. The CDBG-DR action plan will be available on the MEDC's CDBG-DR website <https://www.miplace.org/cdbg-dr/> from August 31, 2022 to September 29, 2022 (30-day public comment period). MEDC will ensure that all citizens have equal access to information, including persons with disabilities, elderly families, and those with limited English proficiency.

To notify the public of the plan's availability, public notification is provided through the following methods:

- Direct email notice to individuals who had signed up for updates on CDBG-DR plan development.
- Email notices to local and tribal governments and nonprofit/community-based organizations that have been active in supporting survivors in disaster recovery, e.g., Long Term Recovery Groups, AARP, disability service advocates, and culturally-specific organizations.
- Press release to major news outlets state-wide.
- Announcements on agency-managed social media accounts.



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- Formal notice and public announcement on MEDC's CDBG-DR website. MEDC will ensure that all citizens have equal access to information, including persons with disabilities (vision and hearing impaired) and limited English proficiency (LEP).

A summary of citizen comments on this Action Plan, along with MEDC responses, will be included in Appendix 5.4 of this document after the public comment period ends.

For more information, citizens can refer to the MEDC citizen participation plan that can be found at <https://www.miplace.org/cdbg-dr/>.

Public Hearings

Per the Federal Register's approach for CDBG-DR grantees with allocations under \$500 million, at least one public hearing is required during the 30-day comment period. The process below will be followed for a public hearing regarding use of the CDBG-DR funds or a substantial amendment.

MEDC will convene at least two public hearings (including in person and/or virtual hearings) on the draft CDBG-DR action plan after being posted on its website for public comment and prior to submission to HUD. Notice of all hearings will be posted a minimum of 10 business days prior to public hearings.

All public hearings will be held at a time and accessible location convenient to potential and actual beneficiaries, and with accommodations for persons with disabilities or limited English proficiency (LEP).

The State will prominently post a notice and the proposed Disaster Recovery Action Plan ("Action Plan") on the official MEDC CDBG-DR website.

Following the above process for public hearings on the draft CDBG-DR action plan, MEDC hosted and presented at public hearings in the following locations, the week of September 12 and September 20.

- Saginaw County
- Midland County
- Gladwin County
- Wayne County (August 20)

The public hearing in Wayne County was recorded and posted on Dearborn.org Facebook page that has had more than 450 views.

Complaints

MEDC is committed to affirmatively furthering fair housing and complies with The Fair Housing Act that prohibits discrimination because of race, color, national origin, religion, sex (including



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gender identity and sexual orientation), familial status, and disability. A variety of other federal civil rights laws, including Title VI of the Civil Rights Act, Section 504 of the Rehabilitation Act, and the Americans with Disabilities Act, prohibit discrimination in housing and community development programs and activities. These civil rights laws include obligations such as taking reasonable steps to ensure meaningful access to their programs and activities for persons with limited English proficiency (LEP) and taking appropriate steps to ensure effective communication with individuals with disabilities through the provision of appropriate auxiliary aids and services.

In addition, when MEDC passes funds through to subrecipients and/or local governments the same affirmatively furthering fair housing actions and compliance with The Fair Housing Act are attached to the funds being distributed. Efforts will be made to remove barriers to fair housing as programs are implemented and compliance with The Fair Housing Act will be monitored. MEDC will evaluate whether subrecipients have (1) designated a fair housing and equal opportunity coordinator to be the prime liaison with DLG, (2) passed a fair housing resolution prior to release of grant funds, and (3) conducted one or more AFFH activities. Complaints alleging violation of fair housing laws will be directed to HUD for immediate review. Direct fair housing complaints can be made by calling HUD's Office of Fair Housing and Equal Opportunity (FHEO) Region 5 office at 1 (800) 765-9372, or emailing them at complaintsoffice05@hud.gov, or on hud.gov. Complaints regarding fraud, waste, or abuse of funds will be forwarded to the HUD OIG Fraud Hotline (phone: 1-800-347-3735 or email: hotline@hudoig.gov). MEDC will make available to HUD detailed Fraud, Waste, and Abuse Policies and Procedures on <https://www.miplace.org/cdbg-dr/> to demonstrate adequate procedures are in place to prevent fraud, waste, and abuse.

MEDC or its subrecipients shall provide a written response to each formal complaint within 15 working days of receipt of the complaint or will document why additional time for a response is needed.

- Formal complaints are written statements of grievance, including email, comments posted on the MEDC CDBG-DR website, and handwritten complaints. MEDC shall detail the process and contact information (through the website and email address) for submitting complaints within program guidelines, application documents, and on the MEDC CDBG-DR website. OHCS shall maintain a tracker for collecting and categorizing complaints through resolution.
- Informal complaints are verbal complaints. MEDC and its subrecipients will attempt to resolve informal complaints; however, they are not subject to the written response process described above.

Appeals

MEDC or its subrecipients shall include written appeals processes within each set of program guidelines. The appeals processes will include, but are not limited to the following:



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- The process for submitting, tracking, and resolving a written appeal to the organization administering the program (MEDC or its subrecipient), to include whether an appeals committee will be established to review and/or rule on appeals.
- The documentation required when submitting an appeal.
- The timelines for reviewing and providing a response to the appeal.
- Clarification of what may or may not be appealed. Generally, policies that have been approved and adopted within program guidelines may not be appealed. MEDC and its subrecipients do not have the authority to grant an appeal to a regulatory or statutory or HUD-specified CDBG-DR requirement.

Public Website

MEDC will maintain a public website that provides information accounting for how all grant funds are used, managed, and administered, including links to all disaster recovery action plans, amendments, program policies and procedures, performance reports, citizen participation requirements, and activity and program information described in this plan, and details of all contracts and ongoing procurement processes.

These items are made available through <https://www.miplace.org/cdbg-dr/>. Specifically, MEDC will make the following items available:

- The action plan created using DRGR (including all amendments);
- Each performance report (as created using the DRGR system);
- Citizen participation plan;
- Procurement policies and procedures;
- All executed contracts that will be paid with CDBG-DR funds as defined in 2 CFR 200.22 (including subrecipients' contracts); and
- A summary including the description and status of services or goods currently being procured by the grantee or the subrecipient (e.g., phase of the procurement, requirements for proposals, etc.).

Contracts and procurement actions that do not exceed the micro-purchase threshold, as defined in 2 CFR 200.67, will not be posted on the website.

In addition, MEDC will maintain a comprehensive website regarding all disaster recovery activities assisted with these funds.

The website will be available to the public and accessible to persons with disabilities and those with limited English proficiency. MEDC will take reasonable measures to ensure meaningful access to programs and activities for all individuals, including LEP persons, members of protected classes, vulnerable populations, and individuals from underserved communities.



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Reports and program information will be monitored frequently to ensure current information is displayed. At minimum, the website will be reviewed and updated quarterly. Changes to the website may only be authorized by designated personnel. The designated personnel will be responsible for testing the website to ensure all uploads are working properly and that the data is displayed correctly.

Amendments

Over time, recovery needs will change. Thus, MEDC will amend the disaster recovery action plan as often as necessary to best address our long-term recovery needs and goals. This plan describes proposed programs and activities develop overtime an amendment may not be triggered if the program or activity is consistent with the plan.

When there are changes to the sections of this action plan that rise to the level of requiring an amendment, the State will do the following:

- Ensure the current version of the Action Plan is accessible for viewing as a single document, with all amendments;
- Identify the amendments by highlighting added or changed content;
- Include tables that clearly illustrate where funds are being moved;
- Include a revised budget table that reflects all funds applicable to the amendment.

Substantial Amendment

Substantial amendments to the CDBG-DR action plan for both will require at least 30-days of public notice. The State has defined Substantial Amendments to the Action Plan as those proposed changes that require the following decisions:

- A change in program benefit or eligibility criteria
- The addition or deletion of an activity
- A proposed reduction in the overall benefit requirement
- A reallocation which constitutes a change of 25 percent or greater of a program budget

Those amendments which meet the definition of a Substantial Amendment are subject to public notification and public comment procedures. Citizens and units of local government will be provided with reasonable notice and an opportunity to comment on proposed Substantial Amendments to the Action Plan. A notice and copy of the proposed Substantial Amendment will be posted on the Michigan Economic Development Corporation's official website in adherence with the Americans with Disabilities Act and LEP requirements. MEDC will identify and consider potential barriers that limit or prohibit equitable participation and will undertake reasonable measures to increase coordination, communication, affirmative marketing, targeted outreach



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and engagement with underserved communities and individuals, including persons with disabilities and those with limited English proficiencies. Copies will be provided upon request at MEDC, if otherwise not accessible for review by any residents. LEP persons may contact the Language Access Plan Coordinator, Bill Povalla via email at povallab@michigan.org to request translation of the Substantial Amendment.

Citizens will be provided with no less than thirty (30) days to review and comment on the proposed substantial amendment. Written comments may be submitted to:

Michigan Economic Development Corporation
Attention: CDBG-DR
300 N Washington Square
Lansing, Michigan 48933

A summary of all comments received responses will be included in the Substantial Amendment that is submitted to HUD for approval and posted to the MEDC's official website.

Anticipated Substantial Amendment

Overall Benefit for Low – and Moderate – Income Persons

MEDC intends to submit a substantial amendment regarding the low-to-moderate income (LMI) percentage, as described in III.F.2. Overall benefit requirement of 87 FR 6303 dated February 3, 2022, 87 FR 6326 dated May 24, 2022 and 88 FR 3198 dated January 18, 2023. MEDC plans to request that it be allowed to waive the requirement that 70% of the total grant be used for activities that benefit LMI persons. MEDC would request the overall benefit to be lowered to a number at or below 50%, with the determining factor depending on the number of applications and percentage of projects in non-LMI areas.

The LMI analysis in this plan along with tables 46 through 49 show that less than 50% of their populations are LMI for 2020 disaster impacted communities and the LMI for the 2021 most impacted and distressed area the LMI population is at 52.7%. Project proposals being submitted for funding will be required to demonstrate how low- and moderate-income persons benefit from the project. MEDC will be prioritizing projects for LMI persons and tracking across the grant to monitor the meeting of the overall benefit requirement.

For the 2020 allocation, MEDC proposes that a majority of its CDBG-DR grant funds be used for Infrastructure and Planning programs. For the 2021 allocation, MEDC is only proposing an Infrastructure program. Through MEDC's engagement with the disaster-impacted communities, the infrastructure and planning programs will have a broader impact on the community rather than on an individual basis. Given that Michigan received a small allocation the most cost-effective use of funds that will provide the most benefit to the residents including low- and moderate-income households is infrastructure and planning. The infrastructure will mitigate the impacts of future disasters and protect the investments the local communities are making now to help restore housing. The local communities lack sufficient resources to support large-scale



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projects and are looking to the state to bring their expertise and resources to ensure the projects are completed.

MEDC will strive to meet the 70 percent requirement, but that has the potential of putting the project at risk of not being in compliance since the disaster declared areas are primarily non-LMI, falling below the 51 percent LMI threshold, and infrastructure is too critical to the communities to put it in jeopardy. In addition, because the programs include implementing mitigation measures, the substantial amendment may be needed to meet the long-term recovery and resilience needs of the impacted communities. It is also important to note that a community in need of disaster recovery should not be denied because there isn't a concentration of poverty to meet the requirement.

Non-Substantial Amendment

A non-substantial amendment is an amendment to the plan that includes technical corrections and clarifications and budget changes that do not meet the monetary threshold for substantial amendments to the for public comment. MEDC will notify HUD five (5) business days before the change is effective.

All amendments (substantial and non-substantial) will be numbered sequentially and posted to the website into one final, consolidated plan.

Displacement of Persons and Other Entities

To minimize the displacement of persons and other entities that may be affected by the activities outlined in this Action Plan, MEDC and its subrecipients will coordinate with applicable agencies and entities to ensure that all programs are administered in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act (URA) of 1970, as amended (49 CFR Part 24) and Section 104(d) of the Housing and Community Development Act of 1974, as amended, and implementing regulations at 24 CFR Part 570.496(a).

These regulations and requirements apply to both property owners and tenants in the event that proposed projects cause the displacement of persons or other entities. MEDC will include detailed policies and procedures for when proposed programs or projects could potentially cause the displacement of people or other entities. MEDC also will budget to cover the costs involved in implementing those policies and procedures. Currently, it is not anticipated that proposed programs will cause displacement.

MEDC will draw on existing Residential Anti displacement and Relocation Assistance Plans (RARAPs) and will adapt them to meet the URA, Section 104(d), and related waivers and the alternative requirements specified in the Consolidated Notice. The adapted RARAP also will be updated prior to implementing any activity with CDBG-DR grant funds.



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CDBG-DR funds may not be used to support any federal, State, or local projects that seek to use the power of eminent domain, unless eminent domain is employed only for a public use. None of the currently planned projects under this Action Plan contemplate the use of eminent domain.

Any use of funds for mass transit, railroad, airport, seaport or highway projects, as well as utility projects which benefit or serve the general public (including energy related, communication-related, water related, and wastewater-related infrastructure), other structures designated for use by the general public or which have other common-carrier or public-utility functions that serve the general public and are subject to regulation and oversight by the government, and projects for the removal of an immediate threat to public health and safety or brownfields as defined in the Small Business Liability Relief and Brownfields Revitalization Act (Pub. L. 107-118) shall be considered a public use for purposes of eminent domain.

Protection of People and Property

MEDC will leverage CDBG-DR funds to build economic and disaster resilience into all recovery programs and activities. The Action Plan, as written, intends to promote mitigation, rehabilitation and elevation of existing structures and properties, and implement green building standards. MEDC and its subrecipients will ensure that all newly constructed buildings meet all locally adopted building codes, standards, and ordinances. In the absence of locally adopted and enforced building codes, the requirements of the Michigan State Building Code will apply. Future property damage will be minimized by requiring that any rebuilding be done according to the best available science for that area with respect to base flood elevations.

Elevation Standards

All structures, defined at 44 CFR 59.1, designed principally for residential use and located in the 1% annual chance (or 100-year) floodplain, which receive assistance for new construction, reconstruction, rehabilitation of substantial damage, or rehabilitation that results in substantial improvement, as defined at 24 CFR 55.2(b)(10), must be elevated with the lowest floor, including the basement, at least 2 feet above the 1% annual chance floodplain elevation (base flood elevation). Mixed-use structures with no dwelling units and no residents below 2 feet above base flood elevation must be elevated or floodproofed in accordance with FEMA floodproofing standards at 44 CFR 60.3(c)(3)(ii) or a successor standard up to at least 2 feet above base flood elevation.

If a Critical Action structure is in a 500-year floodplain, the structure must be elevated 3 feet above the 100-year floodplain. If the Critical Action is located in a 100-year floodplain, the structure must be elevated 3 feet above the 100-year floodplain. Critical Actions, as defined at 24 CFR 55.2(b)(3), are described as any activity for which even a slight chance of flooding would be too great because such flooding might result in loss of life, injury to persons, or damage to property. Examples might include hospitals, nursing homes, emergency shelters, police stations,



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and fire stations. In addition to the elevation standards described in this section, MEDC will comply with applicable State and local codes and standards for floodplain management, including elevation, setbacks, and cumulative substantial damage requirements.

The state will adhere to the advanced elevation requirements established in section II.B.2.c. of the Federal Register Notice titled Elevation standards for new construction, reconstruction, and rehabilitation of substantial damage, or rehabilitation resulting in substantial improvements. Structures that are elevated will meet federal accessibility standards.

The cost of elevation will be included as part of the overall cost of rehabilitation or replacement of a property. It is estimated that the costs will depend on the location, the size of the unit, square footage and the level to which the property must be elevated. Per the alternative requirement in 87 FR 6364 and 87 FR 31636, when CDBG-DR funds are used as the non-Federal match for FEMA assistance; the FEMA-assisted activity, for which CDBG-DR funds will be used as match, commenced before HUD's obligation of CDBG-DR funds to MEDC; or MEDC has determined and demonstrated with records in the activity file that implementation costs of the required CDBG-DR elevation or flood proofing requirements are not reasonable costs, as defined at 2 CFR 200.404, then the alternative requirement for use of a FEMA-approved flood standard will be used instead of elevation requirements listed above.

Environmental Reviews

All activities funded with CDBG-DR must complete an environmental review and are subject to 24 CFR Part 58 and the provisions of the National Environmental Policy Act of 1969. MEDC will ensure that the applicable environmental reviews and assessments are met and documented before the use or commitment of funds for each activity. MEDC or its local government subrecipients will be responsible for compliance and performance of environmental reviews. When funding is provided to a unit of local government, that local government will be considered the responsible entity and will be responsible for the environmental review with oversight by the MEDC.

MEDC or its local government subrecipients will adhere to requirements established in section III.C.5 of Federal Register Notices 87 FR 6364, 87 FR 31636 and 87 FR 3198 titled Obligation and expenditure of funds, which requires completion of environmental requirements before the use or commitment of funds by receiving from HUD an approved Request for Release of Funds and certification (as applicable) or adoption of another Federal Agency's environmental review, approval or permit and receipt of an approved Request for Release of Funds and certification (if applicable) from HUD or MEDC.

Flood Insurance Requirements

Assisted property owners who are receiving assistance must comply with all flood insurance requirements. HUD-assisted homeowners for a property located in a Special Flood Hazard Area must obtain and maintain flood insurance in the amount and duration prescribed by FEMA's



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National Flood Insurance Program (NFIP). MEDC may not provide disaster assistance for the repair, replacement or restoration of a property to a person who has received Federal flood disaster assistance that was conditioned on obtaining flood insurance and then that person failed to obtain or allowed their flood insurance to lapse for the property. MEDC is prohibited by HUD from providing CDBG-DR assistance for the rehabilitation or reconstruction of a house if:

- The combined household income is greater than 120% AMI or the national median,
- The property was located in a floodplain at the time of the disaster, and
- The property owner did not maintain flood insurance on the damaged property.

To ensure adequate recovery resources are available to LMI homeowners who reside in a floodplain but who are unlikely to be able to afford flood insurance may receive CDBG-DR assistance if:

- The homeowner had flood insurance at the time of the qualifying disaster and still has unmet recovery needs, or
- The household earns less than 120% AMI or the national median and has unmet recovery needs.

MEDC and its subrecipients will implement procedures and mechanisms to ensure that assisted property owners comply with all flood insurance requirements, including the purchase and notification requirements described below:

- Flood insurance purchase requirements for funds used to rehabilitate or reconstruct existing residential buildings in a Special Flood Hazard Area (or 100-year floodplain),
- Federal assistance to owners remaining in a floodplain.
- Prohibition on flood disaster assistance for failure to obtain and maintain flood insurance.
- Prohibition on flood disaster assistance for households above 120 percent of AMI for failure to obtain flood insurance.
- Responsibility to inform property owners to obtain and maintain flood insurance.

Construction Standards

MEDC will require quality inspections and code compliance inspections on emphasis on high-quality, durable, sustainable, and energy efficient construction methods and materials. Site all projects to ensure quality and compliance with building codes. MEDC will coordinate with localities to expedite the inspection and permitting process.

The definition of substantial damage is defined in 44 CFR 59.1 and applies to any reconstruction, rehabilitation, addition or other improvement to a structure, the total cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement.



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All rehabilitation, reconstruction, or new construction of residential structures must meet an industry-recognized standard that has achieved certification under at least one of the following programs:

- Energy STAR (Certified Homes or Multifamily High Risk)
- Enterprise Green Communities
- LEED (New Construction, Homes, Midrise, Existing Building Operations and Maintenance or Neighborhood Development)
- ICC- 700 National Green Building Standards
- EPA Indoor AirPlus
- Any other equivalent comprehensive green building standard program acceptable to HUD

MEDC will ensure that all multi-family housing subsidized with CDBG-DR assistance meet Americans with Disabilities Act and accessibility requirements. By adopting this standard across its programs, the State will help increase the availability of accessible housing to meet the current and future needs of older adults and people living with disabilities. This will increase opportunities for households to age in place and build in increased community resiliency for individuals with disabilities.

For infrastructure projects, MEDC will adhere to Bureau of Construction Codes to assure that the built environment and the systems within are sound, safe and sanitary; building users' health, safety and welfare are protected; and that, through a coordinated program of code compliance, investigation and training, there is consistent application of standards. BCC administers the Stille-DeRossett-Hale Single State Construction Code Act (1972 PA 230), the Skilled Trades Regulation Act (2016 PA 407), the Construction of School Buildings (1937 PA 306), Article 24 of the Occupational Code (1980 PA 299), Article 17 of the Public Health Code (1978 PA 368), the Elevator Licensing Act (1976 PA 333), the Elevator Safety Board Act (1967 PA 227), the Carnival-Amusement Safety Act of 1966 (1966 PA 225), the Ski Area Safety Act of 1962 (1962 PA 199), the Land Division Act (1967 PA 288), the Corner Recordation Act (1970 PA 74), the State Survey and Remonumentation Act (1990 PA 345), the State Boundary Commission Act (1968 PA 191), the Mobile Home Commission Act (1987 PA 96), the Utilization of Public Facilities by Physically Limited Act (1966 PA 1), as well as the related rule sets and codes.

For rehabilitation of non-substantially damaged residential buildings, MEDC will follow the guidelines to the extent applicable as specified in the HUD CPD Green Building Retrofit Checklist. When older or obsolete products are replaced as part of rehabilitation work, the rehabilitation is required to use ENERGY STAR-labeled, WaterSense-labeled, or Federal Energy Management Program (FEMP)-designed products and appliances.

All projects will be subject to cost reasonableness standards as outlined in the policies and procedures of the applicable program specific to the applicable activity. Industry standard cost-



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estimating software will be used to compare scopes of work and actual construction cost against location-specific indexes informed by historical construction costs for a given region.

Contractors Standards

Contractors selected under MEDC will make every effort to provide opportunities to low and very-low income persons by providing resources and information to notify Section 3 individuals and businesses of opportunities in the community.

MEDC will undertake the following efforts to help meet its Section 3 goals:

- Ensure that Section 3 requirements are outlined in all applicable contracts and subrecipient agreements.
- Build the capacity of stakeholders, including subrecipients and contractors, to meet Section 3 standards through technical assistance, tools, and guidance.
- Designate a Section 3 coordinator who will manage, support, and facilitate an effective Section 3 program, and who will be able to effectively communicate program requirements to stakeholders.

MEDC will report Section 3 accomplishments in the Disaster Recovery Grant Reporting (DRGR) system.

Recovery programs implemented by MEDC and its subrecipients will incorporate uniform best practices of construction standards for all construction contractors performing work in all relevant jurisdictions. As required in 2 CFR 200.321, MEDC will take all necessary steps to assure minority owned businesses and women's business enterprises are used when possible. Those steps include:

- Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
- Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce; and
- Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed above.



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All contractors must also possess a Michigan Business License. Construction contractors will be required to carry the required licenses and insurance coverage(s) for all work performed, and contractors will be required to provide a warranty period for all work performed.

All contractors and any potential contractors must not be on the U.S. Department of Housing and Urban Development (HUD) or MSHDA lists of contractors debarred or not approvable for prior noncompliance with HUD or MSHDA requirements.

All contractors must hold a current Michigan residential builder's license or show evidence of ability to obtain a license within six months.

All contractors must demonstrate a history of having performed work of the scope and type required for the development.

All contractors must file a financial statement, prepared by an independent certified public accountant, for its most recent fiscal year, or for the first nine months of the most recent fiscal year if the most recent fiscal year ended less than ninety days prior to the date of the submission of the bid. The financial statement must show the contractor has net liquid assets equal to 3% of the total bid amount and a net worth or stockholders' equity equal to 3% of the total bid amount.

Contractor standards, warranty periods, and warranty notification periods will be detailed in the respective policies and procedures documents and will pertain to the scale and type of work being performed, including the controls for ensuring that construction costs are reasonable and consistent with market costs at the time and place of construction.

Preparedness, Mitigation and Resiliency

Design Programs Protecting People and Property from Hardship

MEDC conducted an analysis of federally protected classes within the disaster impacted area and will continue to build out how the proposed CDBG-DR programs will consider their impact on protected classes and vulnerable groups to ensure that planned uses of funds will not have an unjustified discriminatory effect on, or failure to benefit, racial and ethnic minorities in proportion to the impacted community needs. In addition to the information below, MEDC will identify staff to address any requests for reasonable accommodation, including assistance in addressing their disability and civil rights concerns or complaints.

The following section provides an overview of the potential impacts and methods that MEDC will work through program implementation to mitigate its proposed CDBG-DR program impacts on federally protected classes. It also examines classes that are most at risk of impacts due to CDBG-DR programs. While MEDC does not currently believe its programs will impact the following protected classes, National Origin, Religion, Sex – including sexual orientation and gender identity, MEDC commits to following guidance in its Analysis of Impediments to Fair Housing, affirmative marketing requirements, and offer a staff contact to address any civil rights concerns or complaints. Much of this section is adapted from the Michigan State Housing Development Authority's last Analysis of Impediments to Fair Housing (AI) from 2016.



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- **Race/Ethnicity**

- **Multifamily Housing Program** – historic redlining, barriers to development of rental housing and housing for low-income communities of color. MEDC will consider the siting of the proposed development and how it affirmatively furthers fair housing. MEDC will build out marketing through Affirmative Market Plan, and while likely not needed Residential Anti displacement and relocation assistance plan (RAPAP). The AI identified discrimination by race as one of the highest numbers of fair housing complaints in both Wayne County and Southeast Michigan.
- **Public Infrastructure and Public Facilities Program** – Lack of infrastructure and public facilities investment in communities of color across Michigan, including the disaster impacted have historically impacted the lives of people of color and their communities and communities of color continue to experience disproportionately less investment than white communities. MEDC commits itself to ensure that the Public Infrastructure and Public Facilities program policies and procedures prioritize addressing historic disparities, while aligning with new FEMA guidelines that prioritize consideration of protected classes.
- **Planning Program** – Communities of color and vulnerable population are disproportionately impacted by climate change and environmental hazards. The proposed planning programs will allow disaster impacted communities to address historic inequities by updating zoning and building codes, comprehensive plans, and other documents that can benefit, rather than harm communities of color.

- **Households with Children**

- **Multifamily Housing Program** – MEDC's proposed multifamily rental housing program can create needed units of safe, affordable housing to accommodate different family sizes, including families with children. Michigan's AI identified discrimination against families with children as one of the primary fair housing complaints in Wayne County. An Affirmatively Furthering Fair Housing Marketing Plan will also ensure equal access to rental properties that receive CDBG-DR funding.
- **Public Infrastructure and Public Facilities Program** – Right of way improvements for roads, water infrastructure can positively impact households with children, while public facilities will serve households with children as well. Public facilities that can be used for emergency response will allow for all residents, including households with children to shelter in the time of a disaster.
- **Planning Program** – The proposed Planning Program can address historic discriminatory practices against households with children and ensure that households with children are not exposed to environmental hazards.



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- **Persons with Disabilities**

- **Multifamily Housing Program** – Persons with disabilities are disproportionately impacted by disasters. The latest AI noted that housing accessible to persons with disabilities is limited statewide, and only half of tax credit funded properties were found to be accessible to persons with accessibility issues. It also noted that discrimination by physical disability and mental/emotional disability as one of the highest numbers of fair housing complaints in both Wayne County and Southeast Michigan. MEDC will build out its policies and procedures to ensure multifamily properties have accessible units in CDBG-DR funded properties.
- **Public Infrastructure and Public Facilities Program** – All infrastructure projects are required to meet state and local standards for accessibility when needed. MEDC will work with jurisdictions to ensure that public facilities are accessible to persons with disabilities and provide further detail in its policies and procedures.
- **Planning Program** – MEDC will ensure that planning projects funded with CDBG-DR follow citizen participation requirements including accommodating reasonable accommodation requests. Furthermore, plan updates provide an opportunity to address the lack of reasonable accommodation ordinances in local plans. Any evacuation route planning will also consider the needs of persons with disabilities.

- **Persons over the age of 65**

- **Multifamily Housing Program** – According to the latest AI, the State of Michigan's aging population continues to grow, which will cause additional demand for housing units for seniors. However, senior housing faces resistance from Not in My Back Yard groups in many parts of the state. The MHP program can create units that accommodate this growing need for senior housing in the disaster impacted areas.
- **Public Infrastructure and Public Facilities Program** – All infrastructure projects funded by CDBG-DR must meet all state and local safety standards. MEDC's proposed programs will ensure disaster impacted infrastructure re-open safely for all groups including seniors. Public facilities also present an opportunity to provide services to seniors within the disaster impacted communities.
- **Planning Program** - Community planning funded by CDBG-DR presents an opportunity to design communities that allow for aging in place for seniors across the impacted areas. Many plans also lack reasonable accommodation, which will benefit seniors with disabilities.

- **Population with Limited English Proficiency**



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- **Multifamily Housing Program** – CDBG-DR developments will need to submit an Affirmatively Furthering Fair Housing Marketing Plan, which will require outreach and marketing to people with limited English proficiency and ensure access to affordable rental units.
- **Public Infrastructure and Public Facilities Program** – In compliance with its Citizen Participation Plan, MEDC and its subrecipients will ensure that LEP persons are aware of the resources available for language assistance for vital documents (e.g. program guidelines, notice of funding, etc.) and meetings.
- **Planning Program** – CDBG-DR funded planning efforts provide an opportunity for impacted local governments to integrate Affirmatively Further Fair Housing elements including language access into planning efforts.
- Across all programs the MEDC will provide reasonable accommodations to LEP persons requesting accommodations. MEDC offers language assistance measures to ensure meaningful access by LEP persons to CDBG-DR programs, activities and services. LEP persons may contact the Language Access Plan Coordinator, Bill Povalla via email at povallab@michigan.org for auxiliary aids or services and oral or written translation of program documents and/or meetings.

The primary focus of the multi-family housing program is to provide relief for those affected by disasters while complying with all CDBG-DR requirements and addressing recognized impediments to fair housing choice as required under the Fair Housing Act. All housing activities should consider the following objectives:

- Provide high quality, durable, resilient, mold resistant, energy efficient, decent, safe, and sanitary housing that meet Green Building Standards, and mitigates impact from future disasters.
- Resilient measures may include elevating the first floor of habitable area; breakaway ground floor walls; reinforced roofs; and storm shutters, etc.
- Rental units will also follow safe, decent, and sanitary requirements in the impacted areas identified in the HUD-approved Action Plan.
- Prioritize households while affirmatively furthering fair housing for:
 - Families with children under the age of 18;
 - elderly households;
 - disabled households,
 - and/or Veteran populations.

Emphasize housing choices and designs to reduce maintenance and insurance costs, as well as provide the provision of independent living options.



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Improvements made to reduce the possibility of property damage, personal and commercial hardship, as well as long lasting monetary burdens.

Emphasizing High Quality, Durability, Energy Efficiency, and Sustainability

To ensure energy efficiency in all new construction, reconstruction, and replacement activities, MEDC will adopt one of the standards allowed by HUD and/or more strict standards required by the State of Michigan. These standards will be detailed in program guidelines.

For rehabilitation construction, in order to promote water and energy conservation and indoor air quality, the state will follow the HUD CPD Green Building Retrofit Checklist to the extent applicable to the rehabilitation work undertaken, including the use of mold resistant products when replacing surfaces such as drywall. When older or obsolete products are replaced as part of the rehabilitation work, rehabilitation is required to use ENERGY STAR-labeled, WaterSense-labeled, or Federal Energy Management Program (FEMP)-designated products and appliances or other equivalent.

Enforcement of Resilient Building Codes

MEDC will require both quality inspections and code compliance inspections on all projects. Site inspections will be required on all projects to ensure quality and compliance with building codes. MEDC will encourage and support subrecipients' efforts to update and strengthen local compliance codes to mitigate hazard risks due to high winds, tornados, and flooding where applicable. In the project application, subrecipients will submit an explanation of both current and future planned codes to mitigate hazard risks. MEDC will provide technical guidance on hazard mitigation code examples.

Funding Feasible, Cost-Effective Measures

MEDC will require grantees demonstrate that projects address a problem that has been repetitive or a problem that poses a significant risk to public health safety if left unsolved; cost less than the anticipated value of the reduction in both direct damages and subsequent negative impacts to the area if future disasters were to occur; have been determined to be the most practical, effective and environmentally sound alternative after consideration of a range of options; contribute, to the extent practicable, to a long-term solution to the problem it is intended to address; and/or consider long-term changes to the areas and entities it protects and have manageable future maintenance and modifications requirements.

Making Land-Use Decisions to Reduce Future Risks

Through the planning activities funded through this Action Plan, local and tribal governments may use funds to carry out the planning needed to enhance local codes and standards, carry out additional outreach to members of their communities, and/or develop policy modifications that will help encourage responsible and safe standards to reduce future natural hazard risks. To this end, MEDC may work, as appropriate, with the Michigan State Hazard Mitigation Officer, Michigan Association of Planning, Michigan Department of Environment, Great Lakes, and Energy, and local and regional municipalities as appropriate.



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Increase Awareness of Hazards in Communities

To effectively increase the awareness of community hazards, the State knows that information needs to be shared with residents and businesses through local, trusted resources. As part of the delivery of CDBG-DR programs, the State will allocate or award funding to subrecipients through its multi-family housing, planning, and infrastructure programs.

MEDC is committed to ensuring environmental justice in minority, low-income, refugee, and immigrant populations. Members of these populations are encouraged to participate in outreach efforts by the MEDC to provide valuable input on the needs and priorities of these communities. To ensure adequate public participation and access to information as required by Executive Order 12898, MEDC will solicit public recommendations in developing and implementing environmental justice strategies, use public documents that are concise and understandable, and translate appropriate public documents for limited-English speaking populations.

MEDC will also provide meaningful opportunities for public participation throughout the environmental review process as required by guidance from the Council on Environmental Quality.

Promote Sound, Sustainable Long-Term Recovery Planning Informed by a Post-Disaster Evaluation of Natural Hazard Risks

The State has allocated some funding toward planning activities. One of the primary purposes of the program is to promote sound, sustainable long-term recovery that accounts for an understanding of current and projected natural hazard risks, including climate-related hazards.

In addition to a planning program, MEDC will fund an infrastructure program to address unmet recovery and mitigation needs associated with general infrastructure and public facilities. The grant funds will allow recipients to design and construct infrastructure that is directly benefiting individuals and the larger community.

Use of the FEMA-Approved Hazard Mitigation Plan

Michigan State Police, Office of Emergency Management and Homeland Security Division (EMHSD) is the lead agency for developing the State's FEMA-approved Hazard Mitigation Plan. The planning process is informed by multiple federal, State, local, and tribal government agencies. The plan captures historic disaster experiences and reflects the natural and human-caused hazards Michigan faces, based on current science and research. The State HMP outlines a strategy to reduce risks from hazards and serves as the basis for prioritizing future project funding.

Mitigation efforts must be cost reasonable

All rehabilitation, reconstruction and new construction work will be designed to incorporate principles of sustainability, including water and energy efficiency, resilience and mitigation against the impact of future disasters. MEDC and its subrecipients will incorporate preparedness and mitigation measures for construction or rehabilitation activities. This helps to ensure that



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communities build back safer and stronger than before the disaster. Incorporation of these measures also reduces costs in recovering from future disasters. Mitigation measures that are not incorporated into those rebuilding activities must be a necessary expense related to disaster relief, long-term recovery and restoration of infrastructure.

Broadband Infrastructure in Housing

Any substantial rehabilitation, as defined by 24 CFR 5.100, reconstruction, or new construction of a building with more than four (4) rental units funded with CDBG-DR assistance must include the installation of broadband infrastructure, except when:

- The location of the new construction or substantial rehabilitation makes the broadband infrastructure infeasible,
- The cost of installing broadband infrastructure would result in a fundamental alteration in the nature of its program or activity or in an undue financial burden, or
- The structure of the housing to be substantially rehabilitated makes installation of broadband infrastructure infeasible.

Cost-Effectiveness

The State will establish policies and procedures to assess the cost-effectiveness of each proposed program or activity to assist a household under any residential rehabilitation or reconstruction program or activity funded with CDBG-DR funds. Policies and procedures also will establish the criteria for determining when the cost of the rehabilitation or reconstruction of the unit will not be cost-effective relative to other means of assisting the property owner.

MEDC will define “demonstrable hardship” as experiencing conditions such as continued financial hardships, impacts from Covid-19 on the affordability of the housing stock or residing in unsafe or unsanitary living conditions as a result of the 2020 Severe Storms and Flooding.

MEDC defines a residential property as “not suitable for rehabilitation” if any of these conditions apply:

- The property is declared a total loss.
- Repairs would exceed 50% of the cost of reconstruction.
- Repairs would exceed 50% of the pre-disaster fair market value
- Repairs exceed \$50,000
- Homes cannot be rehabilitated or reconstructed in place under existing agency policies and award caps due to legal, engineering, or environmental constraints, such as permitting, extraordinary site conditions, or historic preservation.

The State may provide exceptions to award maximums on a case-by-case basis and will include procedures within program guidelines on how the State or its subrecipients will analyze the



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circumstances under which an exception is needed, and the amount of assistance necessary and reasonable.

Duplication of Benefits

Section 312 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, generally prohibits any person, business concern, or other entity from receiving financial assistance with respect to any part of a loss resulting from a major disaster for which such person, business concern, or other entity has received financial assistance under any other program or from insurance or any other source.

To comply with Section 312, MEDC shall ensure that each program and activity provides assistance to a person or entity only to the extent that the person or entity has a disaster recovery need that has not been fully met.

As per the Duplication of Benefits Policy, MEDC and its subrecipients are subject to the requirements in Federal Register notices explaining the duplication of benefit requirement (84 FR 28836 and 84 FR 28848, published June 20, 2019, or other applicable notices).



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Grantee Proposed Use of Funds



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Grantee Proposed Use of Funds

Overview

MEDC is the lead agency and responsible entity for administering \$71,931,000 (\$59,898.00 (2020) and \$12,033,000 (2021)) in CDBG-DR funds allocated for disaster recovery. MEDC will use a competitive process for all programs to invest funds in projects that best meet the goals of this Action Plan and are in alignment with HUD's overall intent of recovery for local communities. MEDC intends to implement and carry out the programs for housing, infrastructure and public facilities, and planning.

2020 CDBG-DR Programs

- Multifamily Housing
- Public Infrastructure and Public Facilities
- Planning
- Administrative Costs

2021 CDBG-DR Programs

- Public Infrastructure
- Planning
- Administrative Costs



Program Details

Program Budget – 2020

Table 87: Program Budget – 2020

Program Category	Program	Budget	HUD identified MID Budget	Grantee identified MID Budget	% of Allocation	Maximum Award	National Objective	Estimated Outcome
1	Multifamily Housing	\$7,918,400	\$7,918,400	\$0	13	\$1,000,000	LMH	40 LMI units
2	Public Infrastructure and Public Facilities	\$40,000,000	\$32,000,000	\$8,000,000	67	\$10,000,000	LMA, LMC and UN	5
3	Planning	\$8,984,700	\$7,187,760	\$1,796,940	15	\$150,000	N/A	15
4	Administration	\$2,994,900	\$2,905,053	\$89,847	5	N/A	N/A	N/A

1.2.1.1 Expenditure and Compliance Requirements

Program Administration Costs: Limited to 5%—or \$2,994,900—of the total allocation.

Planning Costs: Limited to 15%—or \$8,984,700—of the total allocation.

Mitigation Activities: At least 15% of allocation for Unmet Needs per the FRN—or \$7,813,000—must be used for mitigation activities and/or the incorporation of mitigation measures into recovery activities. The State plans on incorporating resilience and mitigation measures into all construction programs. The State will define mitigation activities and establish mitigation measures within each program.

HUD-Identified Most Impacted and Distressed (MID) Areas: At least 80%—or \$47,918,400—of the total allocation must benefit the HUD-identified areas. This includes 80% of expenditures for program administration.

Benefits for Low- to Moderate-Income (LMI) Persons: At least 70%—or \$41,928,600—of the allocation (less planning and administration costs) must be used for activities that benefit LMI persons.



Program Budget – 2021

Table 88: Program Budget - 2021

Program Category	Program	Budget	HUD identified MID Budget	Grantee identified MID Budget	% of Allocation	Maximum Award	National Objective	Estimated Outcome
1	Public Infrastructure	\$11,431,350 \$15,917,600	\$11,431,350 \$15,917,600	N/A N/A	95 80	\$10,000,000	LMA, LMC and UN	1 3
2	Planning	\$0 \$2,984,550	\$0 \$2,984,550	N/A N/A	0 15	\$150,000	N/A	19
3	Administration	\$601,650 \$994,850	\$481,320 \$795,880	N/A N/A	5 5	N/A	N/A	N/A

Numbers in black represent amounts for the original allocation. Numbers below them in blue, represent the second allocation.

1.2.1.2 Expenditure and Compliance Requirements

Program Administration Costs: Limited to 5%—or \$994,850—of the total allocation.

Planning Costs: Limited to 15%—or \$2,984,550—of the total allocation.

Mitigation Activities: At least 15% of allocation for Unmet Needs per the FRN —or \$2,596,000—must be used for mitigation activities and/or the incorporation of mitigation measures into recovery activities. The State plans on incorporating resilience and mitigation measures into all construction programs. The State will define mitigation activities and establish mitigation measures within each program.

HUD-Identified Most Impacted and Distressed (MID) Areas: At least 80%—or \$15,917,600—of the total allocation must benefit the HUD-identified areas. This includes 80% of expenditures for program administration.

Benefits for Low- to Moderate-Income (LMI) Persons: At least 70%—or \$11,142,320—of the allocation (less planning and administration costs) must be used for activities that benefit LMI persons.

Connection to Unmet Needs

CDBG-DR applicable notices, 87 FR 6364 (FR-6303-N-01), 87 FR 31636 (FR-6326-N-01), 88 FR 3198 (FR-6368-N-01) require a grantee to allocate at least 80% of the funds to address unmet needs in the HUD-identified “most impacted and distressed” (MID) areas of Midland, Saginaw, Gladwin, and Wayne counties. The remaining 20% of the allocation may be used to address unmet needs in the State-identified MID areas of Arenac and Iosco that received a 2020 Severe Storms and Flooding (DR-4547) presidential major disaster declaration. There are no State-



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identified MID areas for the 2021 Severe Storms, Flooding, and Tornado (DR-4607) presidential major disaster declaration.

Furthermore, the Consolidated Notice allows a Grantee to provide a justification for disproportionate allocation of funds to address demonstrated unmet needs in the Action Plan. At this time, MEDC is still receiving data and waiting on SBA data. Not having all the data has made it a challenge to determine the unmet needs with precision. In light of this challenge, MEDC took extra effort to engage with disaster impacted communities through area-focused listening sessions and received feedback that affordable rental housing and infrastructure and facilities are the recovery needs that MEDC can focus on. Homeowners have been receiving assistance through long-term recovery groups as well as having insurance and/or the impacted homes are second homes. Whereas renters are more vulnerable, have more barriers to safe, stable and affordable housing, and the vacancy rate is higher.

MEDC acknowledges that there may be homeowners who need additional assistance, however, with a small allocation and considering costs vs. benefit with implementing an owner-occupied rehabilitation, reconstruction, and replacement program, the state felt that it would not be cost effective to stand up a program. In addition, there has not been a strong indication from their outreach that a homeowner program must be a top priority. MEDC will update the unmet needs assessment as data comes in, will stay engaged with disaster impacted communities through the recovery, and will continue to assess the need for a homeowner program.

In considering the unmet, mitigation and local needs, and the limited amount of CDBG-DR funds, this Action Plan proposes to use the funds to address the needs of affordable rental housing, infrastructure and public facilities, mitigation and resiliency planning activities and incorporates mitigation activities into all programs. In consultation with local communities, it was clear to MEDC that with a limited amount of funds and in looking at how they can assist an entire community, infrastructure needs will be prioritized and receive a greater allocation which is reflected in the proposed programs below.

As discussed in the housing section of the unmet needs assessment, having an adequate supply of affordable housing has been a challenge for communities. The disaster exacerbated the already inadequate inventory of affordable rental housing and couple that with the current economic conditions, CDBG-DR funds are needed to replace and create new affordable housing. MEDC is proposing to allocate just under \$8 million of CDBG-DR funds for a multifamily program to address unmet needs and support the statewide housing plan of improving and increasing the inventory of affordable rental housing units.

The 2020 disaster impacted communities reported damages to culverts, roads, and bridges. The damages reported are supported by FEMA's Michigan Dam Incident Response Review that describes the impact and recovery to almost 30 bridges and roads and, in some instances, there was a complete structural failure⁸⁴. The State received funds from the Federal Highway

⁸⁴ [Michigan Dam Incident Response Review \(fema.gov\)](#), p. 29



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Administration, but it does not cover all needs throughout the disaster impacted counties. Bridges and roads are critical in local communities including rural areas for access to resources as residents continue to recover from the disaster trying to return back to normal life and be more resilient during a disaster in the future.

Additionally, in the notice HUD recognizes that grantees receiving a relatively small allocation of funds for 2021 disasters may most effectively advance recovery by more narrowly targeting the allocation. The notice allows grantees to use this as a justification to propose a disproportional allocation to address unmet infrastructure needs caused by or exacerbated by the disaster. The HUD-identified MID area for the 2021 disaster is Wayne County. The mitigation assessment above demonstrates that historically Wayne County routinely has flooding events and over the years the total amount of damages is over \$1 billion.

In consultation with Wayne County about the best solution and given that the disaster was a flooding event which aligns with flooding being identified as a top priority in hazard mitigation plans, the State has made a conscious decision to fund infrastructure replacement and upgrades to provide the most benefit to the most persons with relatively small funding allocation. Specifically addressing unmet needs and resiliency relating to sewer and storm water drainage will be funded with the Community Development Block Grant Disaster Recovery funds to address the Wayne County flooding disaster of 2021.

MEDC acknowledges that many homeowners experienced extreme flooding in their basements and incurred damage to their furnaces, hot water heaters and personal belongings due to inadequate storm water systems. However, given the limited amount of funding made available, making improvements to the sanitary sewer systems, storm water systems and other housing infrastructure needs will support the housing recovery for this area more effectively than repairing just a few homes that will likely flood again without the infrastructure improvements. As the report⁸⁵ from the Great Lakes Water Authority, written after the flood indicated, infrastructure upgrades can and will alleviate most of the flooding problems and sewage back-ups into homeowners' basements.

Allocating CDBG-DR funds to fix the root of the problem makes sense in the long term from a cost benefit basis and from a mitigation basis as well for entire communities. Infrastructure projects can give homeowners a sense that the structural problems that currently exist will be remedied to mitigate future disastrous flooding and basement back-up incidents. To ensure infrastructure and public facilities projects have the resources needed, this plan proposes allocating \$55.9 million to the program for projects in HUD and State-identified Most Impacted Distressed communities.

⁸⁵ INDEPENDENT INVESTIGATIVE TEAM PRESENTS FINAL REPORT ON SUMMER 2021 FLOODING TO GREAT LAKES WATER AUTHORITY BOARD OF DIRECTORS - GLWA (glwater.org)



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Leveraging Funds

MEDC understands the importance of leveraging all available funds and resources to increase its ability to address and mitigate against major disasters. The State anticipates leveraging CDBG-DR funds with other funding sources such as FEMA and other State and local funds. CDBG-DR funds will be used to address critical unmet needs that remain after all other funding sources have been committed and exhausted to prevent any duplication of benefits.

The cities of Detroit and Dearborn received CDBG-DR allocations for the 2021 disasters. The funds totaling over \$79 million can be used to assist homeowners and renters replace, rehabilitate, or reconstruct their homes as well as carry out infrastructure, economic revitalization, planning, and public services activities to rebuild their communities. MEDC may consider supplementing their allocations if there is an unmet need and/or project that aligns with the State's objectives.

The affordable housing program will leverage other funding sources brought to the project by developers to create affordable rental units. MEDC's proposed use of funds for multifamily projects allows for up to 40% of the project development costs be assisted with CDBG-DR funds. The funds can be leveraged with housing tax credits.

The public infrastructure and public facilities program can leverage FEMA funds by using CDBG-DR funds to match the required non-federal share for public assistance categories C through G. The unmet needs of non-federal match and resiliency measures for FEMA PA is over \$35 million.

The planning program will leverage FEMA funds for Hazard Mitigation Plans. Additionally, technical assistance resources provided by East Michigan Council of Governments (EMCOG) such as coordination of master plans, capital improvement plans and hazard mitigation plans as well as resiliency planning through assistance to local governments can be leveraged.

The Long-Term Disaster Recovery Group has resources (financial, volunteer, materials) available for residents in Midland County whose primary residences were impacted by the flood. Disaster case managers coordinate recovery including providing owner-occupied housing recovery assistance with local funds. By leveraging these funds that focus on individual assistance and not duplicating the assistance, MEDC is able to focus on using the CDBG-DR funds that protect people and property as a community.

Program Partners

MEDC will partner with local governments, quasi-government entities and other state agencies through subrecipient agreements or interagency agreements to carry out the programs and coordinate funding and activities to ensure that information, program updates, and data are shared when necessary and utilize methods to reach vulnerable populations, protected classes, persons experiencing homelessness, and those historically underserved.



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Distribution of Funds

Each of the program descriptions below include information on how the state will distribute CDBG-DR funds and whether MEDC or another state agency will carry out the activities directly or through subrecipients.

Each program description includes the following sections, as applicable for the different types of programs:

- Program Budget and Amount for LMI and HUD and State MIDs
- Program Description
- Program Tieback to Disaster/Unmet Needs
- How the Program will Promote Housing for Vulnerable Populations
- Program Affordability Period (if applicable)
- Program Definition of Second Home/Eligibility
- Program National Objective(s)
- Program Eligibility
- Program Responsible Entity
- Program Maximum Assistance
- Program Estimated Begin and End Dates
- Other Program Details
- Program Competitive Application Overview (if applicable)
- Program Method of Distribution Description/Overview
- How Mitigation Set-Aside Activities will Meet the Definition of Mitigation
- How Mitigation Set-Aside Activities will Address Current and Future Risks
- How Program will Advance Long-Term Resilience (Infrastructure and Planning)
- How Program will Address Disaster-Related Storm Water Management/Other Systems (Infrastructure and Planning)

Program Income

The State understands that certain activities funded with CDBG-DR funds could result in the generation of program income. Program income is the gross income received by MEDC or any of its subrecipients that is directly generated from the use of CDBG-DR funds. Information regarding how program income may be generated and used is available at 24 C.F.R. §570.489 and 24 C.F.R. §570.504, as well as on HUD's website. MEDC allows for the following uses of program income:



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- Program income is tracked and maintained by MEDC.
- Up to 5% of the program income generated by CDBG-DR funds may be used for administrative costs by MEDC, units of local government, or other subrecipients.
- Program Income shall be used or distributed before additional withdrawals from the U.S. Department of Treasury are made.
- Unless otherwise specified, all program income shall be remitted to the State. MEDC shall treat program income as additional CDBG-DR funds subject to the requirements of the Consolidated Notice and shall use it in accordance with the State's CDBG-DR Action Plan.
- The State or local government grantee may transfer program income to its annual CDBG program before close-out of the grant.

Resale or Recapture

As per the Federal Register Notice (87 FR 6364), MEDC shall establish resale or recapture requirements for housing programs funded and shall outline those requirements in the program guidelines for the activity. The resale and recapture provisions must clearly describe the terms of the resale and recapture provisions, the specific circumstances under which these provisions will be used, and how the provisions will be enforced (whether by recorded deed restrictions, covenants, or other similar mechanisms). The affordability restrictions, including the affordability period requirements, do not apply to housing units newly constructed or reconstructed for an owner-occupant to replace the owner-occupant's home that was damaged by the disaster. Grantees must establish affordability restrictions on all newly constructed single-family housing (defined as four units or less), to be purchased and occupied by LMI homeowners. The minimum affordability period acceptable for compliance are the HOME requirements at 24 CFR 92.254(a)(4).

Resale or recapture is not applicable to the proposed programs below.

Program Details

Multifamily Housing Program

Table 89: Multifamily Housing Program

Program	Budget	HUD-Identified MID Budget	Grantee-Identified MID Budget
2020 Multifamily Housing	\$7,918,400	\$7,918,400	\$0



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Program Description

The Multifamily Housing Program (MHP) has been designed to meet the unmet need for rental housing and develop additional affordable housing units. Funds will be provided for rehabilitation, reconstruction, and new construction of public housing and affordable multifamily housing projects in HUD-identified MID areas impacted by the 2020 disaster (DR 4547). The affordable units will be made available to low-income individuals and families impacted by the flooding disaster and displaced. These developments will also help replace rental housing units available to Housing Choice Voucher holders that were lost as a result of the event.

CDBG-DR funds are intended to provide gap financing for MHP projects such as apartment complexes and mixed-use developments. The funding round(s) will include a threshold criteria, selection criteria, and the award process. The selection criteria will include an evaluation of an affirmative marketing plan and a project's resilience and mitigation measures being implemented.

Program guidelines will outline the requirements of the program and requirements for specific projects, including general eligibility, specific eligible and ineligible costs, and the criteria for evaluating project proposals. Additionally, the guidelines will include requirements relative to a minimum percentage of affordable units, the percentage of affordable versus market rate units, requirements for deep affordability, requirements for permanent supportive housing units, per unit maximum funding available as well as mitigation and resilience measures that address FEMA lifelines.

At this time, 2021 funds will not be added to the program.

Program Tieback to Disaster

The program will build new affordable rental units and, repair, reconstruct or replace affordable housing units that were severely damaged or destroyed by DR-4547.

How the Program Promotes Equity and Housing for Vulnerable Populations

The program will follow affirmatively furthering housing marketing plans and will provide quality, affordable rental housing for vulnerable populations targeting low to moderate income households along with individuals at risk of homelessness. Renters have less resources to recover from a disaster and can find themselves having to make life changing decisions such as moving out of the area to find housing. Increasing the inventory of affordable rental units can give them the opportunity to return to their home community.

How the Program will Advance Long-Term Resilience

The Program will promote using higher standards and innovative practices to lower the risks from storm and tornado-related impacts. The funding will provide developers with the opportunity to use workable approaches to resilient housing (including, but not limited to



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elevated structures/ mechanicals, building materials/technologies, power generation, etc.) toward development of properties, which will be substantially more likely to fare better in major storms than existing properties in similar locations.

Program National Objective

Assistance provided under this program will meet the national objectives of benefiting LMI persons, LMH or addressing an urgent need (Urgent Need).

Urgent Need is extremely rare. It is designed only for activities that alleviate emergency conditions. To use the urgent need national objective the project must meet the following qualifying criteria:

- The existing conditions must pose a serious and immediate threat to the health or welfare of the community,
- The existing conditions are of recent origin or recently became urgent (generally within the past 18 months)

Program Eligibility

Table 90: Multifamily Program Eligible Activities

CDBG-DR Eligible Activity:	Rehabilitation, reconstruction, elevation, new construction, acquisition, incentives, relocation assistance, and clearance; HCDA Section 105(a) 1, 2, 4, 5, 7, 8 and 11; applicable waivers identified in the Allocation Announcement Notice and Consolidated Notice (87 FR 31636), other applicable waivers or alternative requirements
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Geographic Eligibility

Eligible locations include jurisdictions within:

- 2020 HUD-identified MID counties: Midland, Saginaw, Gladwin

Program Eligible Applicants

Local Governments, Developers and Community Based Development Organizations

Program Eligible Projects

Projects must be structures with a minimum 5 or more units with at least 51% of units are affordable such as an apartment complex. The project must be located in a HUD-identified MID area.

Program Maximum Assistance:

The MHP per-unit maximum assistance is consistent with HOME limits established by HUD. Using the HOME limit as a federally established industry standard and safe harbor for cost reasonableness on a per-unit basis for housing serving low-income households. Consistent with



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other HUD affordable housing funding sources, the HOME maximum per-unit subsidy limits ensure an appropriate level of investment in Multifamily projects on a per-unit basis. This policy direction encourages leveraging with HOME, Tax Credits, State multifamily housing programs, and other available affordable housing resources.

Table 91: New Construction and Rehabilitation Subsidy Limits

New Construction Subsidy Limits				
0 BR	1 BR	2 BR	3 BR	4 BR
\$140,107	\$160,615	\$195,305	\$252,662	\$277,344

Rehabilitation Subsidy Limits
Per Unit
Total MHP project support shall not average over \$150,000 per unit included in project

Using the maximum per-unit subsidy limits, a cost allocation will be performed on each project to ensure that CDBG-DR funds are applied to a proportionate share of total development cost. Awards of CDBG-DR funds will not exceed demonstrated need, 40% of total development cost, or the maximum subsidy as determined through cost allocation.

A funding guide⁸⁶ similar to MEDC's annual programs will be published with details on minimum and maximum awards per project. In general, the estimated maximum award will be \$1,000,000 and the minimum award will be \$300,000. Adjustments to the minimum and maximum award amounts may be necessary to ensure completion of the project and implementation of resiliency and mitigation measures.

Definition of Affordable Rents

Grantees are required to define affordable rents in their action plan. MEDC will use CDBG/HOME rent limits that are in line with current and future affordable housing programs administered by MSHDA and do not conflict with CDBG-DR requirements. MEDC will publish high and low rents as well as fair market rents in the program guidelines.

Affordability Periods

MEDC is adopting HOME affordability periods for CDBG-DR (24 CFR 92.252(e)(1)).

⁸⁶ [funding-guide.pdf \(miplace.org\)](#)



Table 92: Type of Rental Activity CDBG-DR Amount Per Unit and Affordability Periods

Type of Rental Activity CDBG-DR Amount per Unit	Minimum Period of Affordability in Years
Rehabilitation or acquisition of existing housing per unit amount of CDBG-DR funds: Under \$15,000	5
\$15,000 to \$40,000	10
Over \$40,000 or rehabilitation involving refinancing	15
New construction or acquisition of newly constructed housing (five units or more)	20

Monitoring and enforcement of affordable rents and periods for CDBG-DR funded units will become part of the current asset management portfolio of the respective subrecipient.

Program Application Overview

MEDC will publish a notice of available funds and use a competitive process to award funds to eligible applicants. MEDC will provide program guidelines to subrecipients to ensure CDBG-DR funds are used in compliance.

In order to meet the requirements of spending 80% of CDBG-DR funds in HUD-identified MID areas and meeting the required overall benefit to low- and moderate-income persons, projects proposed in HUD-MID and LMI areas will be prioritized.

The threshold eligibility review subrecipients must consider will include, but not be limited to:

1. The project includes at least five units
2. The funding request is limited to the amount needed to fill a funding gap
3. The project will meet the low- and moderate-income housing national objective by providing at least 51% of units to be occupied by households at or below 80% area median income or based on a pro-rata share of the units as determined by cost allocation performed using the MHP maximum per-unit subsidy
4. Project costs are reasonable
5. Project is in compliance with all other federal requirements including but not limited to applicable fair housing and equal opportunity laws, labor standards, and Section 3
6. Project has at least one resilience and/or mitigation measure

Scoring criteria may include, but may not be limited to:

- Project readiness based on status of local land entitlements and permitting
- Project readiness based on whether the project can reasonably start construction within 18 months



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- Project readiness based on the status of the National Environmental Policy Act environmental review
- Leveraging ratio
- Deep affordability targeting to households earning 30 percent or less of area median income
- Minimum of 1 unit that can meet the needs of a person with disabilities or includes supportive housing services
- Demonstration of developer capacity to successfully implement the project within program timeframes
- Resilience and mitigation measures
- Demonstration that proposed projects will affirmatively further fair housing, and are likely to lessen area racial, ethnic, and low-income concentrations, and/or promote affordable housing in low-poverty, nonminority areas in response to natural hazard related impacts
- Projects should also be designed with the established community in mind to mitigate the displacement of families and must commit to the required affordability requirements. If other funds requiring a longer affordability period are committed to the project, the longest affordability period will prevail for the project. Applicants shall follow the Residential Anti displacement and Relocation Assistance Plan (RARAP) to minimize displacement.

Program Method of Distribution

MEDC will use competitive funding rounds to award funds to eligible projects being completed by eligible local governments, developers and/or entities. MEDC will post the funding rounds and publish the awards on <https://www.miplace.org/cdbg-dr/>.

Program Responsible Entity

MEDC, Subrecipients

Program Timeline

The estimated program launch date is Quarter 2 of 2023 and end when all eligible participants have completed project closeout, all budgeted funds have been expended, or 6 years after execution of the grant agreement with HUD.

How Mitigation Set-Aside Activities will Meet Definition of Mitigation

All mitigation activities funded for affordable housing will increase resilience to disasters or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship by lessening the impact of future disasters.



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How Mitigation and Resilience Measures will Address Current & Future Risks

Adding mitigation measures such as elevation and hardening will increase rental housing resilience to future natural disasters and reduce the long-term risk of loss of life, injury, damage to and loss of property, and lessen renters' suffering and hardship and impact of future natural disasters.

Public Infrastructure and Public Facilities Program

Table 93: Public Infrastructure and Public Facilities Program

Program	Budget	HUD-Identified MID Budget	Grantee-Identified MID Budget
2020 Public Infrastructure and Public Facilities Program	\$40,000,000	\$32,000,000	\$8,000,000
2021 Public Infrastructure Program	\$15,917,600	\$15,917,600	\$0

Program Description

This program will award funds to eligible projects within the identified HUD and State MID counties to address unmet recovery and mitigation needs associated with general infrastructure and public facilities. The grant funds will allow recipients to design and construct infrastructure and public facilities that will directly benefit individuals and the larger community.

The program allows for a wide range of CDBG-DR eligible infrastructure activities and each activity must revitalize disaster impacted communities by directly or indirectly supporting the mitigation of loss of life or property in the face of current and future natural hazards.

The Public Infrastructure and Public Facilities program identifies infrastructure as including, but not limited to, the following types of projects: streets, water and sewer facilities, playgrounds, underground utilities, generator installation, and flood and drainage measures. The program defines public facilities as projects that improve hospitals, schools, libraries, police stations, fire stations, and buildings owned by non-profits that are open to the public. Funding and Program guidelines will further define eligible projects for applicants.

Program Tieback to Disaster

Projects funded through this program will be required to address remaining direct and indirect impacts in HUD and State-identified MIDs. Projects may also address risks from future potential disasters with integration of mitigation measures and strategies included in project activities.

How the Program Promotes Equity and Housing for Vulnerable Populations

The program focuses on projects that benefit the community as a whole and will protect life and property. The program includes public facilities that can serve as emergency centers during a disaster event. These types of projects help preserve the current housing inventory such as



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affordable housing for low-income households, including members of protected classes, HUD and State-identified vulnerable populations, and historically underserved communities.

How the Program will Advance Long-Term Resilience

Eligible projects include those that mitigate, eliminate, or reduce the loss of life or property in the face of current and future natural hazards. Project applications will be required to demonstrate how the projects will be operated and maintained beyond the life of the CDBG-DR grant and how adaptable and reliable technologies are being used to prevent premature failure.

This program is designed to promote sound, sustainable long-term recovery and projects that account for the unique hazards, opportunities, land use restrictions, urban growth boundaries, underserved communities, and disaster impacts within Michigan's impacted communities. Project applications will be required to describe the data and/or planning analysis they will use in their evaluation of hazard risk, including climate-related natural hazards.

Program National Objective

Assistance provided under this program will meet the national objectives of benefiting low-and-moderate-income areas (LMA), low-and-moderate income limited clientele (LMC) or addressing an urgent need.

HUD waived the urgent need national objective criteria in section 104(b)(3) of the HCDA and established the following alternative requirement that for any CDBG-DR grantee using the urgent need national objective may use it for a period of 36 months after the applicability date of the grantee's Allocation Announcement Notice.

Program Eligibility

Table 94: Public Infrastructure and Public Facilities Program Eligible Activities

CDBG-DR Eligible Activity:	Acquisition, construction, reconstruction, or installation of public works, facilities, and site or other improvements; HCDA 105(a) 1, 2, 4, 9, 12; applicable waivers identified in the Allocation Announcement Notice and Consolidated Notice (87 FR 31636) and other applicable notices or guides.
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Geographic Eligibility

Eligible locations include jurisdictions within:

- 2020 HUD-identified MID counties: Midland, Saginaw, Gladwin
- 2020 State-identified MID counties: Arenac, Iosco
- 2021 HUD-identified MID county: Wayne

Eligible Activities

Activities may include acquisition; construction or reconstruction; installation; infrastructure improvements for flood protection, drainage improvement, emergency power, evacuation



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routes and hazard mitigation; and public facility improvements for shelters, community centers, police and fire stations, and hospitals.

Public Assistance (PA) Match

- Local portion of the non-federal share match of FEMA approved PA Categories C-G; Roads and Bridges, Water Control Facilities, Public Buildings and Contents, Public Utilities, and Parks, Recreational and other Facilities

Hazard Mitigation Grant Program (HMGP) Match

- Must be an infrastructure project
- Local portion of the non-federal share match of FEMA approved HMGP project

Stand-Alone Projects

- Can fund 100% of project costs
- Denied PA Projects (Categories C-G) and HMGP projects are eligible
- Projects must be consistent with local and regional plans
- Generate a measurable resilience benefit

Ineligible activities

- Buildings for government use
- Purchase of construction equipment
- Maintenance and Operation

Program Responsible Entity

MEDC and Subrecipients

Program Eligible Applicants

Units of local governments and quasi-government entities

Program Maximum Assistance

The estimated minimum program assistance available is \$1,000,000 and the maximum assistance available is \$10,000,000. Adjustments may be made to the minimum and maximum amounts to ensure completion of projects and implementation of resiliency and mitigation measures.

Program Method of Distribution

MEDC will use competitive funding rounds to award funds to eligible projects being completed by eligible local governments and/or entities. MEDC will post the funding rounds and publish the awards on <https://www.miplace.org/cdbg-dr/>.



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Program Application Overview

The application process will require applicants to demonstrate how their projects address unmet and/or mitigation needs and how funds will be used equitably in their communities.

Applications for funding may be evaluated on, but not limited to, the following project components:

- Amount of project detail provided and tieback to the disaster and community need
- Project schedule and timeliness of expenditures
- LMI percentage of a project's service area
- Cost reasonableness of the project
- Other funding leveraged for the project
- Project's impact on recovery or mitigation of future disasters
- Project's expanse of benefit that is demonstrated through number of residents and/or coverage area

Program Timeline

The program is expected to start Q2 of 2023 and end when all eligible participants have completed project closeout, all budgeted funds have been expended, or 6 years after execution of the grant agreement with HUD.

How Mitigation Set-Aside Activities Will Meet Definition of Mitigation

All mitigation activities funded for infrastructure and public facilities will increase resilience to disasters or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship by lessening the impact of future disasters.

How Mitigation and Resilience Measures will Address Current & Future Risks

The program is focusing on projects that will mitigate flood damage by improving sewer and water systems and projects that will make the communities more resilient through projects such as enhancements of public facilities and road improvement.

How Program will Address Disaster-Related Storm Water Management/Other Systems

The program includes eligible activities to address disaster-related storm water management and other systems for local communities to apply for.

Planning Program

Table 95: Planning Program

Program	Budget	HUD-Identified MID Budget	Grantee-Identified MID Budget
2020 Planning	\$8,984,700	\$7,187,760	\$1,796,940



2021 Planning	\$2,984,550	\$2,984,550	\$0
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Program Description

MEDC will partner with the Michigan State Police (MSP) to provide CDBG-DR funds to assist with updating the State of Michigan Hazard Mitigation Plan as well as providing funds for the development, update, amendment and cost share for local hazard mitigation plans. Additionally, MEDC may partner with the State of Michigan Licensing and Regulatory Affairs to ensure priorities relating to code compliance align properly with the parameters established by both parties (MEDC Planning Program and Michigan Licensing and Regulatory Affairs). The Planning Program will provide non-competitive grants to communities falling within the designated HUD MID or State MID areas (2020 program only).

To further enhance the concepts of planning and resiliency, the Planning Program will be divided into two categories – mitigation planning and resiliency planning. Collectively, the Planning Program will not only emphasize the benefits of mitigation planning by integrating with traditional planning such as comprehensive, land use, and site development planning, but will also incorporate forward-thinking resiliency concepts that align with priorities such as capability and capacity building. This will also include the development and integration of mitigation studies as well as the promotion and funding of zoning ordinances, building codes, and energy codes.

In addition, due to the effects caused by DR-4547 and DR-4607, MEDC anticipates creating a more comprehensive planning program with the inclusion of evacuation planning as a part of its resiliency planning category. Although, evacuation plans are considered response by design, providing an opportunity for communities to develop or restructure their current plans will increase the capacity and capability to effectively protect their communities.

Program Tieback to Disaster

According to the Michigan Hazard Mitigation Plan, the 2019 Michigan Hazard Analysis describes the state's vulnerability to about 20 different types of natural hazards, ranging from floods, tornadoes to earthquakes. Since 1977, Michigan has experienced 79 events that resulted in one or more Governor's declarations of disaster or emergency. Most of those declarations, at both levels, were granted for flooding, tornadoes, winter storms, or severe thunderstorms.

Such as the case for disasters DR-4547 and DR-4607, both were flooding events. In keeping consistent with the state of Michigan's Hazard Mitigation Plan, flooding has been prioritized in all applicable mitigation and resiliency assessments. All activities in both planning categories will support efforts to mitigate the effects of flooding. Additionally, funding will be provided via the Planning Program to help communities plan based on those assessments.



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Promoting Equity in Recovery

Equitable representation and participation are at the forefront of FEMA's new direction with Hazard Mitigation Planning to serve the whole community. FEMA defines equity as the consistent and systemic fair, just and impartial treatment of all individuals, which also aligns with HUD's definition and concept of equity. As such, to ensure that the planning process and outcomes of the local mitigation plans, equity must be central in its development. In keeping with this new direction, the planning processes for the State of Michigan Planning Program that has mitigation and resiliency planning categories to serve the entire community as well.

FEMA's recent changes to State and Local Hazard Mitigation Planning policies are requiring communities to take a more in-depth look into incorporating resiliency measures and addressing vulnerable populations that are adversely affected by hazards. Local jurisdictions have a responsibility to ensure that the plan's mitigation strategy complies with all applicable legal requirements related to civil rights to ensure nondiscrimination. By making this a requirement, this compliance can help achieve equitable outcomes through the mitigation planning process for all communities, including underserved communities and socially vulnerable populations. Both planning concepts seek an inclusive planning process that would afford everyone with the necessary resources to meaningfully participate, make progress and benefit hazard mitigation and resiliency. The new changes to the planning process will further consider the needs of members of protected classes, HUD identified vulnerable populations and historically underserved communities.

How the Program will Advance Long-Term Resilience

Building resilience through planning requires a comprehensive approach that involves the whole community. Fundamental community planning techniques can support and facilitate resiliency by minimizing future risks through intentional comprehensive and land use planning, building requirements, and zoning ordinances.

Mitigation Planning efforts are vital to guiding communities through the process of disaster recovery. Although disaster scenarios are unique, there tends to be consistent challenges, competing pressures, and common organizational and policy issues that arise in disaster recovery environments. By implementing strategic planning for the whole community, it further strengthens operational, organizational, and policy needs that may arise in a post-disaster environment. This forward-thinking process enables communities to set the stage for efficient and effective recovery efforts, regardless of the specific nature of the disaster. This ensures a seamless transition to continued long-term resilience.

Program National Objective(s): Not Applicable

Per 87 FR 6364, III.B.2b. *Planning-only activities (state grantees only)*. The State CDBG Program requires that, for planning-only grants, local government grant recipients must document that the use of funds meets a national objective. In the CDBG Entitlement Program, these more general planning activities are presumed to meet a national objective under the requirements at 24 CFR



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570.208. HUD notes that almost all effective recoveries in the past have relied on some form of areawide or comprehensive planning activity to guide overall redevelopment independent of the ultimate source of implementation funds. To assist state grantees, HUD is waiving the requirements at 24 CFR 570.483(b)(5) and (c)(3), which limit the circumstances under which the planning activity can meet a low and moderate-income or slum-and-bligh national objective. Instead, as an alternative requirement, 24 CFR 570.208(d)(4) applies to states when funding disaster recovery assisted, planning-only grants, or when directly administering planning activities that guide disaster recovery. In addition, 42 U.S.C. 5305(a)(12) is waived to the extent necessary so the types of planning activities that states may fund or undertake are expanded to be consistent with those of CDBG Entitlement grantees identified at 24 CFR 570.205.

Program Eligibility

Table 96: Planning Program Eligible Activities

CDBG-DR Eligible Activity:	HCDA Section 105(a)8, 9, 12, 16, and 21, administration costs, applicable waivers identified in the Allocation Announcement Notice and Consolidated Notice (87 FR 31636), other applicable waivers or alternative requirements
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Geographic Eligibility: Eligible locations include jurisdictions within

- 2020 HUD-identified MID counties: Midland, Saginaw, Gladwin
- 2020 State-identified MID counties: Arenac, Iosco
- 2021 HUD-identified MID counties: Wayne

Program Eligible Activities

Program eligible activities under the mitigation planning category could include updating the state hazard mitigation plan as well as updating, developing, amending and providing cost share to those defined as eligible applicants for their local hazard mitigation plans. The state and local hazard mitigation plans must meet all the criteria and requirements set forth in 44 CFR 201.4 and 44 CFR 201.6, respectively.

The resiliency planning category will allow the following:

- Development and adoption of comprehensive plans that integrate hazard mitigation plans and other mitigation concepts
- Development and adoption of land use plans that integrate hazard mitigation plans and other mitigation concepts
- Development and approval of site development plans that integrate hazard mitigation plans and other mitigation concepts
- Development, adoption, and implementation of zoning ordinances based on comprehensive plans, land use plans, and site development plans



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- Development, adoption, and implementation of flood damage prevention ordinance that CDBG-MIT requirements of at least one foot above base flood elevations (BFEs)
- Development, adoption, and implementation of building codes that meet or exceed the standards set forth by the State of Michigan International Building Codes of 2015.
- Development, adoption, and implementation of energy codes that meet or exceed the standards set forth by the 2015 Michigan Energy Code.

Program Eligible Applicants

Program eligible applicants is any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a non-profit under State law), regional or interstate government entity, or agency or instrumentality of a local government, authorized Tribal organization, and any rural community, unincorporated town or village or other public entity.

Program Maximum Assistance

The maximum program assistance available for the State Hazard Mitigation Plan is \$500,000 and is \$150,000 for local Hazard Mitigation Plans.

The maximum program assistance available for other plans or resiliency activities is \$300,000.

Program Application Overview

The applicant may submit an application for any activity that they are eligible for. If an applicant applies for a mitigation planning activity, the application would be for plan development, plan amendment, plan update or cost share.

There are a variety of activities allowed under the resiliency planning category. Applicants are not required to engage in all eligible activities. The applicants can engage in the activities they are interested in pursuing. Certain state and/or federal organizations may use the adoption of codes, ordinances, and/or plans in this program as scoring criteria.

Program Method of Distribution

Selected project applications will be funded in the form of a grant for eligible applicants only. Payments will be made on a reimbursement basis and program policies and procedures will detail reimbursement requirements.

Program Timeline

Program will open for application in Q3 of 2023 and end when all eligible participants have completed project closeout, all budgeted funds have been expended, or 6 years after execution of the grant agreement with HUD. All approved grants allocated under the mitigation planning category and the resiliency planning category will have a three-year period of performance.



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How Mitigation Set-Aside Activities Will Meet Definition of Mitigation

Plans will identify hazards, assess community needs, and describe a communitywide strategy for reducing the risks associated with natural disasters.

Administration

Table 97: Administration Budget

Program	Budget	HUD-Identified MID Budget	Grantee-Identified MID Budget
2020 Administration	\$2,994,900	\$2,905,053	\$89,847
2021 Administration	\$994,850	\$994,850	\$0

Program Description

Administration costs are necessary to support expenses related to administrative activities that include, but not limited to financial transactions, contract development, staff time administering programs; compliance and monitoring of the State's subrecipients, vendors, other recipients of funding; and other costs specified as eligible administrative expenses in 24 CFR 570.206. Up to 5% of the overall grant and any program income may be used for administration of the grant, inclusive of administrative costs incurred by MEDC.

Program Eligibility

Table 98: Administration Eligible Activities

CDBG-DR Eligible Activity:	Program administrative costs, defined at 24 CFR 570.205 and 570.206, and any applicable waivers or alternative requirements
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Appendix



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Appendix

Certifications

The grantee must certify:

- The grantee certifies that it has in effect and is following a residential anti-displacement and relocation assistance plan (RARAP) in connection with any activity assisted with CDBG-DR grant funds that fulfills the req 24 CFR part 42, and 24 CFR part 570, as amended by waivers and alternative requirements.
- The grantee certifies its compliance with restrictions on lobbying required by 24 CFR part 87, together with disclosure forms, if required by part 87.
- The grantee certifies that the Action Plan for Disaster Recovery is authorized under State and local law (as applicable) and that the grantee, and any entity or entities designated by the grantee, possess(es) the legal authority to carry out the program for which it is seeking funding, in accordance with applicable HUD regulations and this Notice. The grantee certifies that activities to be administered with funds under this Notice are consistent with its Action Plan.
- The grantee certifies that it will comply with the acquisition and relocation requirements of the URA, as amended, and implementing regulations at 49 CFR part 24, except where waivers or alternative requirements are provided for in this notice.
- The grantee certifies that it will comply with section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) and implementing regulations at 24 CFR Part 135.
- The grantee certifies that it is following a detailed citizen participation plan that satisfies the requirements of 24 CFR 91.105 or 91.115, as applicable (except as provided for in notices providing waivers and alternative requirements for this grant). Also, each local government receiving assistance from a State grantee must follow a detailed citizen participation plan that satisfies the requirements of 24 CFR 570.486 (except as provided for in notices providing waivers and alternative requirements for these grants).
- State grantee certifies that it has consulted with affected local governments in counties designated in covered major disaster declarations in the non-entitlement, entitlement, and tribal areas of the State in determining the uses of funds, including the method of distribution of funding, or activities carried out directly by the State.
- The grantee certifies that it is complying with each of the following criteria:
 - Funds will be used solely for necessary expenses related to disaster relief, long-term recovery, restoration of infrastructure and housing, and economic revitalization in the most impacted and distressed areas for which the President



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declared a major disaster in 2017 pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974 (42 U.S.C. 5121 et seq.).

- With respect to activities expected to be assisted with CDBG–DR funds, the action plan has been developed so as to give the maximum feasible priority to activities that will benefit low- and moderate-income families.
- The aggregate use of CDBG–DR funds shall principally benefit low- and moderate-income families in least 70 percent (or another percentage permitted by HUD in a waiver) of the grant amount is expended for activities that benefit such persons.
- The grantee will not attempt to recover any capital costs of public improvements assisted with CDBG amount against properties owned and occupied by persons of low- and moderate-income, including made as a condition of obtaining access to such public improvements, unless (a) disaster recovery grant funds are used to pay the proportion of such fee or assessment that relates to the capital costs of such public improvements that are financed from revenue sources other than under this title; or (b) for purposes of assessing any amount against properties owned and occupied by persons of moderate income, the grantee certifies to the Secretary that it lacks sufficient CDBG funds (in any form) to comply with the requirements of clause (a).
- The grantee certifies that it will conduct and carry out the grants in conformity with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) and the Fair Housing Act (42 U.S.C. 3601–3619) and implementing regulations, and that it will affirmatively further fair housing.
- The grantee certifies that it has adopted and is enforcing the following policies, and, in addition that they will require local governments that receive their grant funds to certify that they have adopted and are enforcing:
 - A policy prohibiting the use of excessive force by law enforcement agencies within its jurisdiction against any individuals engaged in nonviolent civil rights demonstrations, and
 - A policy of enforcing applicable State and local laws against physically barring entrance to or exit from a facility or location that is the subject of such nonviolent civil rights demonstrations within its jurisdiction.
- The grantee certifies to the accuracy of its Financial Management and Grant Compliance certification checklist, or other recent certification submission, if approved by HUD, and related supporting documentation referenced therein and its Implementation Plan and Capacity Assessment and related submission to HUD referenced therein. III.A.1. of the Consolidated Notice and the grantee’s implementation plan and related submiss section III.A.2. of the Consolidated Notice.



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- The grantee certifies that it will not use CDBG–DR funds for any activity in an area identified a hazard mitigation planning purposes by the state, local, or tribal government or delineated as (or 100-year floodplain) in FEMA’s most recent flood advisory maps, unless it also ensures that the action is designed or modified to minimize harm to or within the floodplain, in accordance with Executive Order 11988 and 24 CFR Part 55. The relevant data source for this provision is the State, local, and tribal government land use regulations and hazard mitigation plan and the latest issued FEMA data or guidance, which includes advisory data (such as Advisory Base Flood Elevations) or preliminary and final Flood Insurance Rate Maps.
- The grantee certifies that its activities concerning lead-based paint will comply with the requirements of 24 CFR Part 35 subparts A, B, J, K, and R.
- The grantee certifies that it will comply with environmental requirements at 24 CFR part 58.
- The grantee certifies that it will comply with the provisions of title I of the HCDA and with other applicable laws.
- The grantee certifies that it (and any subrecipient or administering entity) currently has or will develop and maintain the capacity to carry out disaster recovery activities in a timely manner and that the grantee has reviewed the requirements applicable to the use of grant funds.

Waivers

MEDC may request waivers through future substantial amendments. At this time, MEDC does not have any waiver requests.

Summary and Response of Public Comments

Comments and responses shall be posted in the final Action Plan submitted to HUD.

Public Comments and Responses

This section provides summarized public comments categorized by key themes that were raised during the August public hearing sessions with various impacted communities. Public comments were received via public hearings, written letters and email. The public comments below are separated by comments received on 2020 impacted counties and comments received on 2021 impacted counties.

2020 Public Comments

Comment #1



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Environmental Concerns

A number of commenters expressed concerns over the environmental impacts of the lakes that have sediment, salt deposits and other related issues that is causing the lakes to become shallow with vegetation and weeds and ultimately affecting the natural environment and wildlife of the lakes. Commenters expressed their concerns about algae and pollution. A commentor expressed concerns of fires in Ross Lake due to excessive weeds and vegetation growth, which results in the clogging of intakes and filling tanks. There were also concerns about fish dying and the importance of improving water quality to reduce high bacteria counts and low oxygen levels. A commenter expressed concern the depth of the lake that went from 4 feet to 15 feet due to the bottom washing out of the lake. Commenters expressed the need for the program to assist with erosion control and the desire to receive matching funds from FEMA grants to assist with the Watershed Protection Program. A program that stabilizes shorelines that were affected by erosion during the floods on Wixom and Sanford Lakes.

MEDC Response:

MEDC recognizes that the 2020 and 2021 disaster events had a devastating effect on households and communities and understands that citizens and families face unique recovery challenges. The proposed programs, outlined in the draft Action Plan, provide funds for eligible activities necessary to restore storm-damaged community infrastructure and public facilities.

The State is committed to developing and implementing resiliency measures that harden Michigan's resiliency and infrastructure and are designed to support communities as they recover from the 2020 and 2021 storm events and work to mitigate future risks.

Comment #2

Property Value

A number of commenters expressed concern that property value would decrease and not recover if community recreation areas and activities are not restored. Concerns were expressed about the image of communities and abandoned structures that remain after the disaster events.

MEDC Response:

MEDC recognizes the importance of property values and has designed programs to promote sound, sustainable long-term recovery and projects that account for community solutions. The State has made a conscious decision to fund infrastructure improvements and upgrades to provide the most benefit to most people and communities such that strong communities may positively impact property values.

Comment #3

Flood Resilience and Mitigation

A number of commenters, including those representing local governments, requested funds to address public infrastructure projects. Several commenters expressed that the funding should



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go to mitigate future flooding to handle the increasingly severe climatic activity. A commenter shared there is chronic flooding in Midland and residents and business are still recovering from 2017 flooding. Flooding is an ongoing problem that the Midland Business Alliance is involved with recovery working with the US Army Corps of Engineering and an engineering firm to understand why flooding occurs and identify infrastructure improvement projects. These efforts address flood reduction and flood resiliency. Another commenter shared hopes that the funding goes to reducing the risk of future flooding in the Midland area. Projects such as increased capacity to pump stations and larger culverts. Commenters offered ideas and recommendations to mitigate future floods including repairing damaged watershed treatment plants, upgrading storm drains, and addressing creek sediments.

MEDC Response:

MEDC recognizes the need to reduce flooding and mitigate future flooding in the impacted communities. Per the Federal Register Notice, mitigation measures must be incorporated into recovery activities.

The 2020 Public Infrastructure and Public Facilities program identifies infrastructure as including, but not limited to, the following types of projects: streets, water and sewer facilities, playgrounds, underground utilities, generator installation, and flood and drainage measures. The program defines public facilities as projects that improve hospitals, schools, libraries, police stations, fire stations, and buildings owned by non-profits that are open to the public.

MEDC anticipates that programs will open for applications by Spring 2023. Eligible activities will be further detailed in the program guidelines, which will be available on the MEDC website. MEDC encourages eligible applicants to apply to the program.

Comment #4**Economic and Social Revitalization**

A number of commenters expressed concerns over the impact to social and economic outcomes of limited use of recreational areas, particularly Ross Lake, noting that the community no longer comes together as they did before the storm events. Commenters describe the lakes as a recreational environment and tourist attraction that has been affected by the current state of the lake.

MEDC Response:

The State is committed to developing and implementing resiliency measures that harden Michigan's resiliency and infrastructure and are designed to support communities as they recover from the 2020 and 2021 storm events and work to mitigate future risks. The State also recognizes the importance of recreational activities in the area and the impact it has on the community.

Comment #5



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Infrastructure

A commentor expressed concern that the true infrastructure for road and bridges are not accurately reflected, and it is only showing what was reported by FEMA and not damage impacts and assistance from the Federal Highway Administration, which would then increase the unmet needs report.

MEDC Response:

To calculate the unmet need for Infrastructure, MEDC used FEMA Public Assistance data of the cost to repair the permanent public infrastructure projects to pre-disaster condition for Categories C to G, which includes Roads and Bridges. The state recognizes the importance of roads and bridges and rebuilding those that were damaged during the flood event. MEDC will partner with other state and federal agencies to coordinate efforts to address infrastructure projects.

Comment #6

Action Plan and Funding Availability Timeline

A number of commenters inquired about the deadline to submit the Action Plan to HUD and the expected deadline to receive a response from HUD. Commenters asked for a rough outline of when funds would be available for individual communities.

MEDC Response:

MEDC's deadline to submit the Action Plan to HUD is October 21, 2022. HUD has 60 days to review the action plan. MEDC is anticipating programs will begin accepting application Spring 2023.

Comment #7

Project Suggestions

A number of commenters provided suggestions on the type of projects the community would benefit from in Gladwin County, suggesting generators for every township, river gauges, damaged wastewater treatment plant replacement, rebuilding the city's community center and improvements to city campgrounds. Commenters in the Beaverton area suggested drainage improvements, matching funds for Ross Lake dredging, and restoring a manufacturing company that was impacted by the disaster.

MEDC Response:

MEDC appreciates the suggestions the residents and community officials have shared during this public comment period. The 2020 Public Infrastructure and Public Facilities program identifies infrastructure as including, but not limited to, the following types of projects: streets, water and sewer facilities, playgrounds, underground utilities, generator installation, and flood and drainage measures. The program defines public facilities as projects that improve hospitals,



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schools, libraries, police stations, fire stations, and buildings owned by non-profits that are open to the public.

MEDC anticipates that programs will open for applications by Spring 2023. Eligible activities will be further detailed in the program guidelines, which will be available on the MEDC website. MEDC encourages eligible applicants to apply to the program.

Comment #8

Housing Development Needs

A commenter stated that funding could be used for housing development due to the displacement of many families, the lack of hotels and lack of resources to complete repairs on their damaged home.

MEDC Response:

MEDC continues to assess housing needs. MEDC considered relevant available data in making funding determinations across programs, based upon the unmet and mitigation needs assessment. As CDBG-DR funds are provided by HUD to the State and affected counties to assist in the recovery, MEDC will continue to assess the unmet needs for proposed programs. MEDC will coordinate efforts with local communities on their planning and residential zoning requirements to address the lack of housing.

Comment #9

Impacts on Businesses

Commenters expressed that businesses disappeared due to damage from the flood or are inoperable as a result of the flood and would like to see money go to support small businesses in the area to allow them to get back to the level they were at prior to the flood. A commentator asked funding for the town of Sanford and Edenville to receive assistance or develop a program to help start new businesses.

MEDC Response:

MEDC can work with the local units of governments, Chambers of Commerce and other organizations to assure small businesses impacted by the disaster are communicated with to find if there is any way MEDC can impact the community through businesses. MEDC encourages businesses to reach out to Bill Povalla, povallab@michigan.org to obtain information on the CDBG Assistance to Business Program.

Comment #10

Broadband Infrastructure



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A commenter stated that a lot of people do not have access to internet in Gladwin County. The commenter suggested making broadband more available so there is capacity to respond when there are disasters like the flooding.

MEDC Response:

The State of Michigan has a Michigan Hi-speed Internet (MIHI) Office. MEDC coordinates with MIHI as it relates to broadband needs in the State of Michigan.

Comment #11**Public Hearings Notifications**

A commenter shared that they participated in all three public hearings in the 2020 disaster impacted areas and expressed they didn't think the notifications got out so people could see.

MEDC Response:

The public hearings dates and locations were advertised 10 business days prior to the first public hearing held on September 13, 2022. MEDC also sent the public hearing notices to local governments and interested individuals, in addition to conducting outreach to local communities and officials encouraging participation in the public hearing.

Comment #12**Dam Repairs**

A commenter requested that help be provided to rebuild the dams and restore the economy. The Four Lake Task Force is working to repair the dam but an estimated \$30-60 million is still needed. The commenter explained the Four Lakes Task Force is overseeing a program that helps stabilize shorelines that were badly damaged by erosion during the flood. The Four Lakes Task Force is working with the Natural Resource Conservation Service of the USDA with their watershed program that provides 75% of construction costs but the Four Lakes Task Force is responsible for the remaining 25%. Can the CDBG funds be used to as a match to this program?

MEDC Response:

The 2020 Public Infrastructure and Public Facilities program identifies infrastructure as including, but not limited to, the following types of projects: streets, water and sewer facilities, playgrounds, underground utilities, generator installation, and flood and drainage measures. The program defines public facilities as projects that improve hospitals, schools, libraries, police stations, fire stations, and buildings owned by non-profits that are open to the public.

MEDC anticipates that programs will open for applications by Spring 2023. Eligible activities will be further detailed in the program guidelines, which will be available on the MEDC website. MEDC encourages eligible applicants to apply to the program.



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Comment #13**Funds for Homeowners**

A commenter expressed that \$59.9 million is being used for infrastructure but the action plan acknowledges that homeowners need additional assistance. A commenter stated that the plan does not address homeowners or adequately addresses mitigation activities to prevent further flooding. Several commenters suggested that the funding be used to provide individuals assistance to rebuild their home, used for mortgage payments, or to use to recover the cost of what they lost. Another commenter suggested the funding be provided for deferred loans for home improvements for LMI households. A commentor expressed concern that funding would not get to people who were directly affected by the flooding events and those individuals could not receive any assistance to rebuild. A commenter expressed that there is still an unmet need for homeowners and their mortgage debt remains.

MEDC Response:

MEDC continues to assess housing needs. MEDC considered relevant available data in making funding determinations across programs, based upon the unmet and mitigation needs assessment. As CDBG-DR funds are provided by HUD to the State and affected counties to assist in the recovery, MEDC will continue to assess the unmet needs for proposed programs. MEDC will coordinate efforts with local communities on their planning and residential zoning requirements to address the lack of housing.

Comment #14**Water Wells**

Several commenters shared that the water wells were lost and well replacements are needed. Commentors expressed concern regarding the development of water systems in different counties due to wells drying. Concern was also expressed about smaller townships and not being able to afford the cost associated with running water and water delivery services.

MEDC Response:

MEDC understands the impact the flooding had on wells. MEDC will continue to work with local communities to understand the needs regarding wells and water systems. The Public Infrastructure and Public Facilities program identifies infrastructure as including, but not limited to, the following types of projects: streets, water and sewer facilities, playgrounds, underground utilities, generator installation, and flood and drainage measures.

MEDC anticipates that programs will open for applications by Spring 2023. Eligible activities will be further detailed in the program guidelines, which will be available on the MEDC website. MEDC encourages eligible applicants to apply to the program.

Comment #15**Multi-family Housing Program Clarification**



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A commenter asked if the Multifamily Housing Program is encouraging developers to build apartment complexes in the rural areas and will the program help homeowners build duplexes?

MEDC Response:

The Multifamily Housing Program has been designed to meet the unmet need for rental housing and develop additional affordable housing units. Funds will be provided for rehabilitation, reconstruction, and new construction of public housing and affordable multifamily housing projects in HUD-identified MID areas impacted by the 2020 disaster (DR 4547). The affordable units will be made available to low-income individuals and families impacted by the flooding disaster and displaced. Projects must be structures with a minimum 5 or more units with at least 51% of units are affordable. As such, an apartment complex is an eligible type of project under this program.

Comment #16**Local/Community Input**

A commenter inquired about prioritization of the programs and if local communities would have any input on project prioritization. The commenter emphasized the need for communication with local stakeholders and improvement on communications. The commenter suggested county wide collaboration between the three counties on prioritization and selecting projects. A long-term recovery team in Midland County was put together after the flooding that was able to get \$5 million in funding and more because community partners came together.

MEDC Response:

MEDC encourages collaboration across counties and communities to establish community needs and projects that benefit multiple areas and communities. Local governments, non-profits and other eligible entities are able to assess the needs of their communities and prioritize projects that are submitted MEDC.

Comment #17**Public Comment Period**

A number of commenters wanted to know the deadline to submit a comment.

MEDC Response:

The public comment period is from August 31, 2022 through September 29, 2022. MEDC will not turn away comments received after these dates.

Comment #18**Allocation of Funds**



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A commenter inquired about the allocation of funding and the metrics that will be used to do so.

MEDC Response:

MEDC will use a competitive process for all programs to award funds to projects that best meet the goals of the Action Plan and are in alignment with MEDC's overall intent of recovery for local communities. Scoring criteria to select projects will be developed at a later date.

Comment #19

Unmet Needs Calculation

A number of commenters wanted to know how the unmet needs calculation was calculated.

MEDC Response:

The unmet need is calculated by taking the total recovery needs in the MID areas and subtracting the available resources to cover recovery needs. The remaining amount equals the unmet need. FEMA and SBA data are used to determine the need.

Comment #20

Davis-Bacon

A commenter stated that Davis-Bacon is considered for all housing and construction and asked if there are any variances allowed for the level of construction.

MEDC Response:

Projects involving construction are required to comply with applicable labor related laws and regulations, including Davis-Bacon and Related Acts.

Comment #21

Planning Program

A commenter stated that the planning program is not the best benefit stating that all three counties have hazard mitigation plans in the process of being updated utilizing other funds. Emergency preparedness is being done in Midland County and other places. The commenter stated that they would like to see the money go in other places such as infrastructure or housing. Housing to support families, building homes and providing homes. Another commenter expressed that planning is overhead, should be minimized and the plan would get absorbed in bureaucracy.

MEDC Response:

MEDC looks to planning as a way to mitigate future disasters and have had conversations with local units of government interested in participating in the Planning Program. The Federal Register Notice has a requirement to expend 15% of the funding on mitigation activities. The



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Planning Program will emphasize the benefits of mitigation planning by integrating with traditional planning such as comprehensive, land use, and site development planning, and will also incorporate forward-thinking resiliency concepts that align with priorities such as capability and capacity building. This will also include the development and integration of mitigation studies as well as the promotion and funding of zoning ordinances, building codes, and energy codes.

Comment #22

Abandoned Homes in Neighborhood

A commenter stated that the abandoned homes in their neighborhood was a concern. It is a hazard for the homes to sit empty and condemned and it is frustrating that those homes are still there after two and a half years. The commenter heard some homes are waiting on FEMA buyout. Another commenter wants to see some of the funding go to demolishing the abandoned homes.

MEDC Response:

In the current Action Plan, there is not a program that provides assistance to demolish abandoned homes. MEDC does not currently have information to put together a perspective demolition program. This type of program could be warranted and MEDC will assess this need for future consideration.

Comment #23

Low-Income Housing

A few commenters expressed concerned for low-income housing in their neighborhood.

MEDC Response:

These CDBG-DR funds are allocated by the U.S. Department of Housing and Urban Development (HUD). The primary objective of the CDBG programs is to develop viable communities by providing decent housing and suitable living environments and expanding economic opportunities principally for persons of low- to moderate-income. MEDC is following federal guidelines which specifically speak to the utilization of these CDBG-DR funds to assist low-to-moderate income persons.

Comment #24

Unkept Dams

A commenter stated that the dams were privately owned and the owner refused to complete repairs and maintenance necessary to protect the counties from such a disaster and was allowed to operate this way for years. The state, DEQ, and the Federal Energy Regulation Committee was monitoring them. Why weren't they required to have liability insurance to protect the people and themselves from a disaster like this?



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MEDC Response:

MEDC understands the concerns with the dams; however, MEDC does not have any affiliation with the operations or regulations of the dams.

Comment #25**Clarification on Low-to Moderate Income Requirement**

A commenter expressed that the low-to-moderate income benefit seems restrictive and wanted clarification on the requirement to expend 70% of the funds on low-to-moderate income persons, which they understood the state is requesting this requirement to be lowered to 50%. Another commenter stated that the assistance is too limited by the HUD regulations and the distribution of funds should be on the actual need rather than income.

MEDC Response:

Per the Federal Register Notice that provides stipulations, requirements and waivers, HUD requires that 70 percent of funds be used for activities that benefit LMI persons. The regulation that stipulates this requirement is 24 CFR 1003.208. This regulation states that the primary objective of the funds is to develop viable communities principally for low and moderate income. MEDC understands that the flooding impacted areas that are not considered to be low-to-moderate income and will assess the need to lower the overall benefit requirement as programs are implemented.

Comment #26**LMI Income Limits**

A commenter inquired about the LMI income number for Gladwin.

MEDC Response:

The meaning of “low and moderate income” varies depending on the location of the household. Data describing income limits by county for Michigan can be found at the following interactive website maintained by HUD: https://www.huduser.gov/portal/datasets/il/il2022/select_Geography.odn

Comment #27**Concern about Misappropriation of Funding**

A commenter shared that they do not want the HUD money to get misappropriated.

MEDC Response:

MEDC will take all measures to properly manage and administer these CDBG-DR funds. MEDC developed criteria to ensure fraud, waste or abuse does not take place. MEDC has an internal auditor that provides both programmatic and financial oversight of grantee activities and has



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adopted policies that describes the auditor's role in detecting fraud, waste, and abuse. Please visit MEDC's CDBG-DR website for more information on our policies. www.miplace.org/cdbg-dr/

HUD will also monitor the administration of these funds throughout the period of performance.

Comment #28

Future Flooding

Several commenters expressed that the funding should go to mitigate future flooding to handle the increasingly severe climatic activity. Projects such as increased capacity to pump stations and larger culverts.

MEDC Response:

The draft Action Plan supports mitigation and resiliency efforts to address future flooding risks. MEDC and its subrecipients will incorporate preparedness and mitigation measures for construction or rehabilitation activities. This helps to ensure that communities build back safer and stronger than before the disaster. The State is committed to long-term safety and sustainability of its communities and infrastructure, and to develop, assess and implement mitigation and resiliency strategies.

Comment #29

FEMA Buy Back Program

A commenter stated they were a part of the FEMA Buy Back Program and wanted to know what is going on with it.

MEDC Response:

MEDC does not administer the FEMA Buy Back Program and cannot offer any details on the program.

Comment #30



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The City of Friendship

City of Ecorse

3869 West Jefferson Ave.
Ecorse, Michigan 48229
Phone (313) 386-2520
Fax (313) 386-4316

October 3 2022

William Povalla
MEDC

Dear Mr. Povalla:

On behalf of City of Ecorse, I am writing in support of the 2021 Michigan Disaster CDBG DR program. It was a pleasure meeting you at the public hearing on September 20, 2022 in Dearborn Heights.

I want to thank the MEDC for getting the information to us, as a distressed and financially strapped city we are sometimes over looked.

A sustained and comprehensive publicly funded program that will allow us to improve the quality of life for our citizens due to the flooding that occurred. We received 500 complaints of damage to property due to the flooding.

The City of Ecorse has a need for infrastructure improvements given the age of our community and assistance we can receive will be greatly appreciated. With the help of MEDC it will allow us to bring our city back to its original beauty and assist in making our city and citizens more resilient.

Sincerely Yours,

LAMAR C. TIDWELL
Mayor

MEDC Response:

Thank you for taking the time to attend and comment during the September 20, 2022, Wayne County, Michigan disaster events recovery Action Plan public hearing. We appreciate the details you provided regarding the needs in the City of Ecorse.

The Michigan Economic Development Corporation (MEDC) recognizes that the 2021 disaster events had a devastating effect on households and communities and understands that many communities face unique recovery challenges. As described in the public hearing and using federal guidelines, we have developed a draft action plan to address unmet needs in HUD identified "most impacted and distressed" (MID) areas which includes Wayne county. The proposed programs, outlined in the draft Action Plan, provide funds for eligible activities necessary to restore storm-damaged community infrastructure.

The 2021 Infrastructure Program identifies infrastructure as including, but not limited to, the following types of projects: streets, water and sewer facilities, playgrounds, underground utilities, generator installation, and flood and drainage measures. The program defines public facilities as projects that improve hospitals, schools, libraries, police stations, fire stations, and buildings owned by non-profits that are open to the public.

MEDC anticipates that programs will open for applications in the second quarter of 2023. Eligible activities will be further detailed in the program guidelines, which will be available on the MEDC



website. We encourage you to visit the website as details are provided and to submit applications for eligible projects.

Comment #31



BEAVERTON AREA FIRE PROTECTION DISTRICT

4278 M-18

Beaverton, Michigan 48612

PH: 989-435-9854 FAX: 989-435-6119

beavertonfiredepartment@ispmgt.com

To whom it may concern,

Please consider this letter of support, on behalf of the Beaverton Area Fire Department in regards to funding the dredging of Ross Lake in Beaverton. Our 72 square mile fire district is largely rural, as are our neighboring districts. The importance of a clean, deep, water source for fire suppression is critical to the protection of our community and surrounding communities. While we do have a viable city water system supplying our hydrants, that supply can quickly diminish in larger scale fires. In fact, this has happened recently, in the spring of 2022, a fire at a manufacturing facility in Midland County required multiple departments, from multiple counties, to shuttle water from Beaverton, to the Midland County incident. The city water supply was quickly depleted, requiring the drafting of water from Ross Lake to supply the majority of the hundreds of thousands of gallons of water used to extinguish that fire. As you may be aware, Beaverton and Gladwin County is home to a number of large commercial and manufacturing structures. In the event of a major fire, the lake would serve as our primary source of fire suppression water. In these scenarios, when working to protect life and property, time is critical. Since the historic flood of 2020, major runoff as a result of the flooding and the other environmental effects the flood had, have put this extremely important water source in danger of no longer being a tool at our disposal. Continued overgrowth and silt accumulation could render the water source useless to the fire department, and in its current state, delays in the drafting of water due to weed overgrowth, and silt can significantly alter the outcome of our efforts in emergency situations. Ross Lake is more than a place of recreation, or a beautiful sight, it is an immensely important feature in the protection and well-being of our community. The appropriation of funding to clean and dredge Ross Lake will be a commitment to public safety, and we support this action.

Sincerely,

Phil Andrist

MEDC Response:

MEDC recognizes that the 2020 and 2021 disaster events had a devastating effect on households and communities and understands that citizens and families face unique recovery challenges. The proposed programs, outlined in the draft Action Plan, provide funds for eligible activities necessary to restore storm-damaged community infrastructure and public facilities.

The state is committed to developing and implementing resiliency measures that harden Michigan's resiliency and infrastructure and are designed to support communities as they recover from the 2020 and 2021 storm events and work to mitigate future risks. MEDC encourages eligible applicants to apply to the program.



Comment #32

FOUR LAKES TASK FORCE

233 E. Larkin St. Suite 2
Midland, MI 48640



September 14, 2022

Michigan Economic Development Corporation

Re: Community Development Block Grant-Disaster Recovery

My name is Kayla Stryker and today I am providing public comment on behalf of Four Lakes Task Force (FLTF). I am the Treasurer and Administrator of Four Lakes Task Force. FLTF is the Delegated Authority for Midland and Gladwin County Under Part 307, Inland Lakes of the Natural Resource and Environmental Protection Act. I am here to demonstrate how FLTF fits the parameters of the grant and should be a recipient of a portion of funding from the Community Development Block Grant. The Four Lakes Special Assessment District includes over 6500 property owners in Midland and Gladwin County. The Four Lakes special assessment district spreads across eight townships with great economic diversity in lake owner's household incomes and home values. There are many in these townships with incomes below the federal poverty line.

Following the dam failures in 2020 FLTF set to work on the recovery effort and engineering effort to rebuild these dams. FLTF has undertaken numerous erosion repair projects along the lake bottoms, has successfully stabilized Edenville, Tobacco, Secord and Smallwood Dams with Sanford in progress. Engineering efforts on all four dams are underway, with engineering nearing completion at Secord and Smallwood. In total, it will cost \$64 Million to finish the recovery and engineering phase of the project for the restoration of the lake

The estimated repair and restoration amount is estimated to be \$250 million, with a planning range of between \$230-\$270 million. All construction and permitting factors have been built into the estimates. On March 30, 2022, \$200 million was allocated by the State of Michigan to the Four Lakes Task Force for the Four Lakes Special Assessment District for the Restoration of the four lakes. This grant does not likely cover the total project cost and will be needed to cover a portion of the construction and repair costs. The current gap in project restoration costs is \$60 million, and the community will need to fund the rest through an additional special assessment on homeowners for the capital improvement projects is 2024.

There is additional work to be done that currently requires funding. Beyond the \$60M gap in construction funds for the restoration, FLTF also needs additional funding to assist in completing remaining outstanding erosion projects, to assist in bottomland debris removal and to finish out Sanford Stabilization efforts. Additional funds will be required to assist in an ongoing environmental and lake management plan.

The sites of the FLTF projects that require improvement meet the criteria for the areas that HUD defines as most impacted and distressed (MID) and FLTF has project sites that would specifically benefit the low- and moderate-income residents that the majority of the funding is intended to target. FLTF has several projects that could utilize the recently allocated funding and asks for consideration in any further plans or recommendations related to this funding.

Thank you,
Kayla Stryker
Treasurer, Four Lakes Task Force

MEDC Response:

The 2020 Public Infrastructure and Public Facilities program identifies infrastructure as including, but not limited to, the following types of projects: streets, water and sewer facilities, playgrounds, underground utilities, generator installation, and flood and drainage measures. The program defines public facilities as projects that improve hospitals, schools, libraries, police stations, fire stations, and buildings owned by non-profits that are open to the public.

MEDC anticipates that programs will open for applications by Spring 2023. Eligible activities will be further detailed in the program guidelines, which will be available on the MEDC website. MEDC encourages eligible applicants to apply to the program.



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2021 Public Comments

Comment #1

Environmental Concerns

A commenter expressed concerns about the complete clean up and maintenance for Five Miles Creek in Dearborn Heights. They expressed concern with obstruction of the flow of the creek due to blockage. The commentor also expressed concerns about CDBG-DR funding not having an allowance for maintaining the cleanup project to prevent blockage.

MEDC Response:

MEDC will implement disaster recovery programs in a manner consistent with HUD CDBG regulations and requirements.

Comment #2

Infrastructure Concerns

A commentor expressed concerns about focusing on infrastructure upgrades for Dearborn Heights and portions of the creek within the city limits. A commentor expressed concerns about the financial burden it would cost homeowners for the sewer disconnect project.

MEDC Response:

The 2021 Infrastructure Program identifies infrastructure as including, but not limited to, the following types of projects: streets, water and sewer facilities, playgrounds, underground utilities, generator installation, and flood and drainage measures. The program defines public facilities as projects that improve hospitals, schools, libraries, police stations, fire stations, and buildings owned by non-profits that are open to the public.

MEDC anticipates that programs will open for applications by Spring 2023. Eligible activities will be further detailed in the program guidelines, which will be available on the MEDC website. MEDC encourages eligible applicants to apply to the program.

Comment #3

Flood Resilience and Mitigation

A commenter expressed concerns of flood mitigation being high on the administration agenda that since Dearborn and Detroit has funding allocated to them Dearborn Heights should have their own to address short- and long-term needs, while decreasing duplication of efforts. A commentor addressed concerns about watersheds at Rouge and Ecorse Creek and after approximately 2 inches of rain there being flooding due to drains going into the creek. The commentor also mentioned that space from homes being demolished could be used as retention detention basins to alleviate water going into the creek. Another commentor expressed the need for help because of the reoccurrence of flooding. A commentor expressed concern of not



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receiving as much funding as they believed Dearborn Heights should and asked more funding to be allocated to the area, due to engineers stating the cost to mitigate the area would be between 200 – 350 million dollars.

MEDC Response:

MEDC appreciates the suggestions the residents and community officials have shared during this public comment period. The 2021 Infrastructure Program identifies infrastructure as including, but not limited to, the following types of projects: streets, water and sewer facilities, playgrounds, underground utilities, generator installation, and flood and drainage measures. The program defines public facilities as projects that improve hospitals, schools, libraries, police stations, fire stations, and buildings owned by non-profits that are open to the public.

MEDC anticipates that programs will open for applications by Spring 2023. Eligible activities will be further detailed in the program guidelines, which will be available on the MEDC website. MEDC encourages eligible applicants to apply to the program.

Comment #4**Program Timeline**

A commentor asked when the application process would begin and if municipalities could turn in more than one application for different projects.

MEDC Response:

MEDC's deadline to submit the Action Plan to HUD is October 21, 2022. HUD has 60 days to review the action plan. MEDC is anticipating programs will begin accepting application Spring 2023. MEDC anticipates allowing multiple applications to be submitted by one applicant. When developed, program polices will further define eligibility requirements.

Comment #5**Individual Funding**

A commentor expressed concerns about allocation of funding to Dearborn Heights and it not being enough to address the needs of the area or individuals who were impacted by the events. The commentor additionally expressed concern of Dearborn Heights residents not being able to finance recovering from the events to their individual homes and suggested a system to be put in place for individual homeowners to recover from the events.

MEDC Response:

MEDC continues to assess housing needs. MEDC considered relevant available data in making funding determinations across programs, based upon the unmet and mitigation needs assessment. As CDBG-DR funds are provided by HUD to the State and affected counties to assist in the recovery, MEDC will continue to assess the unmet needs for proposed programs. MEDC



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will coordinate efforts with local communities on their planning and residential zoning requirements to address the lack of housing.



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Owner Occupied Households

- Minor-Low: Less than \$3,000 of FEMA inspected real property damage
- Minor-High: \$3,000 to \$7,999 of FEMA inspected real property damage
- Major-Low: \$8,000 to \$14,999 of FEMA inspected real property damage
- Major-High: \$15,000 to \$28,800 of FEMA inspected real property damage
- Severe: Greater than \$28,800 of FEMA inspected real property damage

Renter Occupied Households:

- Minor-Low: Less than \$1,000 of FEMA inspected personal property damage
- Minor-High: \$1,000 to \$1,999 of FEMA inspected personal property damage
- Major-Low: \$3,500 to \$4,999 of FEMA inspected personal property damage
- Major-High: \$5,000 to \$8,999 of FEMA inspected personal property damage
- Severe: Greater than \$9,000 of FEMA inspected personal property damage



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Important Definitions and Terms

- **AMI:** Area Median Income
- **CBDO:** Community Based Development Organization
- **CDBG:** Community Development Block Grant
- **CDBG-DR:** Community Development Block Grant- Disaster Recovery
- **CFR:** Code of Federal Regulations
- **CO:** Certifying Officer CP: Participation
- **DOB:** Duplication of Benefits
- **DRGR:** Disaster Recovery and Grant Reporting System
- **FEMA:** Federal Emergency Management Agency
- **HCD Act:** Housing and Community Development Act of 1974, as amended
- **HMGP:** Hazard Mitigation Grant Program
- **IA:** (FEMA) Individual Assistance
- **LIHTC:** Low-Income Housing Tax Credit
- **LMI:** Low and moderate-income
- **NFIP:** National Flood Insurance Program
- **PA:** (FEMA) Public Assistance
- **RE:** Responsible Entity
- **RFP:** Request for Proposals
- **SBA:** U.S. Small Business Administration
- **SFHA:** Special Flood Hazard Area
- **UGLG:** Unit of general local government
- **URA:** Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended
- **USACE:** U.S. Army Corps of Engineers

Standard Form 424

The grantee will submit SF 424 executed by authorized official.