



**2018 HENNEPIN COUNTY
MULTI-JURISDICTIONAL
HAZARD MITIGATION PLAN**

**VOLUME 1
Background and County Profile(R)**

01 February 2018

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HENNEPIN COUNTY EMERGENCY MANAGEMENT

1600 Prairie Drive, Medina, Minnesota 55304

February 1, 2018

On behalf of Hennepin County Emergency Management (HCEM), we are pleased to present the 2018 Hennepin County Multi-Jurisdictional Hazard Mitigation Plan.

The purpose of this plan is to identify the Counties major hazards, assess the vulnerability, and to reduce risk using a variety of data and best practice measures to implement mitigation projects. The plan identifies goals and recommended actions and initiatives for each jurisdiction within this county to reduce and/prevent injury and damage from hazardous events. The intent of the Plan is to provide unified guidance for ensuring coordination of recovery-related hazard mitigation efforts following a major emergency/disaster, and to implement an on-going comprehensive county hazard mitigation strategy intended to reduce the impact of loss of life and property due to effects of natural hazards.

Through continued collaboration with each jurisdiction by providing staff expertise, support, training and education opportunities, Hennepin County Emergency Management will continue to increase its resiliency to the effects of natural hazards.

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SECTION 1	INTRODUCTION
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Across the United States, natural and manmade disasters have led to increasing levels of death, injury, property damage, and interruption of business and government services. The impact on families and individuals can be immense and damages to businesses can result in regional economic consequences. The time, money and effort to respond to and recover from these disasters divert public resources and attention from other important programs and problems.

Hennepin County is vulnerable to a variety of potential hazards. With three Presidential Disaster Declarations since 2010, Hennepin County recognizes the consequences of disasters and the need to reduce the impacts of natural and manmade hazards.

The elected and appointed officials of the County also know that with careful selection, mitigation actions in the form of projects and programs can become long-term, cost effective means for reducing the impact of natural and manmade hazards.

The 2018 *Hennepin County Multi-Jurisdictional Hazard Mitigation Plan (HMP) for Hennepin County, Minnesota* (the Plan), was prepared with input from the Mitigation Planning Steering Committee, the Mitigation Planning Team, county residents, responsible officials, Hennepin County Emergency Management (HCEM), and in accordance with Federal Emergency Management Agency (FEMA).

The process to develop the Plan included over a year of coordination with representatives from all of the jurisdictions in the region. The Plan will guide the County toward greater disaster resistance in harmony with the character and needs of the community.

This section of the Plan includes an overview of the Plan, a discussion of the Plan's purpose and authority, and a description of the 45 incorporated cities and the Fort Snelling unincorporated portion of the County.

1.1. PLAN DESCRIPTION AND REQUIREMENTS

Federal legislation has historically provided funding for disaster relief, recovery, and some hazard mitigation planning. The Disaster Mitigation Act of 2000 (DMA 2000) is the latest legislation to improve this planning process (Public Law 106-390). The new legislation reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur. As such, DMA 2000 establishes a pre-disaster hazard mitigation program and requirements for the national post-disaster Hazard Mitigation Grant Program (HMGP).

Section 322 of DMA 2000 specifically addresses mitigation planning at the state and local levels. It identifies requirements that allow HMGP funds to be used for planning activities, and increases the amount of HMGP funds available to states that have developed a comprehensive, enhanced mitigation plan prior to a disaster. States and communities must have an approved mitigation plan in place prior to receiving post-disaster HMGP funds. Local and tribal mitigation plans must demonstrate that their proposed mitigation measures are based on a sound planning process that accounts for the risk to and

the capabilities of the individual communities. State governments have certain responsibilities for implementing Section 322, including:

- Preparing and submitting a standard or enhanced state mitigation plan;
- Reviewing and updating the state mitigation plan every three years;
- Providing technical assistance and training to local governments to assist them in applying for HMGP grants and in developing local mitigation plans; and
- Reviewing and approving local plans if the state is designated a managing state and has an approved enhanced plan.

DMA 2000 is intended to facilitate cooperation between state and local authorities, prompting them to work together. It encourages and rewards local and state pre-disaster planning and promotes sustainability as a strategy for disaster resistance. This enhanced planning network is intended to enable local and state governments to articulate accurate needs for mitigation, resulting in faster allocation of funding and more effective risk reduction projects.

FEMA prepared an Interim Final Rule (IFR), published in the Federal Register on February 26, 2002 (44 CFR Parts 201 and 206), which establishes planning and funding criteria for states and local communities. The Plan has been prepared to meet Homeland Security Emergency Management (HSEM) and FEMA requirements thus making the County eligible for funding and technical assistance from state and federal hazard mitigation programs.

SECTION 2	PLAN PURPOSE, AUTHORITY AND ADOPTION
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2.1. AUTHORITY

This updated plan complies with all requirements set forth by HSEM and the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Section 104 of the Disaster Mitigation of 2000. In addition, it complies with all of FEMA's Final Rule 44 CFR Part 201, which outlines criteria for approval of mitigation plans.

2.2. SCOPE

This plan identifies natural hazards that pose a threat to the county, including incorporated and unincorporated areas, and provides a plan of action for mitigating these hazards. The Plan evaluates and ranks the major natural and human caused hazards affecting Hennepin County as determined by frequency of event, economic impact, deaths and injuries. The Plan assesses hazard risk, reviews current state and local hazard mitigation capabilities, develops mitigation strategies and identifies partner agency and other interagency working group's actions to address mitigation needs. The Plan, as agreed upon by all participating jurisdictions, assists in collaborating local mitigation plans or projects. Mitigation recommendations are based on input from various federal, state, and local agencies and research in using best practices. The Plan identifies existing resources and may be used as a tool to assist communities to succeed in their mitigation efforts. This is accomplished by establishing countywide mitigation strategies, providing technical resources through state, county and local agency staff expertise and support, providing financial assistance through various programs, training and education and other agency initiatives.

2.3. PURPOSE

FEMA defines Hazard Mitigation as any sustained action taken to reduce or eliminate long-term risk to people and property from natural hazards such as flooding, storms, high winds, wildfires, earthquakes, etc. Mitigation efforts undertaken by communities will help to minimize damages to buildings and infrastructure, such as water supplies, sewers, and utility transmission lines, as well as natural, cultural and historic resources.

The objective of the HMP is to rationalize the process of determining appropriate mitigation actions in protecting citizens, critical facilities, infrastructure, private property and the surrounding environment from natural and manmade hazards. This objective can be achieved by identifying potential hazards in the county and establishing procedures that will mitigate the effects of the hazards. This plan provides a framework for planning against hazards in the county. The plan can be used as a foundation for local mitigation plans and partnerships in the county.

2.4. ADOPTION

In 2010, the incorporated cities and Hennepin County formed an agreement which established the unification in the development of writing the plan. The Hennepin County Board of Commissioners and City Councils from each participating municipality were required to adopt the plan prior to its submittal to HSEM and FEMA for final approval.

The Plan is intended to serve many purposes, including:

- *Enhance Public Awareness and Understanding* – to help residents of the County better understand the natural and manmade hazards that threaten public health, safety, and welfare; economic vitality; and the operational capability of important institutions;
- *Create a Decision Tool for Management* – to provide information that managers and leaders of local government, business and industry, community associations, and other key institutions and organizations need to take action to address vulnerabilities to future disasters;
- *Promote compliance with State and Federal Program Requirements*- to ensure the Hennepin County and its incorporated cities can take full advantage of state and federal grant programs, policies, and regulations that encourage or mandate that local governments develop comprehensive hazard mitigation plans.
- *Enhance Local Policies for Hazard Mitigation Capability*- to provide the policy basis for mitigation actions that should be promulgated by participating jurisdictions to create a more disaster resistant future;
- *Provide Inter-Jurisdictional Coordination of Mitigation-Related Programming*- to ensure that proposals for mitigation initiatives are reviewed and coordinated among the participating jurisdictions within the county; and
- *Achieve Regulatory Compliance*- To qualify for certain forms of federal aid for pre and post disaster funding, local jurisdictions must comply with the federal DMA 2000 and its implementing regulations (44CFR Section 201.6). DMA 2000 intends for hazard mitigation plans to remain relevant and current. Therefore, it requires that state hazard mitigation plans are updated every three years and local plans, including Hennepin County's every five years. This means that the HMP for Hennepin County uses a "five-year planning horizon". It is designed to carry the County through a five year term, after which its objectives, goals, and assumptions will be reviewed with revisions being submitted to the County Board for adoption and approval.

SECTION 3	PLANNING PROCESS
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This section provides an overview of the planning process used to update the 2018 Hennepin County HMP. It includes who was involved in preparing the plan, how the public and stakeholders were involved, and the review and incorporation of existing plans and studies.

3.1. Why Prepare This Plan – The Big Picture

Hazard mitigation is defined as a way to reduce or alleviate the loss of life, personal injury, and property damage that can result from a disaster through long and short-term strategies. It involves strategies such as planning, policy changes, programs, projects, and other activities that can mitigate the impacts of hazards. The responsibility for hazard mitigation lies with many, including private property owners; business and industry; and local, state, and federal government.

Potential types of hazard mitigation measures include the following:

- Structural hazard control or protection projects
- Retrofitting of facilities
- Acquisition and relocation of structures
- Development of mitigation standards, regulations, policies, and programs
- Public awareness and education programs
- Development or improvement of warning systems

The benefits of hazard mitigation include the following:

- Saving lives, protecting the health of the public, and reducing injuries
- Preventing or reducing property damage
- Reducing economic losses
- Minimizing social dislocation and stress
- Reducing agricultural losses
- Maintaining critical facilities in functioning order
- Protecting infrastructure from damage
- Protecting mental health
- Reducing legal liability of government and public officials

The Disaster Mitigation Act (DMA) of 2000 (Public Law 106-390) required state and local governments to develop hazard mitigation plans as a condition for federal disaster grant assistance. Prior to 2000, Federal disaster funding focused on disaster relief and recovery with limited funding for hazard mitigation planning. The DMA increased the emphasis on planning for disasters before they occur.

The DMA encourages state and local authorities to work together on pre-disaster planning, and it promote sustainability for disaster resistance. “Sustainable hazard mitigation” includes the sound management of natural resources and the recognition that hazards and mitigation must be understood in the largest possible social and economic context. The enhanced planning network called for by the DMA helps local

government's articulate accurate needs for mitigation, resulting in faster allocation of funding and more cost-effective risk reduction projects.

3.2. Hennepin County's Response to the DMA

In 2005, Hennepin County Emergency Management (HCEM) and municipalities agreed to work together to establish a framework for hazard mitigation planning that would meet the local mitigation planning requirements of Title 44 of the Code of Federal Regulations (CFR 44). The result was a HMP that included Hennepin County Departments, municipalities and special jurisdictions. The plan provided local governments with the tools to complete individual mitigation actions, as well as completing a vulnerability assessment to meet their needs, while pooling resources and eliminating redundant planning activities.

3.3. Purpose for Planning

HCEM and its planning partners have a long-standing tradition of proactive planning and program implementation that is enhanced by the development of a hazard mitigation plan. Elements and strategies in this plan were selected because they met a program requirement and because they best meet the needs of the planning partners and their citizens. This hazard mitigation plan identifies resources, information, and strategies for reducing risk from natural hazards. It will help guide and coordinate mitigation activities throughout Hennepin County. The plan was developed to meet the following objectives:

- Meet or exceed requirements of the DMA.
- Enable all planning partners to continue using federal grant funding to reduce risk through mitigation.
- Meet the needs of each planning partner as well as state and federal requirements.
- Create a risk assessment that focuses on Hennepin County hazards of concern.
- Create a single planning document that integrates all planning partners into a framework that supports partnerships within the County, and puts all partners on the same planning cycle for future updates.
- Create an approach for local governments in the County not included in the previous plan to gain DMA compliance.
- Meet the planning requirements of FEMA's Community Rating System (CRS), allowing planning partners that participate in the CRS program to maintain or enhance their CRS classifications.
- Coordinate existing plans and programs so that high-priority initiatives and projects to mitigate possible disaster impacts are funded and implemented.

3.4. Who Will Benefit from this Plan

All citizens and businesses of Hennepin County are the ultimate beneficiaries of this HMP. The plan reduces risk for those who live in, work in, and visit the County. It provides a viable planning framework for all foreseeable natural hazards that may impact the County. Participation in development of the plan by key stakeholders in the County helped ensure that outcomes will be mutually beneficial. The resources and background information in the plan are applicable countywide, and the plan's goals and

recommendations can lay groundwork for the development and implementation of local mitigation activities and partnerships.

3.5. Plan Update – The Planning Process

Hennepin County Emergency Management was the lead agency in preparing the HMP for the county and jurisdictions within. The plan revision process lasted approximately two years and ten months beginning in February 2015. Forty-two municipalities, one university, five school districts, three special districts and three cities that share adjacent counties were considered in this plan. County Departments are covered under the 2018 Hennepin County HMP. The planning process used to develop this Plan is as follows:

- A. A Steering Committee was created to draft the plan. The Steering Committee consisted of three Hennepin County Emergency Management staff and a member of the City of Minneapolis’s Office of Emergency Management. The Steering Committee determined the priority of tasks and began collaborating on tasks and regulations using the existing plan, reviewing various county plans, and using FEMA’s Local Mitigation Planning Handbook.
- B. The Steering Committee met four times throughout 2015 and became the overall “Authors” of the plan. Meeting minutes of the meetings can be found in Appendix?
- C. A Mitigation Planning Team was created in early June of 2015, with representatives made up of various emergency management disciplines across Hennepin County. The Planning Team met three times in 2015, focusing primarily on the following two Plan sections: Risk Assessment and Plan Maintenance (Implementation into Existing Plans). A listing of the Planning Team can be found in Chapter 3. Meeting dates and minutes can be found in Appendix?
- D. Hennepin County continued with the Hazard Mitigation Plan “Combination Model” for their planning process. Using this model, Hennepin County’s four Area Planning Groups: Minneapolis Group, Lake Minnetonka Regional Planning Group, North Suburban Regional Planning Group and South Planning Group appointed one Representative to serve on the Hennepin County Mitigation Planning Team and act on behalf of their planning group. This model assisted some of the smaller municipalities that did not have the resources to participate in the overall planning team process but were required to adopt the plan.
- E. Public Participation was established using both social media and through media press releases from the Hennepin County Communications Division.

TABLE 3.5A below is a summary of the 2018 HMP Update Process:

TABLE 3.5A

Task	Date	Action
Task 1: <i>Documentation of the Planning Process</i>	Jan 2015	A review of the 2010 Hennepin County HMP was conducted by HCEM. It was determined that the plan would be revised so that it was consistent and aligned with information using FEMA standard format. All

		meetings were documented and included in this revision (detailed below in TABLE 3-6A)
Task 2: <i>Build the Planning Team</i>	Jan 2015	A new mitigation planning team was formed to reflect county, jurisdiction and partner organization interests. Only one member of the 2010 planning team was involved in this update. In addition, the HCEM created a steering team to help ensure a smooth transition of knowledge.
Task 3: <i>Create an Outreach Strategy</i>	Jan 2015	The county engaged the public and its stakeholders through surveys and a local public meeting. Stakeholder meetings were also held. Public and stakeholder involvement is described below.
Task 4: <i>Review Community Capabilities</i>	2016-2017	Capabilities were assessed from open source information, local agency updates and resource list compiling
Task 5: <i>Risk Assessment</i>	2016-2017	The risk assessment was updated to include new hazard occurrences, as well as data collection through Hennepin County's Regional Emergency Management Reference Collection and a detailed vulnerability assessment.
Task 6: <i>Mitigation Strategies</i>	2015-2018	Each participating jurisdiction submitted mitigation strategies, including goals, mitigation objectives and actions.
Task 7: <i>Plan Maintenance Procedure</i>	2015	Procedures from the 2010 plan and various other plans were reviewed and selected for this plan.
Task 8: <i>Review and Adopt the Plan</i>	Feb 2018	A draft of the plan was reviewed by the planning team and made available to the public via the county website. The plan will be sent to HSEM/FEMA for adoption in the winter of 2018.
Task 9: <i>Final Plan Delivery</i>	Mar- Apr 2018	Hennepin County Emergency Management will deliver final copies of the plan to the County, local jurisdictions, and partner organizations

3.6. Plan Organizational Changes

Several organizational changes were made to the plan document. **TABLE 3.6A** below highlights key changes.

TABLE 3.6A

2010 Plan	2018 Plan
Section 1: Introduction <ul style="list-style-type: none"> • Scope • Authority • Funding • Purpose • Community Profile 	<u>Volume 1- Background and County Profile</u> Section 1: Introduction Section 2: Plan Purpose, Authority and Adoption Section 3: Planning Process Section 4: County Profile Section 5: Community Capability Assessment

	Section 6: Hazard Mitigation Plan Maintenance Section 7: Appendix
Section 2: The Planning Process <ul style="list-style-type: none"> Planning Team Participation Public Involvement 	Volume 2- Hazard Inventory Section 1: Hazard Categories and Inclusions Section 2: Disaster Declaration History and Recent Trends Section 3: Climate Adaptation Considerations Section 4: Comprehensive Natural Hazard Assessment Profiles Section 5: Human Caused Technical/Industrial Hazard Assessment Section 6: Human Caused Adversarial Hazard Assessment Section 7: Mass Evacuee and Immigration Movement Section 8: Vulnerability Assessment Section 9: Cultural Resources Inventory Section 10: *Critical Infrastructure Key Resources (CIKR) *REDACTED
Section 3: Risk Assessment <ul style="list-style-type: none"> Assessment Process Hazard Profiles 	
Section 4: Vulnerability Assessment <ul style="list-style-type: none"> Assessment Assets Capabilities 	
Section 5: Mitigation Strategies <ul style="list-style-type: none"> Goals Actions Jurisdiction Strategies listings 	Volume 3- Community and Mitigation Strategies Section 1: Mitigation Strategies, Goals and Objectives Section 2: Mitigation Action Plan Section 3: Mitigation Plans Section 4: Minnesota Mitigation Crosswalk Section 5: Acronyms and Abbreviations Section 6: Glossary Section 7: Appendix
Section 6: Plan Maintenance <ul style="list-style-type: none"> Monitoring Evaluation Updates 	
Section 7: Plan Review Crosswalk	
Appendices	

3.7. Why Update

44 CFR stipulates that hazard mitigation plans must present a schedule for monitoring, evaluating, and updating the plan. This provides an opportunity to reevaluate recommendations, monitor the impacts of actions that have been accomplished and determine if there is a need to change the focus of mitigation strategies. A jurisdiction covered by a plan that has expired is not able to pursue elements of federal funding under the Robert T. Stafford Act for which a current hazard mitigation plan is a prerequisite.

3.8. The Updated Plan – What is Different

Although this is technically an update to the 2010 plan, there have been significant changes to the risk assessment as well as the overall number of participating agencies involved in the planning process. So, while this plan is an update for many of the planning partners, it is also the initial plan for others. Therefore, it was important to establish a planning process that was consistent for all partners. The updated plan differs from the initial plan in a variety of ways:

- The Risk Assessment has been revised to reflect a significant amount of new hazards as well as updating the current hazards with data collected through the Hennepin County Regional Reference Collection.

- The vulnerability assessment does not use HAZUS-MH to estimate losses. Municipalities and County Departments bore the responsibility to identify critical infrastructure as well as estimate losses of each individual infrastructure identified.
- The update created an opportunity for the County and planning partners to engage citizens directly through social media and survey's in a coordinated approach to gage their perception of risk and support of the concept of risk reduction through mitigation.
- The plan identifies mitigation objectives in additions to the actions and goals of the previous plan. The identified actions meet multiple objectives that are measurable, so that each planning partner can measure the effectiveness of their mitigation actions.
- The risk assessment has been prepared to better support future grant applications by providing risk and vulnerability information that will directly support the measurement of "cost-effectiveness" required under FEMA mitigation grant programs.

Given the extent of changes in this update, reviewers should consider this to be a new plan. When relevant, the update discusses correlations with the initial plan, especially when data or information is being carried over to the update.

3.9. Summary of Previous Planning Efforts

HCEM developed its first HMP in 2005, which was led by then named Hennepin County Emergency Preparedness. A Local Mitigation Planning Team was created and served as the planning team. The plan included three generalized goals:

1. Protect life and Property
 - a. Execute activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other property more resistant to losses from hazards.
 - b. Improve hazard assessment information to make recommendations for new and for existing developments in areas vulnerable to hazards.
2. Public Awareness
 - a. Increase public awareness of the risks associated with hazards in the county.
 - b. Provide information on tools, partnerships, opportunities, and funding resources to assist in implementing mitigation activities.
3. Partnerships and Implementation
 - a. Strengthen communication and coordinate participation among and within public agencies, citizens, nonprofit organizations, business, and industry to gain a vested interest in implementation.
 - b. Encourage leadership within public and private sector organizations to prioritize and implement local, county, and regional hazard mitigation activities.

In 2010, HCEM re-wrote the plan for the update due to several changes in the County's risk assessment as well as new technology (HAZUS-MH) to estimate losses to critical infrastructure. A Steering Committee

was made up of HCEM personnel as well as the City of Minneapolis's then Emergency Preparedness Department.

3.10. Organization of the Plan

The 2018 version of the plan has undergone significant changes from the 2010 version. Updates were made using best practices using a variety of nationwide county plans, as well as utilizing FEMA planning materials and resources that include hazard mitigation strategies. The plan was also reorganized to increase readability. However, some content from the previous version was included. The HMP consists of three components, each are broken down in the following volumes:

Volume 1: Background and County Profile (124 pages)

- Section 1:** Introduction
- Section 2:** Plan Purpose, Authority and Adoption
- Section 3:** Planning Process
- Section 4:** County Profile
- Section 5:** Community Capability Assessment
- Section 6:** Hazard Mitigation Plan Maintenance
- Section 7:** Appendix

Volume 2: Hazard Inventory (313 pages)

- Section 1:** Hazard Categories and Inclusions
- Section 2:** Disaster Declaration History and Recent Trends
- Section 3:** Climate Adaptation Considerations
- Section 4:** Comprehensive Natural Hazard Assessment Profiles
- Section 5:** Human Caused Technical/Industrial Hazard Assessment
- Section 6:** Human Caused Adversarial Hazard Assessment
- Section 7:** Mass Evacuee and Immigration Movement
- Section 8:** Vulnerability Assessment
- Section 9:** Cultural Resources Inventory
- Section 10:** Critical Infrastructure Key Resources (CIKR) ****REDACTED****

Volume 3: Community and Mitigation Strategies (360 Pages)

- Section 1:** Mitigation Strategies, Goals and Objectives
- Section 2:** Mitigation Action Plan
- Section 3:** Mitigation Plans
- Section 4:** Minnesota Mitigation Crosswalk
- Section 5:** Acronyms and Abbreviations
- Section 6:** Glossary
- Section 7:** Appendix

3.11. Planning Objectives

To develop the Hennepin County HMP update, the County followed a process that had the following primary objectives:

- Establish a Steering Committee
- Form a Mitigation Planning Team
- Coordinate with other agencies
- Reviewing existing programs
- Develop a new Risk Assessment
- Engage the Public

3.12. Establish a Steering Committee

Hazard mitigation planning enhances collaboration and support among diverse parties whose interest can be affected by hazard losses. Stakeholders can create partnerships that pool resources to achieve a common vision for the community. A Steering Committee was formed to oversee all phases of the plan update. The members of this committee included three staff members of Hennepin County Emergency Management and one staff member from The City of Minneapolis's Office of Emergency Management. Several meetings took place in 2015 Steering Committee meeting minutes are provided in **Section 7: Appendix 1-page 65**

3.13. Form a Mitigation Planning Team

To assist with the development and implantation of the plan update, the Steering Committee formed a Mitigation Planning Team consisting of 21 members. HCEM's Plans & Systems Integration Coordinator assumed the role of the lead planner, leading the group through the three Planning Meetings as well as coordinating data associated with the tasks of the Planning Team. The Planning Team members that made up the team include:

- Larry Brown – Shorewood Public Works
- James Van Eyll – Long Lake Fire (Lakes Area Planning Group Representative)
- Rodger Coppa – St. Louis Park Fire (South Area Planning Group Representative)
- Mike Meehan – Crystal Police Department (North Area Planning Group Representative)
- Laurie Burns –City of Minneapolis Planning Group Representative
- Tiffany Shaufler – Minnehaha Watershed District
- Krysta Reuter – University of Minnesota Emergency Management
- Jeff Goldy – Hopkins Public Schools
- Maureen Mullen – Rockford Area Schools
- Nycole Fry – Minnesota Division of Homeland Security & Emergency Management
- Todd Krause – National Weather Service
- Steve Berg, Wright County Emergency Management
- Kristi Rollwagen, Metropolitan Airports commission
- James Fallon – United States Geological Survey
- Warren Fonog – Hennepin County Geographic Information Systems

- Mike Rudolph, Wright-Hennepin Electric Cooperative Electric Association
- Jeff Shaw – Hennepin County Public Health
- Jay Baldwin, Hennepin County Transportation
- Jason Ohotto – Minneapolis Parks
- Jennifer Ringhold – Minneapolis Parks

3.14. Coordinate with other Agencies

44CFR requires that opportunities for involvement in the planning process be provided to neighboring communities, local and regional agencies involved in hazard mitigation, agencies with authority to regulate development, business, academia, and other private and non-profit interests. This task was accomplished by the steering committee described below:

- Agency Notification – The following agencies were invited to participate in the update process from the beginning and were kept apprised of plan development and milestones. Several of these agencies helped make up the 2018 Mitigation Planning Team.
 - All 43 municipalities in Hennepin County
 - Wright County
 - Department of Natural Resources
 - Minnesota Interagency Fire Center
 - Hennepin County Departments (Environmental Services, Transportation, GIS and Public Health)
 - Xcel Energy
 - Wright-Hennepin Electric Cooperative
 - All Hennepin County School Districts
 - University of Minnesota
 - Minneapolis Parks
 - Three Rivers Park
 - Minnehaha Watershed District
 - Metropolitan Airports Commission

3.15. Review of Existing Programs

44 CFR states that hazard mitigation planning must include review and incorporation, if appropriate, of existing plans, studies, reports, and technical information. In addition, the following programs can affect

mitigation within the planning area:

- Hennepin County Emergency Operations Plan
- Area Planning Group Plans (North, Lakes, South and the City of Minneapolis)
- Minnesota State Hazard Mitigation Plan
- Anoka County Mitigation Plan
- Carver County Mitigation Plan
- Dakota County Mitigation Plan
- Ramsey County Mitigation Plan
- Scott County Mitigation Plan
- Washington County Mitigation Plan
- Wright-County Mitigation Plan

One of the Steering Committee's actions was to review the Minnesota State Hazard Mitigation Plan. The Steering Committee identified hazards listed in the state plan to which the Hennepin County planning area is susceptible, in order to determine if there was a need to expand the scope of the Risk Assessment. The Committee also reviews the goals, objectives and strategies of the State plan in order to select goals, objectives and actions for the plan that are consistent with those of the state.

3.16. Plan Development Chronology/Milestones

TABLE 3.16A summarizes important milestones in the development of the plan update.

Plan Development Calendar of Events			
Date	Event	Milestone	Attendance
2014			
12/20/2014	Formation of the Steering Committee	Steering Committee Formed	NA
2015			
1/28/15	Steering Committee Meeting #1	<ul style="list-style-type: none"> Reviewed FEMA Local Mitigation Handbook and review all 44 CFR 201.6 Local Mitigation Plan requirements. Tasked Steering Committee members with plan update responsibilities for the first quarter 2015 	3

2/24/15	Steering Committee Meeting #2	<ul style="list-style-type: none"> Discussed public involvement such as a mitigation survey as well as Social Media input Researched on how climate change has been worked into other mitigation plans. Created a mitigation strategies/actions/objectives template. Wrote up a “representative agreement notice”. Discussed changes/additions to the Risk Assessment and Plain Maintenance sections. Reviewed options to build templates for special jurisdictions such as schools and watershed districts. Created a mitigation timeline. 	4
3/30/15	Community Outreach	<ul style="list-style-type: none"> 1st post of mitigation plan update to the Hennepin County Emergency Management Facebook page 	NA
4/6/15	Community Outreach	<ul style="list-style-type: none"> 2nd post of mitigation plan update to the Hennepin County Emergency Management Facebook page 	NA
4/27/15	Community Outreach	<ul style="list-style-type: none"> 3rd post of mitigation plan update to the Hennepin County Emergency Management page. 	NA
5/11/15	Community Outreach	<ul style="list-style-type: none"> 1st post of mitigation survey questionnaire to Hennepin County Emergency Management Twitter page. 	NA
5/15/15	Community Outreach	<ul style="list-style-type: none"> 1st post of mitigation plan update on the Hennepin County Emergency main website homepage 	NA
5/20/15	Community Outreach	<ul style="list-style-type: none"> 1st post of mitigation plan update on the City of Crystal Facebook page. 	NA
5/21/15	Community Outreach	<ul style="list-style-type: none"> 1st post of mitigation plan update on the City of Crystal website. 	NA
5/22/15	Steering Committee Meeting #3	<ul style="list-style-type: none"> Discussed the creation of a Mitigation Planning Team Began discussions of a Dashboard for each participating agency. Finalized a new Risk Assessment list of hazards to include in this year’s plan. Planned to reach out to Hennepin County watershed districts for representation on the Mitigation Planning Team. Reviewed mitigation plan timeline. Discussed options for this year’s vulnerability assessment. 	3
6/1/15	Community Outreach	<ul style="list-style-type: none"> 1st post of mitigation plan update on the City of Mound main website. 	NA
6/22/15	Community Outreach	<ul style="list-style-type: none"> 1st post of mitigation survey questionnaire to the City of Hopkins main webpage 	NA
6/26/15	Community Outreach	<ul style="list-style-type: none"> 1st mitigation survey questionnaire to the City of Medina main webpage. 	NA
6/30/15	Mitigation Planning Team Meeting	<ul style="list-style-type: none"> 1st Mitigation Planning Team Meeting held at the Hennepin County Emergency Operations Center 	21

7/20/15	Steering Committee Meeting #4	<ul style="list-style-type: none"> Discussed map integration into chapters. Updated the timeline for completion. Reviewed updated survey's from public input questionnaire. Identified new hazard ranking methodology for the plan update. Risk Assessment update to find out where everyone was at. 	3
7/23/15	Community Outreach	<ul style="list-style-type: none"> 1st mitigation plan posting on the City of Corcoran Police Department Facebook page 	NA
9/29/15	Mitigation Planning Team Meeting	<ul style="list-style-type: none"> 2nd Mitigation Planning Team meeting held at the Hennepin County Emergency Operations Center 	19

TABLE 3.16A

3.17. Develop a New Risk Assessment

Hennepin County Emergency Management continued to use the same methodology of historic hazard data collection as it did in the 2010 plan. State, Federal and local resources were used once again to identify new data that has occurred over the past five years since the previous plan update. However, in addition, Hennepin County Emergency Management used the Hennepin County Regional Emergency Management Reference Collection as a primary source of data gathering.

3.18. HCEM Regional Emergency Management Planning Reference Collection (REMPRC)

The purpose of Hennepin County's REMPRC is intended to assist emergency managers and others involved in emergency mitigation, preparation, response and recovery. The collection is oriented toward emergency management strategic, operational and tactical planning; training and exercise design; as well as education, professional development and the evolution of emergency management systems and processes.

The reference material collected in the REMPRC deals with several broad subject areas. First priority is given to materials related to the doctrine, organization and practice of emergency management, including assessments, strategies, plans, and after action reviews. Also collected are analysis and accounts of hazards or threats of a level that could require emergency management employment (natural, technological and adversarial). Next are materials that are useful for understanding the present and future environment that may have applications for strategic assessment and planning (demographics, economic forecasts, technology assessments, etc.).

REMPRC also gathers materials related to emergency practices within the disciplines that make up the emergency management community (police, fire, emergency medical services, public works, public

health, etc.). Works dealing with technologies used in emergency management is assembled (communications, data management, logistics, etc.).

The types of material collected is as follows, much of which was used to assist in the overall Risk Assessment section of this plan.

- **Government documents**, including formal doctrine, frameworks and other broad federal and state level strategy and references. Also includes tactical references such as incident management handbooks and other National Incident Management System (NIMS) and Incident Command System (ICS) planning tools.
- **Mitigation plans**, including state, county and municipal plans to mitigate the impacts of hazards.
- **Emergency operations plans**, including standing contingency plans for operations during an emergency at all levels of government as well as non-government and private entities.
- **Incident action plans**, including specific operational period plans utilized at incident sites for upcoming operational periods. Also includes incident support plans developed at an Emergency Operations Centers that focus on upcoming operational phases.
- **Continuity of operations plans**, includes reference material related to government, industry or organizational plans to continue.
- **After action reviews**, including hot-wash notes, interviews, and other materials related to the lessons learned from emergency management responses, training, exercises and allied activity. Such reports include, but are not limited to National Fire Academy reports, National Transportation Safety Board reports, Congressional commissions and inquiries.
- **Training and exercise materials**, including materials related to capability assessment, training strategy, training and exercise development, scenario development and the conduct and evaluation of training and exercises.
- **Technical documents**, including but not restricted to census and demographic data, soil surveys, geological survey reports, USGS water supply papers, climate data, NOAA assessments and related materials. Also includes materials related to technical specialties and their employment in emergencies including Geographic Information Systems (GIS), Hazardous Materials (HAZMAT), radio communications, information systems, and social media/public affairs.
- **Legal reference material**, including references for the main tenants of emergency planning and management at the federal, state and local levels, such as Public Laws, US Codes, Minnesota Statutes and County Board Resolutions.
- **Maps and atlases**, includes depictions of natural data in space and through time such as geology, soils, hydrology, topography, vegetation and climate. Specific geological threats such

as seismicity maps, flood plains, karst, and slope failure are also collected. The collection also includes human and cultural depictions such as population density, land use, transportation, population density, critical infrastructure, income distribution, age demographics, key emergency facilities, and related information.

- **Textbooks**, including works on comparative emergency management, crisis leadership, emergency management organization, planning processes and tools, and specialized emergency planning as it relates to hospitals, public health, public works, libraries, utilities, schools, corporations, special events and other sectors. Also includes references on scientific data that is crucial for emergency management such as meteorology, hazardous materials, radiation, chemistry, microbiology, and other fields.
- **Books**, includes non-fiction case studies on specific disasters, emergencies and critical situations. Also includes projections and forecasts of the future natural, social, economic, and security environment.
- **Historical materials**, includes resources that describe historic emergencies, disasters and crisis and their underlying threats and hazards. Also traces the evolution of emergency planning, organization, response and recovery.
- **Photographs and imagery**, includes still and moving photography and images on various formats including film and digital media involving all aspects of emergency management
- **Audio**, includes recordings of public warning messages, news reports, and radio transmissions involving disasters and emergency response.

3.19. Public Involvement/ Engage the Public

Broad public participation in the planning process helps ensure that diverse points of view about the planning area's needs are considered and addressed. 44CFR requires that the public have opportunities to comment on disaster mitigation and during the drafting stages and prior to plan approval.

3.20. Strategy

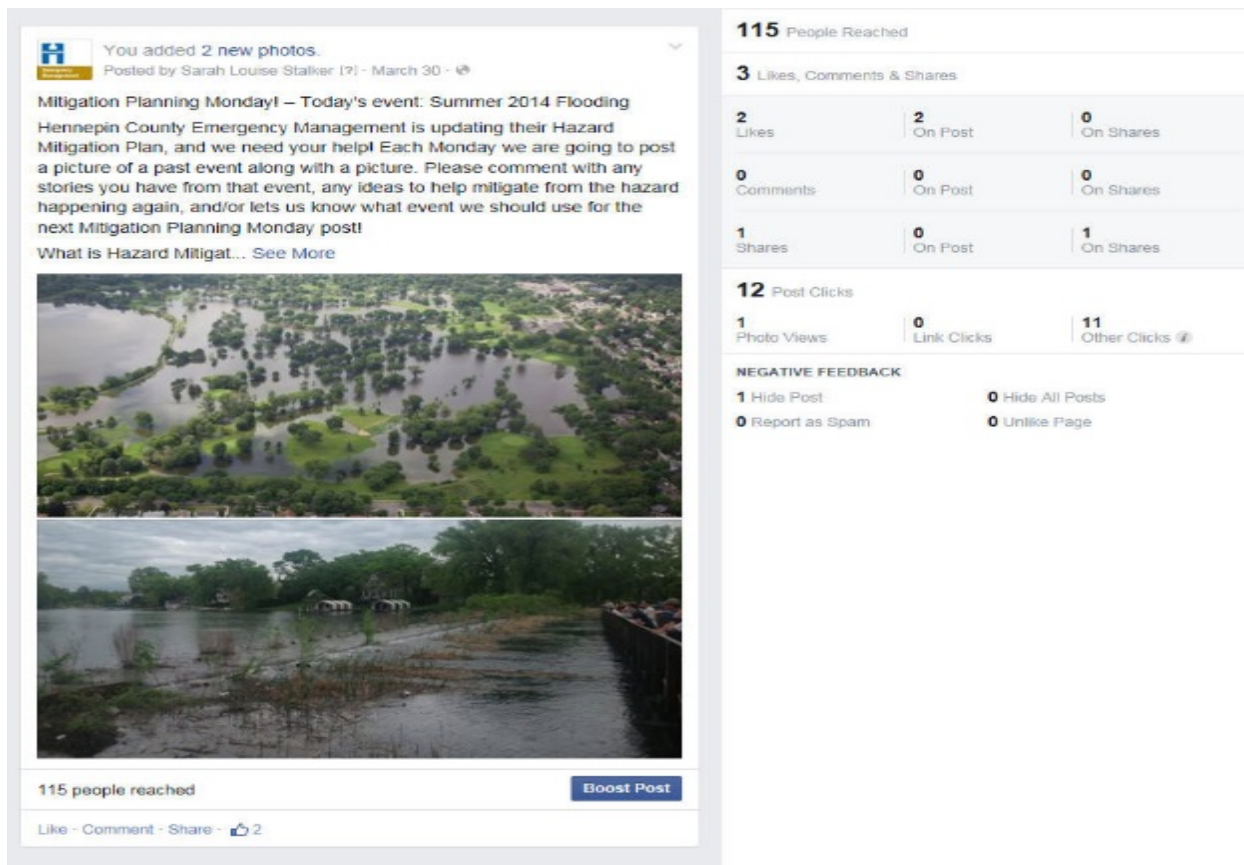
Since this planning process involved an update for some planning partners and a first-time planning for others, the Steering Committee developed a comprehensive new outreach strategy, using multiple media sources available to the County. The strategy for involving the public in this plan update emphasized the following elements:

- Use of Social Media (Facebook) to provide information and seek input on the plan
- Use a questionnaire to determine if the identify the public's perception of risk.
- Attempt to reach as many planning area citizens as possible using multiple media (municipal websites)
- Use Hennepin County's Communication Division for media releases regarding the update to the HMP.
- Identify and involved planning area stakeholders.

3.21. Social Media

Social media was used as a way to engage the general public for input on the HMP. Both Facebook and Twitter were used to direct residents of Hennepin County to the questionnaire described below, as well as ask residents their experiences about past disasters and their perception of hazard risks to Hennepin County. We posted all of our social media posts on Monday's under a 'Mitigation Planning Monday's' tagline. **GRAPHIC 3.21A** shows an example post asking residents about past disasters. See **Section 7: Appendix B- page 71**.

GRAPHIC 3.21A



3.22. Questionnaire

An HMP questionnaire was developed by the Steering Committee. The questionnaire was used to gauge household preparedness for natural hazards and the level of knowledge that residents have of hazards affecting Hennepin County. This questionnaire was hosted on several Hennepin County municipal websites as well as posted to the Hennepin County Emergency Management Facebook and Twitter pages. A summary of the questionnaire results can be found below (3.24) under Public Involvement Results. The full questionnaire and results can be found in **Section 7: Appendix C- page 75**

3.23. Press Releases

There was one formal press release done on the front page of the Hennepin County website. The City of Mound produced a mass e-mail to their city staff that described what a HMP is, and asked residents of Hennepin County to partake in the questionnaire previously mentioned. There were other cities who included the survey on their websites as well: Minneapolis, Hopkins, Medina, and Crystal. **Section 7: Appendix D- Page 99**

3.24. Public Involvement Results

From the questionnaire and feedback on posts from Facebook and Twitter, we found that the public is generally aware of the natural hazards that could affect them in Hennepin County. In addition, the major topics that had majority results from the public were transportation networks, critical facilities, and utilities; a few examples follow. Participants were also asked what they felt was the most important priority regarding planning for hazards in Hennepin County and the highest response was planning to protect critical facilities and transportation networks, along with strengthening emergency services. Participants were then asked what types of projects local, county, state, and federal agencies should be doing to reduce damage and disruption of natural hazards. The choice that got the highest agreement was replace inadequate or vulnerable bridges and causeways, followed by improving the damage resistance of utilities, and retrofitting critical infrastructure. Which also fell in line with what respondents felt their most important assets to the public were (fire/police stations, transportation networks, and utilities).

3.25. Stakeholder and Public Involvement Plan

HCEM is committed to engaging stakeholders and the public in mitigation planning activities. To accomplish this, a *Stakeholder and Public Involvement Plan* is being developed which describes the approach, activities to engage stakeholders and the public in the development of the HMP.

Based on current Federal requirements, a Mitigation Plan must include adequate and reasonable notice and opportunity for comment and other input from a variety of stakeholders, including the public, local governments, and other interested parties. HCEM has sought comment and the involvement of these stakeholders and the public through planning forums and questionnaires, interviews, as well as an online survey.

Outreach activities were conducted as part of the 2018 HMP. These activities sought input and comments on the overall vision and direction for Hennepin County Emergency Management to meet the federal and state requirements, as well as, consider local level development and participation in planning.

This HMP determines both short and long-range mitigation needs in community improvement and integrates within the scope of long range planning with HSEM- State of Minnesota.

3.26. Goals for Stakeholder and Public Involvement:

The goals for stakeholder and public involvement for the HMP:

- Gain an understanding of the need, the potential impacts of and opportunities for this HMP to improve the overall efficiency and sustainability of our communities
- Solicit input relative to mitigation policies, projects, and programs to better meet the needs while also making Hennepin County a more attractive location to conduct business and a better place to live; and
- Provide input for developing a strategy for making investment decisions.

3.27. Outreach Activities and Participation

A. Open Houses/Meetings

HCEM held three planning meetings. At each, a short presentation was given. Following each presentation was a discussion period and a brief question and answer period.

HCEM attended the monthly regional planning group meetings (North, South, Lakes and Minneapolis) to provide updates, instruction and receive feedback from these groups or the individual communities throughout the process.

B. Surveys/Questionnaires

All 42 municipalities were invited to complete a survey developed by the HCEM staff. Invitations were sent by email. If there was not response, they were called. The survey was posted through survey monkey. The survey, not only questions about overall needs improve, but also questions about specific demographic information. Other stakeholders, such as academics, government representatives, associations, special interest groups were sent a version of the survey that was similar to that which was distributed to the general public.

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SECTION 4	COUNTY PROFILE
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4.1. Hennepin County General Information

Location:

Hennepin County is located in east-central Minnesota, in the north central United States. The approximate geographic center of the county is...

GEOREF: UKDA30000000
LAT-LONG: 45.0 N latitude, 93.0 W longitude
Maidenhead: NN65SA00A00
MGRS: 46TEQ3940783071
USNG: 15T WK 00000 82950
UTM: 46T 539407mE 4983071mN

Approximate magnetic declination (2014): 3 degrees east

Time zones:

Central Time Zone (- 6 hours from Universal Coordinated Time – UTC)
Central Standard Time (CST): UTC - 6 hours
Central Daylight Time (CDT): UTC - 5 hours
Military Time Zone: Sierra (-6 hours from Zulu (UTC))

Population:

The estimated population of Hennepin County is 1,184,576 (2013)
Housing units: 513,414 (2012)
Households: 478,563 with an average 2.37 persons per household (2012)
Median household income: \$63,559 (2012)
Percentage of population below the poverty level: 12.6% (2012)
Percentage of population under age 18: 22.5% (2012)
Percentage of population over age 65: 11.9% (2012)
Percentage of foreign born persons: 12.7% (2012)
Non-English language spoken at home: 16.6% (2012)

Governmental units in Hennepin County:

Number of incorporated cities: 45
Number of unincorporated areas: 1 (Fort Snelling)
Special jurisdictions or districts with own police and/or fire services: 5
Fire departments or districts: 30
Law enforcement agencies and police departments: 33
School districts: 22

4.2. Physical Features

Surface features: Hennepin County landforms were formed in the recent geological past by the action of glaciers that receded from the area about 10,000 years ago. The surface of the county may be classed into three broad types. Smooth plains of outwash and river terraces are found especially in the northeast.

Belts of hills and gently rolling plains are interspersed throughout the rest of the county. Drainage is dominated by the Mississippi River into which all other Hennepin County streams empty, either directly or indirectly. The next major river is the Minnesota which forms the southern boundary of the County. The Crow River forms the northwest boundary of the County. Seven other important streams course through the county. The southwest portion of Hennepin County is dominated by Lake Minnetonka, a 14,528 acre (59 square kilometer) body of water.

Area:

Hennepin County has an area of 607 square miles (1,572 square kilometers)

Land area: 554 square miles (1,435 square kilometers) or 91%

Water area: 53 square miles (137 square kilometers) or 9%

Physical features:

Mean elevation is 925 feet (282 meters) above sea level.

Highest elevation: 1120 feet (341 meters) above sea level Minnetonka: 44.919 N, -93.459 W

Lowest elevation: 686 feet (209 meters) above sea level Fort Snelling: 44.893 N, -93.177 W

Vertical Relief: 434 feet (132 meters)

4.3. Climate

Hennepin County has a humid continental climate. Summers are hot. The mean daily maximum temperature in July is 83.4 degrees F and the record maximum is 105 degrees F. Winters are cold. The mean daily minimum in January is 4.4 degrees F and the record minimum is -34 degrees F. In winter, soils are frozen to a depth of 2 to 4 feet for 4 to 5 months. The maximum 24 hour snowfall was 21 inches in November 1991. Normal annual precipitation is 29.41 inches with the maximum 24 hour rainfall of 10.0 inches occurring in July 1987. The mean annual number of thunderstorm days is 37 with a peak in June.

4.4. Economy

Hennepin County remains one of the wealthiest counties in Minnesota with an average per capita income of \$31,000 and median family income of \$75,000 compared to a statewide median family income of \$62,500. Despite the economic success of most Hennepin County residents, approximately 9 percent of the population - almost 100,000 people had income during 2004 at or below the poverty line. An even greater percentage of children, just over 11 percent, were in families with incomes at or below poverty. It is estimated that almost one in five (19.8 percent) of single female headed households with children under 18 years of age earned income at or below the poverty line.

From 1999 to 2006, only two racial groups in Hennepin County with data available from the Census Bureau showed increases in the percent of individuals in poverty; Black/African Americans increased from 26.6 percent in poverty in 1999 to 34.6 percent in 2006 while whites increased from 4.5 percent in poverty in 1999 to 6.5 percent in 2006.

Racial disparities in poverty and per capita income can be partially explained by racial/ethnic differences in factors such as family types, income distribution, and a number of children per family. While not an exhaustive list, some recent examples from Hennepin County that could affect poverty status or per capita income across racial/ethnic groups include: in 2006 a higher proportion of Hennepin County's American Indian and Black/African American families were single female parent families than white, Latino, and Asian families, while income distribution varied widely across racial/ethnic groups in 2000, income inequality was highest in Hennepin County Black/African American households, and in 2000, Asian families in Hennepin County had the largest average family size (4.2), while white families had the smallest (2.9).

One of the contributors to economic success in the region is the highly educated workforce. High school graduation rates continue to be above 90 percent for Hennepin County residents. These results vary drastically, however, among location and socioeconomic status.

4.5. Employment

Hennepin County is a major economic driver for the Greater MSP region and Minnesota. It is most notable for its concentration of firms involved in "the management of companies and enterprises." Almost 6% of Hennepin County employees are engaged in this sector – three times more than the nation as a whole.

Hennepin County has a remarkably diverse economic base. It includes sizable sectors in financial services, professional services, retail and wholesale trade, manufacturing, health care and entertainment. The University of Minnesota is the largest employer in Hennepin County, with a workforce of 25,000.

Ten Fortune 500 companies are headquartered in Hennepin County. The 2018 list includes:

- UnitedHealth Group

Figure 8. Hennepin County percentage of families in poverty by race/ethnicity, 1999 and 2010

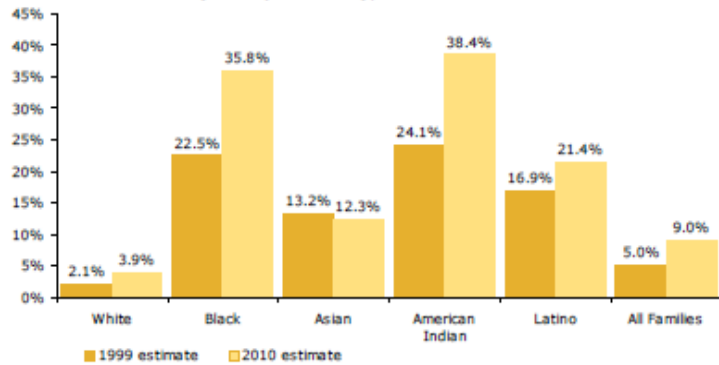
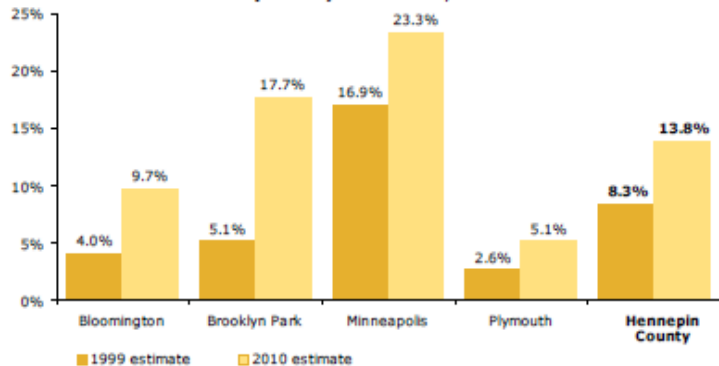


Figure 9. Hennepin County percentage of individuals with incomes below 100% poverty threshold, 1999 and 2010



Source: U.S. Census Bureau, 2000 Census and 2010 ACS.

- Target
- Best Buy
- Supervalu
- US Bancorp
- General Mills
- Amerprise Financial
- CH Robinson Worldwide
- Thrivent Financial
- Mosaic

Hennepin County's business roster also includes four of Forbes' largest private companies. Cargill consistently earns the top spot on the list. Other Forbes powerhouses include Carlson Companies, Holiday Companies and M.A. Mortenson.

4.6. Infrastructure

Hennepin County has a well-developed highway system. The Hennepin County Highway System consists of approximately 571 miles of roadway. The Highway System is divided into two categories: County State Aid Highways and County Roads. The County Road system consists of approximately 80 miles of roadway.

Metro Transit serves about 80 million people annually with routes that cover the cities of Bloomington, Minneapolis, as well as portions of Hennepin County County's unincorporated areas. Metro Light Rail Transit serves about 20 million people annually with routes that cover the cities of Bloomington, Minneapolis, as well as portions of Hennepin County County's unincorporated areas.

Xcel Energy, Wright-Hennepin Electric and Minnesota Valley Electric are public utility companies that provide natural gas and electric service to over 1 million residents in Hennepin County.

The Water Authority is a public agency serving the Hennepin County region as a wholesale supplier of water. They provide a safe, reliable water supply to support the region's billion-dollar economy and the quality of life of 3 million residents or 90 percent of the county's population.

4.7. County History and Geography

The first people living in the region now known as Minnesota were members of diverse American Indian tribes who settled in the area as early as 6000 B.C. The area that is now Hennepin County was home to the Dakota, or Sioux, people for hundreds of years, while the Ojibwa or Chippewa, Indians generally lived to the north. The Dakota and Ojibwa had well-established societies based on hunting and gathering when French explorers and fur trader's firs passed through the area in the 17th century.

Father Louis Hennepin explored the region in 1680 and named the waterfalls on the Mississippi River (in what is now Minneapolis) St. Anthony Falls.

Following the Louisiana Purchase in 1803, Zebulon Pike – acting as a representative of the U.S. government purchased land from the Dakota Indians along the Mississippi from St. Anthony Falls to the

Minnesota River. This tract of land was bought for the purpose of a fort and trading post, and Fort Snelling was constructed at the confluence of the Mississippi and Minnesota rivers in 1820.

The east shore of Lake Calhoun – located in what is now south Minneapolis – was the site of the first settler's home, build in 1834. Most early settlers lived near St. Anthony Falls, which provided water power for sawmills, the first industry in the area.

The Territorial Legislature of Minnesota established Hennepin County on March 6, 1852, and two years later Minneapolis was named the county seat. Hennepin began as a governmental unit serving a population of only a few hundred people. The original plan was to call it Snelling County, but the final chose was designed to honor Father Hennepin.

Many settlers from New England and immigrants from Germany, Ireland, Norway and Sweden were drawn to the county because of its inexpensive farmland and the jobs created by a growing industrial base. By 1860, the population of Hennepin County had surpassed 12,000.

Water power built the City of Minneapolis and Hennepin County. The water of streams and rivers provided power to grist mills and saw mills throughout the county. By the late 1860s, more than a dozen mills were churning out lumber near St. Anthony Falls.

In many ways, the power of the falls served as the vital link between the central city and the farmsteads scattered throughout the county. Farms produced vegetables, fruits, grains and dairy products for city dwellers, while Minneapolis industries, in turn, produced lumber, furniture, farm implements and clothing.

By 1883, railroads united Minneapolis with both the East and West coasts, and technical developments, especially in flour milling, brought rapid progress to the area. The major Minneapolis millers were Washburn, Pillsbury, Bell, Dunwoody and Crosby, names that are familiar even today. For a decade, the "Mill City" was the flour-milling capital of the world and one of the largest lumber producers. Minneapolis, with a population of 165,000 by 1890, had become a major American city.

Still, with much of its area rich farmland, Hennepin County was largely agricultural for many years. In fact, during much of its 150-year history, a large portion of Hennepin's land surface was under cultivation.

The commitment of the people of Hennepin County to public education is demonstrated by the fact that, in nearly every township, residents approved funding for schools at the earliest meetings of elected officials. Public schools were operating in Minneapolis by 1851 and in Richfield by 1854. The University of Minnesota received its charter from the Territorial Legislature in 1851.

Minneapolis had firmly established itself as the Upper Midwest's hub of industry and commerce by 1900. Business, primarily wholesaling, boomed during the early 20th century. As wheat from farms to the west and north arrived by train, Minneapolis wholesalers sent the return trains back with food products, dry goods, clothing, hardware and agricultural implements. Much of the money earned was derived from the storage and re-sale of the agricultural output of the region.

Hennepin's farm economy also was substantial. In 1910, farmland in Hennepin County totaled 284,000 acres, or about 72 percent of the county's total area. The principle crops were wheat, corn, garden vegetables and apples. The number of acres in production remained at a high level for the next 30 years. However, by 1950, the amount of land devoted to agriculture had been reduced to 132,000 acres as development progressed in the suburbs.

Many Minneapolis banks grew during this period by becoming the creditors of country banks throughout the Upper Midwest. In 1914, the Ninth Federal Reserve headquarters was established in Minneapolis – an official acknowledgement of the city's preeminence in the financial affairs of the region.

The first major wave of immigration to the county, primarily newcomers from Sweden, Norway and Germany, peaked in about 1910 although large numbers of immigrants continued to arrive from southern and eastern Europe.

The population of the Minneapolis grew until shortly after World War II. Meanwhile, the movement of people outward from the central city continued, with the addition of new neighborhoods into the agricultural lands to the west.

The driving force during the second half of the 20th century was the extraordinary growth of Hennepin's suburbs, which continues to the present. In 1950, the population of Minneapolis reached its peak at 521,718. With building lots no longer available in the city, developers were forced to the less expensive land to the south to accommodate the young families of the post-war baby boom.

The automobile also accelerated the growth of the suburbs. A case in point is the City of Bloomington, where construction of the interstate highway system led to a totally new kind of society built around the car. There is no "downtown" Bloomington as there are central business districts in older suburbs, such as Hopkins and Wayzata. Instead, Bloomington businesses located along Interstates 494 and 35W.

During the 1950s and 1960s, many suburbs grew rapidly as housing developments, shopping centers, large school systems and growing industrialization had replaced much of the open farm land. By 1970, the suburban actually declined by 10 percent from 1960 to 1970, while the suburban population grew by nearly 50 percent.

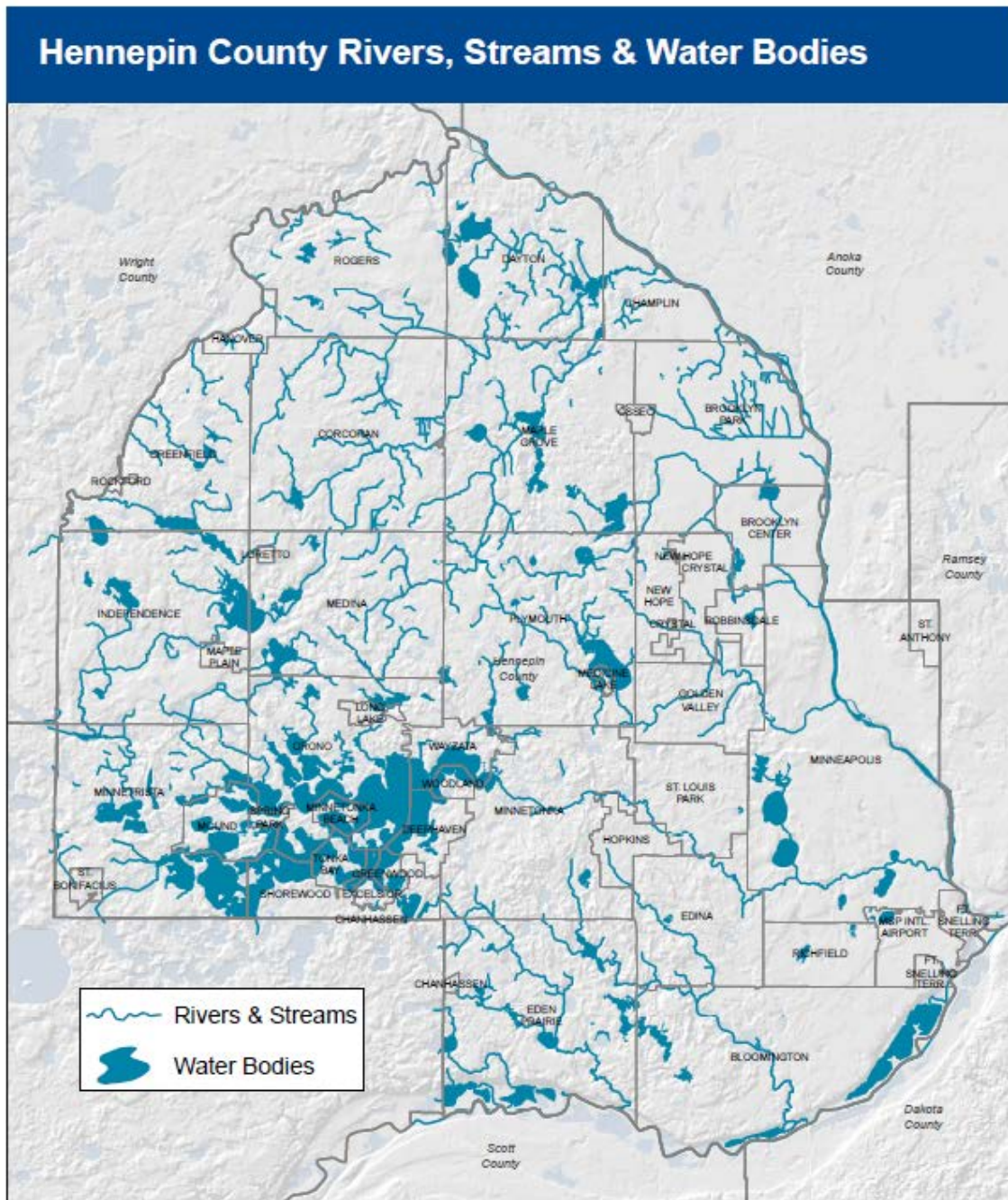
Another wave of immigration – which began after the Vietnam War in the mid-1970s – marked a major change in the ethnic makeup of the county's immigrant populations. This wave peaked in the 1980s when hundreds of refugees from Southeast Asia, often aided by local churches, resettled in Hennepin and other counties in Minnesota.

The population of Hennepin County surpassed the one-million mark in 1989. Hennepin County is located within the Twin Cities Metropolitan Area. The upper Mississippi River flows through Minneapolis and defines the northeastern boundary of the county. The Minnesota River runs across the south end of the county while the Crow River makes up the northwest side. Hennepin County is comprised of 45 cities and one unorganized territory. The county encompasses 611 square miles with 200 lakes larger than 10 acres and numerous parks and trails providing recreational opportunities and community amenities to residents.

Map 4.6: Hennepin County 2018



Map 4.7: Hennepin County Streams & Water Bodies

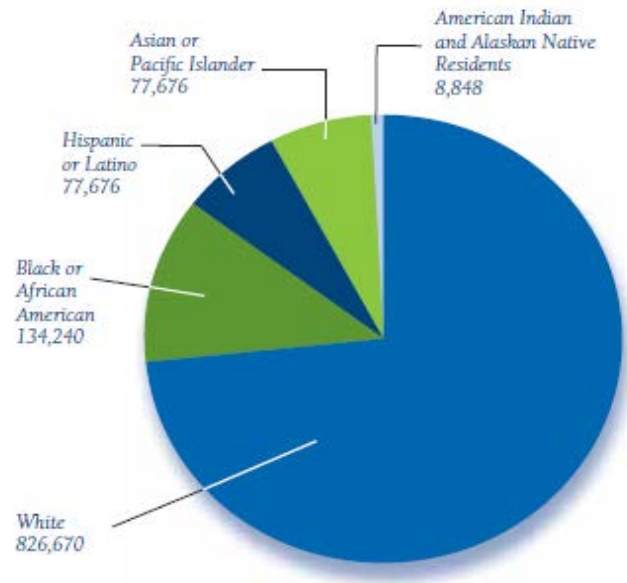


4.8. Population and Demographics

Hennepin County is the largest of Minnesota's 87 counties. With more than 1.1 million residents, it supports almost a quarter of the state's population. Minneapolis, the county seat, is the largest of its 41 cities. The county's population grew by more than 3 percent between 2000 and 2010. Its population is projected to grow to 1,394,660 by 2030, an increase of just over 2 percent.

More than one-fifth (22 percent) of the state's population live in Hennepin county. Hennepin is one of the most racially and ethnically diverse communities in the state. Hennepin County has experienced significant demographic change during the last decade. Diversity with regard to age, race, income and ethnicity is growing significantly among residents. According to the 2010 U.S. Census, the county's total population is now composed of 826,670 Whites, 134,240 Black or African American; 77,676 Hispanic or Latino; 77,676 Asian or Pacific Islander, and 8,848 American Indian and Alaskan Native residents.

Within communities of color, the proportion of people under age 30 is significantly higher. Among whites, the proportions are significantly higher among baby boomers and the elderly. Between 2000 and 2010, the population of foreign-born residents grew.



4.9. Household Composition

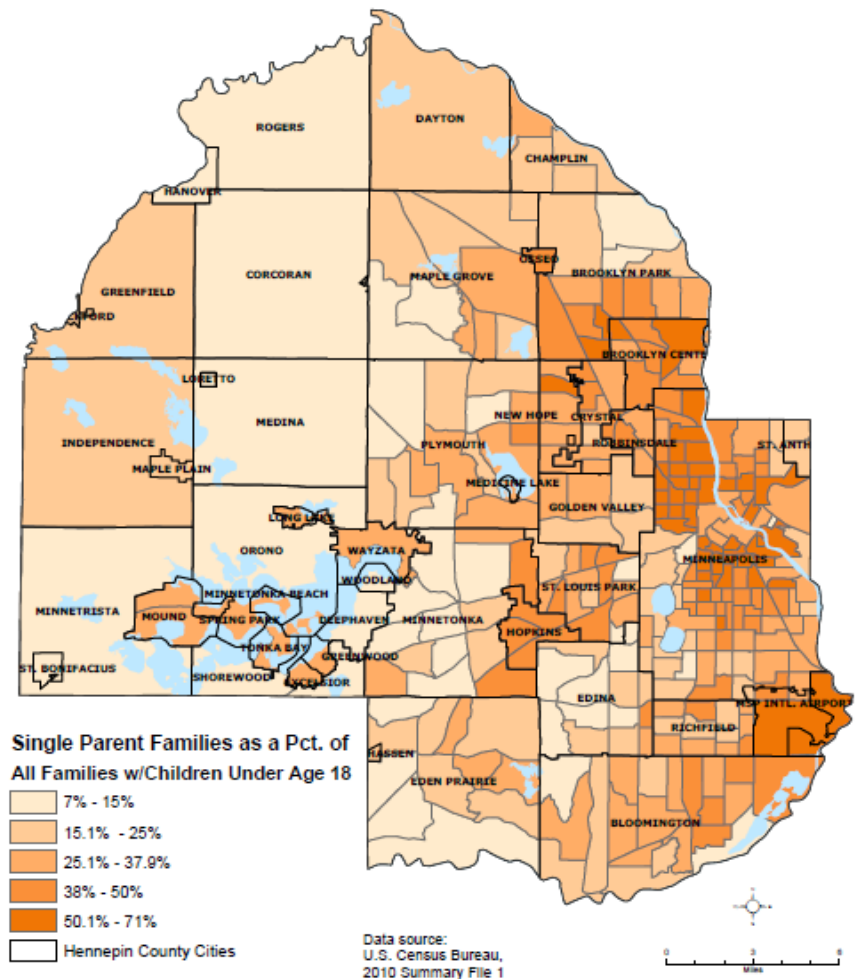
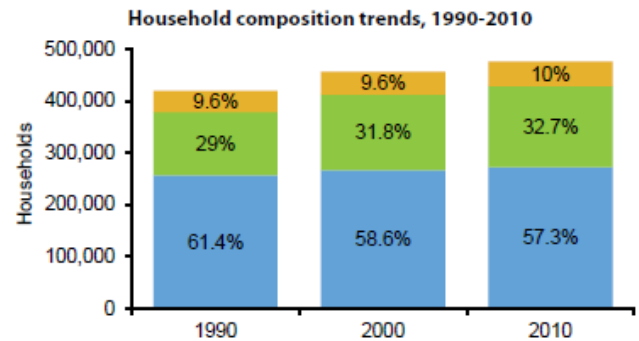
A household consists of all the people who occupy a housing unit, regardless of their relationship to each other. A household may include related family members and all unrelated people, if any, living in the housing unit or it may consist of a single person. There are two major categories of households, "family" and "nonfamily". The U.S. Census Bureau defines a family as a household consisting of two or more people related by birth, marriage or adoption.

The number of households in Hennepin County stood at 475,913 in the 2010 Census. This is a 4.3 percent change from the 2000 household county, but a smaller increase than the change that occurred between the 1990 and 2000 Census (8.8%). Although they comprise only 2 percent of the total households in 2010, male-headed single parent families with children under age 18 nearly doubled from 5,335 in 1990 to 10,111 in 2010, a 90 percent change.

The total number of family households in Hennepin County has been increasing in absolute numbers over the past twenty years, but shrinking as a proportion of total households (57.3% in 2010 vs. 61.4% in 1990). One person households have been increasing in absolute numbers as well as proportionately, from 29% in 1990 to 32.7% in 2010.

There were 272,885 family households counted in Hennepin County by the 2010 Census. The largest subgroup of family households is married couples without children under age 18, comprising between 41 and 42 percent of all families in Hennepin County since 1990. The next largest family subgroup is married couples with children under age 18. Single parent with children under age 18 comprised nearly 13 percent of all family households in 1990 and almost 16 percent in 2010. Their number increased from 32,877 in 1990 to 42,836 in 2010, a 30 percent change.

Nearly one-third (32%) of all families with children under 18 were headed by a single parent in 2010. The map displays this relationship by census tract. In 2000, approximately 29 percent of all families with children under 18 were headed by single parent.



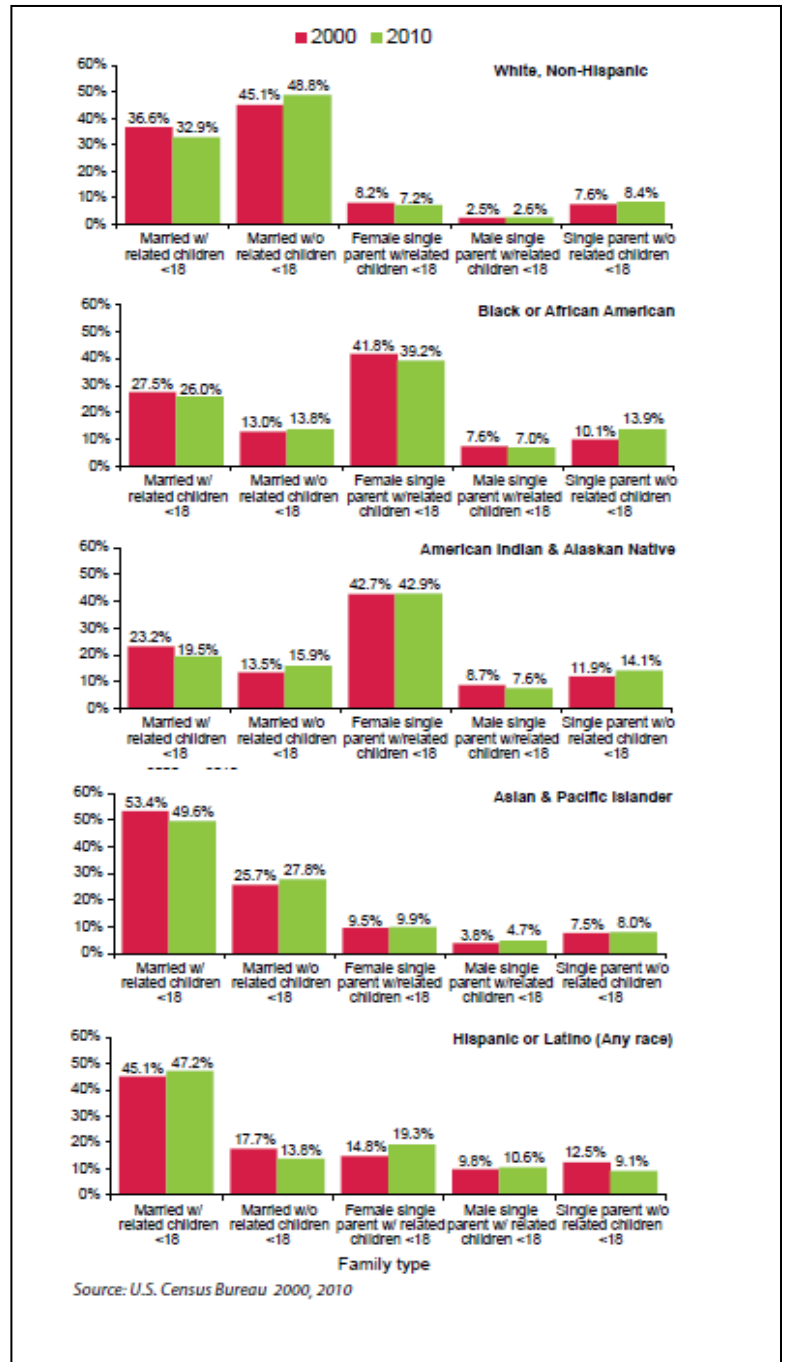
Family type varies by race and ethnicity. The most common family type among white, non-Hispanic families is married couples without children under age 18. Single females with children under age 18 are most prevalent family type for Blacks and American Indians. For Asian and Latino families the most common family type is married couples with children under age 18.

4.10. Land Cover

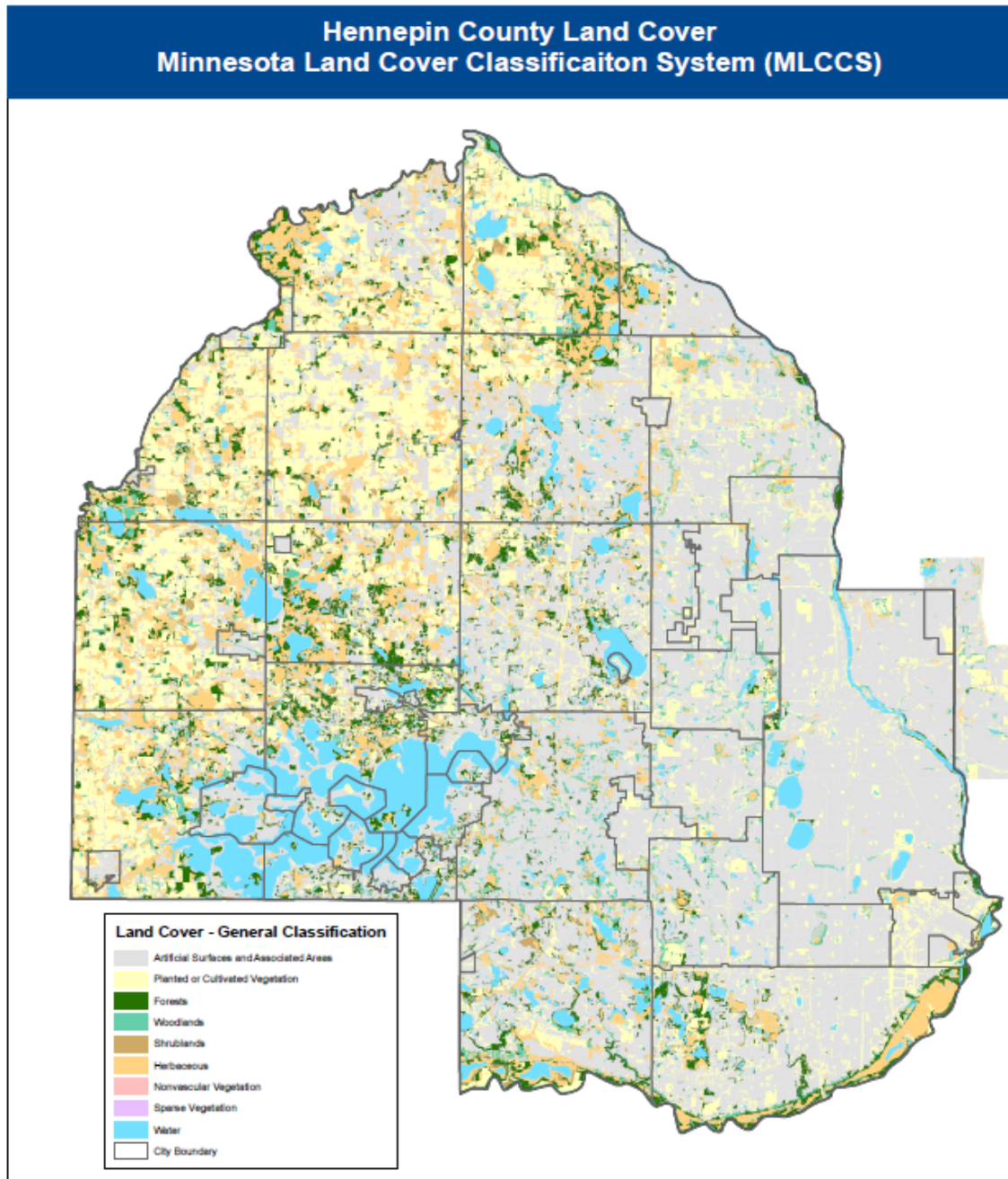
Hennepin County consist of 388,100 acres of land that is divided into the following land cover:

- Artificial Surfaces and Associated Areas
- Planted or Cultivated Vegetation
- Forests
- Woodlands
- Shrublands
- Herbaceous
- Nonvascular Vegetation
- Sparse Vegetation
- Water

See **Map 4.10 Land Cover Classification System** for the color schematic overview for Hennepin County



MAP 4.10 Land Cover Classification System



Hennepin County 2015 Mitigation Plan
Publication date: 11/13/2015

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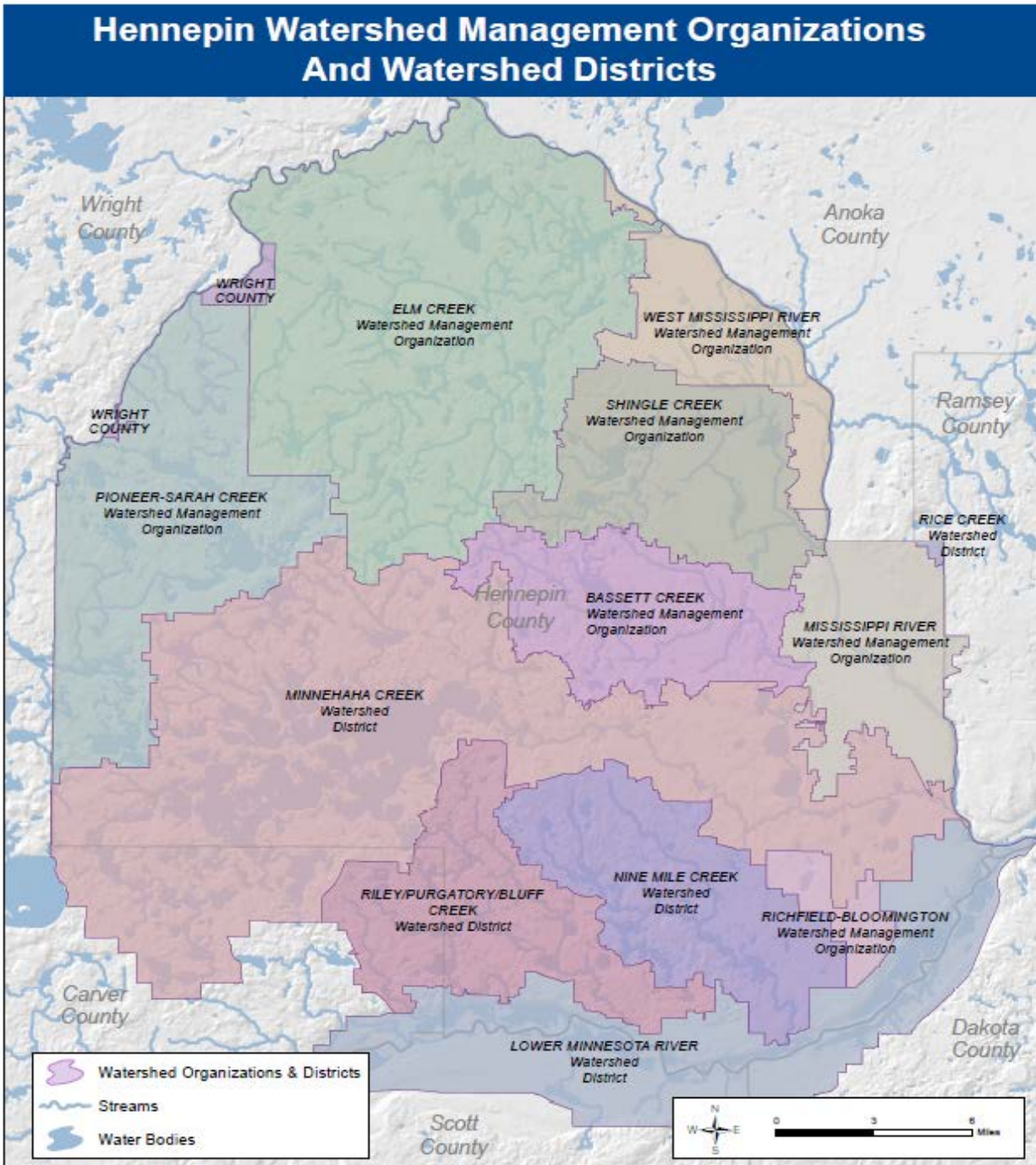
4.11. Watersheds

Watersheds are managed by either a Watershed Management Organization or a Watershed District. Both are considered a separate unit of government and are governed by a Board of Commissioners. Watershed District board members are appointed by the Hennepin County Commissioners, while Watershed Management Organization board members are appointed by individual city councils. Watershed organizations in Hennepin County are:

- Bassett Creek Watershed Management Commission
- Elm Creek Watershed Management Commission
- Lower Minnesota River Watershed District
- Minnehaha Creek Watershed District
- Mississippi Watershed Management Organization
- Nine Mile Creek Watershed District
- Pioneer-Sarah Creek Watershed Management Commission
- Richfield-Bloomington Watershed Management Organization
- Riley Purgatory Bluff Creek Watershed District
- Shingle Creek Watershed Management Commission
- West Mississippi River Watershed Management Commission

See **Map 4.11** *Watershed Districts* color schematic and boundary overview for Hennepin County

Map 4.11 Watershed Districts



Hennepin County 2015 Mitigation Plan
Publication date: 1/19/2016

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Hennepin County Emergency Management

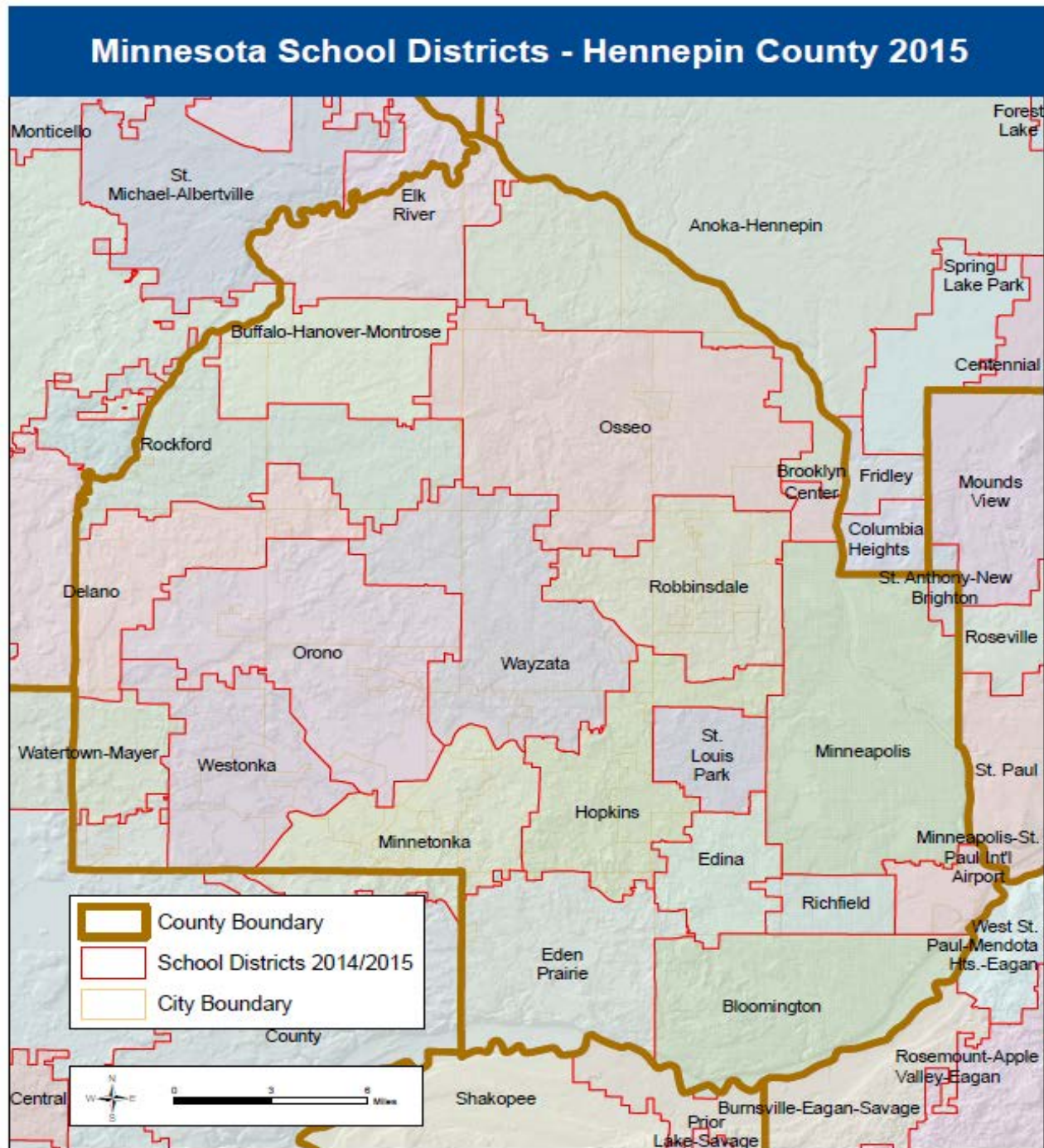


4.12. School Districts

There are 22 independent school districts in Hennepin County, two of which were part of the Mitigation Planning Team. The following is a table of those Districts. See **Map 4.12 School Districts** for a break out by boundary

Hennepin County Independent School Districts	
Special ISD 1 - Minneapolis	ISD 279 – Osseo
ISD 011 - Anoka-Hennepin	ISD 280 – Richfield
ISD 110 – Waconia	ISD 281 – Robbinsdale
ISD 111 – Watertown-Mayer	ISD 282 – St. Anthony
ISD 270 – Hopkins	ISD 283 – St. Louis Park
ISD 271 – Bloomington	ISD 284 - Wayzata
ISD 272 – Eden Prairie	ISD 286 – Brooklyn Center
ISD 273 – Edina	ISD 728 – Elk River
ISD 276 – Minnetonka	ISD 877 – Buffalo
ISD 277 - Westonka	ISD 879 – Delano
ISD 278 - Orono	ISD 883 - Rockford

Map 4.12 School Districts



Hennepin County 2015 Mitigation Plan
Publication date: 1/12/2016

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Hennepin County Emergency Management



4.13. Future Land Use & Trends

Anticipating how the future will unfold and how travel characteristics will be affected is a challenge. Forecasters and planners tend to extrapolate existing travel and development patterns because significant change is difficult to anticipate. Generally, the short-term five to ten year period can be predicted with relative accuracy since change is often smaller and the lead-time of most large scale projects require that planning preparations be underway today. Longer-term projections are much more difficult since lifestyle shifts/attitudes, economic patterns and other actions affecting society are hard to foresee.

Socio-economic trends

- Hennepin County will continue to grow in suburban areas. This trend is supported by projections by the Metropolitan Council in the mid-1990's.
- The County will continue to grow more racially diverse
- Employment will continue to disperse throughout the suburbs and beyond the edge of the metropolitan area.
- Shifts in demographics and housing types will create challenges in providing for the transportation needs of Hennepin County residents of all ages who are living and working in the County.

Financial/economic trends

- No catastrophic economic events are expected that would significantly change the nature of trip making in the long-term. No significant shift to major Toll roadway facilities are anticipated, however additional High Occupancy Toll lanes maybe added such as those recently implemented on I-35W.

Land use development patterns

The principal guide in the forecasting of future land use development is with the comprehensive plans of the individual Hennepin County municipalities. All 45 municipalities provide future land development information on what types of land uses and the intensities of development they expect over the next twenty years.

Land use planning, designations, and zoning are vested in the authority of individual municipalities. Hennepin County will continue to collaborate with these agencies during activities such as development reviews, corridor studies, and project improvements to encourage increased development densities, expanded access to transit, transit corridor and station area planning. Hennepin County actively promotes specific types of land use and development, including TOD, affordable housing, and brownfield redevelopment through the incentive-based funding programs, Transit-Oriented Development, Affordable Housing Incentive Fund, and the Environmental Response Fund, respectively.

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SECTION 5 COMMUNITY CAPABILITY ASSESSMENT

5.1. Community Planning Tool Assessment

Hennepin County has a number of resources it can access to implement hazard mitigation initiatives including emergency response measures, local planning and regulatory tools, administrative assistance and technical expertise, fiscal capabilities and participation in local, regional, state and Federal programs. The presence of these resources enables community resilience through actions taken before, during and after a hazard event.

This 2017 Plan update includes Hennepin County's first HMP capability assessment. This assessment was conducted using responses to the City Capabilities Questionnaire that was distributed to all Hennepin County municipalities. Representatives from each jurisdiction were contacted to complete the City Capabilities Questionnaire. Capabilities were categorized into planning tools (**TABLE 5.1A**), administrative and technical (**TABLE 5.1B**), fiscal (**TABLE 5.1C**) and education and training (**TABLE 5.1D**).

The capability assessment is not only a good tool to identify local capabilities, but it also provides a means for recognizing gaps and weaknesses that can be resolved through future mitigation actions. The results provide useful information for developing an effective mitigations strategy.

The results of the capability assessment are presented in the following tables. **Section 7: Appendix E provides the worksheet that was distributed to each jurisdiction- page 103**

TABLE 5.1A Planning Tool Capabilities

City	PLANNING TOOLS							
	State Hazard Mitigation Plan	City Emergency Operation Plan	Continuity of Operations Plan	Post Disaster Recovery Plan	Capital Improvement Plan	Economic Development Plan	Transportation Plan	Other
Bloomington	X	X	X		X	X	X	
Brooklyn Center	X	X	X		X	X		
Brooklyn Park	X	X	X		X	X	X	
Champlin	X	X	X		X	X	X	
Corcoran		X			X	X	X	
Crystal	X	X	X		X	X	X	
Dayton	X				X	X	X	
Deephaven		X			X			
Eden Prairie	X	X	X		X	X	X	
Edina		X			X		X	
Excelsior	X	X			X	X		
Golden Valley		X			X			Comm Plan
Greenfield		X						
Greenwood	X	X			X	X		
Hopkins		X	X		X	X		
Independence	X	X	X		X	X		
Long Lake	X	X	X		X	X		
Loretto	X	X	X		X		X	
Maple Plain	X	X	X		X	X	X	
Maple Grove		X			X	X	X	
Medicine Lake								
Medina	X	X	X		X		X	
Minneapolis	X	X			X	X	X	

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PLANNING TOOLS (Continued)								
City	State Hazard Mitigation Plan	City Emergency Operation Plan	Continuity of Operations Plan	Post Disaster Recovery Plan	Capital Improvement Plan	Economic Development Plan	Transportation Plan	Other
Minnetonka	X	X	X		X	X	X	
Minnetonka Beach		X						
Minnetrista		X			X	X		
Mound	X	X			X	X		
New Hope		X						
Orono		X			X	X	X	
Osseo		X			X	X		
Plymouth	X	X	X		X	X	X	
Richfield	X	X	X		X	X	X	
Robbinsdale		X			X	X		
Rogers	X	X	X		X		X	
St. Anthony	X	X	IP		X	X	X	
St. Bonifacius		X			X	X		
St. Louis Park	X	X			X	X	X	
Shorewood	X	X			X	X		
Spring Park		X			X			
Tonka Bay	X	X			X	X		
Wayzata	X	X	X		X	X		
Woodland		X			X			

IP- In Progress

TABLE 5.1B Administrative and Technical Capabilities

ADMINISTRATIVE AND TECHNICAL CAPABILITIES								
City	Planning Commission	Maintenance Program	Mutual Aid Agreements	CRS Member	Emergency Manager	Community Planner	Civil Engineer	GIS Specialist
Bloomington	X	X	X	X	X	X	X	X
Brooklyn Center	X	X	X		X		X	X
Brooklyn Park	X	X	X	X	X	X	X	X
Champlin	X	X	X		X	X	X	X
Corcoran	X		X		X	X	X	
Crystal	X	X	X		X	X	X	X
Dayton	X	X	X		X	X	X-C	
Deephaven	X	X	X		X		X	
Eden Prairie	X	X	X	X	X	X	X	X
Edina	X	X	X		X	X	X	X
Excelsior	X	X	X		X	X	X	X
Golden Valley	X	X	X		X	X	X	X
Greenfield	X		X		X	X-C	X-C	
Greenwood	X	X	X		X	X	X	
Hopkins	X		X		X	X	X	
Independence	X	X	X		X	X		
Long Lake	X	X	X		X	X-C	X-C	X-C
Loretto	X	X	X		X		X	
Maple Plain	X	X	X		X	X		
Maple Grove	X	X	X	X	X	X	X	X
Medicine Lake								
Medina	X	X	X		X	X	X	
Minneapolis	X	X	X	X	X	X	X	X
Minnetonka	X	X	X	X	X	X	X	X

ADMINISTRATIVE AND TECHNICAL CAPABILITIES (Continued)								
City	Planning Commission	Maintenance Program	Mutual Aid Agreements	CRS Member	Emergency Manager	Community Planner	Civil Engineer	GIS Specialist
Minnetonka Beach	X		X		X			
Minnetrista	X	X	X		X	X	X	X
Mound	X	X	X		X	X	X	X
New Hope	X		X		X		X	
Orono	X	X	X		X	X	X	X
Osseo	X		X		X	X		
Plymouth	X	X	X		X	X	X	X
Richfield	X	X	X		X	X	X	X
Robbinsdale	X	X	X		X	X	X	
Rogers	X	X	X		X	X	X-C	X
St. Anthony	X	X	X		X	X	X	X
St. Bonifacius		X	X		X		X	
St. Louis Park	X	X	X		X	X	X	X
Shorewood	X	X	X		X	X	X	X
Spring Park	X		X		X			
Tonka Bay	X	X	X		X	X	X	
Wayzata	X	X	X		X	X	X	
Woodland	X		X		X		X	

X-C: Contracted

TABLE 5.1C Fiscal Capabilities

FISCAL CAPABILITIES								
City	Capital Improvement Project Funding	Authority to level taxes for specific purposes	Utility Fees- water, storm, sewer, gas, electric	Development impact fees	Community Developmental block grants	Federal/State Funding	Tax Incremental Financing (TIF)	Other
Bloomington	X	X	X	X	X	X	X	
Brooklyn Center	X	X	X	X	X		X	
Brooklyn Park	X	X	X	X	X	X	X	
Champlin	X	X	X	X		X	X	
Corcoran	X	X	X	X			X	
Crystal	X	X	X		X	X	X	
Dayton	X	X	X	X		X	X	
Deephaven	X	X	X			X		
Eden Prairie	X	X	X	X	X	X	X	
Edina	X	X	X		X	X	X	
Excelsior	X	X	X	X	X	X	X	
Golden Valley	X	X	X	X	X		X	
Greenfield	X	X	X					
Greenwood	X	X	X	X	X	X	X	
Hopkins	X	X	X	X	X	X	X	
Independence	X	X	X		X	X		
Long Lake	X	X	X	X		X	X	
Loretto	X	X	X		X	X	X	
Maple Plain	X	X	X		X	X	X	
Maple Grove	X	X	X	X		X	X	
Medicine Lake								
Medina	X	X	X	X	X	X	X	
Minneapolis	X	X	X	X	X	X	X	
Minnetonka	X	X	X		X	X	X	

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FISCAL CAPABILITIES (Continued)								
City	Capital Improvement Project Funding	Authority to level taxes for specific purposes	Utility Fees-water, storm, sewer, gas, electric	Development impact fees	Community Developmental block grants	Federal/State Funding	Tax Incremental Financing (TIF)	Other
Minnetonka Beach	X		X					
Minnetrista	X		X					
Mound	X	X	X		X		X	Co-op Fire
New Hope			X				X	
Orono	X		X			X	X	
Osseo	X	X	X		X	X	X	
Plymouth	X	X	X				X	
Richfield	X	X	X	X	X	X	X	
Robbinsdale	X	X	X		X	X	X	
Rogers	X	X	X	X		X	X	
St. Anthony	X	X	X	X	X	X	X	
St. Bonifacius	X		X					
St. Louis Park	X	X	X	X	X	X	X	
Shorewood	X	X	X	X	X	X	X	
Spring Park	X		X					
Tonka Bay	X	X	X	X	X	X	X	
Wayzata	X	X	X	X			X	
Woodland	X	X	X			X		

TABLE 5.1D Education and Training Capabilities

EDUCATION AND TRAINING CAPABILITIES									
City	CERT Team	Regular Training	Exercises-Table top to Full Scale	Hazard Education in Schools	Citizen Group of Nonprofit focused on Emergency Preparedness	Public Private Partnerships	Storm Ready	FireWise	WebEOC
Bloomington	X	X	X	X					X
Brooklyn Center									X
Brooklyn Park									
Champlin		X	X						X
Corcoran		X	X			X			
Crystal	X	X	X			X			X
Dayton		X							X
Deephaven		X							X
Eden Prairie	X	X	X	X	X	X	X		X
Edina				X		X			X
Excelsior		X	X			X			
Golden Valley			X			X			X
Greenfield		X	X			X			
Greenwood		X							
Hopkins	X	X	X	X		X	X		X
Independence						X		X	
Long Lake		X	X	N/A					X
Loretto		X	X		X	X		X	X
Maple Plain						X		X	
Maple Grove		X	X			X			
Medicine Lake									
Medina		X	X			X		X	X
Minneapolis	X	X	X			X			

EDUCATION AND TRAINING CAPABILITIES (Continued)									
City	CERT Team	Regular Training	Exercises- Table top to Full Scale	Hazard Education in Schools	Citizen Group of Nonprofit focused on Emergency Preparedness	Public Private Partnerships	Storm Ready	FireWise	WebEOC
Minnetonka		X	X	X		X	X		X
Minnetonka Beach		X	X						
Minnetrista	X	X	X	X					X
Mound		X	X	X			X		X
New Hope	X	X	X						X
Orono		X	X			X			X
Osseo						X			
Plymouth	X	X	X	X		X			X
Richfield	X	X	X	X	X	X			X
Robbinsdale									X
Rogers		X							X
St. Anthony		X	X	X					X
St. Bonifacius	X	X	X	X					X
St. Louis Park	X	X	X			X			X
Shorewood		X	X			X			
Spring Park		X	X						X
Tonka Bay		X	X			X			
Wayzata		X	X			X			X
Woodland		X							X

5.2. Participation in the National Flood Insurance Program (NFIP)

Flooding is the most common natural hazard. In 1968, Congress created the National Flood Insurance Program (NFIP) in response to the rising cost of taxpayer funded disaster relief for flood victims and the increasing amount of damage caused by floods. The Federal Emergency Management Agency (FEMA) manages the NFIP, and oversees the floodplain management and mapping components of the Program.

Nearly 20,000 communities across the United States and its territories participate in the NFIP by adopting and enforcing floodplain management ordinances to reduce future flood damage. In exchange, the NFIP makes federally backed flood insurance available to homeowners, renters, and business owners in these communities.

The National Flood Insurance Program aims to reduce the impact of flooding on private and public structures. It does so by providing affordable insurance to property owners and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on new and improved structures. Overall, the program reduces the socio-economic impact of disasters by promoting the purchase and retention of general risk insurance, but also of flood insurance, specifically.

5.3. National Flood Insurance Program in Minnesota

The Minnesota Department of Natural Resources (DNR) is the state administration agent for the NFIP in Minnesota. The HSEM Hazard Mitigation branch works with the DNR, FEMA other agencies to help communities develop effective local flood hazard mitigation plans and projects which includes adopting required ordinances and mitigation plans necessary for the community to be eligible to participate in the NFIP.

Hennepin County community's participation in the National Flood Program (as of 4-23-2016)

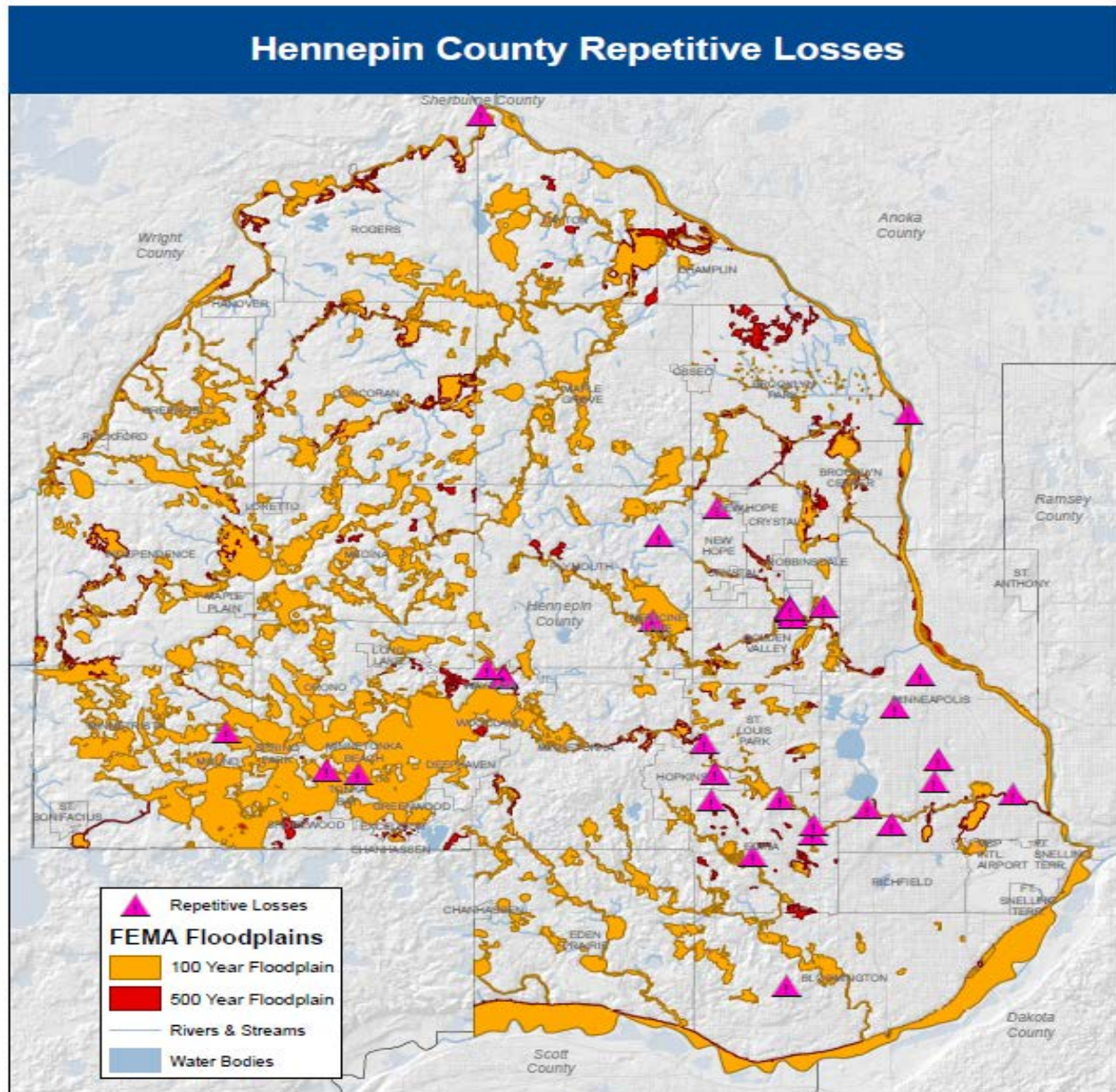
Community Name	CID	Current Eff Map Date
Bloomington	274230	9/02/04
Brooklyn Center	270151	9/02/04
Brooklyn Park	270152	9/02/04
Champlin	270153	9/02/04
Chanhassen	270051	7/02/79
Corcoran	270155	9/02/04
Crystal	270156	9/02/04
Dayton	270157	9/02/04
Deephaven	270158	9/02/04
Eden Prairie	270159	9/02/04
Edina	270160	9/02/04
Excelsior	270161	9/02/04
Golden Valley	270162	9/02/04
Greenfield	270673	9/02/04
Greenwood	270164	9/02/04
Hanover	270540	9/02/04
Hopkins	270166	9/02/04
Independence	270167	9/02/04
Long Lake	270168	9/02/04
Loretto	270659	9/02/04
Maple Grove	270169	9/02/04
Maple Plain	270170	9/02/04
Medicine Lake	270690	9/02/04
Medina	270171	9/02/04
Minneapolis	270172	9/02/04
Minnetonka	270173	9/02/04
Minnetonka Beach		
Minnetrista	270174	9/02/04
Mound	270176	9/02/04
New Hope	270177	9/02/04
Orono	270178	9/02/04
Osseo	270658	NSFHA
Plymouth	270179	9/02/04
Richfield	270180	NSFHA
Robbinsdale	270181	9/02/04
Rockford	270182	9/02/04
Rogers	270775	9/02/04(M)
Shorewood	270185	9/02/04
Spring Park	270168	9/02/04
St. Anthony	270716	NSFHA
St. Bonifacius	270183	9/02/04

St. Louis Park	270184	9/02/04
Tonka Bay	270187	9/02/04
Wayzata	270188	9/02/04
Woodland	270189	9/02/04

NSFHA- No special flood hazard area- All Zone C
(M)- No elevation determined- All zone A, C and X

5.4. Repetitive Loss Properties

A Repetitive Loss property is any insurance building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978. A Repetitive loss property may or may not be currently insured by the NFIP.



Hennepin County 2015 Mitigation Plan
Publication date: 1/19/2016

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Hennepin County Emergency Management



5.5. Community Rating System (CRS)

The Community Rating System (CRS) recognizes and encourages community floodplain management activities that exceed the minimum NFIP standards. Depending upon the level of participation, flood insurance premium rates for policyholders can be reduced up to 45%. Besides the benefit of reduced insurance rates, CRS floodplain management activities enhance public safety, reduce damages to property and public infrastructure, avoid economic disruption and losses, reduce human suffering, and protect the environment. Technical assistance on designing and implementing some activities is available at no charge. Participating in the CRS provides an incentive to maintaining and improving a community's floodplain management program over the years. Implementing some CRS activities can help projects qualify for certain other Federal assistance programs.

In exchange for a community's proactive efforts to reduce flood risk, policyholders can receive reduced flood insurance premiums for buildings in the community. These reduced premiums reflect the reduced flood risk resulting from community efforts toward achieving the three CRS goals:

1. Reduce flood damage to insurable property
2. Strengthen and support the insurance aspects of the NFIP
3. Encourage a comprehensive approach to floodplain management

Participation in the Community Rating System (CRS) is voluntary. By participating, communities earn credit points that determine classifications. There are 10 CRS Classes: Class 1 requires the most credit points and provides the largest flood insurance premium reduction (45 percent), while Class 10 means the community does not participate in the CRS or has not earned the minimum required credit points, and residents receive no premium reduction. The CRS Classes are based on completion of 19 creditable activities organized into 4 categories:

1. Public Information
2. Mapping and Regulations
3. Flood Damage Reduction
4. Warning and Response

There are currently 0 Hennepin County municipalities that participate in the Community Rating System (CRS).

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SECTION 6	HAZARD MITIGATION PLAN MAINTENANCE
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This section describes the system that Hennepin County and participating jurisdictions have established to monitor, evaluate, and update the HMP; implement the mitigation plan through existing programs; and solicit continued public involvement with plan maintenance.

6.1. Monitoring, Evaluating, and Updating the Plan

This section of the plan describes the ongoing methods to keep the plan current. It describes how the plan will be reviewed annually, how the public will be kept involved, and how the plan will be integrated into other planning mechanisms. It details the formal process that will ensure that the Hennepin County AHMJMP remains an active and relevant document. The plan maintenance process includes a schedule for monitoring and evaluating the plan annually, as well as revising it every five years. This section also describes how the county will integrate public participation throughout the plan maintenance process.

Minimum changes have been made to these processes since the 2009-2010 plan update. However, with the addition of several new mitigation plan team members and the use of social media channels, there will be several new opportunities for plan enhancement and continued public participation.

6.1.1. Monitoring

HCEM is tasked with the overall responsibility of monitoring this plan. The plan will be periodically reviewed to ensure the plan reflects current vulnerabilities and priorities of the county and participating jurisdictions. By monitoring the implementation of the plan on an annual basis, HCEM and the Planning Group will be able to assess which projects are moving forward, what have been completed and which are no longer feasible or require additional funding. Finally, the Planning Group will periodically inform the public about the progress and success of its efforts through various mitigation planning channels.

The Planning team will continue to meet regularly and communicate via email. As part of the monitoring, evaluation and enhancement process, a meeting will be held annually, in accordance with the existing procedures in place.

6.1.2. Evaluation

The plan will be reviewed at the annual Mitigation Planning Team meeting. The meeting will be used to determine the effectiveness of mitigation plan programs, and reflect changes in programs that may affect mitigation priorities. As part of the evaluation process, responsible agencies will be invited to share any updates on their mitigation projects at the meeting.

In addition, the following questions will be asked:

- Have any potential hazards developed that were not addressed in the plan?
- Have any natural disasters occurred that were not addressed in the plan?

- Has any unanticipated development occurred that is vulnerable to hazards?
- Are there any additional mitigation ideas that need to be incorporated?
- Have projects been initiated and or completed?
- What are the barriers to completing projects identified in the plan?
- Are our plan goals still reflective of community priorities to reduce hazard vulnerabilities?
- Is there an open Presidential Disaster Declaration that has made mitigation monies available?

The purpose of these questions is to determine if the goals are still current and what progress has been made on the plan. Agencies responsible for mitigation actions, as well as the participating jurisdictions of Hennepin County will be asked to submit any progress on implementing actions. An update will be required at the annual meeting and can be submitted any time to HCEM. The discussion will be documented so that when the plan is revised, the finding of the monitoring can be incorporated in the five-year plan revision.

Finally, the Planning Team will evaluate how other programs and policies have conflicted or augmented planned or implemented measures. Other programs and policies can include those that address:

- Sustainability
- Economic Growth
- Growth Management
- Environmental Preservation
- Historic Preservation
- Redevelopment
- Health and/or safety
- Recreation
- Land use/zoning
- Public Education and Outreach
- Transportation

6.1.3. Updating the Plan

Any of the following situations could trigger a review and update of the plan:

- Occurrence of a major natural disaster in Hennepin County
- Passage of five years
- Change in state of federal regulations which must meet compliance.

The plan will be thoroughly reviewed and updated by HCEM at the five year mark unless it has undergone a more recent revision (with associated FEMA approval). At the five year mark, several questions will be asked:

- Do the goals address current and expected conditions?
- Has the nature or magnitude of risks changed?
- What additional hazard events have occurred?

- Have the capabilities changed including social, technical, administrative, political, legal, economic, environmental issues?
- Are there any coordination issues that should be addressed?
- What progress has been made to complete mitigation actions?
- How has the public remained involved over the past five years?
- Did the identified departments, individuals and/or other partners participate in the plan implementation process as assigned?

6.2. Five Year Revision Procedure

When a major natural disaster occurs in Hennepin County, the Planning Team will meet following the recovery effort to review and determine changes to the HMP. In the absence of a major natural disaster, the five year review will take place during the six month period preceding the FEMA approval anniversary date (or sooner). Following proper notice in the papers of record, the Hennepin County Emergency Management Plans & Systems Integration Coordinator will convene the steering committee, and with their assistance, carry out the following tasks:

- Review the HMP Review Crosswalk form completed by HSEM and FEMA during the most recent review.
- Examine the revise the risk assessment data as needed to ensure it is current.
- Update the mitigation strategies to incorporate completion of actions and add any needed strategies or projects.
- Identify problems that may be hindering or affecting implementation of the plan, and recommend actions for resolving these issues.
- Recommend any necessary revisions to the AHMJMP.
- Comply with all applicable regulations or statutes.

6.3. Public Involvement

The public is encouraged to be involved in the continual updates of the HMP. The previous methods of public involvement were reviewed to ensure they were successful in engaging the public. It was determined that additional methods of public involvement were needed. For the previous plan update, the plan was hosted on the Hennepin County website for six weeks as well as advertised in a news release for multiple media outlets. HCEM will be the lead agency to ensure the public remains involved over the next five years via the following methods:

- HCEM will use social media via Facebook and Twitter to alert the public as to the availability of information and draft plan documents for review. This platform will be used extensively going forward in engaging the public in ongoing hazard mitigation issues and mass notification as information is published online for public awareness.
- Each jurisdiction having a dedicated website will post information received from the Plans & Systems Integration Coordinator for public outreach and information and will add a link on their jurisdictions web page to the County AHMJMP website.
- HCEM will lead efforts to prepare and disseminate an annual fact sheet on status of hazard mitigation planning and implementation to all stakeholders. These materials will be passed out at various community engagement activities.

- HCEM will create a survey for the public that asks for feedback regarding various hazards in their communities. These survey forms will be shared with participating jurisdictions for their use as well. These surveys will be distributed at various community engagement activities.

6.4. Implementation of the HMP through Existing Programs and Plans

The participating jurisdictions will integrate this HMP into relevant government decision-making processes or mechanisms, where feasible. This includes integrating the requirements of the Plan into other local planning documents, processes or mechanism, such as comprehensive or capital improvement plans, when appropriate. The members of the planning team, led by HCEM, will remain charged with ensuring that the goals and actions of new and updated local planning documents for their agencies or department are consistent and do not conflict with the goals and actions of the AHMJMP. Further, they will ensure that any actions will not contribute to increased hazard vulnerability in Hennepin County.

Although it is recognized that there are many possible benefits to integrating components of this Plan into other local planning mechanisms, the development and maintenance of this stand-alone AHMJMP is deemed by HCEM to be the most effective and appropriate method to ensure implementation of local hazard mitigation actions at this time. **TABLE 6-4A** below includes existing processes and programs through which the mitigation plan could be implemented.

TABLE 6.4A Integration of Plans


Process	Action	Implementation of Plan
Administrative	Departmental or organizational work plans, policies, and procedural changes.	<ul style="list-style-type: none"> • Solid Waste Management Master Plan • Transportation 2030 Comprehensive Plan Update • Solid Waste Management Master Plan • Emergency Operations Plan • Hennepin County Natural Resources Strategic Plan 2015-2020 • Hennepin County Environmental Services Strategic Plan 2013-2020
Administrative	Other Organizations' Plans	<ul style="list-style-type: none"> • Include reference to this plan in Area Planning Group Emergency Plans. • Include references in creation of ordinances/resolutions or public education campaigns. • Include reference in watershed district plans. • Include reference in County storm water management plan. • Three-Rivers Park District Regional Parks Policy Plan • 2030 Regional Parks Capital Improvement Program • Met Council's 2030 Regional Development Framework • Minneapolis Parks and Recreation Board (MPRB) Land Policy • MPRB Land Acquisition Policy • MPRB System/Master Planning Policies • MPRB Comprehensive Plan 2007-2020.

		<ul style="list-style-type: none"> • Hopkins Schools District Crisis Management Plan • Minnehaha Creek Watershed District Comprehensive Water Resources Management Plan and individual sub-water shed plans • Minneapolis Local Surface Water Management Plan • University of Minnesota Storm Water Master Plan • Nine Mile Creek Watershed District Water Management Plan • Three Rivers Park Sustainability Plan • Municipality Comprehensive Plans • Municipality Storm Water Management Plans • Municipality Stream Bank Restoration/Stabilization Plans/Projects • Bassett Creek Watershed Management Plan • Elm Creek Watershed Management Plan • Municipality Well Head Protection Plans • Lower Minnesota Watershed District Management Plan • Pioneer-Sarah Creek Watershed Third Generation Watershed Management Plan • West Mississippi Watershed Third Generation Water Management Plan • Shingle Creek Watershed – Third Generation Water Management Plan • Richfield-Bloomington Watershed Management Plan • Municipality Surface Water Management Plans • Xcel Energy Upper Midwest Resources Plan 2016-2030 • Metropolitan Council 2040 Transportation Policy Plan • Metropolitan Council 2040 Water Resources Policy Plan • Metropolitan Council 2040 Regional Parks Policy Plan
Administrative	Job Descriptions	Unpaid internships/and or Paid On call staff to assist in HMP maintenance.
Budgetary	Capital and operational budgets	Review county and jurisdictional budgets to include line item mitigation actions

Regulatory	Ordinances and other directives	<ul style="list-style-type: none"> • Comprehensive planning - institutionalize hazards mitigation for new construction and land use. • Comprehensive Planning – institutionalize hazard mitigation techniques for new home construction (Windstorm Mitigation Manual) • Zoning and Ordinances • Building Codes - enforcement of codes or higher standard in hazard areas. • National Flood Insurance Program - Continue to participate in this program and increase participation throughout the county in the Community Rating System Program. • Continue to implement storm water management plans. • Municipality shoreline ordinances
Funding	Secure traditional sources of financing	<ul style="list-style-type: none"> • Apply for grants from federal or state government, nonprofit organizations, foundations, and private sources including Pre-Disaster Mitigation Program (PDM-DMA 2000), Flood Mitigation Assistance Program (FMA), and the Hazard Mitigation Grant Program (HMGP-Stafford Act, Section 404). • Research grant opportunities through U.S. Department of Housing and Urban Development's Community Development Block Grant (CDBG). • Other potential federal funding sources include: <ul style="list-style-type: none"> - Stafford Act, Section 406 – Public Assistance Program Mitigation Grants - Federal Highway Administration - Catalog of Federal Domestic Assistance - United States Fire Administration - United States Small Business Administration Pre and Post Disaster Mitigation Loans - United States Department of Economic Development Administration Grants - United States Army Corps of Engineers - United States Department of Interior, Bureau of Land Management - Other sources as yet to be defined
Partnerships	Develop creative partnerships, funding and incentives.	<ul style="list-style-type: none"> • Public-Private Partnerships • Community Emergency Response Team (CERT) • Community Volunteers • State Cooperation • Hennepin County Natural Resources Partnership • In-Kind resources

SECTION 7	APPENDIX
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Appendix A	Steering Committee Meeting Minutes		
Reference to:	Section 3	3.12	page 20

Steering Committee Meeting Minutes #1	January 28, 2015
 <div style="display: inline-block; vertical-align: top; margin-left: 20px;"> <p>Hennepin County Memo</p> <hr/> <p>Emergency Management 1600 Prairie Drive Medina, MN 55340-5421</p> </div> <div style="display: inline-block; vertical-align: top; margin-left: 20px;"> <p>Phone: 612-596-0252 Fax: 763-478-4001 TDD: 763-478-4030</p> </div>	
<p>DATE: 1/28/15</p> <p>TO: Bruce Kelii, Sarah Stalker, and Eric Waage</p> <p>FROM: Dan Bovitz</p> <p>SUBJECT: 2015 Hennepin County Mitigation Steering Committee, Meeting #1</p> <p>Hennepin County Mitigation Plan Steering Committee,</p> <p>The first meeting of the Hennepin County Mitigation Steering Committee took place on January 28, 2015. The Steering Committee members present were:</p> <ul style="list-style-type: none"> • Dan Bovitz, Deputy Director • Bruce Kelii, Plans & Systems Integration Coordinator • Sarah Stalker, Community Engagement and Meteorology Coordinator <p>The main agenda item for this kick-off meeting was for the Steering Committee to go over the FEMA Local Mitigation Handbook and review all 44 CFR 201.6 Local Mitigation Plan requirements. A breakdown of all requirements under each task was discussed and is attached to this document (per Kelii). Each Steering Committee member was tasked with plan update responsibilities for the first quarter 2015. The Steering Committee has the overall responsibility of updating/revising the overall plan, while the Mitigation Planning Team will be tasked with mitigation actions/strategies, risk assessment prioritizing, and plan monitoring, evaluating and maintenance.</p> <p>Steering Committee Action Items include:</p>	

1. Connect Minnesota Division of Homeland Security & Emergency Management (HSEM staff to discuss school district participation/process. Do they have to have Plan formally approved by their Board?
2. Send e-mail to school districts regarding the 2015 Multi-Jurisdictional All-Hazards Mitigation Plan update and their involvement;
3. Create Hazard Ranking template for municipalities;
4. Create public input ideas/templates/surveys:
 - a. Social Media – Create schedule of public participation/mitigation plan updates
 - b. Connect with Hennepin County Public Affairs regarding mitigation plan press releases and website additions (2-3 over the next year)
5. List of big weather events with any impact information (eg. EF5 damage path down to EF1);
6. National Flood Insurance Program – Check which municipalities are included and touch base to make sure list is accurate;
7. Risk Assessment – General summary (to be done down the line);
8. Reformat/transition Mitigation plan Publisher document to a Word document;
9. Assist in the regional planning efforts
 - a. Mitigation Strategies to be developed NLT July 2015
 - b. Bring in HSEM Mitigation staff to assist municipalities
10. Build a table in the mitigation plan that provides generic representation of all usage items (i.e., generators);
11. Produce new Hazard Rankings worksheet to municipalities for the 2015 Plan “Tour”;
12. Add Minneapolis Office of Emergency Management staff Laurie Burns to the Steering Committee.

The next Steering Committee Meeting is set for Tuesday, March 24, 2015.

Dan Bovitz
Deputy Director
Hennepin County Emergency Management
612-596-0249
Daniel.bovitz@hennepin.us

Steering Committee Meeting Minutes #2

March 24, 2015



Hennepin County Memo

Emergency Management
1600 Prairie Drive
Medina, MN 55340-5421

Phone: 612-596-0252
Fax: 763-478-4001
TDD: 763-478-4030

DATE: 4/22/15

TO: Bruce Kelij, Sarah Stalker, Laurie Burns, and Eric Waage

FROM: Dan Bovitz

SUBJECT: 2015 Hennepin County Mitigation Steering Committee, Meeting #2

Hennepin County Mitigation Plan Steering Committee,

The second meeting of the Hennepin County Mitigation Steering Committee took place on March 24 2015. The Steering Committee members present were:

- Dan Bovitz, Deputy Director
- Laurie Burns, Planning Chief, Minneapolis Office of Emergency Management
- Bruce Kelii, HCEM Plans & Systems Integration Coordinator
- Sarah Stalker, HCEM Community Engagement and Meteorology Coordinator

The meeting consisted of going over the previous first quarter action items set forth by the Committee. In addition, we reviewed the overall mitigation plan process with our brand new Steering Committee member Laurie Burns. Laurie will be serving two roles for this plan update, a Steering Committee member as well as a Planning Team member (Minneapolis Emergency Management Group).

The primary topics of discussion for this meeting were: (1) Public Involvement, (2) Mitigation Actions, and (3) the plan section updates of Community Profile and Plan Maintenance. Public Involvement will begin with social media postings (Mitigation Monday's) on the Hennepin County Emergency Management's Facebook page and a mitigation press release for the public will be coordinated the Hennepin County Public Affairs. In addition, a mitigation survey will be posted to the Hennepin County Emergency Management social media page as an additional avenue for public input. A re-write of the Community Profile has also begun, but will need feedback from the Mitigation Planning Team on the overall amount of county/municipal information we want to include in that section. The Plan Maintenance section is for the most part finished, with the exception of the "Implementation through Existing Plans" header, as input from the municipalities on what other plans could be referenced still needs to be completed.

Steering Committee Action Items this quarter include:

1. Connect with the Minneapolis Park Board on representation for the Mitigation Planning Team;
2. Research nationally how climate change fits into mitigation plans;
3. Begin community/public involvement by posting Facebook "Mitigation Planning Monday's" as well as provide a press release for Hennepin County Public Affairs
4. Community Involvement – gather ideas for summer events where public input could be gathered;
5. Create a template for mitigation actions/strategies;
6. Invite HSEM Mitigation Officer Nycole Fry to attend Area Planning Meetings to discuss mitigation;
7. Invite Jim Franklin of Metro Transit to be a part of the Mitigation Planning Team;

8. Consider adding additional watershed districts to planning team (specifically Elm Creek and Bassett Creek).
9. Write up a “representative agreement notice”.
10. Review Albany County Plan to build templates (schools and watersheds)
11. Plan Maintenance – look at ways to have regions put mitigation plan into other planning documents at the local level.

The next Steering Committee Meeting is set for Friday, May 22, 2015.

Dan Bovitz
Deputy Director
Hennepin County Emergency Management
612-596-0249
Daniel.bovitz@hennepin.us

Steering Committee Meeting Minutes #3

May 22, 2015



Hennepin County Memo

Emergency Management
1600 Prairie Drive
Medina, MN 55340-5421

Phone: 612-596-0252
Fax: 763-478-4001
TDD: 763-478-4030

DATE: 6/25/15

TO: Bruce Kelii, Sarah Stalker, Laurie Burns, and Eric Waage

FROM: Dan Bovitz

SUBJECT: 2015 Hennepin County Mitigation Steering Committee, Meeting #3

Hennepin County Mitigation Plan Steering Committee,

The third meeting of the Hennepin County Mitigation Steering Committee took place Friday, May 22, 2015. The Steering Committee members present were:

- Laurie Burns, Planning Chief, Minneapolis Office of Emergency Management
- Bruce Kelii, HCEM Plans & Systems Integration Coordinator
- Sarah Stalker, HCEM Community Engagement and Meteorology Coordinator

The meeting consisted of going over the previous 2nd quarter action items set forth by the Committee. In addition, we reviewed our overall mitigation plan timeline as we have shifted several “to-do” items around to maximize time for our cities/special districts/departments to complete the mitigation strategies section of the plan.

The primary topics of discussion for this meeting were: (1) the creation of the Mitigation Planning Team and who will be representing at the first meeting (June 30, 2015). (2) We also discussed the possibility of a dashboard layout for all agencies that are participating in the plan. All agree that this would be useful, and information could be dropped into a share file with other mitigation plan objectives an actions and the dashboard can be crafted from what is deemed as a best information by snapshot. (3) The hazard Analysis section of the plan is also being rewritten and will include many more hazards left out of previous Hennepin County Mitigation Plans. CIKR sites will also be completed by participating cities in late summer. A template for these sites has already been created by Bruce Kelii and submitted to management for approval.

Steering Committee Action Items this quarter include:



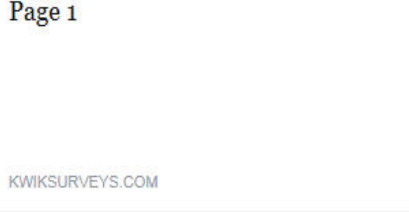
1. Research nationally how climate change fits into mitigation plans;
2. Complete public involvement through Facebook “Mitigation Planning Monday’s” as well as our online mitigation press release through Hennepin County Public Affairs
3. Community Involvement – gather ideas for summer events where public input could be gathered;
4. Create a dashboard for participating agencies.
5. Complete the Hazard Assessment section with a more comprehensive hazard list. This, along with the Hazard Rankings will be the next item to be completed by participating agencies.
6. Consider adding additional watershed districts to planning team (specifically Elm Creek and Bassett Creek).
7. Write up a “representative agreement notice”.
8. Review Albany County Plan to build templates (schools and watersheds)
9. Plan Maintenance – look at ways to have regions put mitigation plan into other planning documents at the local level.

The next Steering Committee Meeting is set for Thursday, July 30, 2015.

Dan Bovitz
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Hennepin County Emergency Management
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Daniel.bovitz@hennepin.us

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Appendix B	Social Media		
Reference to:	Section 3	3.21	page 27



Facebook Post	April 6, 2015																
<div> <div>  Hennepin County Emergency Management <small>Posted by Sarah Louise Stalker [?] · April 6 ·</small> </div> <div> <p>Mitigation Planning Monday! Hennepin County Emergency Management is updating their Hazard Mitigation Plan, and we need your help! If you live in Hennepin County and have time to take a quick survey about YOUR thoughts, we would really appreciate it!</p> <p>http://kwiksurveys.com/s.asp?sid=ynvcjfk0ws2ce31488065</p> <p>Please Share it with your friends and family too!</p> <p>What is Hazard Mitigation?</p> <p>Hazard Mitigation is any cost-effective and sustained action taken to reduce or eliminate the long-term risk to human life or property from natural, technological, and human-caused hazards.</p> <div>  <div> <p>Page 1</p>  </div> </div> </div> </div> <div> <div>173 People Reached</div> <div>15 Likes, Comments & Shares</div> <table> <tr> <td>8 Likes</td> <td>4 On Post</td> <td>4 On Shares</td> </tr> <tr> <td>1 Comments</td> <td>0 On Post</td> <td>1 On Shares</td> </tr> <tr> <td>6 Shares</td> <td>3 On Post</td> <td>3 On Shares</td> </tr> </table> <div>21 Post Clicks</div> <table> <tr> <td>0 Photo Views</td> <td>8 Link Clicks</td> <td>13 Other Clicks</td> </tr> </table> <div>NEGATIVE FEEDBACK</div> <table> <tr> <td>1 Hide Post</td> <td>0 Hide All Posts</td> </tr> <tr> <td>0 Report as Spam</td> <td>0 Unlike Page</td> </tr> </table> </div>		8 Likes	4 On Post	4 On Shares	1 Comments	0 On Post	1 On Shares	6 Shares	3 On Post	3 On Shares	0 Photo Views	8 Link Clicks	13 Other Clicks	1 Hide Post	0 Hide All Posts	0 Report as Spam	0 Unlike Page
8 Likes	4 On Post	4 On Shares															
1 Comments	0 On Post	1 On Shares															
6 Shares	3 On Post	3 On Shares															
0 Photo Views	8 Link Clicks	13 Other Clicks															
1 Hide Post	0 Hide All Posts																
0 Report as Spam	0 Unlike Page																

173 people reached

Boost Post

Like · Comment · Share · 4 3

Facebook Post	April 27, 2015
	
<p>330 people reached Boost Post</p>	
<p>Like · Comment · Share · 2 1</p>	
<p style="text-align: right;">Top Comments ▾</p>	
<p>1 share</p>	
<div> <div>  <input type="text" value="Write a comment..."/> </div> <div>  <p>Hennepin County Emergency Management Have you taken the public survey yet to help us out? If not..here is the link! http://kwiksurveys.com/s/ynvcjkdws2ce31488065</p> </div> </div>	
<div> <div>  </div> <div> <p>Page 1</p> <p>KWIKSURVEYS.COM</p> </div> </div>	
<p>Like · Reply · Remove Preview · Commented on by Sarah Louise Stalker [?] · April 27 at 8:58am</p>	

Facebook Post	April 27, 2015																
<div data-bbox="233 344 873 422">  Hennepin County Emergency Management added 4 new photos. <p>Posted by Sarah Louise Stalker [?] · April 27 at 8:39am · Edited ·</p> </div> <p>Mitigation Planning Monday! – Today's event: 2009 Long Lake/Plymouth Tornado</p> <p>Hennepin County Emergency Management is updating their Hazard Mitigation Plan, and we need your help! Please comment with any stories you have from that event, any ideas to help mitigate from the hazard happening again, and/or lets us know what event we should use for the next Mitigation Planning Monday post!</p> <p>What is Hazard Mitigation? Hazard Mitigation is any cost-effective and sustained action taken to reduce or eliminate the long-term risk to human life or property from natural, technological, and human-caused hazards</p> <div data-bbox="233 762 873 1402">  </div> <div data-bbox="233 1423 873 1455"> 330 people reached Boost Post </div>	<div data-bbox="922 317 1432 352"> 330 People Reached </div> <div data-bbox="922 373 1432 409"> 6 Likes, Comments & Shares </div> <table border="1"> <tr> <td>1 Likes</td> <td>0 On Post</td> <td>1 On Shares</td> </tr> <tr> <td>2 Comments</td> <td>2 On Post</td> <td>0 On Shares</td> </tr> <tr> <td>3 Shares</td> <td>1 On Post</td> <td>2 On Shares</td> </tr> </table> <div data-bbox="922 657 1432 693"> 40 Post Clicks </div> <table border="1"> <tr> <td>5 Photo Views</td> <td>0 Link Clicks</td> <td>35 Other Clicks</td> </tr> </table> <div data-bbox="922 772 1432 798"> NEGATIVE FEEDBACK </div> <table border="1"> <tr> <td>1 Hide Post</td> <td>0 Hide All Posts</td> </tr> <tr> <td>0 Report as Spam</td> <td>0 Unlike Page</td> </tr> </table>	1 Likes	0 On Post	1 On Shares	2 Comments	2 On Post	0 On Shares	3 Shares	1 On Post	2 On Shares	5 Photo Views	0 Link Clicks	35 Other Clicks	1 Hide Post	0 Hide All Posts	0 Report as Spam	0 Unlike Page
1 Likes	0 On Post	1 On Shares															
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Appendix C	Questionnaire		
Reference to:	Section 3	3.22	Page 27

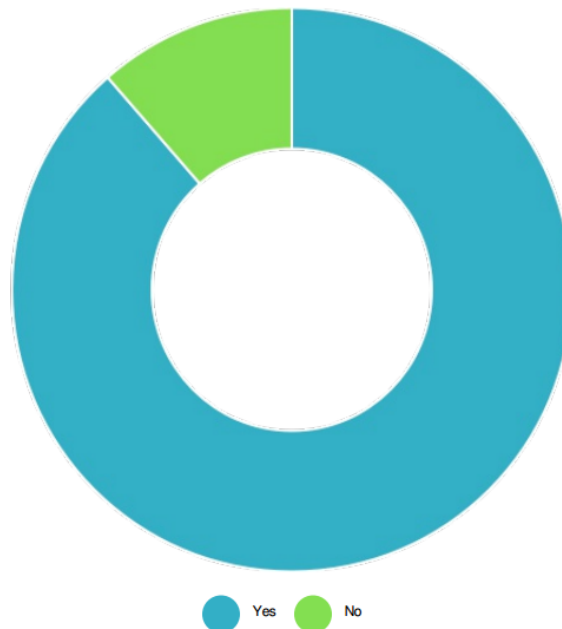
PUBLIC INVOLVEMENT RESULTS

Questionnaire Analysis

To begin the questionnaire, participants were asked whether they live in Hennepin County or not. This was to be sure we were getting participants specifically for the area of interest. We had 604 people click on the survey link with 535 of those living within Hennepin County. In the next phase of the questionnaire, we are also going to add a question about whether the participant works in Hennepin County. With Hennepin being part of a large metro region, we have many people that work within Hennepin County but live in a different county. Because of the amount of time spend at work throughout any given year, we want to give the opportunity for those that work within Hennepin County to also partake in the questionnaire.

I live in Hennepin County.

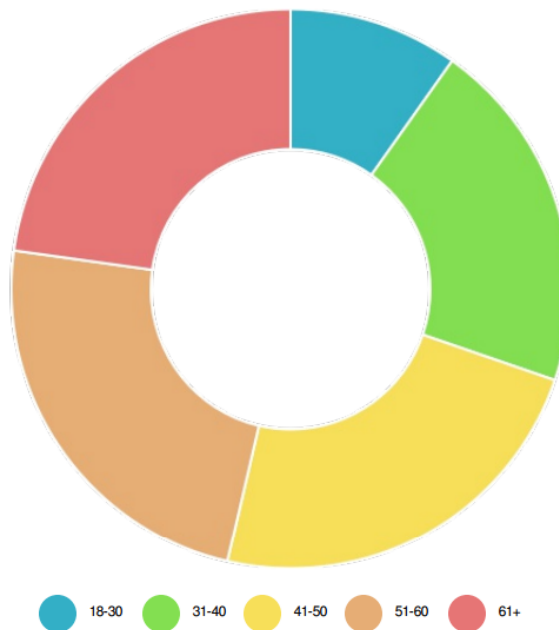
	Yes	No	Standard Deviation	Responses
All Data	535 (89%)	69 (11%)	233	604



The next few questions pertained to demographics. There was a wide span of ages, the majority of participants were white (93%), and over half of participants (59%) have lived in Hennepin County for 20+ years. The city with the highest participation was Minneapolis at 40%, second was mound with 20%. We had participants from 15 of the 44 cities in Hennepin County.

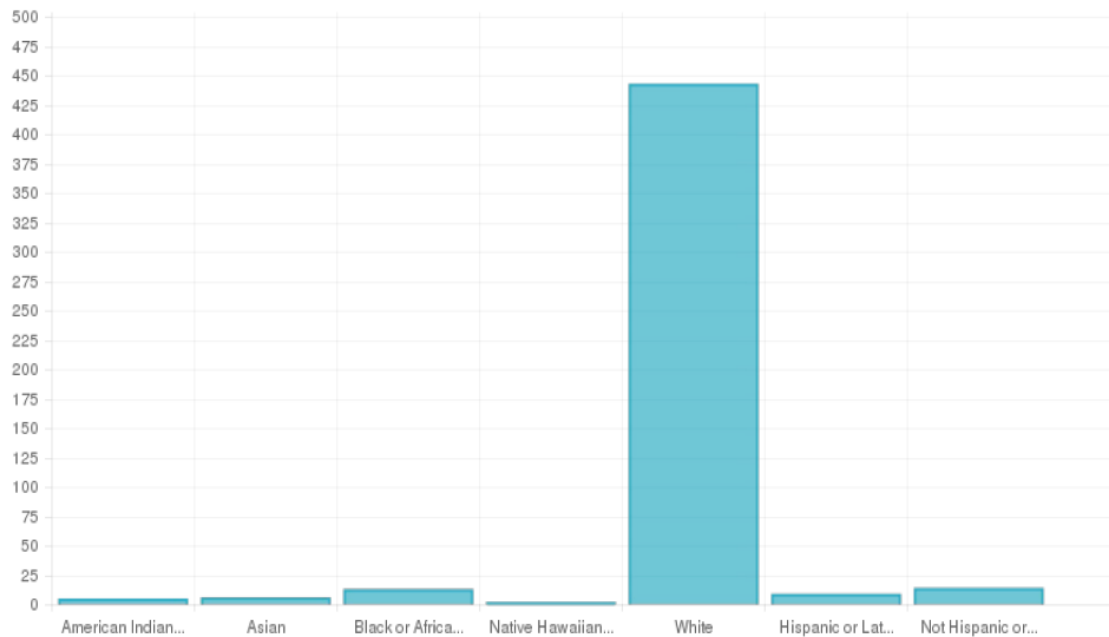
Please indicate your age range.

	18-30	31-40	41-50	51-60	61+	Standard Deviation	Responses
All Data	50 (10%)	104 (20%)	119 (23%)	120 (24%)	116 (23%)	26.52	509



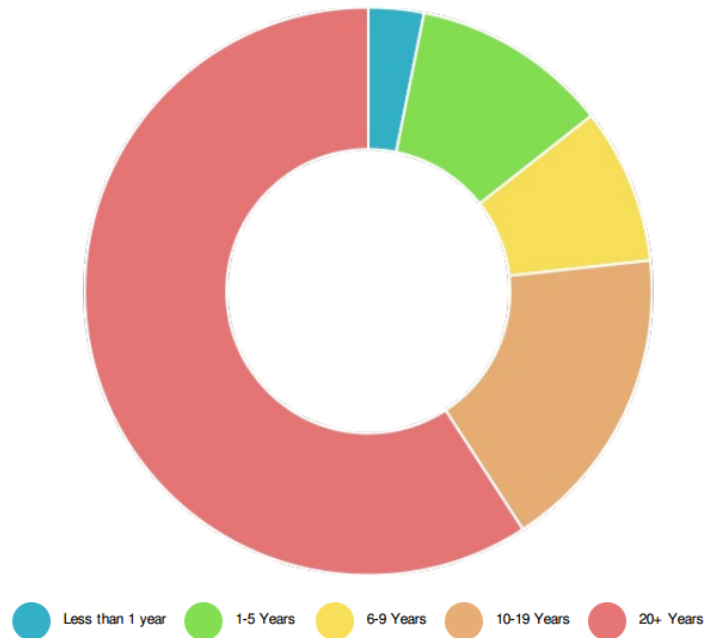
Please Specify your race and ethnicity (optional).

	American Indian or Alaska Native	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	White	Hispanic or Latino	Not Hispanic or Latino	Responses
All Data	5 (1%)	6 (1%)	13 (3%)	2 (0%)	443 (93%)	9 (2%)	14 (3%)	476



















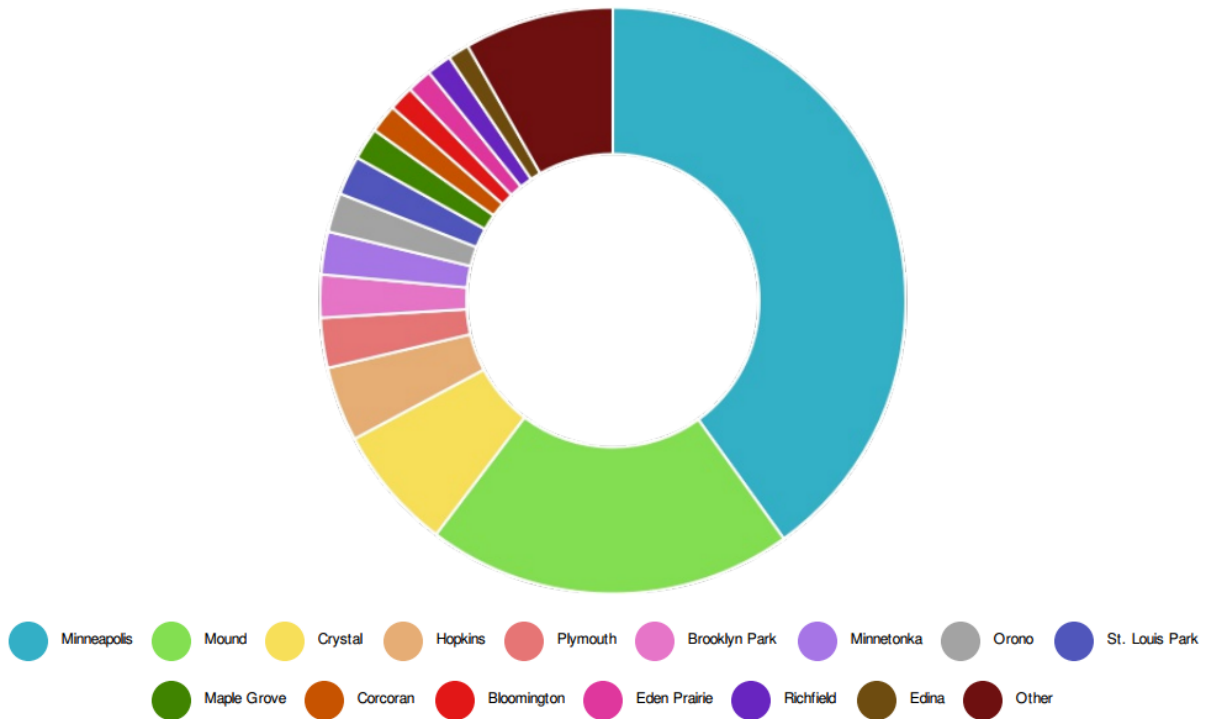
How long have you lived in Hennepin County?

	Less than 1 year	1-5 Years	6-9 Years	10-19 Years	20+ Years	Standard Deviation	Responses
All Data	16 (3%)	57 (11%)	45 (9%)	89 (18%)	300 (59%)	102.02	507



Please indicate what municipality you live in Hennepin County.

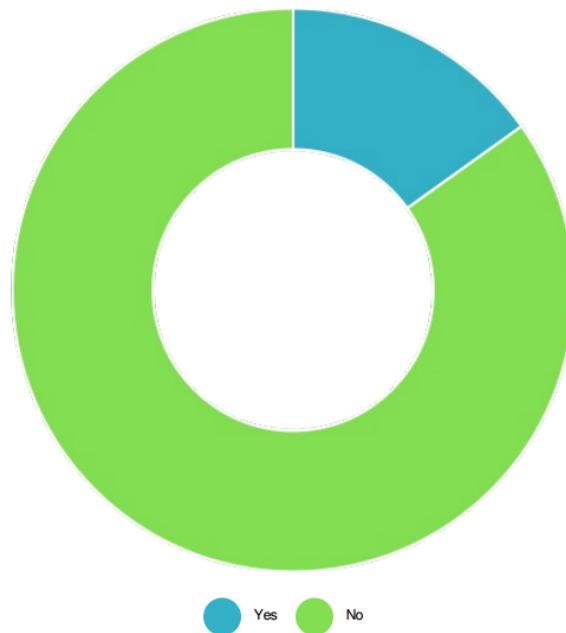
	 Minneapolis	 Mound	 Crystal	 Hopkins	 Plymouth	 Brooklyn Park	 Minnetonka	 Orono	 St. Louis Park	 Maple Grove	 Corcoran	 Bloomington	 Eden Prairie	 Richfield	 Edina	 Other
All Data	204 (40%)	103 (20%)	35 (7%)	21 (4%)	14 (3%)	12 (2%)	12 (2%)	11 (2%)	11 (2%)	9 (2%)	8 (2%)	7 (1%)	7 (1%)	7 (1%)	6 (1%)	42 (8%)



The majority of participants (85%) were not previously aware that Hennepin County had a Hazard Mitigation Plan. This shows that just by participating in the questionnaire, people were learning about mitigation.

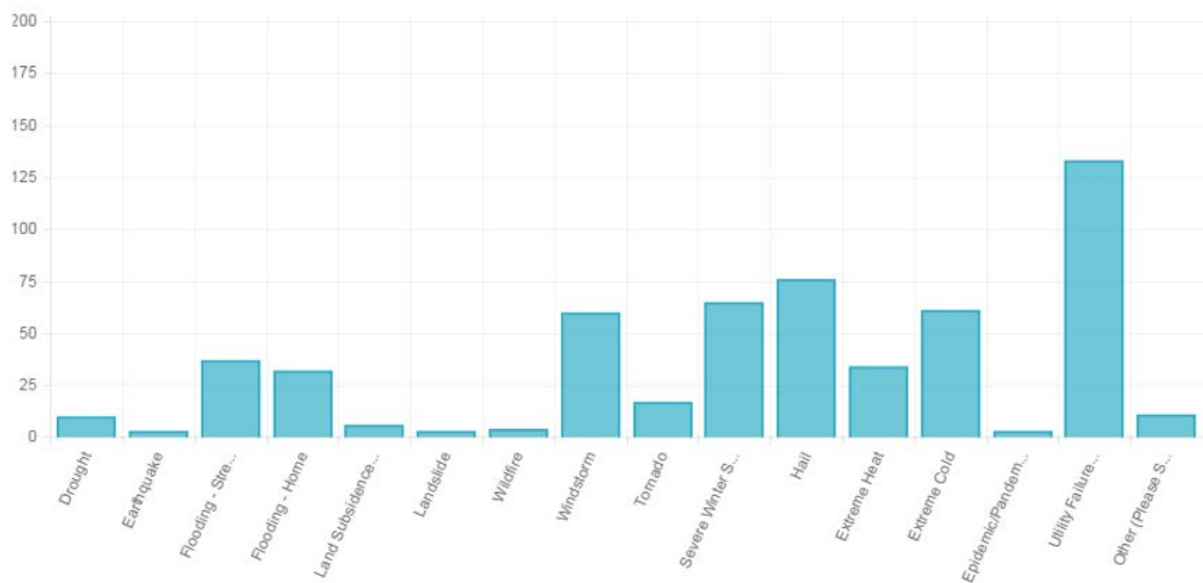
Prior to receiving this survey, were you aware of Hennepin County's Hazard Mitigation Plan?

	Yes	No	Standard Deviation	Responses
All Data	77 (15%)	432 (85%)	177.5	509



















The majority of respondents own their home (88%), and just under half of participants have experienced (or someone in their household) a hazardous event or natural hazard in the past five years. Of those who said they had experienced a hazard, the majority (70%) cited Utility Failure/Power Outage. Other high response rates were Hail (40%), Severe Winter Storm (34%), Windstorm (32%), and Extreme Cold (32%).

IF you answered yes to the above question, what was the hazard event(s) directly experienced?
(Choose all that apply).



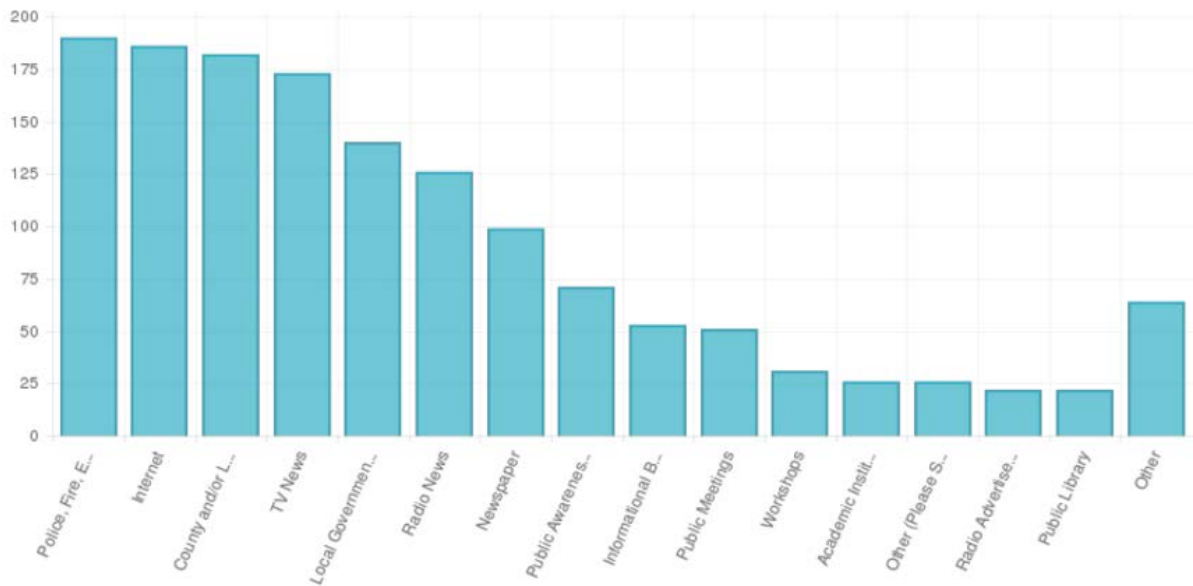
Participants responded that they were mostly concerned with the following hazards: Severe Winter Storm (55%), Tornado (51%), and Utility Failure (45%). The hazards that the majority of respondents said they were not concerned with are: Earthquake (92%), Dust Storm (88%), and Landslide (73%).

How concerned are you about the following hazard affecting Hennepin County.

	Extremely Concerned	Very Concerned	Somewhat Concerned	Not Concerned	Standard Deviation	Responses	Weighted Average
 Drought	17 (4%)	49 (11%)	194 (45%)	169 (39%)	75.63	429	3.2 / 4
 Dust Storm	5 (1%)	2 (0%)	45 (11%)	374 (88%)	155.37	426	3.85 / 4
 Earthquake	3 (1%)	1 (0%)	31 (7%)	392 (92%)	165.12	427	3.9 / 4
 Flooding - Street	24 (6%)	69 (16%)	262 (60%)	79 (18%)	91.01	434	2.91 / 4
 Flooding - Home	37 (9%)	73 (17%)	214 (50%)	108 (25%)	66.15	432	2.91 / 4
 Land Subsidence/Sinkholes	13 (3%)	34 (8%)	158 (37%)	218 (52%)	85.27	423	3.37 / 4
 Landslide	7 (2%)	16 (4%)	93 (22%)	308 (73%)	121.32	424	3.66 / 4
 Wildfire	10 (2%)	21 (5%)	128 (30%)	265 (63%)	102.72	424	3.53 / 4
 Windstorm	29 (7%)	103 (24%)	172 (40%)	121 (28%)	51.28	425	2.91 / 4
 Tornado	70 (16%)	154 (35%)	199 (46%)	12 (3%)	72.55	435	2.35 / 4
 Severe Winter Storm	79 (18%)	160 (37%)	164 (38%)	30 (7%)	56.49	433	2.33 / 4
 Hail	47 (11%)	142 (32%)	225 (51%)	23 (5%)	80.29	437	2.51 / 4
 Extreme Heat	35 (8%)	115 (27%)	156 (36%)	122 (29%)	44.37	428	2.85 / 4
 Extreme Cold	59 (14%)	128 (29%)	161 (37%)	86 (20%)	39.03	434	2.63 / 4
 Epidemic/Pandemic	34 (8%)	91 (21%)	190 (45%)	110 (26%)	55.86	425	2.88 / 4
 Utility Failure	63 (15%)	132 (30%)	201 (46%)	38 (9%)	63.54	434	2.49 / 4

Participants were asked what the top three most effective/trustworthy information sources are in regards to providing them with information to make their home safer and better able to withstand impact of natural hazards. The overwhelming top four responses were: Police, Fire and EMS (41%), the Internet (41%), County and/or Local Government Websites (40%), and TV News (38%). This was also an open ended question where participants could list out other sources that they find most reliable. Some of the responses were: Social Media, printed communications or mail, and people who have gone through a hazard in the past.

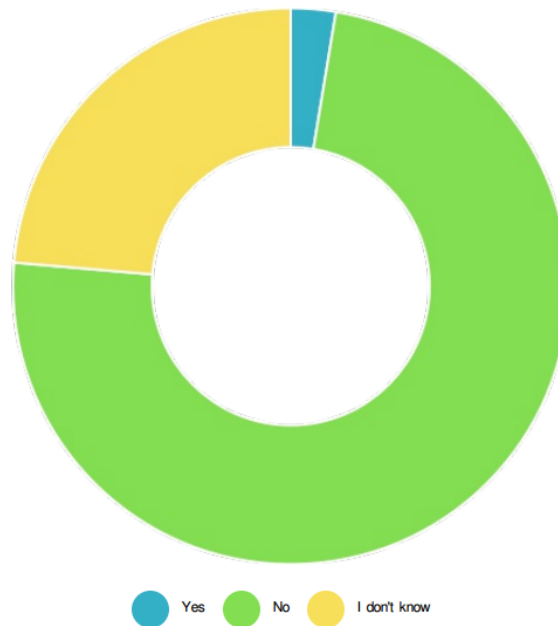
Of the information sources below, please identify the top three (3) that you feel are most effective/trustworthy in providing you with information to make your home safer and better able to withstand the impact of natural hazard events.



The next section discussed the specific hazard of flooding. The majority of participants said their property is not located within a designated floodplain (74%), however 24% people did not know whether their property was in the designated floodplain or not. The majority of participants do not have flood insurance (82%) with 13% not knowing if they do or not. The primary reasons states for not having flood insurance is that their property is not in a floodplain (36%) or they are located on high ground (30%). 4% of responded stated that it was too expensive, and 11% stated they were not familiar with it or don't know what it is.

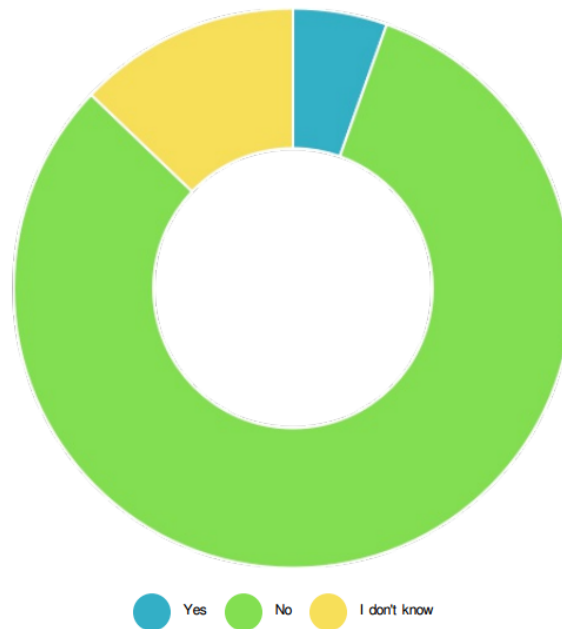
To the best of your knowledge, is your property located in a designated floodplain?

	Yes	No	I don't know	Standard Deviation	Responses
All Data	12 (3%)	340 (74%)	109 (24%)	137.58	461



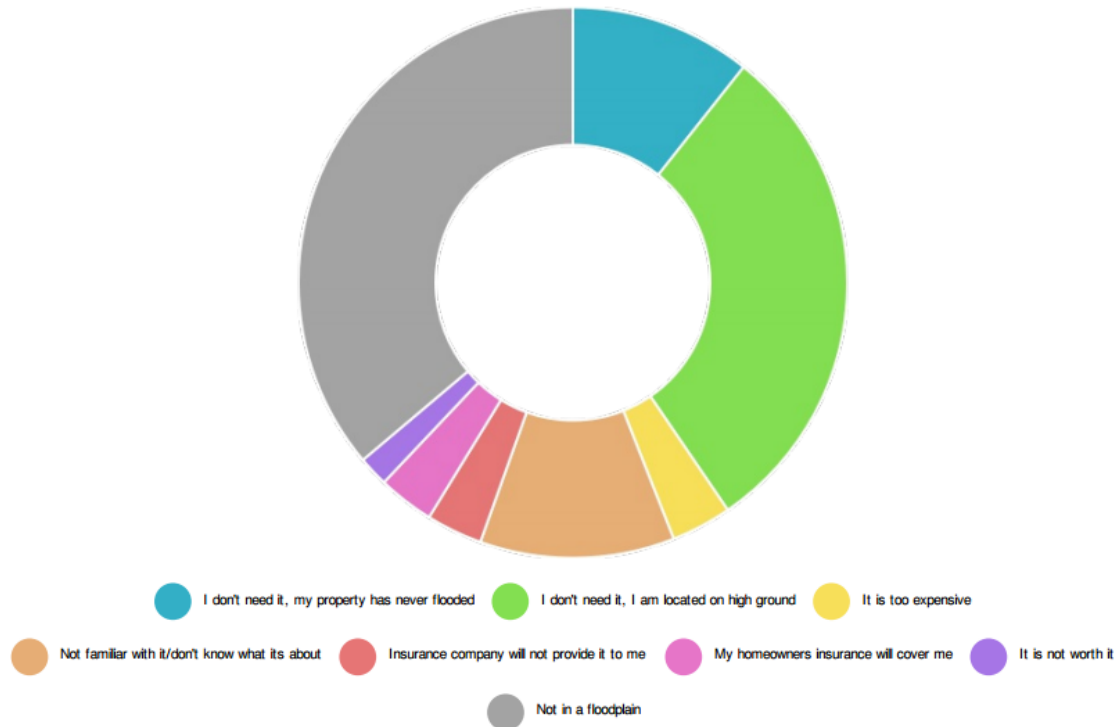
Do you have flood insurance?

	Yes	No	I don't know	Standard Deviation	Responses
All Data	25 (5%)	375 (82%)	59 (13%)	157.59	459



If you do not have flood insurance, what is the primary reason?

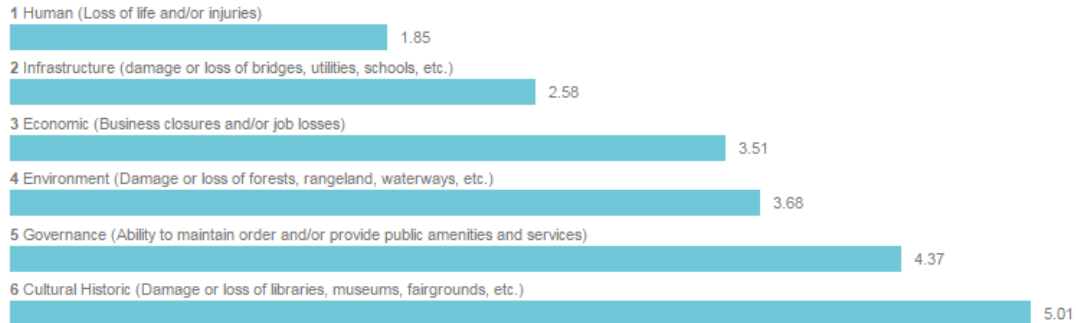
	I don't need it, my property has never flooded	I don't need it, I am located on high ground	It is too expensive	Not familiar with it/don't know what its about	Insurance company will not provide it to me	My homeowners insurance will cover me	It is not worth it	Not in a floodplain	Standard Deviation	Responses
All Data	42 (11%)	117 (30%)	14 (4%)	45 (11%)	13 (3%)	13 (3%)	7 (2%)	142 (36%)	48.63	393



The next section dealt with community assets. Participants were asked to rank community assets in order of vulnerability. In the chart below the shortest line is showing the choice that the majority of respondents ranked #1 most vulnerable. So participants ranked Human (loss of life and/or injuries) as most vulnerable, and Cultural Historic as least vulnerable.

Please rank the community assets in order of vulnerability, top being most vulnerable and bottom being least vulnerable.

	1	2	3	4	5	6	Standard Deviation	Responses	Weighted Average
Human (Loss of life and/or injuries)	225 (66%)	34 (10%)	26 (8%)	26 (8%)	17 (5%)	11 (3%)	75.71	339	1.85 / 6
Economic (Business closures and/or job losses)	13 (4%)	85 (25%)	68 (20%)	90 (27%)	54 (16%)	29 (9%)	28.05	339	3.51 / 6
Infrastructure (damage or loss of bridges, utilities, schools, etc.)	51 (15%)	112 (33%)	119 (35%)	46 (14%)	8 (2%)	3 (1%)	45.35	339	2.58 / 6
Cultural Historic (Damage or loss of libraries, museums, fairgrounds, etc.)	4 (1%)	7 (2%)	20 (6%)	66 (19%)	94 (28%)	148 (44%)	52.29	339	5.01 / 6
Environment (Damage or loss of forests, rangeland, waterways, etc.)	35 (10%)	63 (19%)	49 (14%)	58 (17%)	97 (29%)	37 (11%)	20.75	339	3.68 / 6
Governance (Ability to maintain order and/or provide public amenities and services)	11 (3%)	38 (11%)	57 (17%)	53 (16%)	69 (20%)	111 (33%)	30.42	339	4.37 / 6
									3.5 / 6

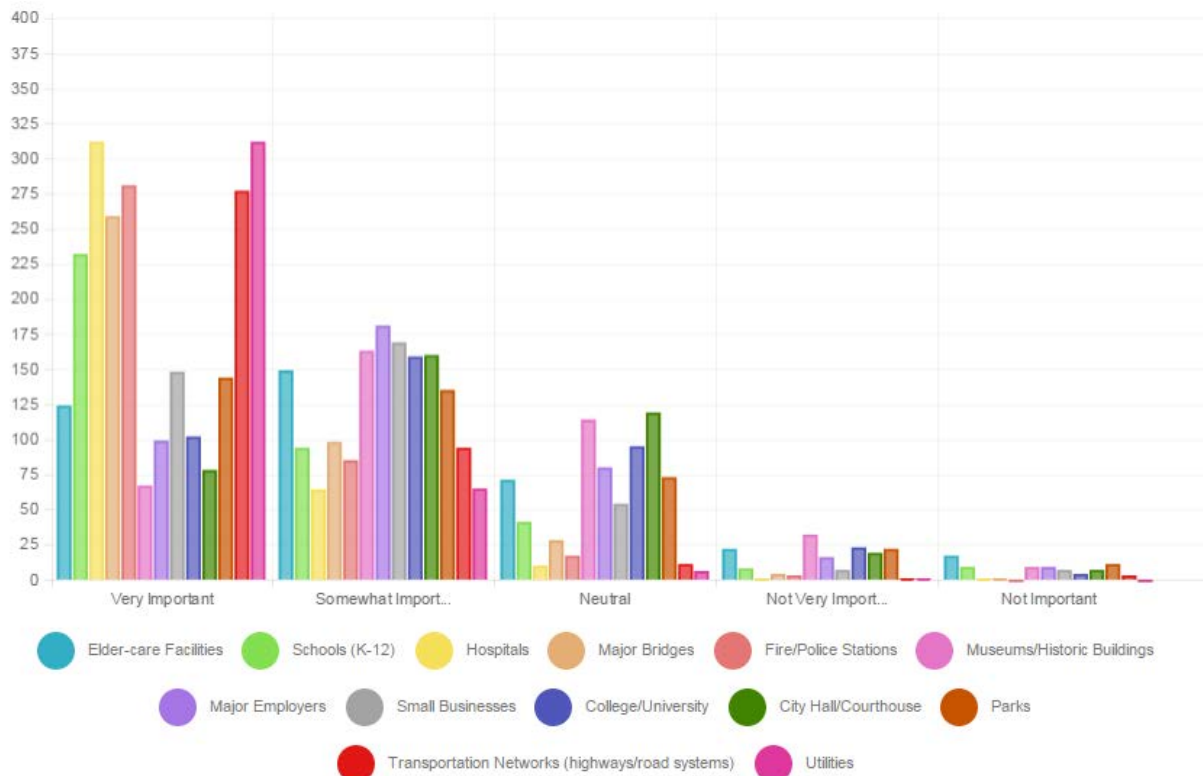


All Data

Participants were also asked what specific types of community assets are most important to them. The highest community assets were Elder-care facilities (81%), and Schools (80%), Fire/Police stations came in 5th rank at 66% of participants saying there were very important.

What specific types of community assets are most important to you.

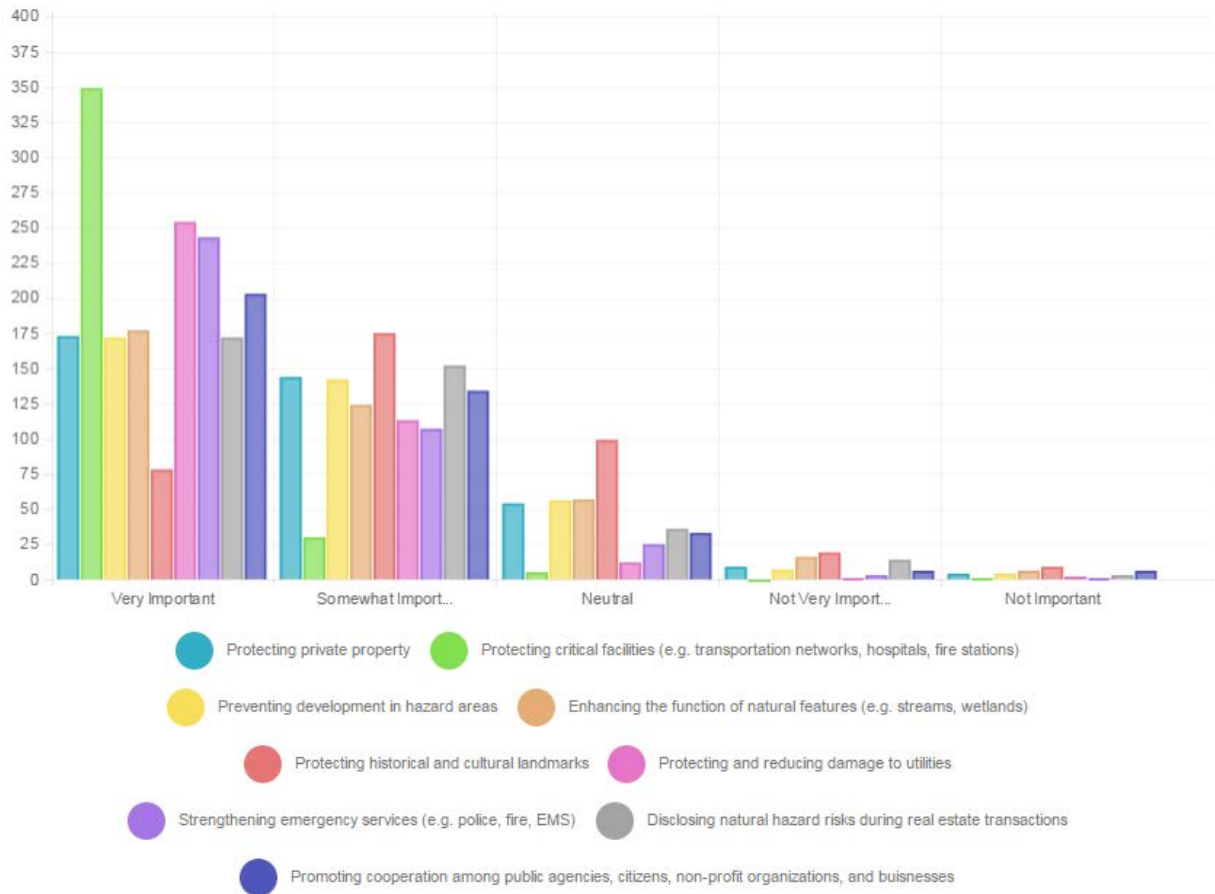
	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important	Standard Deviation	Responses
Elder-care Facilities	312 (81%)	65 (17%)	6 (2%)	1 (0%)	0 (0%)	120.1	384
Schools (K-12)	312 (80%)	64 (16%)	10 (3%)	1 (0%)	1 (0%)	119.53	388
Hospitals	281 (73%)	85 (22%)	17 (4%)	3 (1%)	0 (0%)	106.48	386
Major Bridges	277 (72%)	94 (24%)	11 (3%)	1 (0%)	3 (1%)	105.73	386
Fire/Police Stations	259 (66%)	98 (25%)	28 (7%)	4 (1%)	1 (0%)	97.02	390
Museums/Historic Buildings	232 (60%)	94 (24%)	41 (11%)	8 (2%)	9 (2%)	83.66	384
Major Employers	148 (38%)	169 (44%)	54 (14%)	7 (2%)	7 (2%)	69.04	385
Small Businesses	144 (37%)	135 (35%)	73 (19%)	22 (6%)	11 (3%)	55.23	385
College/University	99 (26%)	181 (47%)	80 (21%)	16 (4%)	9 (2%)	62.7	385
City Hall/Courthouse	124 (32%)	149 (39%)	71 (19%)	22 (6%)	17 (4%)	53.02	383
Parks	102 (27%)	159 (42%)	95 (25%)	23 (6%)	4 (1%)	56.42	383
Transportation Networks (highways/road systems)	78 (20%)	160 (42%)	119 (31%)	19 (5%)	7 (2%)	58.17	383
Utilities	67 (17%)	163 (42%)	114 (30%)	32 (8%)	9 (2%)	55.7	385



Participants were also asked to choose priorities in regards to planning for hazards in Hennepin County. 91% of respondents stating that protecting private property was very important to them when planning for hazards in Hennepin County. The second highest response (66%) was protecting critical facilities (hospitals, fire stations, transportation networks etc...), and third was preventing development in hazard areas (64%).












Natural Hazards can have a significant impact on a community, but planning for these events can help lessen the impacts. The following statements will help determine citizen priorities regarding planning for hazards in Hennepin County.

	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important	Standard Deviation	Responses	Weighted Average
Protecting private property	349 (91%)	30 (8%)	5 (1%)	0 (0%)	1 (0%)	136.44	385	1.11 / 5
Protecting critical facilities (e.g. transportation networks, hospitals, fire stations)	254 (66%)	113 (30%)	12 (3%)	1 (0%)	2 (1%)	98.23	382	1.39 / 5
Preventing development in hazard areas	243 (64%)	107 (28%)	25 (7%)	3 (1%)	1 (0%)	92.09	379	1.45 / 5
Enhancing the function of natural features (e.g. streams, wetlands)	203 (53%)	134 (35%)	33 (9%)	6 (2%)	6 (2%)	78.92	382	1.63 / 5
Protecting historical and cultural landmarks	172 (46%)	152 (40%)	36 (10%)	14 (4%)	3 (1%)	71.78	377	1.74 / 5
Protecting and reducing damage to utilities	172 (45%)	142 (37%)	56 (15%)	7 (2%)	4 (1%)	69.16	381	1.76 / 5
Strengthening emergency services (e.g. police, fire, EMS)	173 (45%)	144 (38%)	54 (14%)	9 (2%)	4 (1%)	69.55	384	1.77 / 5
Disclosing natural hazard risks during real estate transactions	177 (47%)	124 (33%)	57 (15%)	16 (4%)	6 (2%)	65.37	380	1.82 / 5
Promoting cooperation among public agencies, citizens, non-profit organizations, and businesses	78 (21%)	175 (46%)	99 (26%)	19 (5%)	9 (2%)	60.12	380	2.23 / 5



Participants were then asked what strategies they agreed with to reduce the risk and loss associated with natural disasters. The top three strategies are: supporting improving disaster preparedness of local schools (86%), supporting steps to safeguard local economy following a disaster event (79%), and supporting the disclosure of natural hazard risks during real estate transactions (79%). The following are the strategies least supported: using tax dollars to compensate land owners for not developing in areas subject to natural hazards (43%), a non-regulatory approach to reducing risk (30%) or a regulatory approach to reducing risk (15%).











Please check the box that represents your opinion of the following strategies to reduce the risk and loss associated with natural disasters.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not Sure	Standard Deviation	Responses	Weighted Average
 I support a regulatory approach to reducing risk.	24 (6%)	31 (8%)	74 (20%)	150 (40%)	83 (22%)	16 (4%)	46.27	378	3.75 / 6
 I support a non-regulatory approach to reducing risk.	30 (8%)	88 (24%)	98 (26%)	95 (25%)	46 (12%)	17 (5%)	32.57	374	3.24 / 6
 I support policies to prohibit development in areas subject to natural hazards.	16 (4%)	18 (5%)	52 (14%)	162 (42%)	130 (34%)	5 (1%)	60.56	383	4.01 / 6
 I support the use of tax dollars (federal and/or local) to compensate land owners for not developing in areas subject to natural hazards.	50 (13%)	115 (30%)	100 (26%)	78 (21%)	22 (6%)	15 (4%)	37.53	380	2.87 / 6
 I support the use of local tax dollars to reduce risks and losses from natural disasters.	19 (5%)	26 (7%)	59 (16%)	185 (49%)	81 (21%)	10 (3%)	59.63	380	3.82 / 6
 I support protecting historical and cultural structures.	8 (2%)	24 (6%)	99 (26%)	188 (49%)	58 (15%)	3 (1%)	64.67	380	3.72 / 6
 I would be willing to make my home more disaster-resistant.	10 (3%)	9 (2%)	50 (13%)	203 (54%)	93 (25%)	11 (3%)	69.64	376	4.05 / 6
 I support steps to safeguard the local economy following a disaster event.	10 (3%)	15 (4%)	40 (11%)	198 (52%)	104 (27%)	13 (3%)	68.37	380	4.08 / 6
 I support improving the disaster preparedness of local schools.	11 (3%)	10 (3%)	24 (6%)	154 (40%)	174 (46%)	9 (2%)	71.36	382	4.3 / 6
 I support a local inventory of at risk buildings and infrastructure.	8 (2%)	15 (4%)	54 (14%)	161 (43%)	121 (32%)	16 (4%)	58.57	375	4.12 / 6
 I support the disclosure of natural hazard risks during real estate transactions.	11 (3%)	13 (3%)	35 (9%)	162 (43%)	138 (36%)	20 (5%)	62.27	379	4.22 / 6



Next participants were asked what types of projects they believe local, county, state, or federal government agencies should be doing in order to reduce the damage and disruption of natural hazards in Hennepin County. Over 50% of participants stated that replacing inadequate or vulnerable bridges and causeways (74%), Improve the damage resistance of utilities (70%), retrofit infrastructure, such as elevating roadways and improving drainage systems (59%), and retrofit and strengthen essential facilities such as police, schools, hospitals (58%) are all high types of projects on an importance scale.

What types of projects do you believe local, county, state, or federal government agencies should be doing in order to reduce the damage and disruption of natural hazards in Hennepin County? Rate these by importance on a scale of High, Medium or Low.

	Low	Medium	High	Standard Deviation	Responses	Weighted Average
 Retrofit and strengthen essential facilities such as police, schools, hospitals.	19 (5%)	137 (37%)	218 (58%)	81.71	374	2.53 / 3
 Retrofit infrastructure, such as elevating roadways and improving drainage systems.	20 (5%)	134 (36%)	223 (59%)	83.08	377	2.54 / 3
 Work on improving the damage resistance of utilities (electricity, communications etc...)	13 (3%)	101 (27%)	264 (70%)	103.98	378	2.66 / 3
 Install or improve protective structures, such as flood walls or levees.	77 (21%)	195 (52%)	100 (27%)	51.08	372	2.06 / 3
 Replace inadequate or vulnerable bridges and causeways.	15 (4%)	82 (22%)	277 (74%)	111.13	374	2.7 / 3
 Strengthen codes, ordinances and plan to require higher hazard risk management standards and/or provide greater control over development in high hazard areas.	61 (16%)	159 (42%)	155 (41%)	45.28	375	2.25 / 3
 Acquire vulnerable properties and maintain as open-space.	94 (25%)	167 (45%)	114 (30%)	30.8	375	2.05 / 3
 Inform property owners of ways they can mitigate damage to their properties.	35 (9%)	168 (45%)	172 (46%)	63.66	375	2.37 / 3
 Provide better information about hazard risks and high-hazard areas.	28 (7%)	167 (44%)	182 (48%)	69.33	377	2.41 / 3
 Assist vulnerable property owners with securing funding to mitigate their properties.	94 (25%)	166 (44%)	116 (31%)	30.13	376	2.06 / 3
						2.36 / 3

2018 Hennepin County All-Jurisdiction Hazard Mitigation Plan Volume 1- Background and County Profile

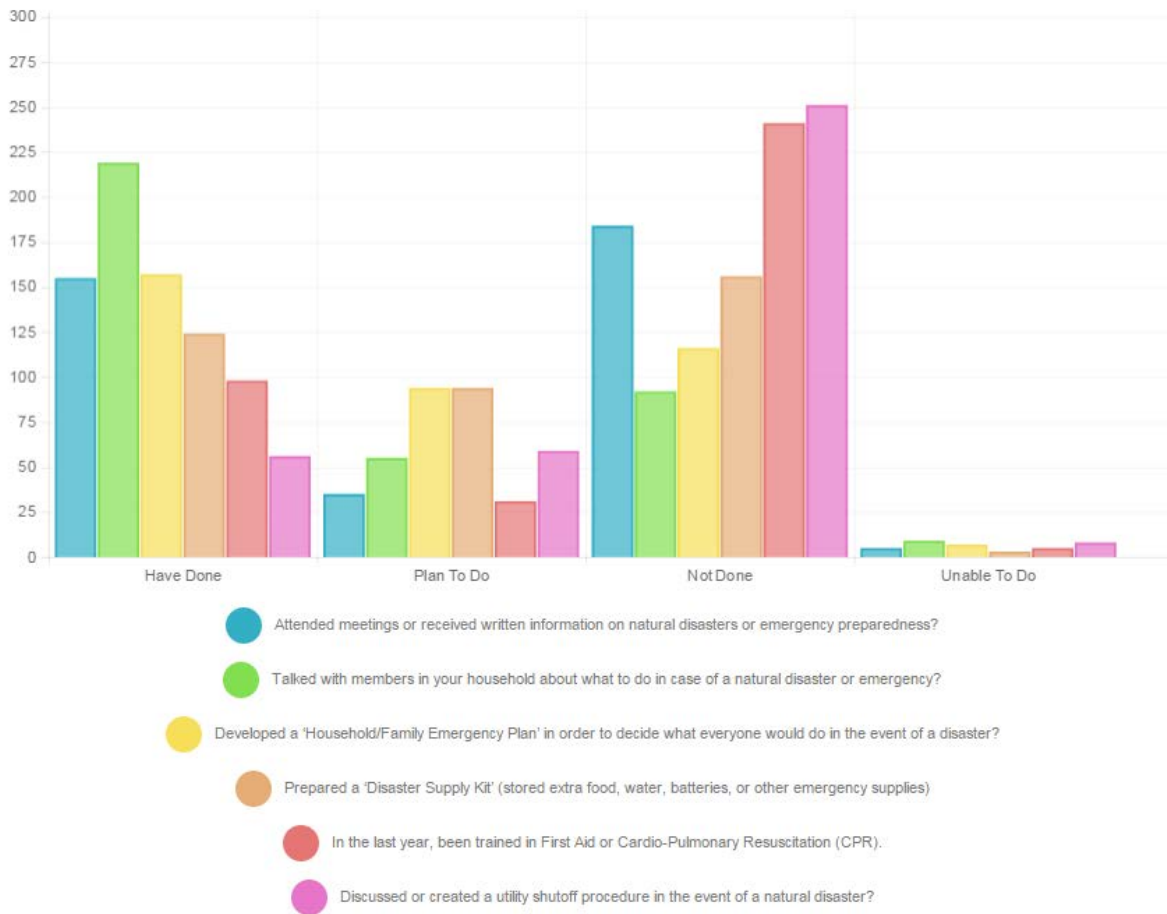


Lastly, participants were asked some questions pertaining to them or someone in their household pertaining to their own preparedness. The highest responses were 58% of participants have talked with members in their household about what to do during an emergency or natural disaster. 42% have developed a Household/Family Emergency Plan and 41% have attended meetings or received written information on natural disasters or emergency preparedness.

Please respond to the following as it pertains to you or someone in your household.

	Have Done	Plan To Do	Not Done	Unable To Do	Standard Deviation	Responses	Weighted Average
Attended meetings or received written information on natural disasters or emergency preparedness?	155 (41%)	35 (9%)	184 (49%)	5 (1%)	76.19	379	2.1 / 4
Talked with members in your household about what to do in case of a natural disaster or emergency?	219 (58%)	55 (15%)	92 (25%)	9 (2%)	78.06	375	1.71 / 4
Developed a 'Household/Family Emergency Plan' in order to decide what everyone would do in the event of a disaster?	157 (42%)	94 (25%)	116 (31%)	7 (2%)	54.82	374	1.93 / 4
Prepared a 'Disaster Supply Kit' (stored extra food, water, batteries, or other emergency supplies)	124 (33%)	94 (25%)	156 (41%)	3 (1%)	57.06	377	2.1 / 4
In the last year, been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR).	98 (26%)	31 (8%)	241 (64%)	5 (1%)	91.54	375	2.41 / 4
Discussed or created a utility shutoff procedure in the event of a natural disaster?	56 (15%)	59 (16%)	251 (67%)	8 (2%)	93.16	374	2.56 / 4
							2.14 / 4

2018 Hennepin County All-Jurisdiction Hazard Mitigation Plan Volume 1- Background and County Profile



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Appendix D	Press Releases		
Reference to:	Section 3	3.23	Page 28

Press Release:	February 27, 2015
<p>Hennepin County is updating the All-Hazard Mitigation Plan as required by 44 CFR Part 201.3 and the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Local jurisdictions are required to update the plan every 5 years in order to remain eligible for pre-disaster and post-disaster mitigation grant programs.</p> <p>Community involvement and feedback is vital to the success of the Hennepin County All-Hazards Mitigation Plan. A survey questionnaire is now available that provides an opportunity for you to share your opinions and participate in the mitigation planning process. The information you provide will help us better understand your hazard concerns and can lead to mitigation activities that should help lessen the impact of future hazard events. To access the survey, please use the following link:</p> <p>http://kwiksveys.com/s.asp?sid=yuncjfk0ws2ce31488065</p> <p>What is Hazard Mitigation?</p> <p>Hazard Mitigation is any cost-effective and sustained action taken to reduce or eliminate the long-term risk to human life or property from natural, technological, and human-caused hazards. Some examples are: State, Indian Tribal, and local governments are required to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance, including funding for mitigation projects. The Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended by the Disaster Mitigation Act of 2000, provides the legal basis for State, local, and Indian Tribal governments to undertake a risk-based approach to reducing risks from natural hazards through mitigation planning.</p> <p>What is the purpose of hazard mitigation planning?</p> <ol style="list-style-type: none"> 1. Identify the hazards that impact Hennepin County. 2. Identify actions and activities to reduce any losses from those hazards 3. Establish a coordinated process to implement the plan. <p>Why develop a Hazard Mitigation Plan?</p> <ol style="list-style-type: none"> 1. Protect Hennepin County residents 2. Create a disaster resilient community 3. Break the preparedness, response recovery cycle, 4. Fulfill the planning requirement under the Disaster Mitigation Act of 2000 to become eligible for hazard mitigation grant funding. <p>What are the benefits of hazard mitigation planning?</p> <ul style="list-style-type: none"> • Assisting local communities with reducing risks by identifying vulnerabilities and developing strategies to lessen and/or eliminate the effects of a potential hazard; • Building partnerships and reducing duplication of efforts among organizations with similar or overlapping goals; • Creating more sustainable and disaster-resistant communities 	

- Communicating needs to state and federal officials when funding becomes available, particularly after a disaster
- Increasing public awareness of local hazards and disaster preparedness.

Where can I find additional information about hazard mitigation?

- Minnesota Homeland Security and Emergency Management
- Federal Emergency Management Agency (FEMA)
- The Disaster Mitigation Act 2000

Press Release:

March 25, 2015

Hennepin County is updating the All-Hazard Mitigation Plan as required by the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Local jurisdictions are required to update the plan every 5 years in order to remain eligible for pre-disaster and post-disaster mitigation grant programs.

Community involvement and feedback is vital to the success of the Hennepin County All-Hazards Mitigation Plan. A survey questionnaire is now available that provides an opportunity for you to share your opinions and participate in the mitigation planning process. The information you provide will help us better understand your hazard concerns and can lead to mitigation activities that should help lessen the impact of future hazard events. To access the survey, please use the following link:

<http://kwiksveys.com/s.asp?sid=ynvcjkf0ws2ce31488065>

What is Hazard Mitigation?

Hazard Mitigation is any cost-effective and sustained action taken to reduce or eliminate the long-term risk to human life or property from natural, technological, and human-caused hazards. Some examples are:

- Retrofitting Water Supply Systems
- Stabilize Erosion Hazard Areas
- Elevate or Retrofit Structures and Utilities
- Build Safe Rooms etc....

What is the purpose of hazard mitigation planning?

1. Identify the hazards that impact Hennepin County
2. Identify actions and activities to reduce any losses from those hazards
3. Establish a coordinated process to implement the plan

Why develop a Hazard Mitigation Plan?

1. Protect Hennepin County residents
2. Create a disaster resilient community
3. Break the preparedness, response, and recovery cycle
4. Fulfill the planning requirement under the Disaster Mitigation Act of 2000 to become eligible for hazard mitigation grant funding

What are the benefits of hazard mitigation planning?

- Assisting local communities with reducing risks by identifying vulnerabilities and developing strategies to lessen and/or eliminate the effects of a potential hazard

- Building partnerships and reducing duplication of efforts among organizations with similar or overlapping goals
- Creating more sustainable and disaster-resistant communities
- Communicating needs to state and federal officials when funding becomes available, particularly after a disaster
- Increasing public awareness of local hazards and disaster preparedness

Where can I find additional information about hazard mitigation?

- Minnesota Homeland Security and Emergency Management
- Federal Emergency Management Agency (FEMA)
- The Disaster Mitigation Act 2000

Press Release:

June 26, 2015

Weigh in on Hennepin County's All-Hazard Mitigation Plan

Hennepin County is updating the All-Hazard Mitigation Plan, as required by the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Local jurisdictions are required to update the plan every five years to remain eligible for pre-disaster and post-disaster mitigation grant programs.

Community involvement and feedback are vital to the success of the plan. The information you provide by completing the survey will help us better understand your hazard concerns and can lead to mitigation activities that should help lessen the impact of future hazard events.

Access the survey

Learn about hazard mitigation

We work to identify cost-effective and sustained actions to reduce or eliminate the long-term risk to human life or property from natural, technological, and human-caused hazards. Some examples include:

- Retrofitting water supply systems
- Stabilizing erosion hazard areas
- Elevating or retrofitting structures and utilities
- Building public safe rooms

Hazard mitigation planning helps county emergency management planners to identify the types of hazards that could affect Hennepin County. Planning also helps us to identify actions to help to reduce losses from those hazards, and to establish a coordinated process to implement the plan.

The benefits of hazard mitigation planning

Planning ultimately helps us to protect Hennepin County residents. We assist local communities by identifying vulnerabilities and by developing strategies to reduce or eliminate the effects of a potential hazard. We build partnerships and reduce duplication of efforts among organizations with similar or overlapping goals. In addition, increasing public awareness of local hazards and disaster preparedness helps to create a community that is resilient to disaster, and breaks the cycle of prepare, response, recovery.

Finally, we are required to fulfill the planning requirement under the Disaster Mitigation Act of 2000 to become eligible for federal grant funding. We also communicate the community's needs to state and federal officials when funding becomes available, particularly after a disaster.

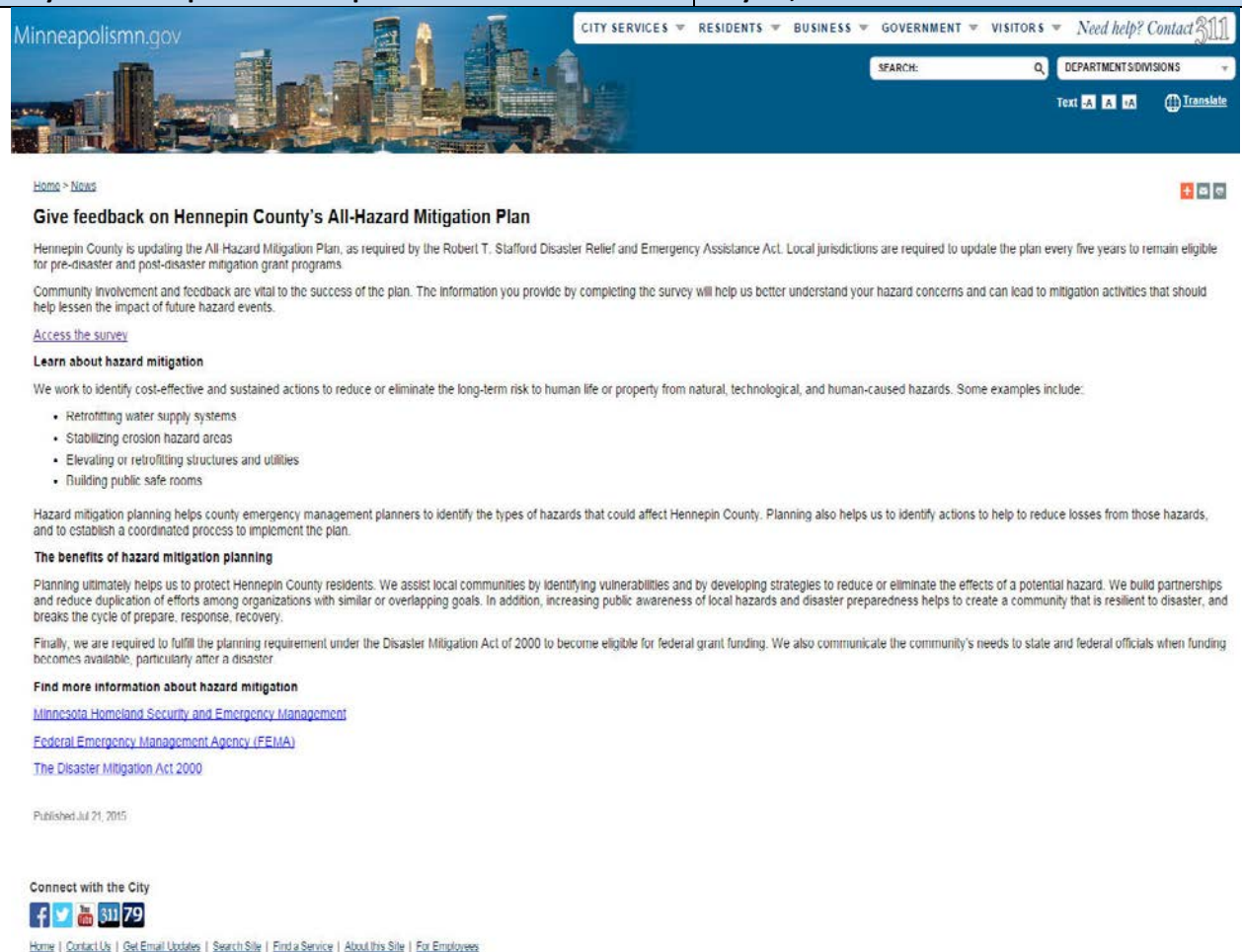
Find more information about hazard mitigation

[Minnesota Homeland Security and Emergency Management](#)
[Federal Emergency Management Agency \(FEMA\)](#)
[The Disaster Mitigation Act 2000](#)

Survey Link: <http://kwiksveys.com/s/ynvcj0ws2ce31488065>

City of Minneapolis website post

July 22, 2015



The screenshot shows a webpage from Minneapolis.gov. The header includes navigation links for CITY SERVICES, RESIDENTS, BUSINESS, GOVERNMENT, VISITORS, and a 'Need help? Contact 311' button. A search bar and 'DEPARTMENT/DIVISIONS' dropdown are also present. The main content area features a headline 'Give feedback on Hennepin County's All-Hazard Mitigation Plan' with a sub-headline 'Hennepin County is updating the All Hazard Mitigation Plan, as required by the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Local jurisdictions are required to update the plan every five years to remain eligible for pre-disaster and post-disaster mitigation grant programs.' The text explains that community involvement and feedback are vital to the success of the plan. A link 'Access the survey' is provided. Below this, a section titled 'Learn about hazard mitigation' states that the goal is to identify cost-effective actions to reduce risk. A bulleted list includes: 'Retrofitting water supply systems', 'Stabilizing erosion hazard areas', 'Elevating or retrofitting structures and utilities', and 'Building public safe rooms'. Further text explains that hazard mitigation planning helps county emergency management planners identify hazards and actions to reduce losses. A section titled 'The benefits of hazard mitigation planning' states that planning helps protect residents by identifying vulnerabilities and developing strategies. The final paragraph reiterates the requirement under the Disaster Mitigation Act of 2000. At the bottom, there is a 'Find more information about hazard mitigation' section with links to 'Minnesota Homeland Security and Emergency Management', 'Federal Emergency Management Agency (FEMA)', and 'The Disaster Mitigation Act 2000'. The page is dated 'Published Jul 21, 2015' and includes social media links for Facebook, Twitter, YouTube, and a '311 79' button. A footer contains links for 'Home', 'Contact Us', 'Get Email Updates', 'Search Site', 'Find a Service', 'About This Site', and 'For Employees'.

Appendix E	City Capability Questionnaire		
Reference to:	Section 5	5.1A to 5.1D	Page 49

CITY CAPABILITY QUESTIONNAIRE

City Capability questionnaire City _____

Section 6: Mitigation Strategies POC _____

Place an "X" in the box next to each capability your jurisdiction currently has

Planning Tools- these are plans that assist in implementing hazard mitigation projects

State Hazard Mitigation Plan	
City Emergency Operations Plan	
Continuity of Operations Plan (department level)	
Post Disaster Recovery Plan	
Capital Improvement Plan	
Economic Development Plan	
Transportation Plan	
Other _____	

Administrative and Technical- staff capabilities

Planning Commission	
Maintenance Program	
Mutual Aid Agreements	
Community Rating System member	
Emergency Manager	
Community Planner	
Civil Engineer	
GIS Specialist	
Other _____	

Fiscal- avenues and means of funding

Capital Improvement Project Funding	
Authority to level taxes for specific purposes	
Utility Fees- Water, Storm, Sewer, Gas, Electric	
Development Impact Fees	
Community Developmental Block Grants	
Federal/State Funding	
Tax Incremental Financing (TIF)	
Other _____	

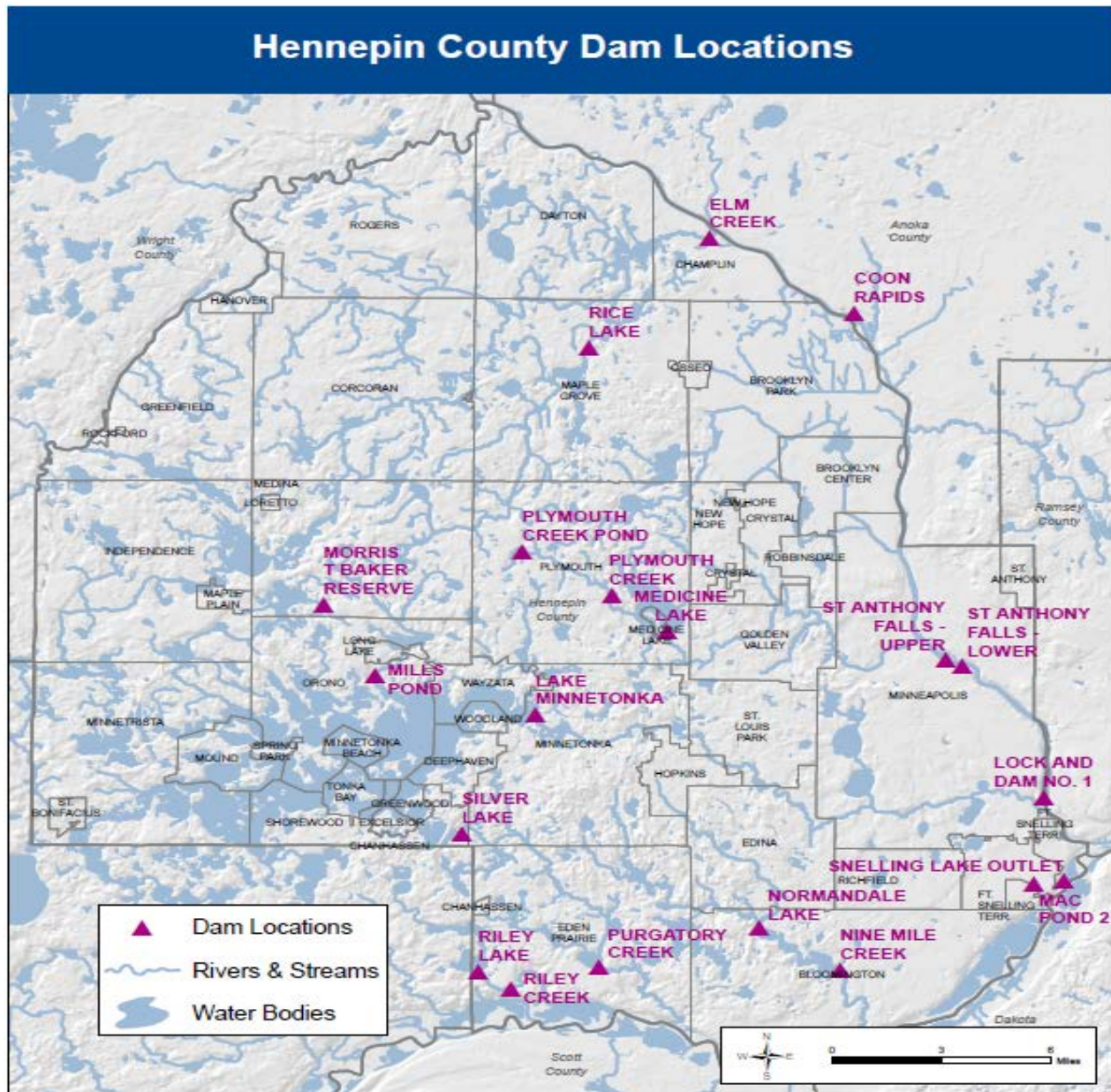
Education and Training- programs and groups

CERT Team	
Regular Training- Emergency Management	
Exercises (Table Top to Full Scale)	
Hazard Education in Schools	
Citizens Group of Non-Profit focused on EM	
Public/Private Partnerships	
Storm Ready	
Fire Wise	
WebEOC	
Other _____	

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Appendix 6	Community Map Series		
Reference to:	Section		Page

1. Bodies of Water



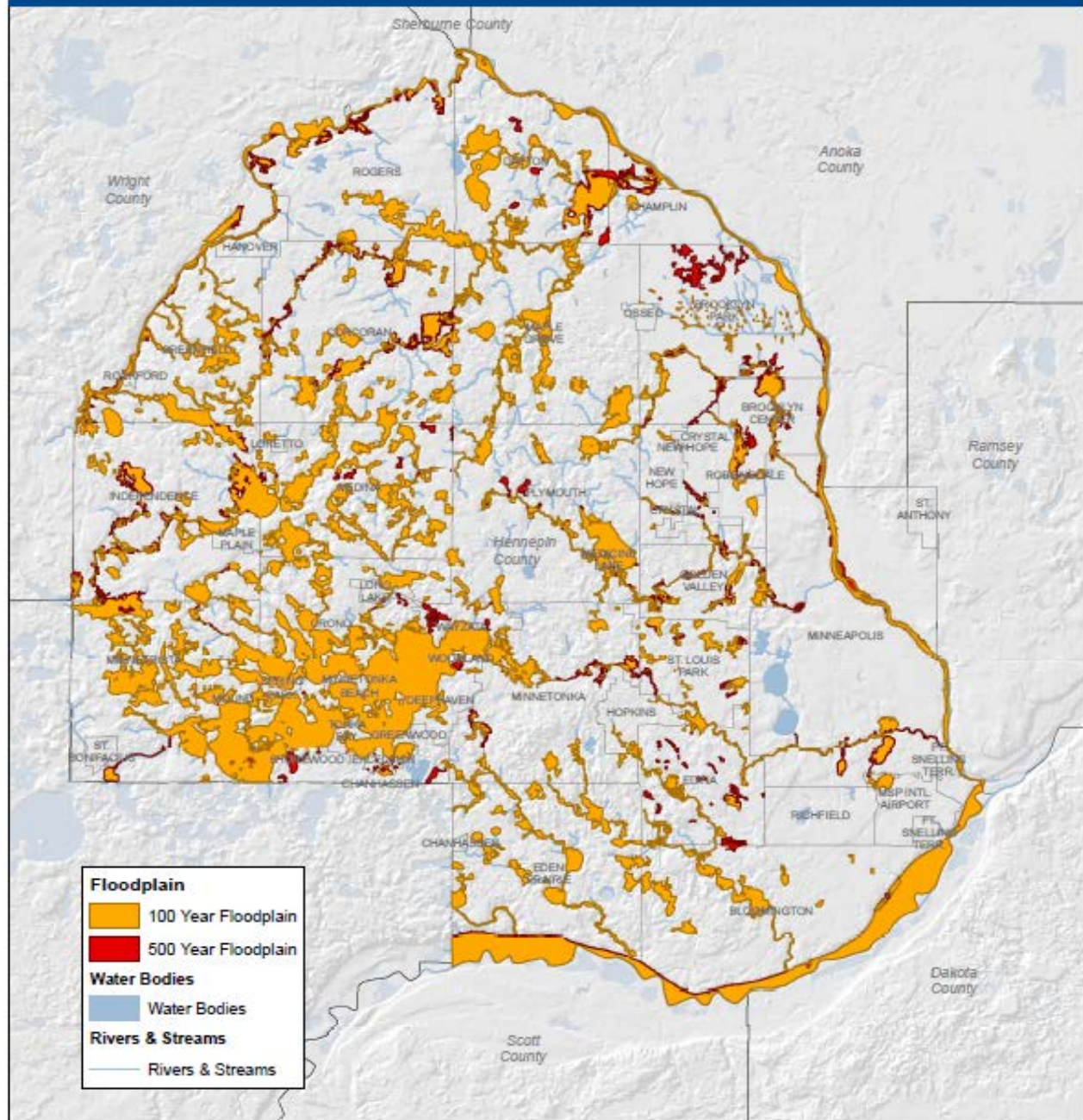
Hennepin County 2015 Mitigation Plan
Publication date: 1/12/2016

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Hennepin County Emergency Management



Hennepin County FEMA Floodplains



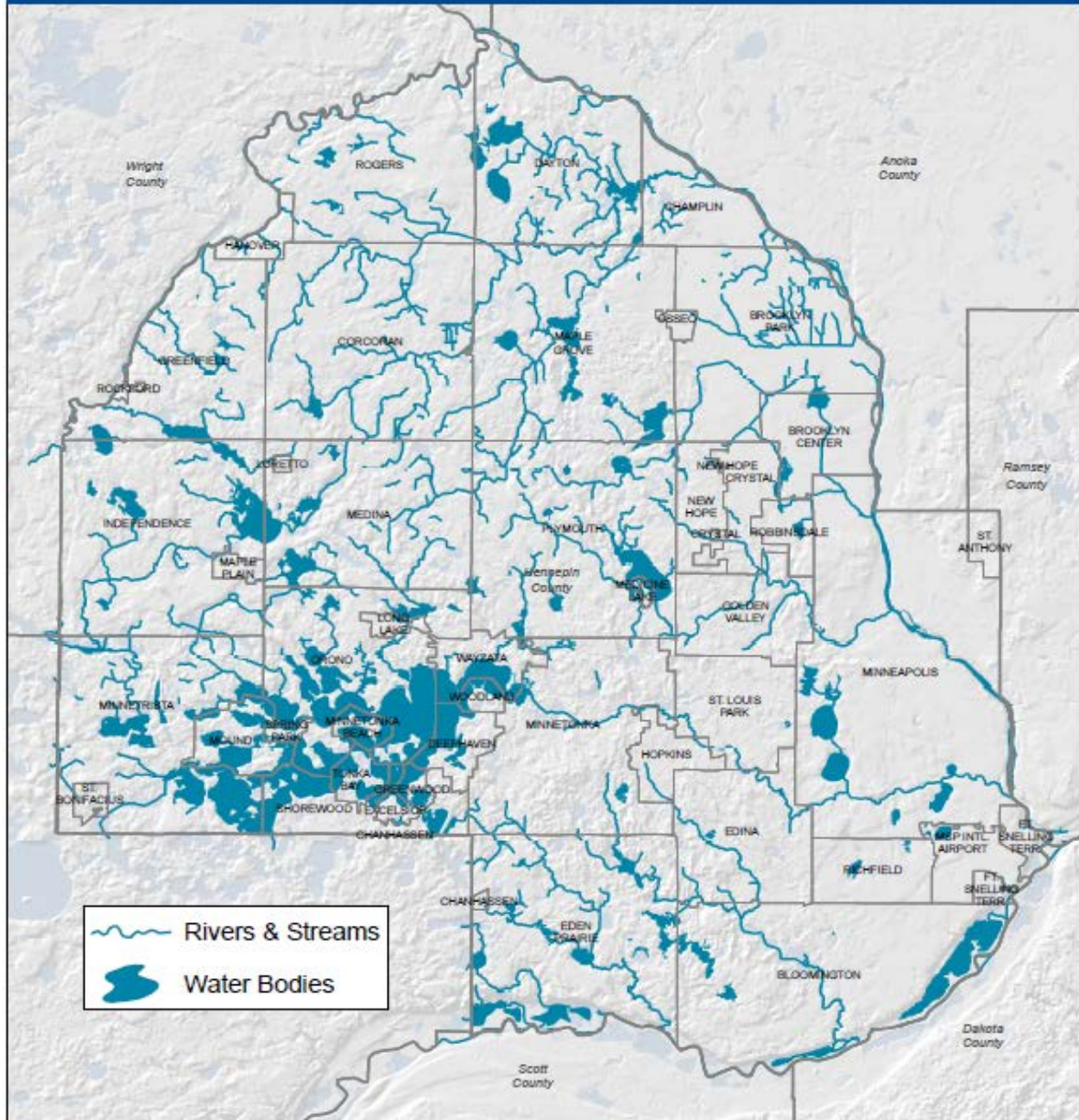
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Hennepin County Emergency Management



Hennepin County Rivers, Streams & Water Bodies

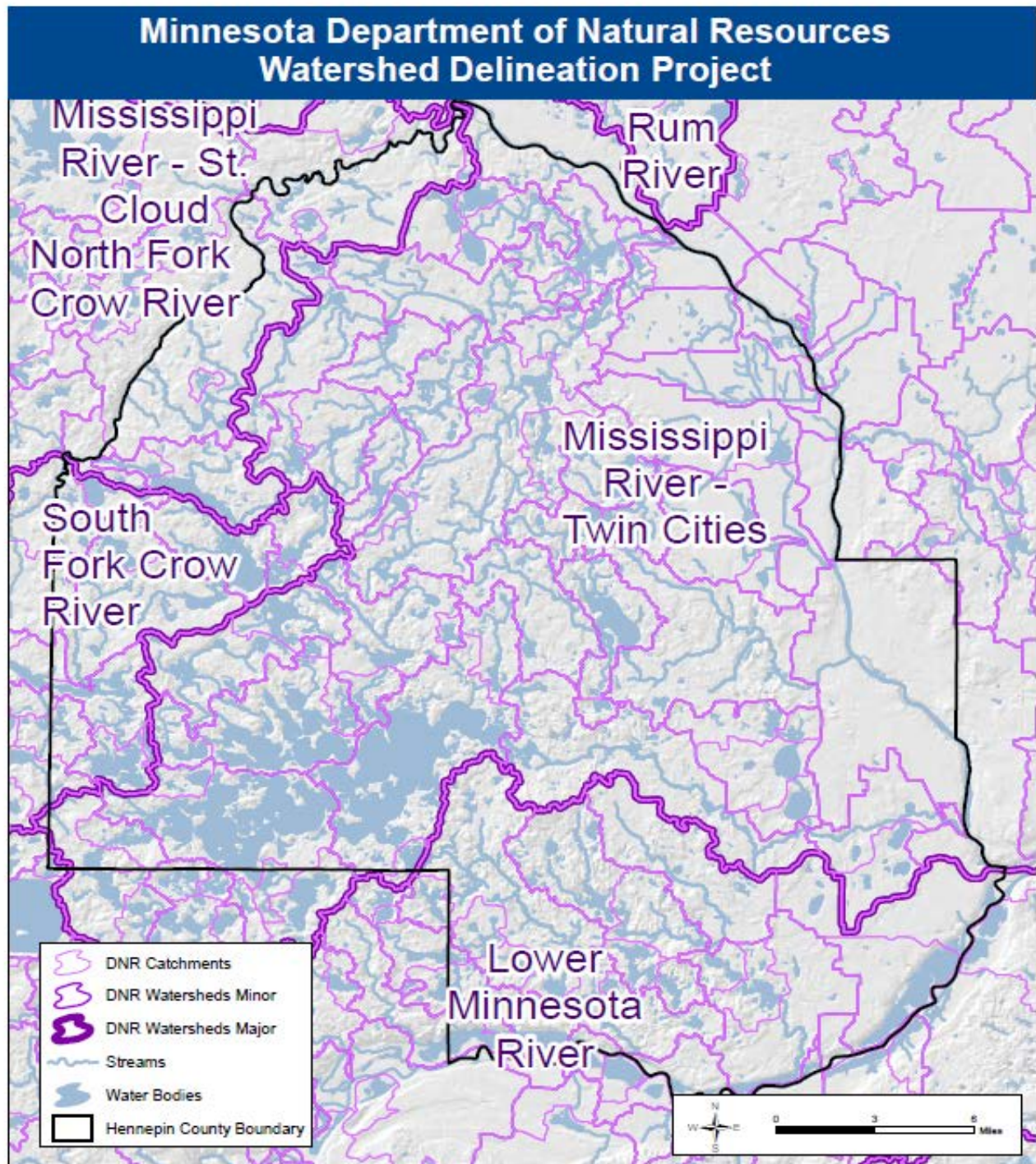


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Hennepin County Emergency Management



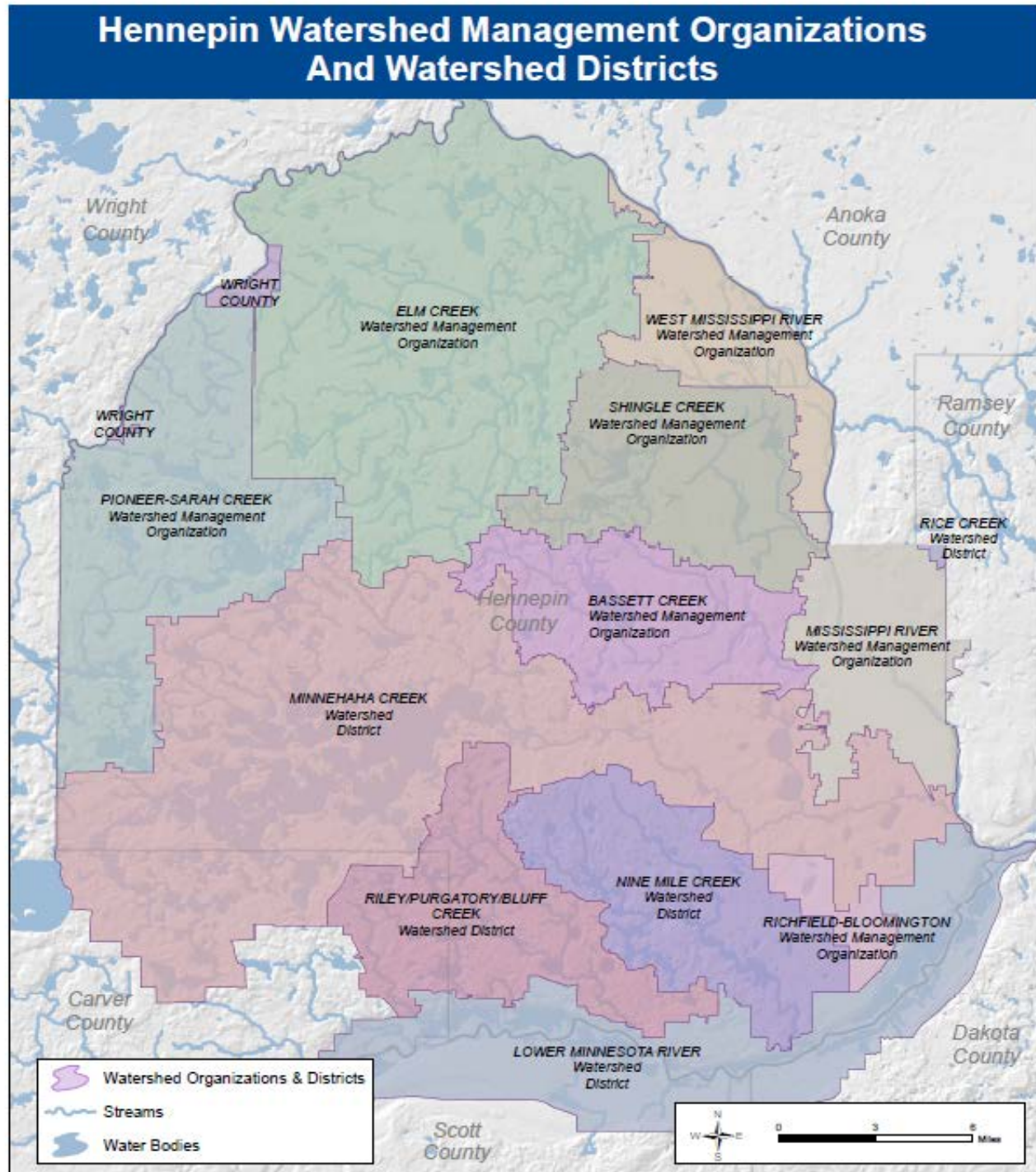


Hennepin County 2015 Mitigation Plan
Publication date: 6/10/2016

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Hennepin County Emergency Management





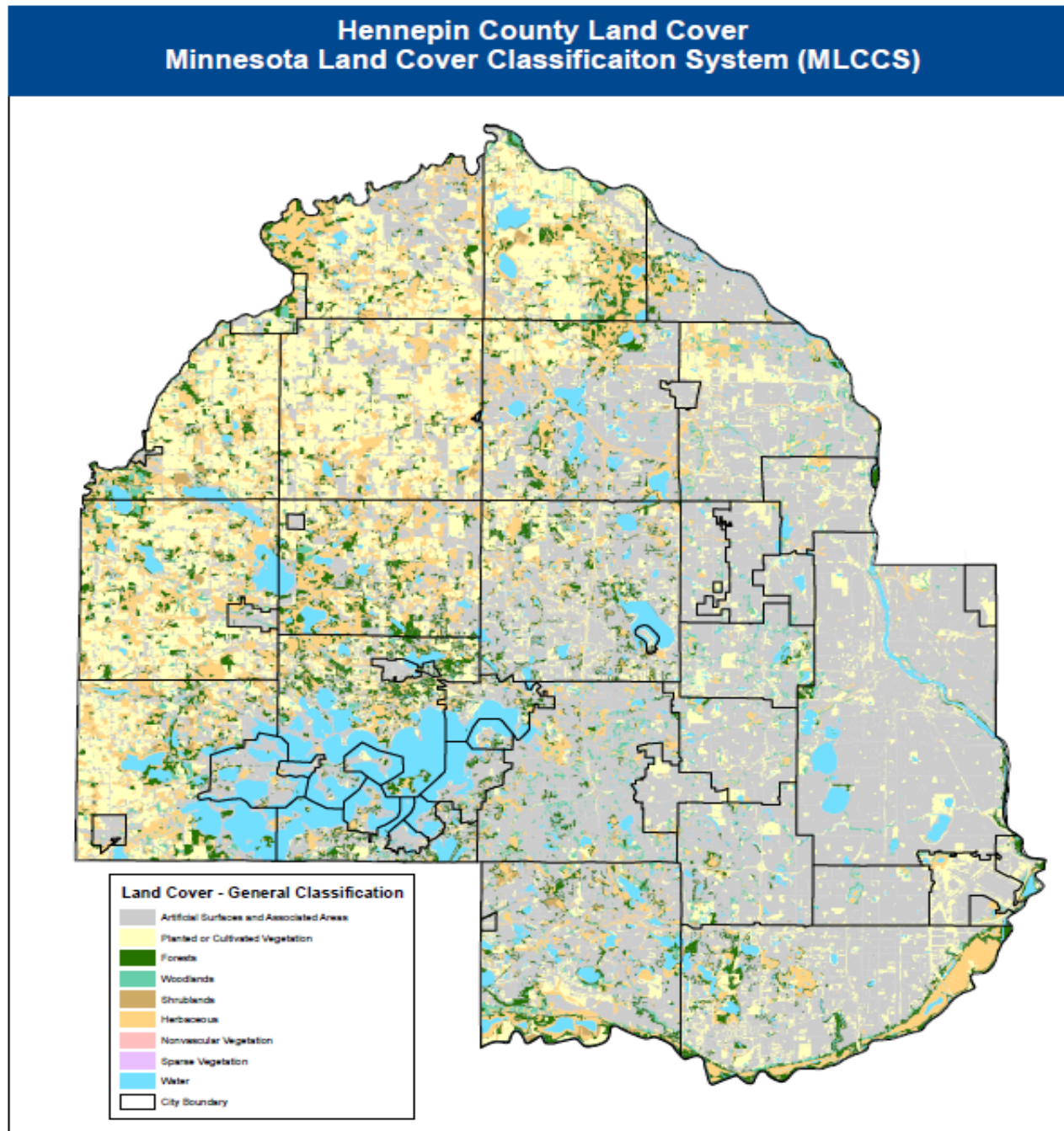
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Publication date: 1/19/2016

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Hennepin County Emergency Management



2. Geography



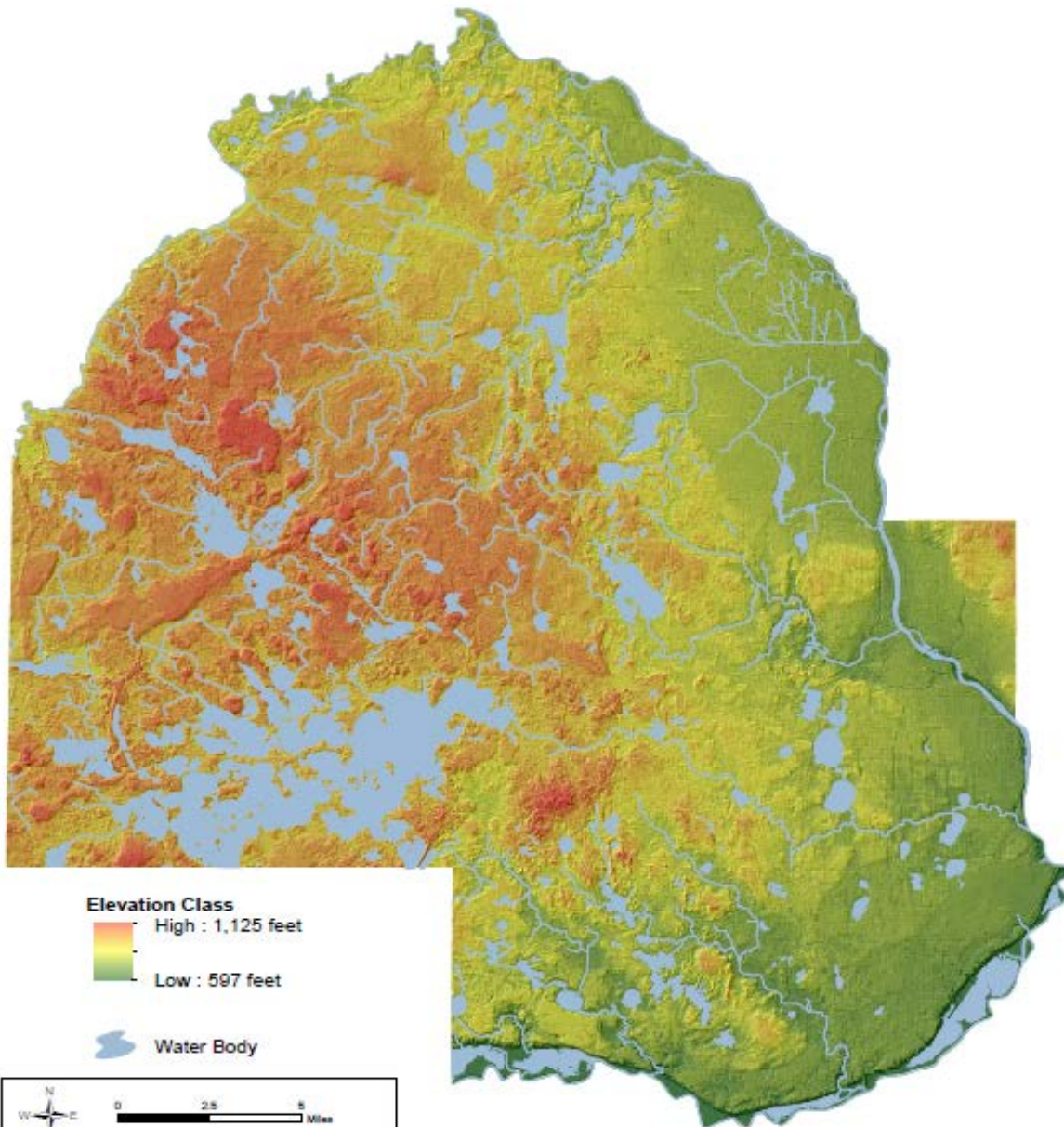
Hennepin County 2015 Mitigation Plan
Publication date: 12/2/2015

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Hennepin County Emergency Management



Hennepin County Shaded Relief and Terrain Digital Elevation Model (DEM 2011)

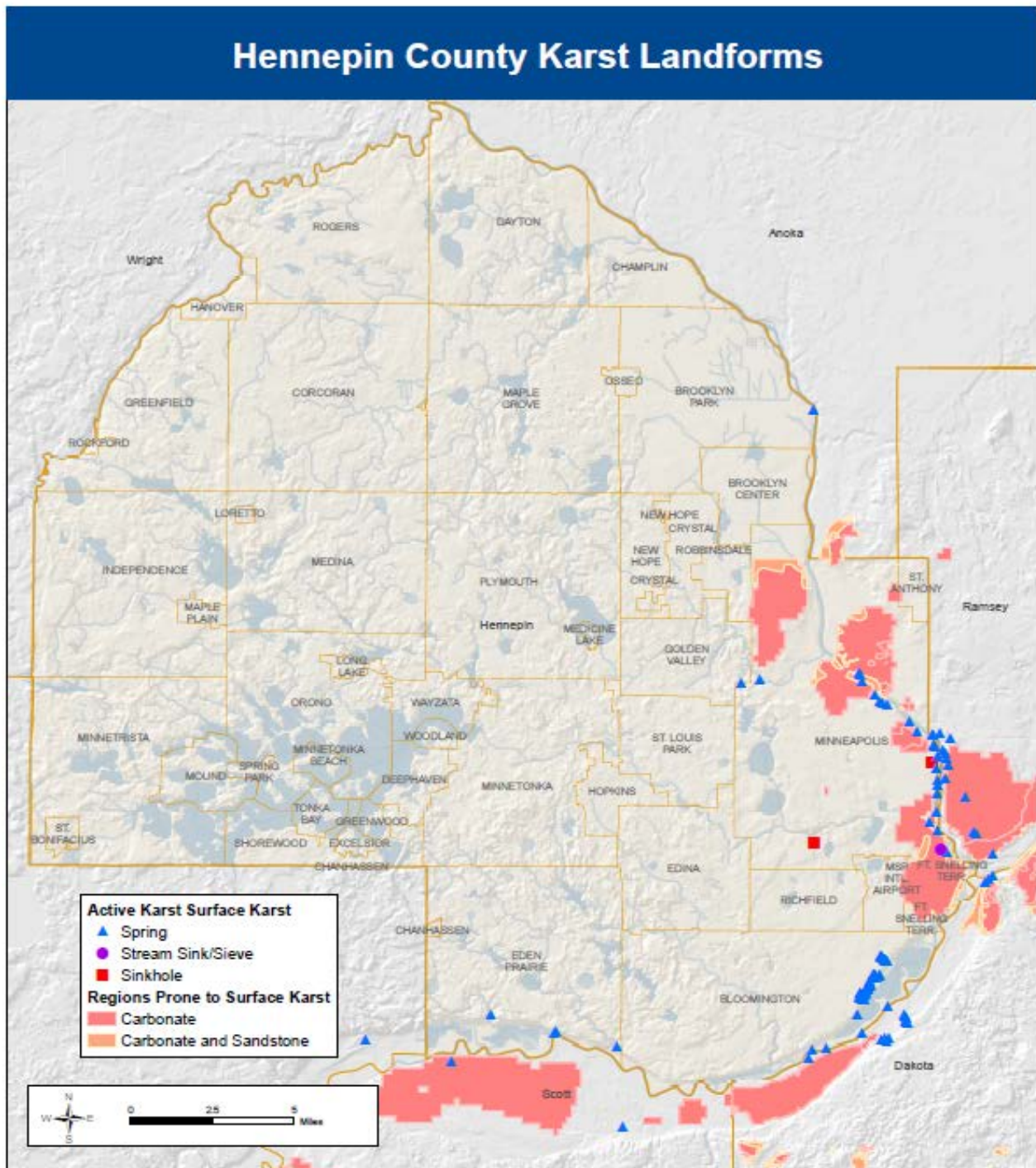


Hennepin County 2015 Mitigation Plan
Publication date: 2/19/2016

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Hennepin County Emergency Management





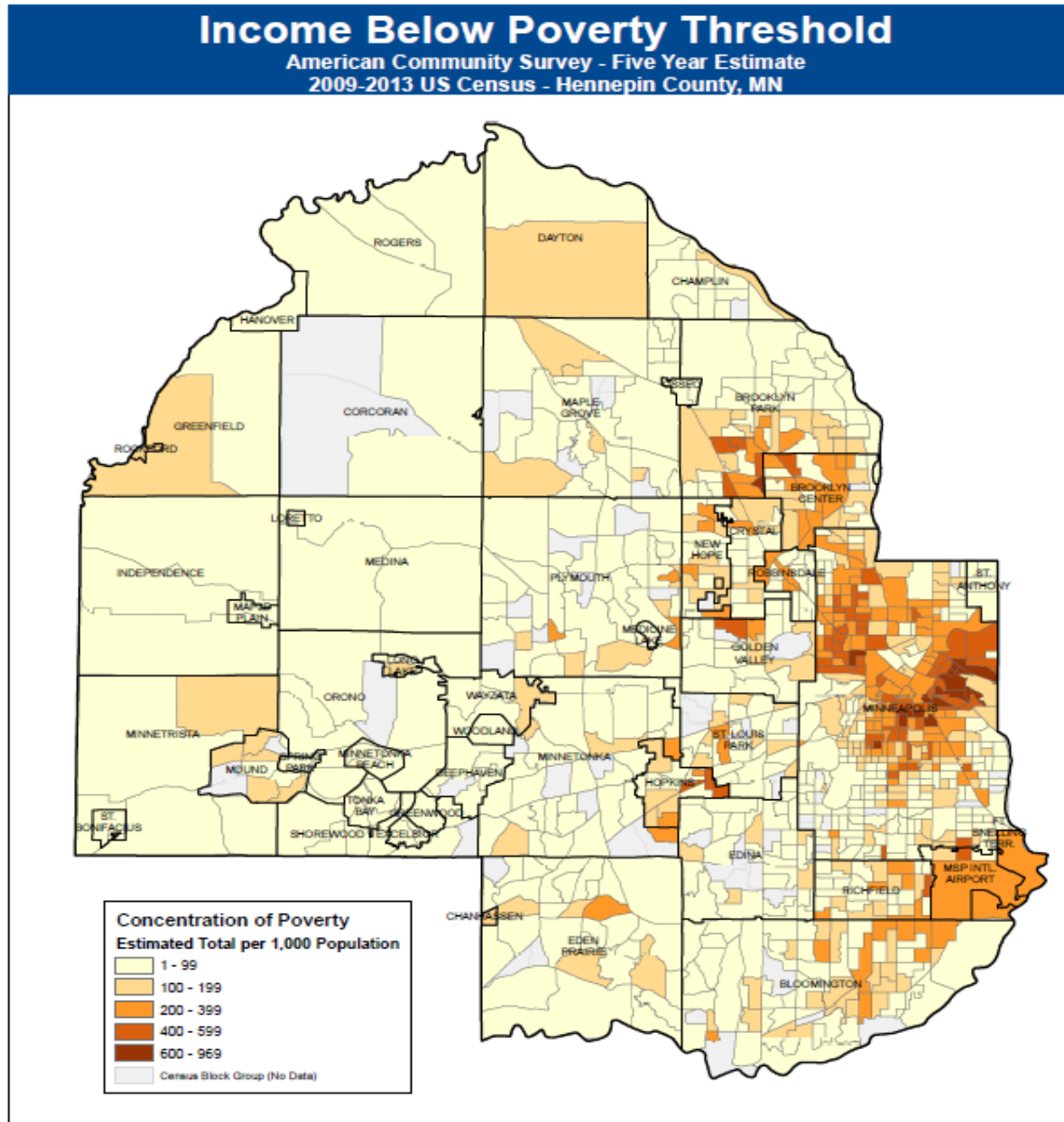
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Hennepin County Emergency Management



3. Income and Poverty



Hennepin County 2015 Mitigation Plan

Data Source: United States Census
Date Created: 2/3/2016

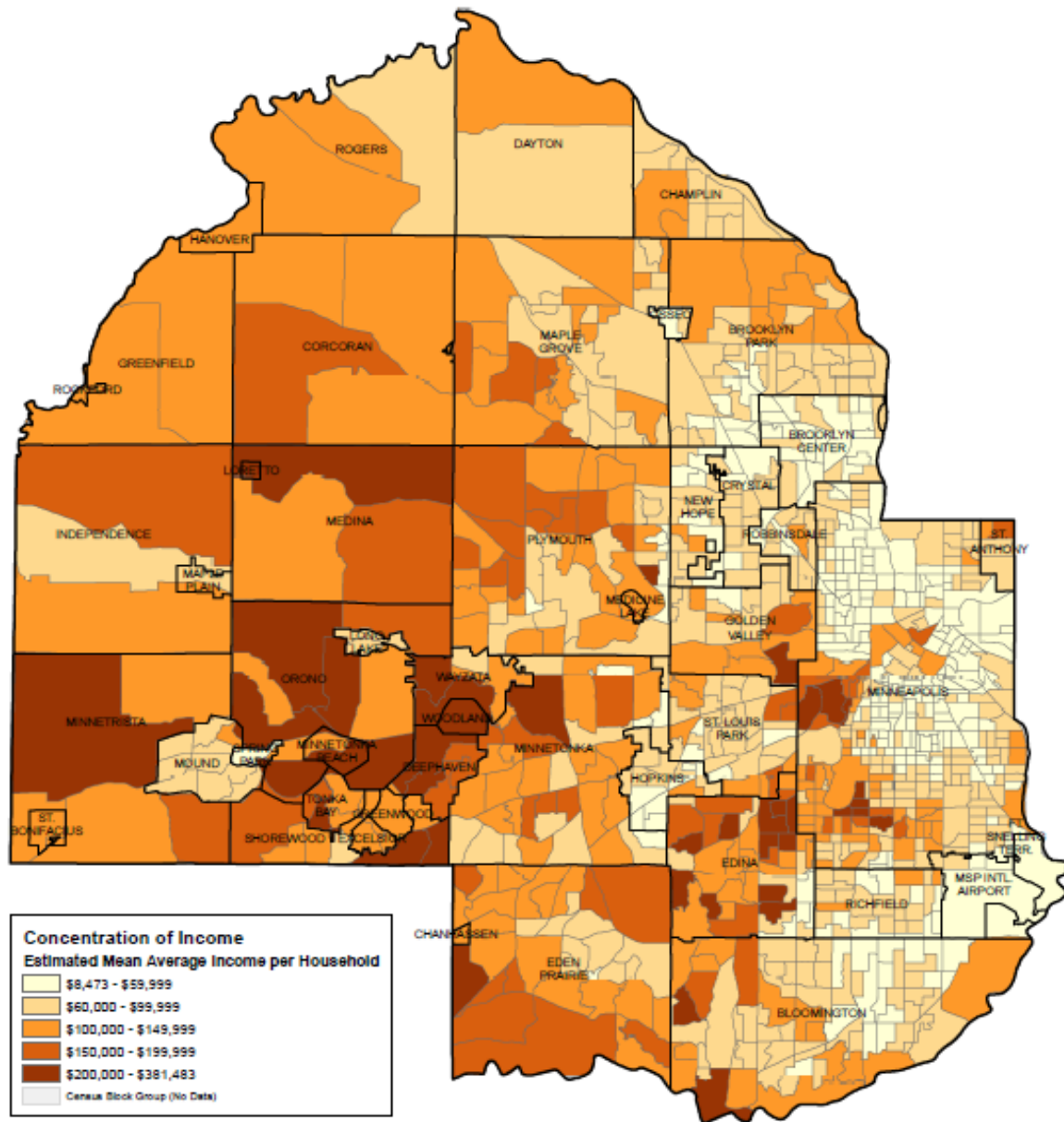
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Hennepin County Emergency Management



Mean Average Income Per Household

American Community Survey - Five Year Estimate
2009-2013 US Census - Hennepin County, MN



Hennepin County 2015 Mitigation Plan

Data Source: United States Census
Date Created: 2/3/2016

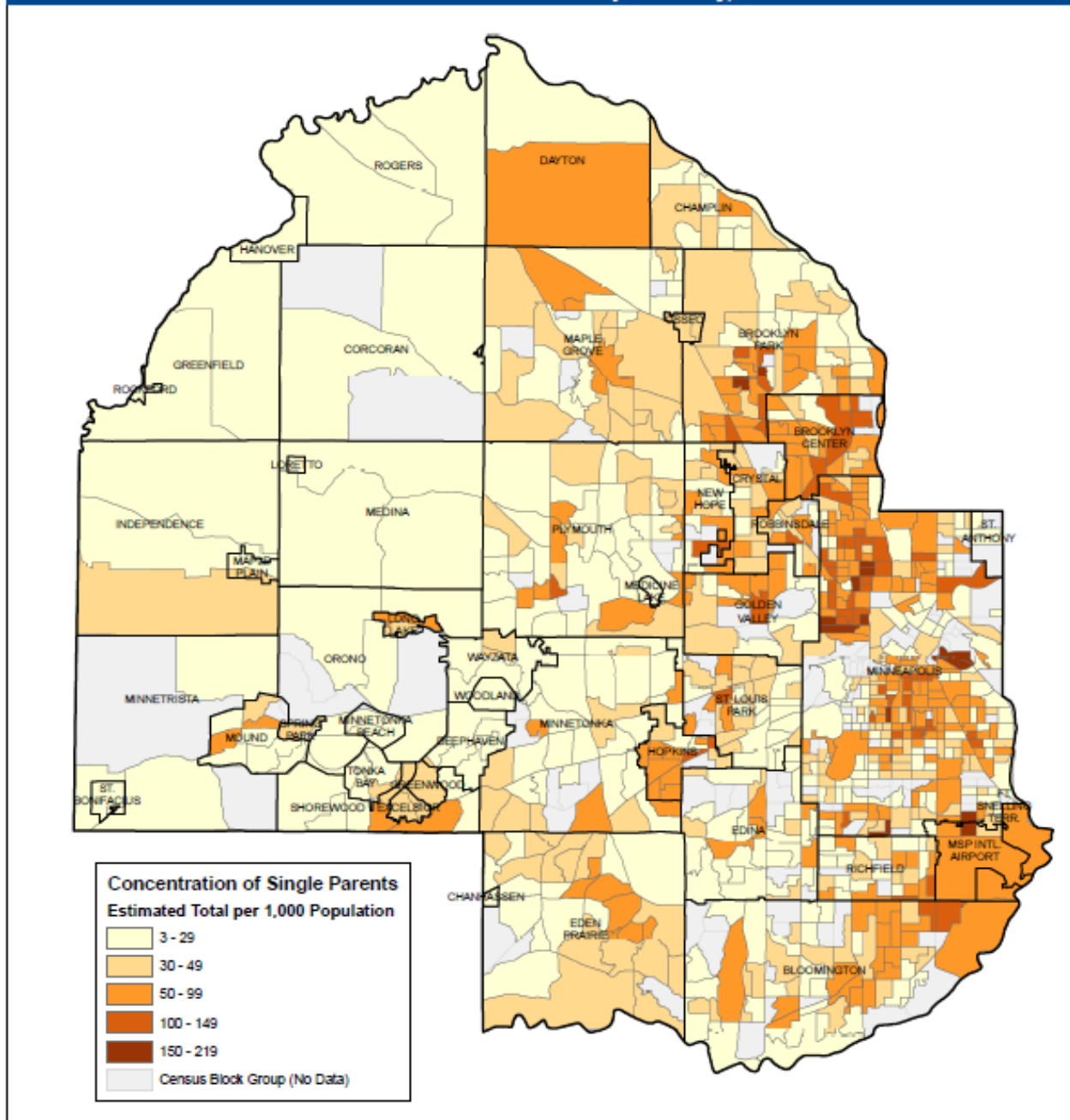
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Hennepin County Emergency Management



Single Parent Families With Children Under 18

American Community Survey - Five Year Estimate
2009-2013 US Census- Hennepin County, MN



Hennepin County 2015 Mitigation Plan

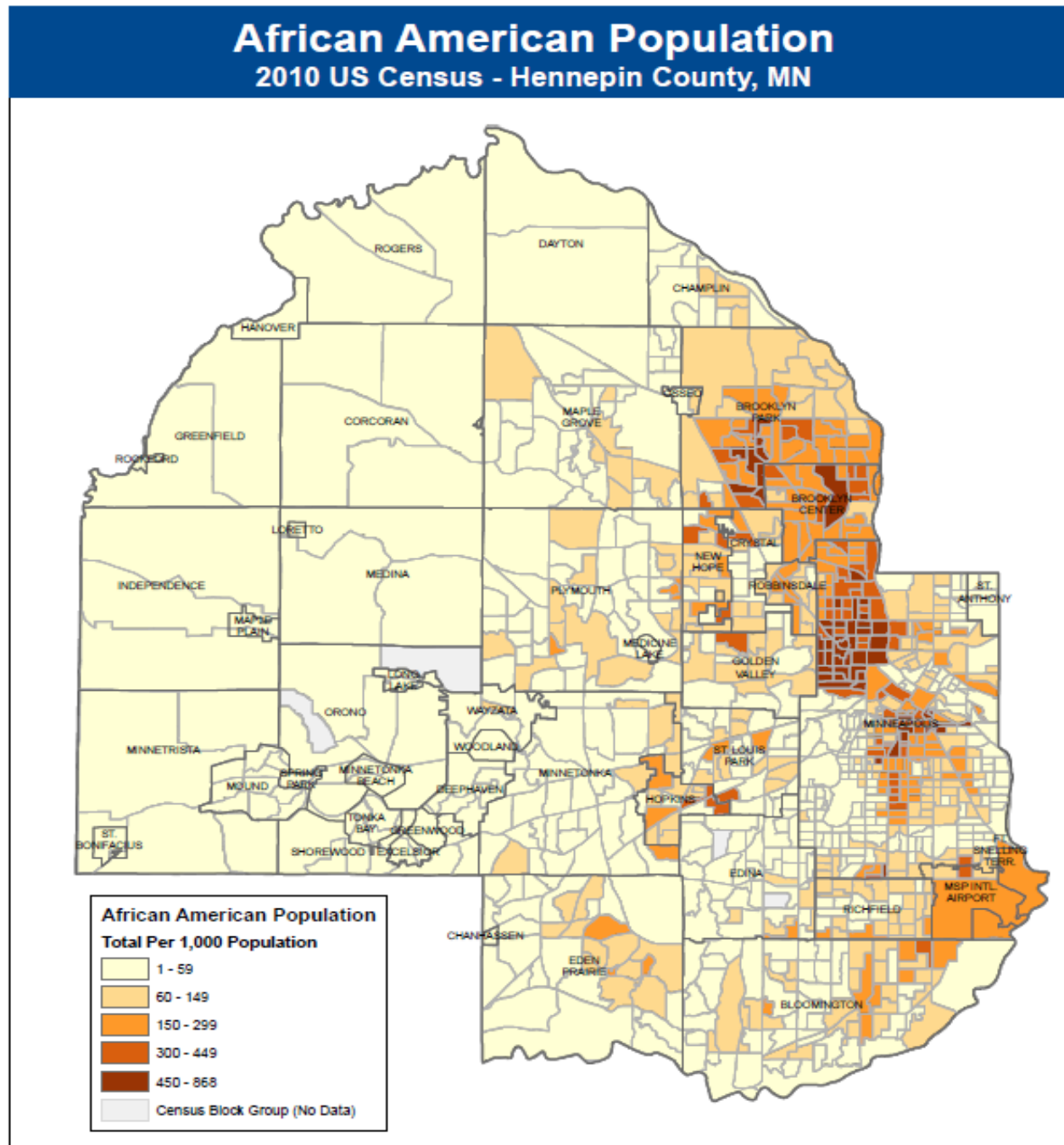
Data Source: United States Census
Date Created: 2/3/2016

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Hennepin County Emergency Management



4. Population



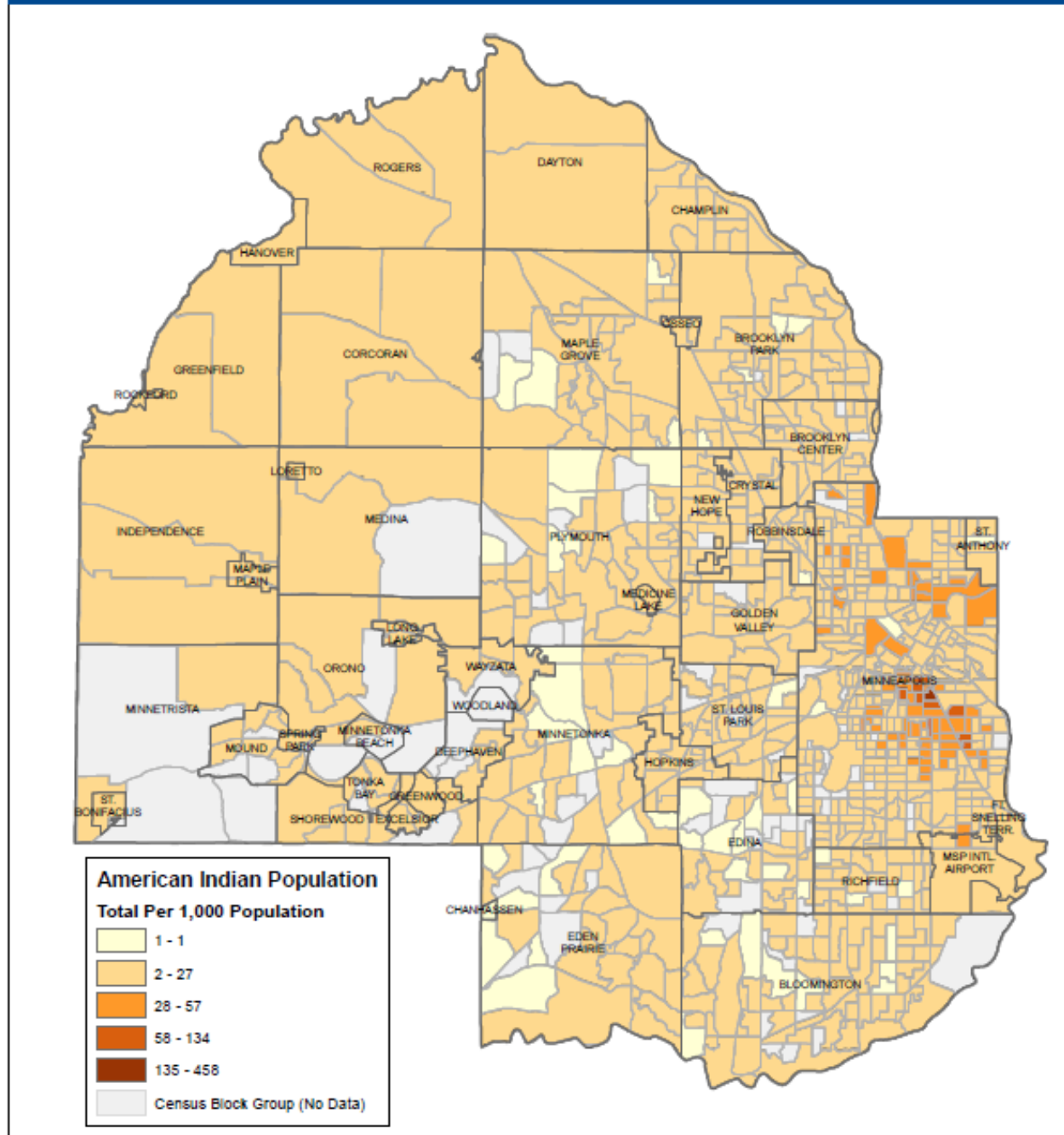
Hennepin County 2015 Mitigation Plan
Publication date: 2/3/2016

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Hennepin County Emergency Management



American Indian Population 2010 US Census - Hennepin County, MN



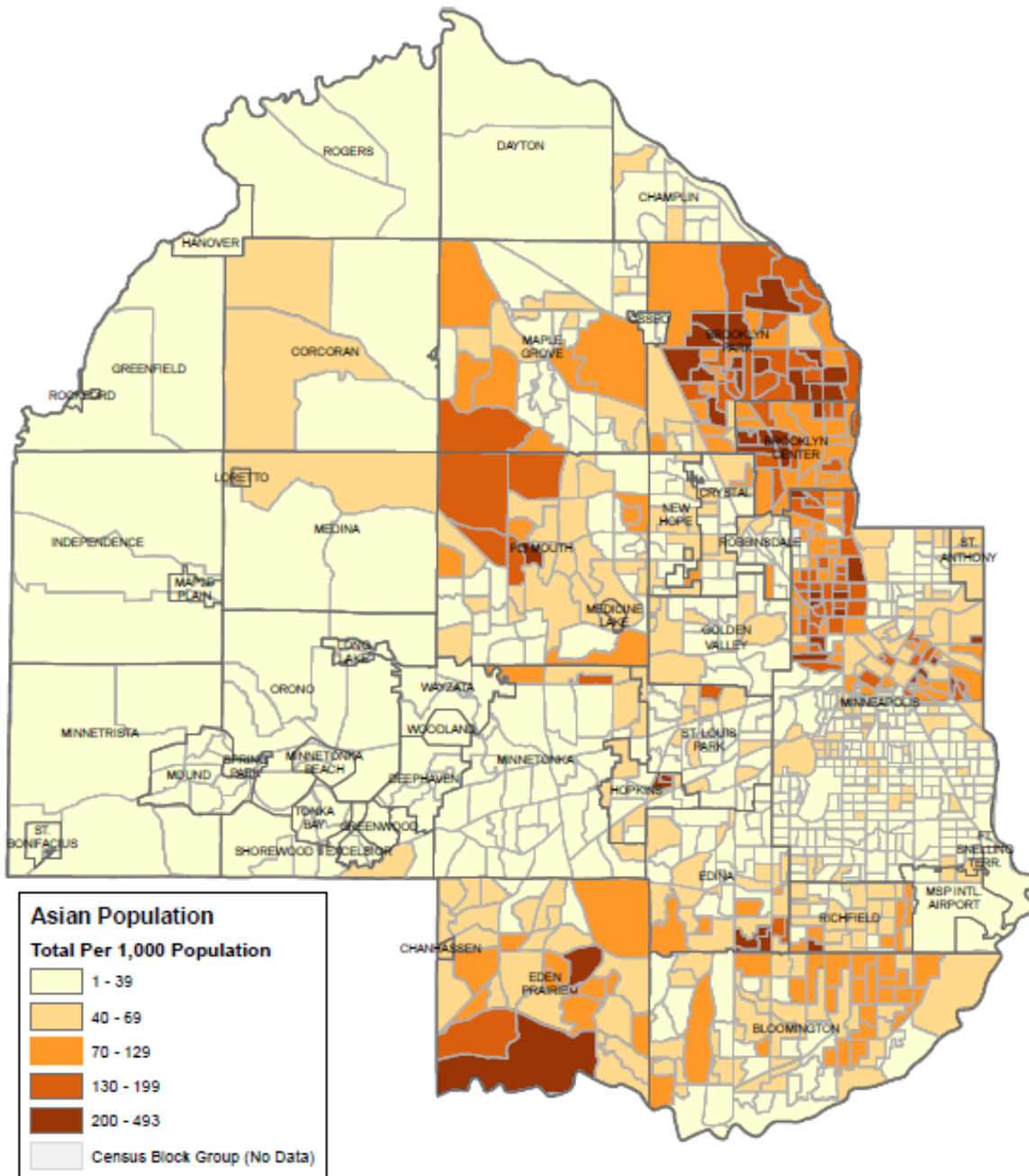
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Publication date: 2/3/2016

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Hennepin County Emergency Management



Asian Population 2010 US Census - Hennepin County, MN

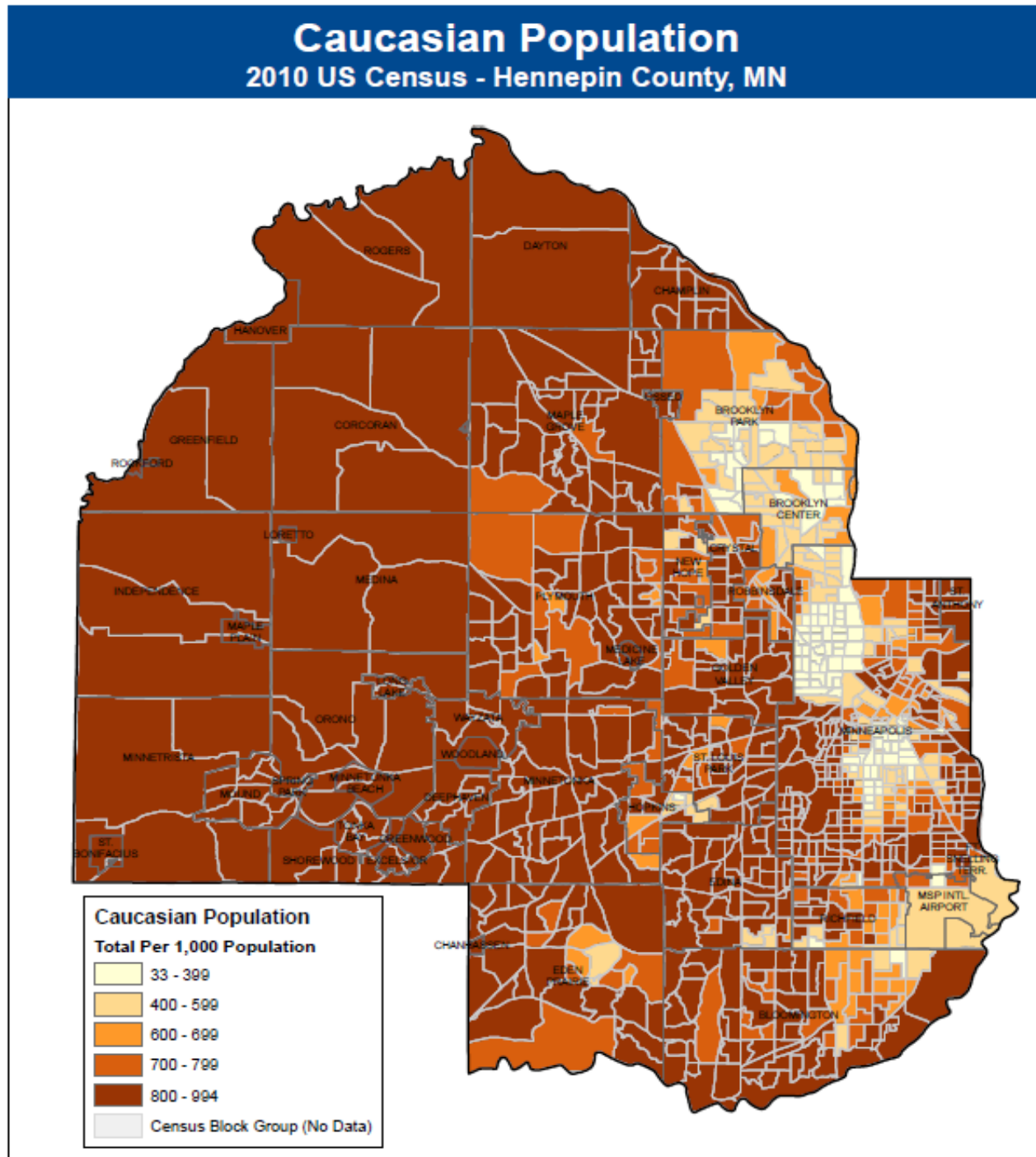


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Hennepin County Emergency Management





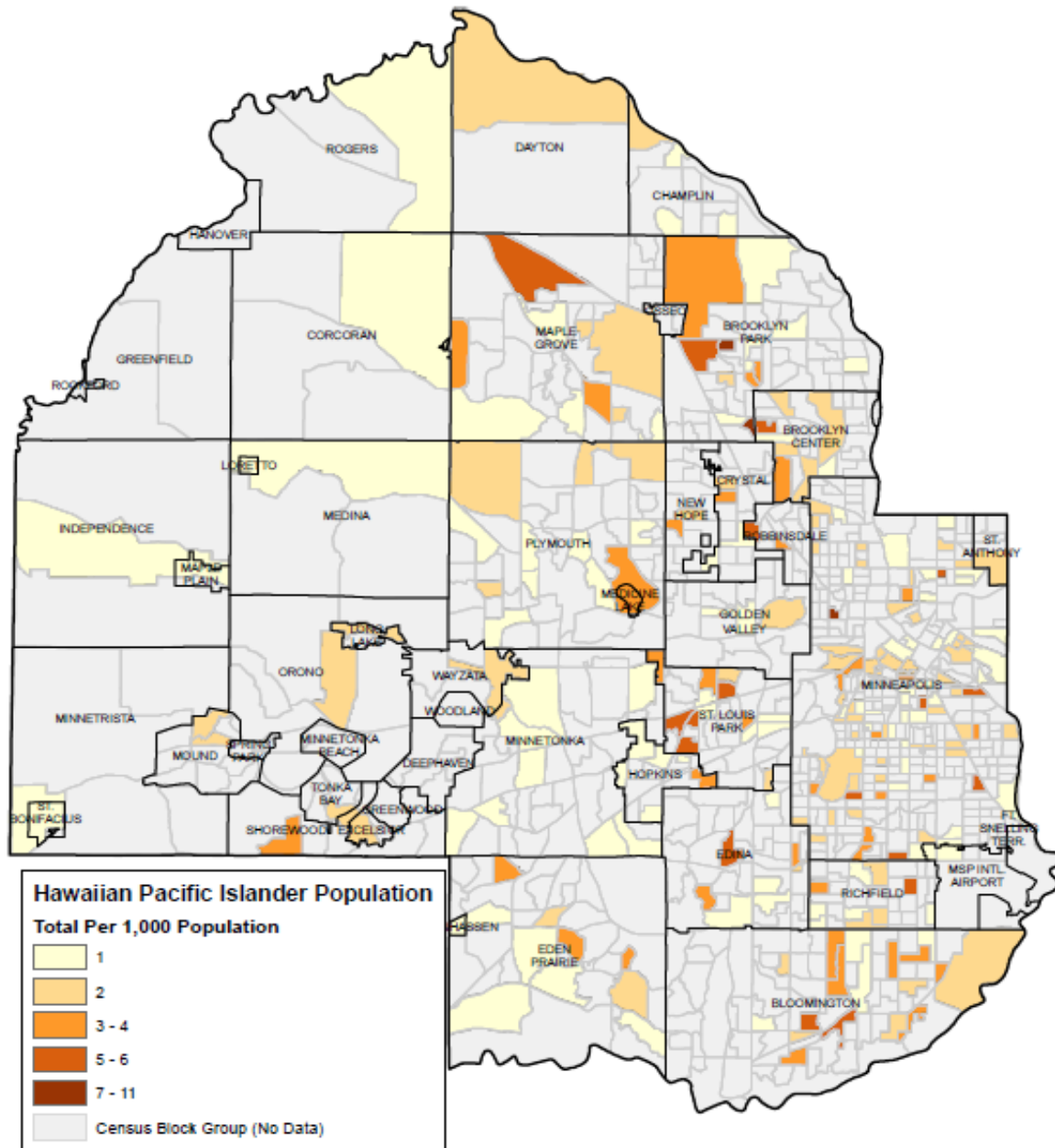
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Hennepin County Emergency Management



Hawaiian Pacific Islander Population 2010 US Census - Hennepin County, MN



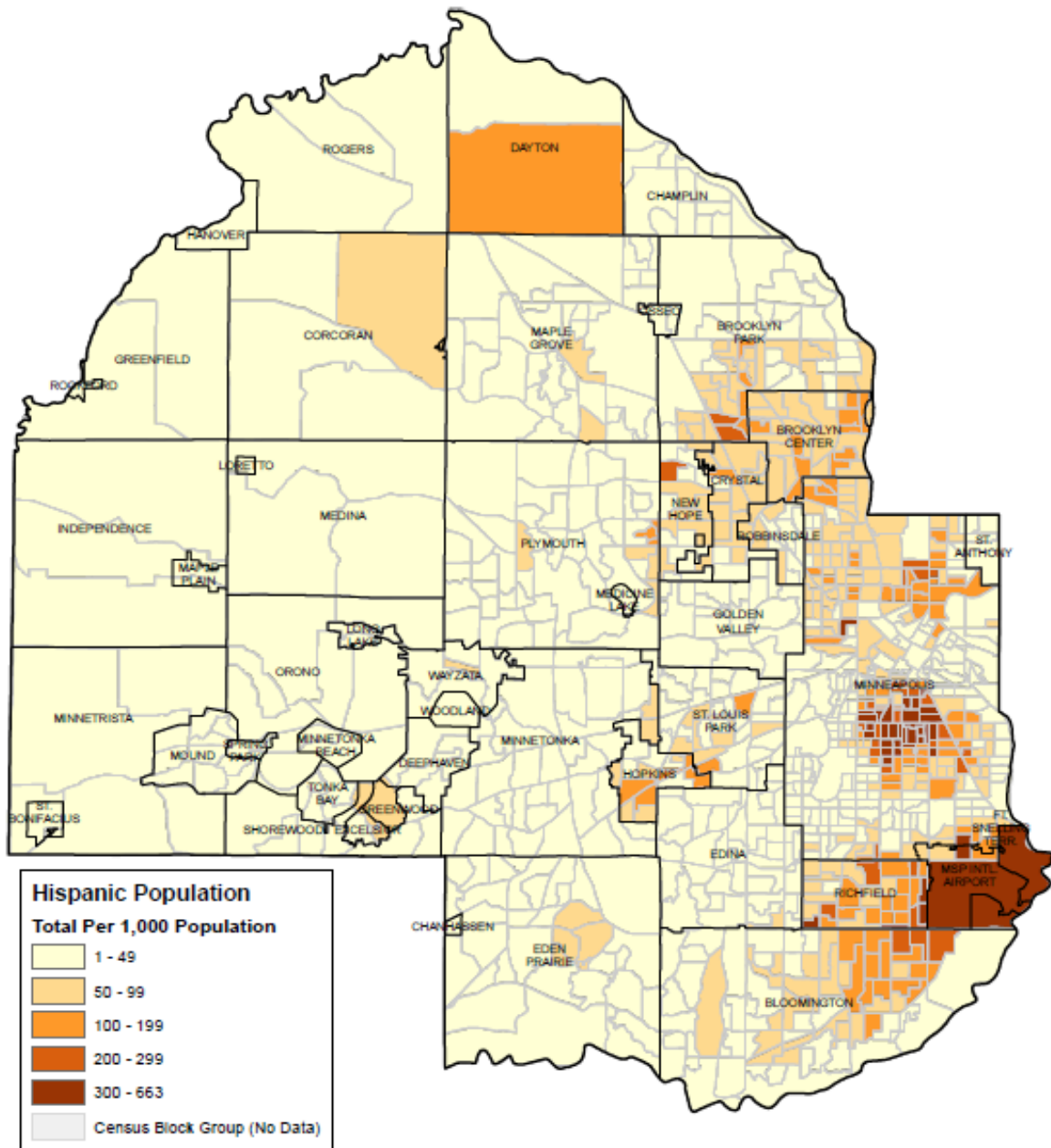
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Hennepin County Emergency Management



Hispanic Population 2010 US Census - Hennepin County, MN

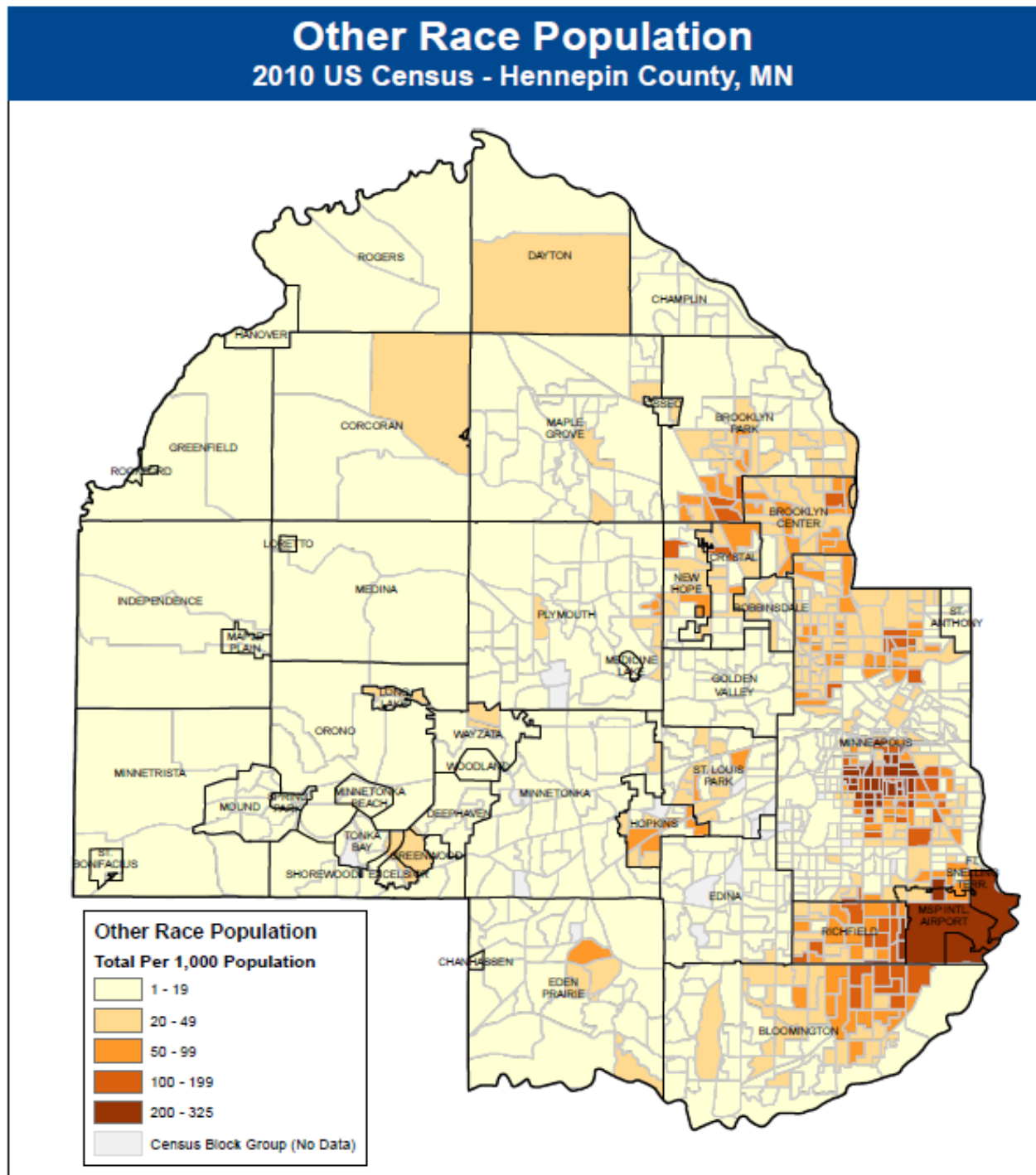


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Hennepin County Emergency Management





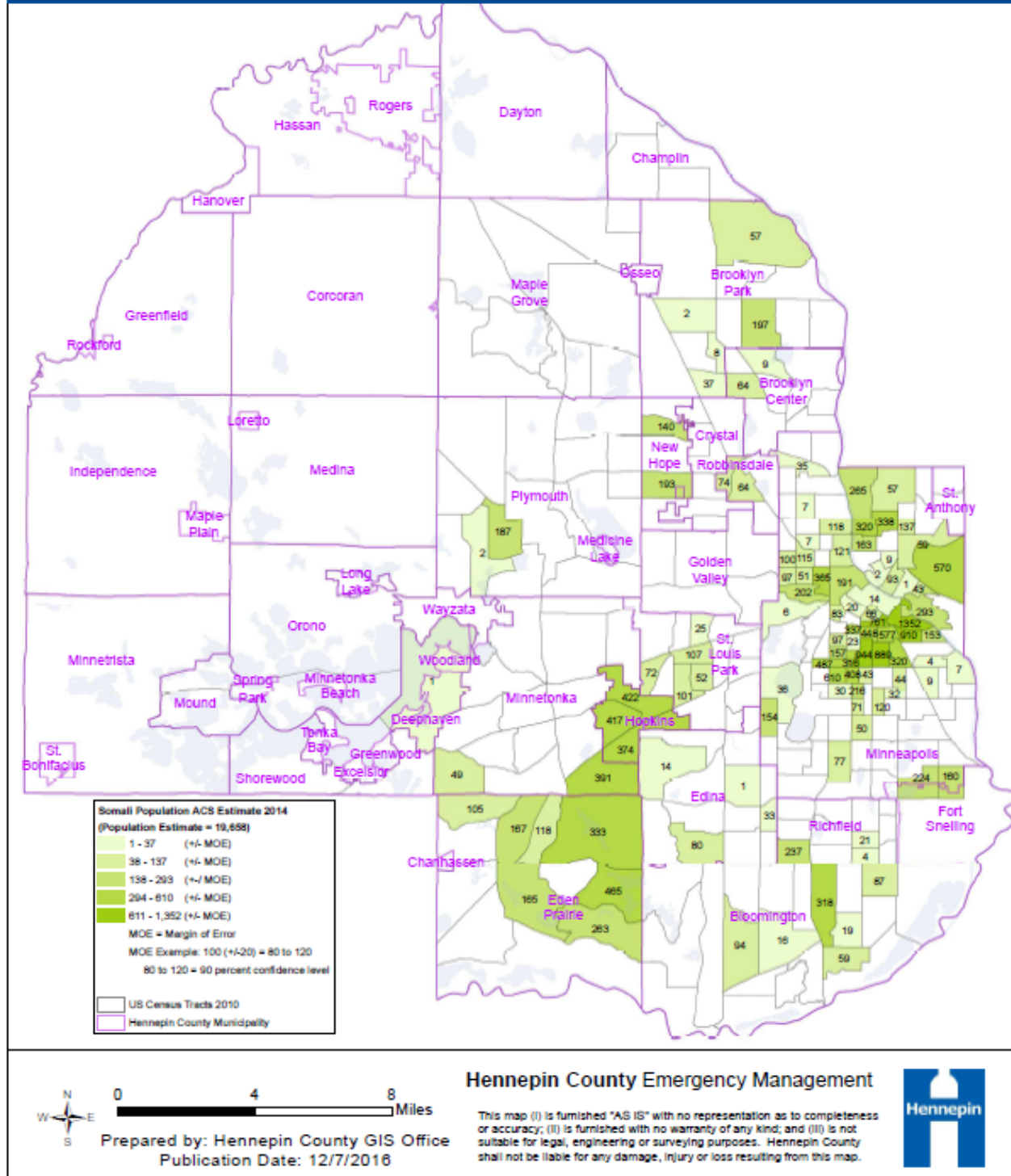
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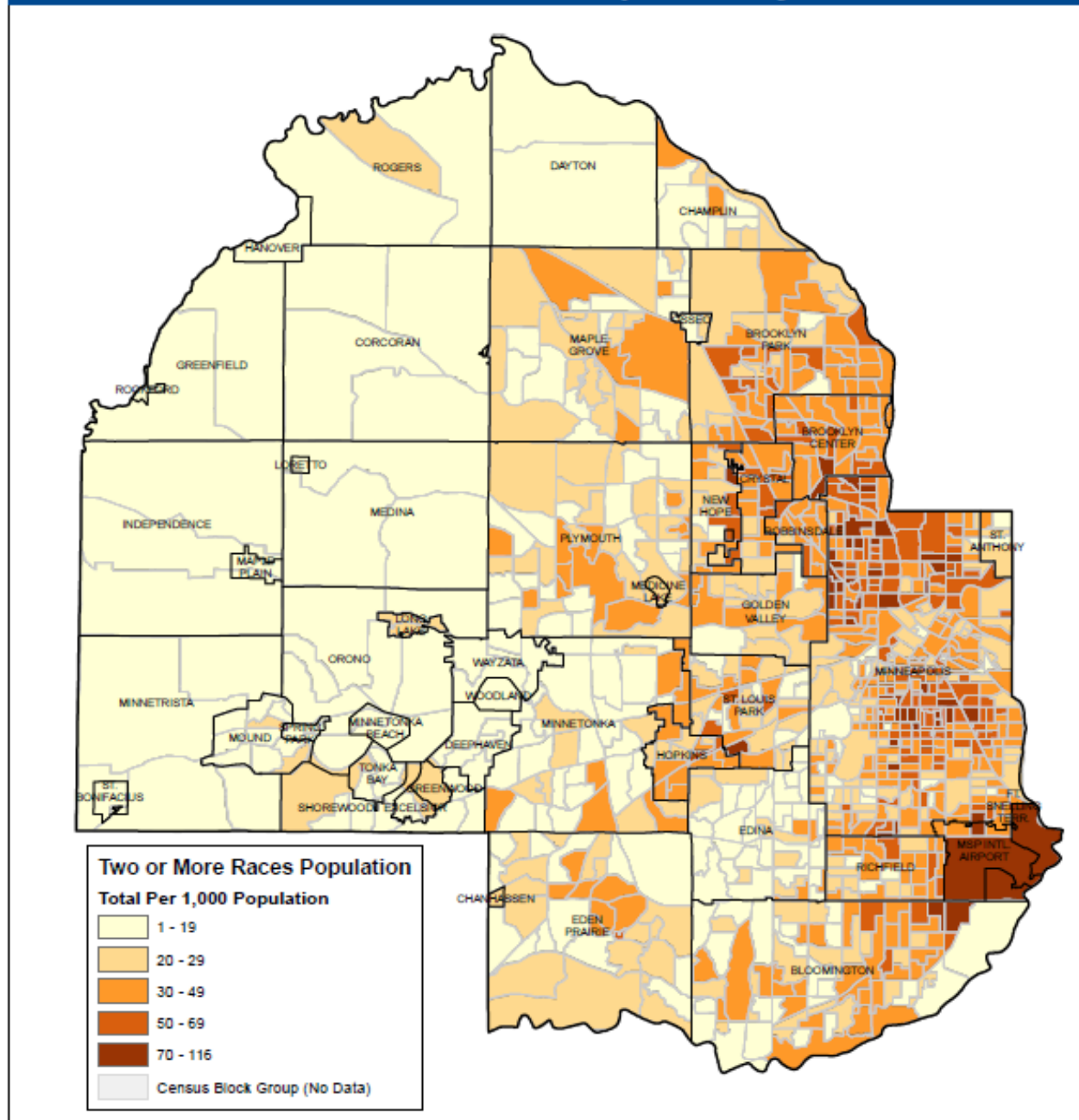
Hennepin County Emergency Management



Somali Population Estimate - American Community Survey 2014 Hennepin County, Minnesota



Two Or More Races Population 2010 US Census - Hennepin County, MN



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Publication date: 2/3/2016

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Hennepin County Emergency Management

